

City Of Revelstoke

Oscar Lands Master Plan

February 2024



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1.0 Master Plan Background

1.1 Introduction

The City of Revelstoke (City) is a resort municipality located in the Columbia Shuswap Regional District (CSRD) surrounded by the Monashee and Selkirk Mountain Ranges. Since 2007, Revelstoke has witnessed increases in tourism, economic development, and growth in the community, which has been largely attributed to the opening of the Revelstoke Mountain Resort began operating. As a resort community, the City has seen growth in the number of long-term residents, seasonal residents, short-term visitors, and seasonal workforce. This growth is expected to continue as a result of the expanding tourism industry, draw of the mountain culture lifestyle, and the planned expansion of industry operations like CPR. However, this growth has applied pressure to the housing market, including rising land and home costs, and increased strain on the rental, non-market, and workforce housing stock. The City has taken a strategic approach to addressing this issue through the disposition and development of surplus City-owned properties, with a focus on the Oscar Lands property.

The Oscar Lands (Figure 1) provide a significant opportunity for the City and community to progress on two core community priorities, the diversity and supply of housing and provision of community recreation and open spaces. Advancing development on the site was identified in the City's *Housing Action Plan (2022)* and *Land Use Inventory Study (2023)* as a strategy to address market and non-market housing needs in the community. Since 2010, portions of the Oscar Lands have been portioned off and disposed to the Province and Revelstoke Community Housing Society (RCHS) resulting in the following developments:

- Ambulance station in 2010 (Province)
- Oscar Duplex in 2010 (RCHS)
- Oscar Townhomes in 2016 (RCHS)
- Bridge Creek Apartments in 2022 (RCHS)

These developments have created a positive impact in the community but were planned and developed on a project-by-project basis with limited coordination between projects and an established long-term vision for the site. To maximize the development and benefit of the Oscar Lands, the City has developed this Master Plan guide and inform future planning, decision-making, and development of the site.

Master Plan Purpose

A Master Plan is a planning and policy document that sets a long-term vision for the physical development of a community, neighbourhood, or site over the medium to long-term. They are future-oriented documents that establish goals, strategies, and direction to guide future development over a 10-to-15-year time frame to ensure it is consistent, coordinated, and aligned with the vision for the area that include:

- Land uses, building siting, orientation, and densities
- Transportation including vehicular and active transportation connections
- Servicing infrastructure, including water, sewer, and stormwater
- Public amenities, open spaces, and other features to enhance quality of life
- Neighbourhood and site character and design principles for future development
- Sustainability and environmental stewardship

Master Plans are not bylaws and are implemented through future bylaw amendments, development agreements, and other tools available to a municipality. They are conceptual in nature and are intended to guide subsequent planning and design activities associated with future developments proposed and undertaken for a specified area as established through the Master Plan.



Figure 1 – Oscar Lands Site Overview Map

1.2 Master Plan Objectives

The City will use the Master Plan to evaluate and make informed decisions on future development proposals and to guide future planning, engineering, and design activities required for build out of the Oscar Lands site.

The City’s objectives guiding the development of this Master Plan include:

- Establishing a long-term vision and guiding framework, as illustrated through two development concepts for the site, so future development of the Oscar Lands is coordinated and aligned to maximize future use and development to meet short and long-term needs of the community;
- Creating a complete neighbourhood that includes public spaces, appropriate commercial land uses, and other amenities to support a high quality of life for residents and sustainable development practices;
- Integrating a mix of market and non-market housing, neighbourhood-scaled commercial uses, and recreation/amenity space in an efficient and thoughtful and well-planned manner that maximizes development potential of the Oscar Lands while mitigating impacts on surrounding areas and City transportation and servicing infrastructure.
- Including a mix of multi-family residential types, including row houses, low-rise (under five storeys) residential buildings, and other suitable housing forms that are feasible in Revelstoke given local market conditions, community sentiments, and other context-sensitive factors.
- Informing the Master Plan through technical analysis that identifies how transportation and servicing (e.g., water, sewer, and stormwater) infrastructure can be developed to meet future development demands, including identification of internal and off-site improvements required to realize the development vision for the Oscar Lands.
- Engaging the community and key stakeholders and partners to ensure public participation and feedback is included in the development of the Master Plan.

1.3 Supporting Documents

This Master Plan was informed by several existing City bylaws, documents, and strategies to ensure alignment with existing City goals, objectives, and long-range planning. The following supporting documents were reviewed and integrated into this Master Plan by the project team:

- Official Community Plan Bylaw No. 2232
- Zoning Bylaw No. 2299
- Subdivision, Development, and Servicing Bylaw No. 1846
- Housing Action Plan (2022)
- Transportation Master Plan (2022)
- Stormwater Master Plan (2016)
- Existing Environmental Site Assessment and Geotechnical Investigations for the Oscar Lands site

1.4 Master Plan Process

The Master Plan was developed through a four-phase process that spanned from August 2023 to February 2024 that was led by a project team consisting of Urban Systems and City staff. The phases and corresponding key activities completed are summarized below:

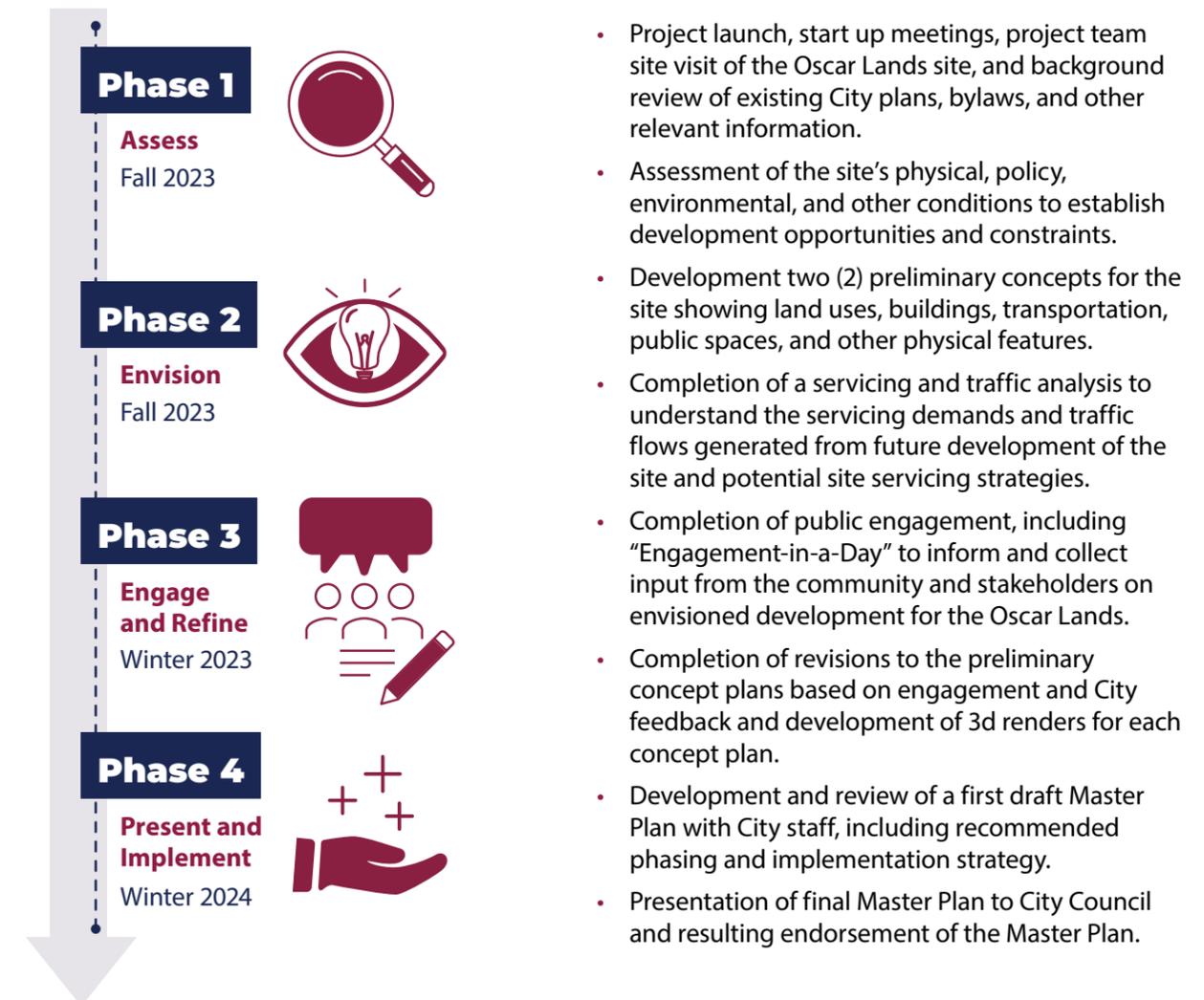


Figure 2 – Process Phases Flow Chart

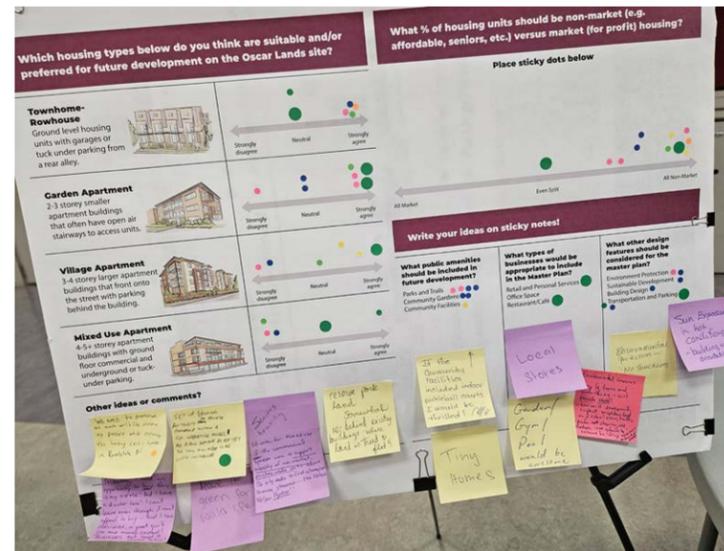
1.5 Project Engagement

Public engagement was completed during the project planning process to engage and inform key stakeholders and the broader community on the project and solicit feedback to inform the development of the Master Plan for the site. This included a community survey (online and hard copy) and series of engagement activities completed over one day on October 26th, 2023. In total, over 275 participants provided input through the following engagement activities:

- **Stakeholder Meetings** – two (2) stakeholder meetings were held with participants representing local developers and builders, realtors, community organizations, Revelstoke Community Housing Society, and City officials. The meetings involved a roundtable discussion and design charette with participants.
- **Pop-up Booth** – a pop-up information booth was set up for one (1) day at the Save-On-Foods to provide information on the Oscar Lands Master Plan project and engage passerby's on planning themes such as housing typology, tenure, and other potential uses for the Oscar Lands site.
- **Community Open House** – a community open house was held at the Revelstoke Community Centre to engage the public on the Oscar Lands Master Plan and provide an opportunity for attendees to sketch and envision what potential development on the Oscar Lands site might include regarding building orientation, housing typology, traffic flow, and connection to transit and public amenities.
- **Community Survey** – a community survey was made available to the public between October 18th and 31st, 2023. The survey was designed to ask participants key questions about the Master Plan involving residential building types, building heights, housing tenure and affordability, commercial uses, and amenities.

Input collected from engagement activities was used to establish Master Plan Values used to guide the design and completion of both development concepts for the site. In addition, presentations were provided to City Council and the RCHS at various points in the Master Plan process. A full summary of project engagement activities and results can be found in **Appendix B** (Public Engagement Summary).

Over 275 participants were engaged in project engagement activities! Community members, stakeholders, partners, and City officials all contributed to the vision and direction of this Master Plan!



OSCAR LANDS MASTER PLAN

We want to hear from you!

How to Get Involved

We're seeking your input to better understand the community's priorities and vision for the future of Oscar Lands.

POP-UP BOOTH

- October 26, 2023, 10 AM - 5 PM
- Save on Foods (555 Victoria Road)

COMMUNITY OPEN HOUSE

- October 26, 2023, 5 PM - 8 PM
- Community Centre Multi-Purpose Room (600 Campbell Ave)

COMMUNITY SURVEY

Complete the community survey to share your thoughts. Open October 18 to 31, 2023.

Visit talkrevelstoke.ca/oscar-street-master-plan to learn more about the project and to access the survey.

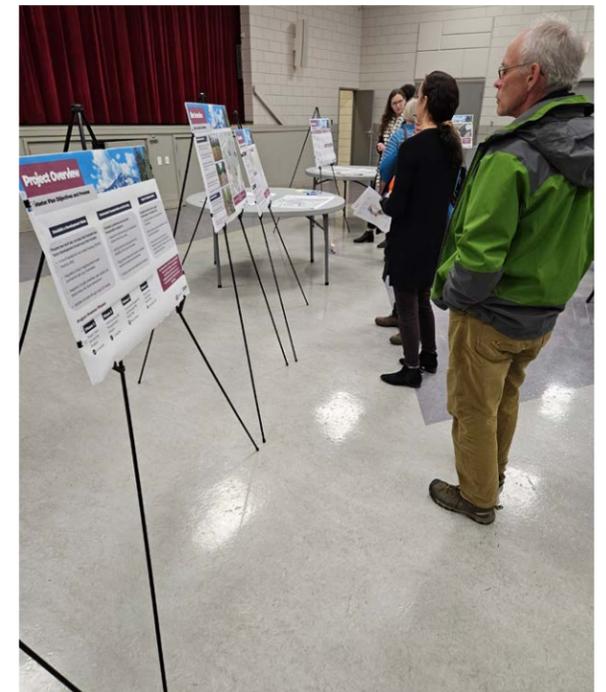


Figure 3 – Project Engagement Activities



2.0 Oscar Lands Master Plan

2.1 The Neighbourhood Vision

A Complete Neighbourhood for People and Community

The Oscar Lands present an opportunity in Revelstoke to establish an innovative, sustainable, and attainable place for people to live, grow, and thrive in. The neighbourhood will offer a mix of housing options targeted for the different individuals and families, active and passive recreation spaces, and access to commercial spaces that support and enhance the day-to-day life of residents.

As a complete neighbourhood, the Oscar Lands will provide strong connections to surrounding areas and promote sustainable modes of transportation through the inclusion of bike lanes, walking paths, and transit services. Future development will respect and celebrate important natural areas and values within and adjacent to the site to ensure they are maintained and accessible for future generations.

2.2 Master Plan Values

Planning values were established to articulate key themes and considerations identified by the community, key stakeholders, and City to guide the master planning for the Oscar Lands and preparation of both concept plans for the site:

Prioritize and Address Community Housing Needs

- Prioritize use of the site to accommodate a mix of multi-family housing types, densities, and tenures that meets the needs of a diverse range of individuals and families.
- Encourage a mix within multi-family buildings (e.g. market and non-market housing) to support community integration.
- Include higher residential densities and buildings heights to maximize housing unit yield from the site in a manner that are sited in a manner that limits impacts on adjacent areas.

Create a Complete and Vibrant Neighbourhood

- Integrate appropriate commercial uses in mixed-use buildings that support the quality and day-to-day life of neighbourhood residents.
- Create a vibrant street frontage through street and ground-oriented buildings with active frontages.
- Provide recreation amenities and spaces that encourage active living and social interaction among different residents.
- Include active connections between buildings, amenities, and natural areas within the site that also enhance connectivity to off-site areas and destinations.

Promote Environmental Sustainability and Integration

- Manage the impacts of development on the environment, including the protection and enhancement of natural features.
- Integrate the natural landscape and topography of the site, including passive natural recreation areas to promote connections with nature.
- Promote sustainable modes of transportation through the inclusion of supportive pedestrian, cycling, and transit infrastructure.

Create Seamless Transitions with Revelstoke's Built Environment

- Orient and site buildings to minimize aesthetic and other impacts on existing adjacent residential areas, including existing views.
- Ensure safe and efficient access and transportation to the site that considers potential impacts to existing traffic in the area.
- Create effective and efficient connections to City infrastructure needed to service future development and making upgrades where needed.

2.3 Site Conditions

The Oscar Lands are located at 1004 Oscar Street in southeast Revelstoke in the Southside neighbourhood at the intersection of the Oscar Street and Edward Street-Powerhouse Road. The Oscar Lands include a single parcel with a total site area of 11.8 acres (4.8 ha). Residential areas exist to the east, south, and west of the site, including a mobile home park abutting the western property line of the site. Light industrial uses exist north of the site along Powerhouse Road.

The site is largely undeveloped natural area with a mix of lighter and denser forested areas that include cedar trees, large boulder areas, and potential wildlife habitat areas. Portions that are used informally by residents for passive recreation activities. The topography of the site includes large flat portions throughout the site that slope down towards north and east with steep slopes more than 20% and 30% present on the eastern and northern portions of the site (Figure 4). Natural drainage patterns follow the downward sloping of the parcel towards the east and have created several low-lying wet areas along the site's east property line.

The Oscar Lands' current OCP designation and zoning supports mixed-use and housing development. The adoption of a Comprehensive Development Zone specific to the site will be required to ensure build out in the future aligns with the vision and direction included in this Master Plan.

2.4 Existing Servicing

Water

There are existing watermain installed along Powerhouse Road and Oscar Street that provide multiple points of connection to the City's water system for future development on the site. This includes a 200mm watermain that extends into the site via Humbert Street. The existing 250mm watermain along Powerhouse Road is likely to have the highest fire flow availability and would be the preferred watermain from which to bring a service into the development site. Fire flows available to the site may limit the heights of buildings to a maximum of five storeys.

Sewer

The site generally slopes from north to south, with the lowest part of the property closest to Oscar Street and having an approximate elevation of 447m. The City's wastewater facilities are located on Powerhouse Road, roughly 50m east of the northeast corner of the development site. There is an existing 200mm gravity sewer flowing southeast along Oscar Road towards a lift station near Leach Road. A 200mm sewer extends into the site via the Humbert Street extension with multiple forcemains along the east property line of the site, that convey pumped flow from Oscar Street to the sewage facility on Powerhouse Road.

Stormwater

The Oscar Lands parcel generally slopes from the northwest to the southeast, with the high point being the northwest edge of the property where Edward Street connects to Powerhouse Road. Stormwater will predominantly flow to the southeast edge of the parcel from the high point. A drainage ditch starting at the northernmost point of Powerhouse Road conveys flows east from the parcel past the sewage facility. A 300mm storm main extends into the site via Humbert Street that connects to the 600mm storm main on Oscar Street and conveys flows to the southeast and drains into the Illecillewaet River. The 600mm storm main reduces to 350mm prior to outfall.

More information on existing servicing is provided in **Appendix A** (Site Servicing and Transportation Strategy).

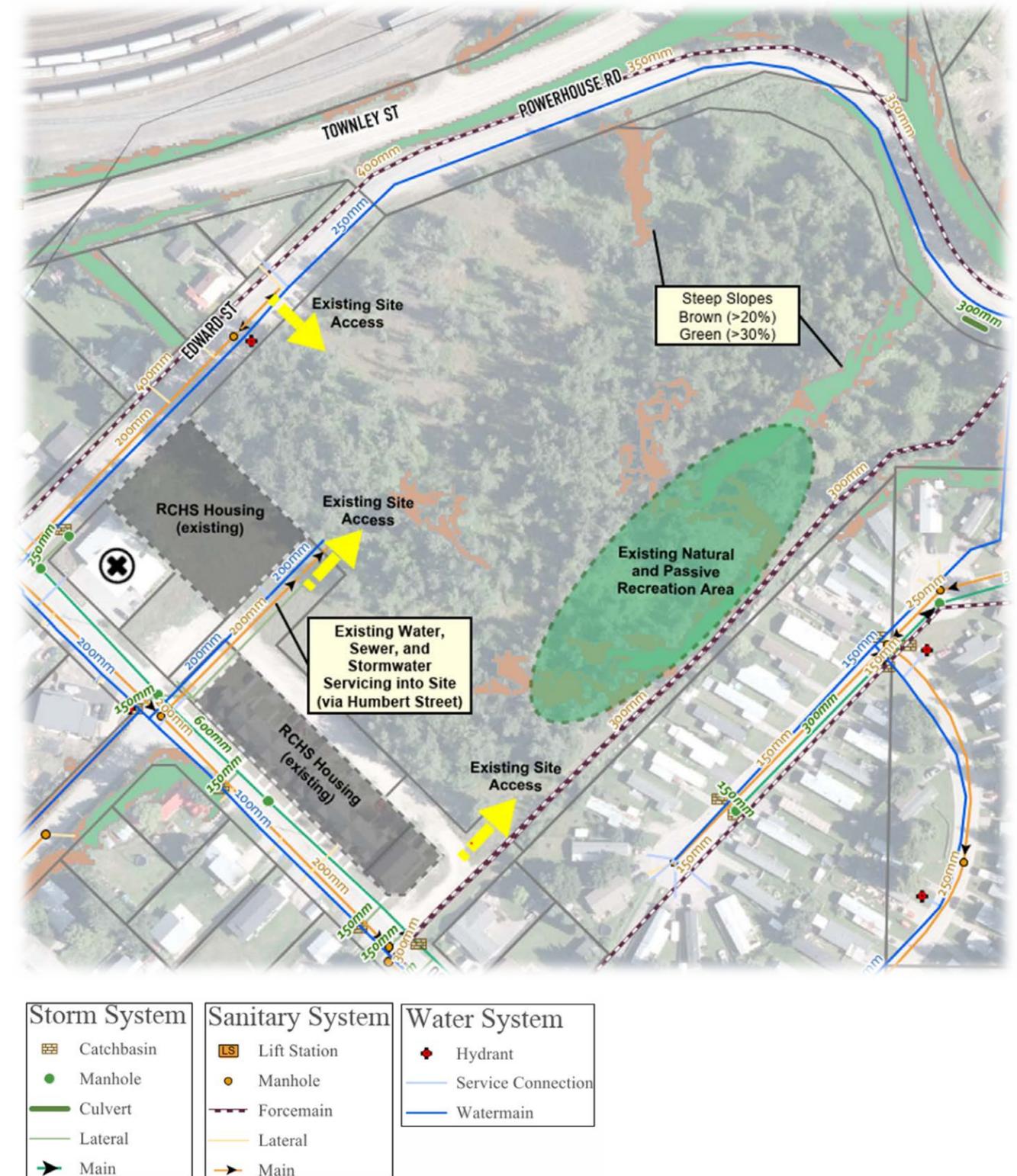


Figure 4 – Site Overview Map (Opportunities and Constraints)

2.5 Transportation Overview

The Oscar Lands are well connected to the City's existing transportation network, facilitating easy access to adjacent neighbourhoods, the downtown area, industrial lands, and community amenities, including Southside Market and the proposed Powerhouse Road Park. Existing access to the site includes access points via Humbert Street and informal access points on Powerhouse Road and the rear lane abutting the southern portion of the site.

A high-level traffic analysis exercise was conducted for the site based on recent traffic count data that was collected in October 2023 and was forecast to the 2033 horizon year and for peak summer traffic conditions. Results of the traffic analysis found that with two accesses to the Oscar Lands site once fully built-out (assumed by the year 2033), the existing intersections on Oscar Street at Edward Street and Humbert Street are expected to operate well and may not require traffic control upgrades. Further, based on the BC Ministry of Transportation and Infrastructure's warrant for traffic signals (provided in their Electrical and Traffic Engineering Manual), traffic signal control is likely not warranted at the development access intersection(s).

BC Transit operates one route (Route 1) near the site that connects downtown Revelstoke to the Queen Victoria Hospital and Arrow Heights neighbourhood. This route runs along Oscar Street. The property is bounded by Edward Street / Powerhouse Road to the north / west, and Oscar Street to the south / east.

The Transportation Master Plan proposes to enhance the multi-modal connections to the Oscar Lands through the addition of on-street multi-use pathways (blue) and bikeways (yellow) as seen in Figure 5.



Figure 5 – Proposed Active Transportation Upgrades)

Internal Road Network

The City's *Transportation Master Plan (2023)* provides guidance on cross-section design. It is assumed that internal roads within the Oscar Lands site would be classified as local roads, with a two-lane cross-section and posted speed of 30km/hr. For Local roadways, the TMP cross-section includes 3.0 meter (m) shared lanes and one 2.0m sidewalk or walkspace. The total right-of-way width is 20m, which includes 5.0m boulevards on either side of the road.

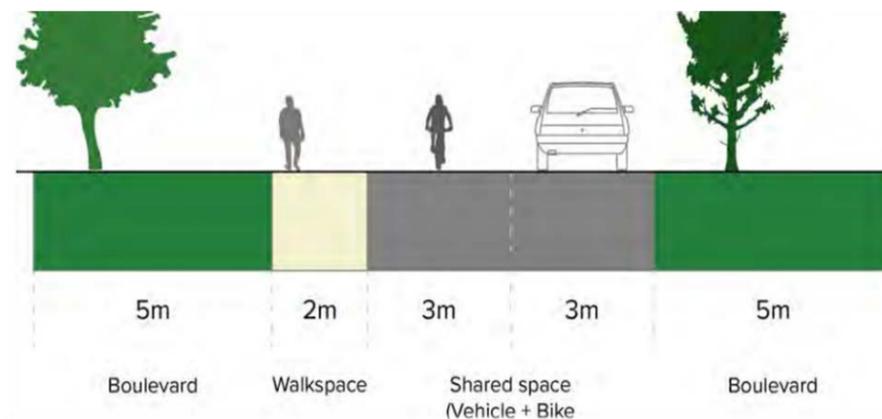


Figure 6 – Local Road Cross-Section Design (City of Revelstoke Transportation Master Plan)

More information on transportation is provided in **Appendix A** (Site Servicing and Transportation Strategy).

Traffic Demand Management

Transportation demand management (TDM) refers to strategies that aim to increase the efficiency of transportation resources, thereby reducing the number of trips generated by a particular development. In addition to increasing the efficiency of transportation resources, TDM measures can also encourage other more sustainable modes of transportation than single occupancy vehicles.

Based on research of TDM measures in other jurisdictions and industry best practices, TDM measures were identified that are deemed appropriate and feasible for the Oscar Lands Master Plan given the local context. These initiatives and measures are recommended to implement when and where possible to reduce overall trips to and from the site and result in lower overall parking demand:

- Building connected and accessible active transportation facilities on surrounding and internal networks.
- Liaise with BC Transit to ensure an accessible bus stop for Route 1 is located adjacent to the development on Oscar Street.
- Provide secure bicycle parking on site and at nearby bus stop(s).
- Provide trip-end facilities (e.g., bike storage, showers, changerooms, and bicycle repair equipment) at commercial and recreational facilities, where appropriate.

The Master Plan and resulting Concept Plans for the Oscar Lands have been designed with TDM principles in mind.



Figure 7 - Traffic Demand Management Examples

3.0 Oscar Lands Master Plan

3.1 Overview

To establish and advance a development vision for the site, the Master Plan includes two (2) concept plans for the site that demonstrate two development scenarios. The concept plans have been carefully designed to allow them to be developed independently (i.e. staged development or multiple development partners) or wholly (e.g. simultaneous development or one development partner). As such, the Oscar Lands Neighbourhood can be viewed as one cohesive site or, alternatively, as a combination of smaller development areas that may be developed incrementally.

The Concept Plans are intended to provide the City and potential development proponents and partners with a clear starting points and direction when developing necessary infrastructure to enable development and when formulating, assessing, and approving development proposals for the site. The plans are designed to convey a vision and are intended to be flexible and adaptable to changing economic, environmental, social, and other conditions within and outside of the community. Flexibility of the concept plans will allow for the City to respond to immediate development needs and/or proposals for development on the site and as social, economic, and other conditions evolve.

The Concept Plans present development scenarios that are consistent with:

- The Master Plan Values established to guide the project and Concept Plan development;
- The site's physical characteristics and environmental values;
- Best practices in planning, design, and civil engineering;
- The goals, priorities, policies, and regulatory framework of the City of Revelstoke; and
- Input and feedback provided by Revelstoke residents, key stakeholders, and partners.



The Concept Plans include residential dwelling unit counts for each concept that were developed that assumed a 15% loss factor was applied to the gross floor area of each building to account for mechanical, shared common space, stairways, and other space that cannot be utilized for dwelling unit development and an average dwelling unit size of 750 sq/ft. The calculation of parking spaces in the concepts assumes an area of 350 sq/ft required per parking space that is inclusive of space for parking stalls and drive aisles. Underground parking counts are based on one underground level of parking being developed where included in a specific building.

The provision and number of parking spaces included in both concepts utilizes parking minimums below existing City requirements of approximately 1.2 parking spaces per residential dwelling. Reduced parking requirements aligns with Master Plan Values regarding sustainability, transportation, and urban design and assumes that future residents will utilize active and public transit modes of transportation as supportive infrastructure is developed on the site.

Both dwelling unit and parking space counts are approximations based the stated assumptions to provide a general understanding the of the Oscar Lands development potential and inform concept level planning included in this Master Plan. The actual buildout of the Oscar Lands may result in higher dwelling unit yields as individual development proposals are formalized. Increased building heights, reduced parking minimums, addition of underground or ground level tuck under parking, and more efficient use of land through future detailed planning and design activities may increase the density and dwelling units realized through the site's build out.

The Concept Plans are described on the following pages and include the following information:

- Overview plans showing the broader land uses and site access points for each concept;
- Detailed site plans illustrating proposed access/roads, land uses, buildings and siting, open spaces, and parking areas;
- Descriptions of Concept Plan sub-areas (Development Nodes) including design features, buildings, parking, open spaces, and landscaping;
- Transportation and servicing strategies providing preliminary direction on the future extension of City roads and services into the site specific to each concept; and
- 3D visual renders showing aerial and street view images of each concept.

The transportation and servicing plans included for each concept are preliminary in nature and intended to guide and inform future detailed planning and engineering design activities required for the development and build out of the Oscar Lands. They are not intended to convey final design solutions and should be flexible to the needs of specific development proposals for the site. Further transportation and servicing information and technical analysis completed as part of the Master Plan process is included in Appendix A (Site Servicing and Transportation Analysis).

Residential Mixed-Use Concept Overview (Preferred Concept)

The Residential Mixed-Use Concept represents a preferred development scenario where the Oscar Lands are developed to prioritize a mix of medium to high-density residential development to provide a mix of dwelling unit types needed to accommodate a diverse range of future residents.

Commercial space is integrated into the Concept as the ground floor component of a mixed-use building near an access point in the site to provide residents and passerbys along Powerhouse Road with access to retail, personal service, and other commercial uses.

A Park and Open Space area provides centralized recreation space, while a large Natural Area preserves existing natural areas and values, while providing access for residents to connect with nature.



Figure 8 – Preferred Concept Plan (Residential Mixed-Use Concept)

Public Use Reserve Concept Overview (Alternative Concept)

The Public Concept represents an alternative development scenario where a large portion of the Oscar Lands are set aside as a public use reserve for the future development of community recreation facilities and/or spaces that are to be determined. This reserve area includes approximately 4.5 acres of developable area.

To meet dwelling unit yield targets, the Concept utilized remaining portions of the site for high-density residential and mixed-use development, with a small portion allocated for medium-density (townhouse) residential to provide some dwelling unit diversity. A smaller commercial space is included as the portion of the ground floor of a mixed-use building centrally located within the site.

A large Natural Area preserves existing natural areas and values and provides access for residents to connect with nature.



Figure 9 – Alternative Concept (Public Use Reserve Concept)

3.2 Envisioned Land Uses

Residential Uses and Building Types

The Oscar Lands site will prioritize a mix of housing types and densities, with the objective of accommodating between 250 and 400 new dwelling units from full buildout. The following housing types envisioned for the site are described below:



Townhouse and Rowhouse (Medium-Density Residential)

Description:

- Multi-floor ground-oriented dwellings with individual entrances that share one or two walls with an adjacent dwelling.
- Approximately 12-18+ units per acre (excluding basement suites).
- Parking in ground level garages with lane access and/or surface parking.
- Larger dwelling units that could attract larger families and be preferential dwelling unit type for market housing.



Garden Apartments (Medium to High-Density Residential)

Description:

- Two to three-story walk-up multi-unit buildings with open air stairways to access above grade units that include garden-like surroundings and landscaping.
- Approximately 18-25+ units per acre.
- Surface parking that is located behind the building.



Village Cluster Apartment (High-Density Residential)

Description:

- Three to four-storey ground oriented multi-unit buildings that can include units accessible at a street level or above grade units accessed by an elevator.
- Approximately 25-50+ units per acre.
- Underground or surface parking located behind the building.



Mixed Use Apartment (Residential Mixed Use)

Description:

- Four to five-storey multi-unit buildings with ground floor commercial and/or institutional uses.
- Approximately 45-90+ units per acre based on building height.
- Underground or surface parking located behind the building.

Commercial Uses

Neighbourhood Commercial

Select commercial uses will be integrated into the Oscar Lands site that support and enhance that day-to-day life of residents through ground floor commercial spaces in mixed-use buildings. Neighbourhood commercial uses, such as cafes and restaurants, convenience stores, pharmacies, daycares, medical offices, and other personal service and retail uses that meet daily needs of residents without creating competition for commercial uses desired in the downtown, are preferred for the Oscar Lands site.

Commercial uses will be street oriented and be integrated on the ground floor of mixed-use buildings. Standalone commercial buildings will not be permitted on the Oscar Lands site.



Park, Recreation, and Natural Area Uses

Active Recreation

Active recreation uses will be integrated into the development of the Oscar Lands site to ensure future residents and those from surrounding areas have access to recreation opportunities. It is envisioned that the site will include sport courts (e.g. pickleball and basketball), and potentially a larger community recreation facilities required to accommodate the long-term needs of the community as included in the Public Use Reserve concept.



Passive Recreation

Passive recreation that is low impact on the natural environment will be integrated into the Natural Areas within the site where environmental values and site constraints limit other land uses. Natural Areas will be a focal part of the neighbourhood and a key amenity supporting the quality of life and well-being of residents.



The sensitive integration of passive recreation infrastructure, including low impact trails, gathering, and seating areas, will allow residents to connect with nature and each other.

3.3 Residential-Mixed Use Concept (Preferred Concept)

The Residential-Mixed Use Concept has been designed to prioritize the parcel for residential development that includes a mix of housing types and densities to ensure housing diversity to meet the needs of a diverse mix of future residents. This includes residential building types with a variety of footprints and massing that's distributed across the parcel designed to attract a mix of families, singles/workers, seniors, and other resident demographics.

To promote a complete neighbourhood, the Concept includes commercial, recreation, and open space uses connected by a network of sidewalks, multi-purpose pathways, and trails to promote active modes of transportation and walkability of the neighbourhood. The concept includes 345 residential units that include a mix of studio, 1–3-bedroom apartments, and 3-bedroom townhomes and 431 parking stalls provided through ground level garages with lane access, surface parking lots, and underground parking areas.

Key design elements for the concept include:

- Medium density residential uses (townhomes) sited on peripheral areas of the site that abut existing lower density residential areas with progression to higher density residential uses (apartments and mixed-use buildings) in the internal and northern portions of the site.
- Provision of ground-oriented commercial space that is centrally located within the site and includes exposure, visibility, and easy access for traffic along Powerhouse Road.
- Internal road connecting Humbert Street to Powerhouse Road that includes shared vehicle and bicycle travel lands, dedicated 2 metre walkspace, and potential additional transit stop internally in the site.
- Inclusion of an outdoor recreation area including a basketball court and four (4) pickleball courts and natural areas that include trails low impact gathering areas to promote social interactions and connections to nature.
- Gateway area on the separated parcel abutting Oscar street that includes a new transit stop, parklet, and cycling supportive facilities, including secure bike parking and lockers.
- Landscaped sidewalks with trees along the Humbert Street extension to Powerhouse Road and inclusion of landscaping in surface parking areas.

Node	Area	Land Uses and Buildings	Dwelling Units / Space
A	3.5 ac	Medium-Density Residential (Townhomes) High-Density Residential (Apartment)	121 dwelling units
B	2.0 ac	Medium-Density Residential (Townhomes) Residential Mixed-Use (Apartment with Ground Floor Commercial) Park and Open Space	65 dwelling units 16,000 sq/ft commercial space
C	2.6 ac	Medium-Density Residential (Townhomes) High-Density Residential (Apartment)	159 dwelling units
D	0.2 ac	Gateway Area	N/A
E	3.0 ac	Natural Area	N/A

Each node is described in further detail on the following pages with corresponding renders showing aerial and street level perspectives.



Figure 10 - Residential Mixed-Use Concept Plan (Aerial)



Development Overview (Looking Northwest)



Humber Street Extension Into Site (Looking North)



Development Overview (Looking Northeast)



Node B Park and Recreation Area (Looking East)

Node A is in the southeast portion of the Oscar Lands and includes three townhome buildings and one apartment building with two access points into the site through upgrades to the existing rear lane off Oscar Street and Humbert Street extension through the site. Building heights and densities are sequenced, with townhome buildings oriented along the west and south boundary and a large apartment building sited on the northern boundary to be more central within the overall site. Buildings are sited in a manner to promote active street frontages with parking located internally within the site. It is anticipated that **Node A** will be the initial phase of development to occur on the Oscar lands. The inclusion of townhomes can help attract families to the neighbourhood by providing larger dwelling units with 3+ bedrooms. The design allows for flexible development of the townhouse buildings areas to be able to accommodate more dense housing forms, including smaller apartment buildings (e.g. building #2).

Buildings and Parking:

- Three storey townhouse building (12,900 sq/ft footprint) with 17 dwelling units (**1**)
- Three storey townhouse building (8,300 sq/ft footprint) with 11 dwelling units (**2**)
- Three storey townhouse building (8,300 sq/ft footprint) with 11 dwelling units (**3**)
- Four storey apartment building (18,000 sq/ft footprint) with 82 dwelling units (**4**)

164 parking stalls are included in **Node A** provided through tuck-under and surface parking. Single-stall tuck-under garages with lane access are included in townhouse buildings #1 and #2 (28 stalls total). 136 surface parking stalls (P1) provide parking for buildings #3 and #4, guest parking for all buildings, and may provide additional parking (as required) for buildings #1 and #2.

Parks, Open Spaces, and Landscaping:

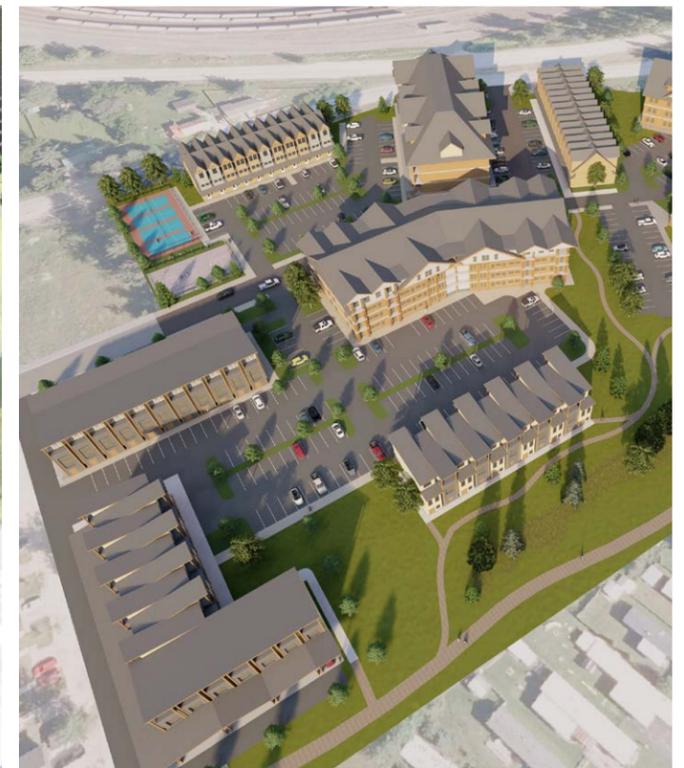
A green space located between townhome buildings #1 and #3 provides access to the trails and passive recreation areas integrated through the natural area. An additional trail connection points on the northeast side of building #4 allows another access points to the passive recreation area. Streetscaping around the site includes the planting of trees along sidewalks and lanes and island planters in surface parking areas.

Node B is in the southwestern portion of the Oscar Lands and includes one townhome buildings and one mixed-use apartment building that includes commercial space for the entire ground floor. The site is accessed via through the Humbert Street extension through the site. The ground floor commercial space is intended to act as a neighbourhood “main street” and destination for residents, while leveraging sightlines and visibility to capturing traffic from Powerhouse Road. It is intended that commercial spaces will include a mix of neighbourhood scaled office, retail, and restaurant/café type uses. An outdoor recreation area with sport courts is included that is intended to serve Oscar Lands residents and others from surrounding neighbourhoods.

Buildings and Parking:

- Three storey townhouse building (8,300 sq/ft footprint) with 11 dwelling units (**6**)
- Four storey mixed-use apartment (16,000 sq/ft footprint) with 54 dwelling units and 16,000 sq/ft of commercial space (**7**)

98 parking stalls are included in **Node B** through surface parking. Parking for residential units is provided through 73 surface parking stalls shared between buildings #6 and #7 (P3). An additional 7 surface parking stalls on the site have been dedicated for the outdoor recreation area (P2) and 18 angled parking stalls abutting the Humbert Street extension are included to provide convenient parking options for employees and patrons of the ground floor commercial spaces included in building #7 (P4).



Parks, Open Spaces, and Landscaping:

An outdoor recreation area (5) is included on the site that includes a full-size basketball court and four regulation pickleball courts that may be programed for other recreation uses and activities. Streetscaping around the site includes the planting of trees along recreation area, sidewalks, and island planters in surface parking areas. Existing trees located on the south property edge of the node should be maintained to provide a vegetative buffer between the recreation area and existing residential building on the abutting lot to the southwest.

Node C is in the northwest portion of the Oscar Lands and includes one townhome building and two apartment buildings. The townhomes are accessed directly off the Humber Street extension with the apartments being accessed via a driveway off Humber Street. The apartment buildings are oriented and sited in a manner that plays off the site's topography to maximize viewpoints of dwelling units, while maintaining setbacks from steep slopes on the north, west, and south portions of the node.

Buildings and Parking:

- Three storey townhouse building (10,700 sq/ft footprint) with dwelling 14 units (8)
- Four storey apartment building (14,700 sq/ft footprint) with 66 dwelling units (9)
- Four storey apartment building (17,500 sq/ft footprint) with 79 dwelling units (10)

Parking for the apartment buildings will be provided through 74 surface parking stalls shared between buildings 9 and 10 (P6 & P7). Surface parking is supplemented by underground parking in each building, including 35 underground stalls in building #9 and 42 underground parking stalls in building #10. 18 angled parking stalls abutting the north side of the Humber Street extension will provide parking for units in the townhouse building (P5).

Parks, Open Spaces, and Landscaping:

A trail wrapping around the north and east boundary of Node C provides direct connections between buildings #9 and #10 to the passive recreation area to the south and east of the node. Streetscaping around the site includes the planting of trees along sidewalks along the driveway into the site and island planters in surface parking areas.

Node D is a separate parcel from the Oscar Lands parent parcel located at the intersection of Oscar Street and the Humber Street extension into the Oscar Lands. The node is the gateway into the Oscar Lands neighbourhood and the site of a small park space and transit stop with a shelter and bicycle storage and parking. The transit stop will provide all residents in the Oscar Lands neighbourhood with walkable access to transit services that is within a 250-metre walkshed. Node D will play a critical role in supporting mobility and sustainable transportation options for Oscar Lands residents and those from surrounding areas.

Buildings and Parking:

No buildings are included for Node E. Bicycle parking facilities (e.g. bike racks and containers) will be included as part of the transit stop and shelter development.

Parks, Open Spaces, and Landscaping:

An open-air gazebo-type structure and parklet space with trees is included that may be programmed to include community garden spaces. Gateway signage may also be included on the node to promote neighbourhood identity and wayfinding.

Node E encompasses a large portion of the Oscar lands that will remain largely undeveloped due to the presence of natural values and development constraints (e.g. steep slopes and drainage areas) that limit other potential uses. The site will provide a natural buffer between future development and activity of the Oscar Lands and adjacent residential areas to the east and serve a focal neighbourhood amenity as a passive recreation area.

Buildings and Parking:

No buildings or parking areas are included for Node E.

Greenspaces and Landscaping:

This will act as a natural and passive recreation area that includes low impact infrastructure, such as loose surfaced trails and small seating areas to foster social interaction and connections to nature. Pedestrian trails through the site will include connections to developed areas on the Oscar lands to ensure easy access to residents and visitors. A greenway (multi-purpose trail) providing a north-south connection Oscar Street to Powerhouse will be developed along the east property line to replace an existing informal trail being used by nearby residents. Landscaping will focus on preserving and enhancing existing natural values and features on the site. Low-impact lighting (e.g. solar lights) and seating may be developed along the greenway.



Access and Transportation Strategy

Site Access, Trip Generation, and Parking

As described in **Section 2.5** (Transportation Overview), access to the Oscar Lands is provided via the existing Humbert Street extension into the site and through informal access points off Powerhouse Road and the rear lane north of Oscar Street. On-site vehicular circulation has been designed to accommodate users in a simple, safe, and efficient manner while avoiding existing steep slopes on the site. As seen in Figure 11, the transportation plan includes an approximately 200m internal road through the site connecting Humbert Street with Powerhouse Road. It includes a basic layout with tangent road sections that would provide driveway access to each development node.

Upgrades to the existing rear lane abutting the southeast portion of the parcel would provide direct access to townhouse garages and an additional access point to the abutting southeast development node. The intersection on Powerhouse Road has adequate site distances to enable safe vehicle movements into and out of the site. Both accesses and internal intersections are expected to operate well with one-/two-way stop-control, however, a traffic circle design could be explored for the internal road intersection. Based on the proposed land uses and floor areas, the following traffic volumes could be generated:

- 123 trips per hour during the weekday AM peak period; and
- 146 trips per hour during the weekday PM peak period.

The Concept Plan provides room for approximately 431 parking spaces to accommodate automobile users while also incorporating landscaping, pedestrian pathways, greenspace, snow storage, and room for potential expansion of proposed buildings. The parking layout has been designed to include shared parking areas between buildings on the site to provide flexibility in meeting the parking requirements of different residents as they change over time. The parking spaces provided by land use and parking space type are provided in the table below:

Land Use	Parking Type and Spaces	Parking Minimum Equivalent
Residential	Surface – 301 Tuck Under – 28 Underground – 77	Approx. 1.2 spaces per dwelling unit inclusive of provided guest parking spaces
Commercial	Surface – 18	Approx. 1 space per 80 sq/m of commercial space
Park and Open Space	Surface – 7	Approx. 1 space per 100 sq/m of court floor area
Total	Surface – 326 Tuck Under – 28 Underground – 77	-

Active Transportation and Transit

The concept features the integration of active transportation and transit supportive infrastructure (Figure 11) to reduce reliance on automobile use for residents and visitors, support sustainability objectives, and encourage healthy and active lifestyles within the neighbourhood. Active transportation connections and transit facilities extend throughout the site that include the following:

- A multi-purpose pathway extending through the site as part of the internal road cross-section in addition to the 2.0m walkspace to provide active connections on both sides of the road. It is envisioned that this pathway will connect to a future bikeway along Oscar Street and multi-use pathway along Powerhouse Road as included in the City's Transportation Master Plan.

- Trails extending across the site that provide connectivity between development nodes, site amenities, and other active transportation paths along the internal road. These trails would be loose surfaced for pedestrians only and not support cycling or mountain biking.
- Development of a multi-purpose trail (greenway) extending across the eastern boundary of the site to connect Oscar Street with Powerhouse Road. This proposed hard-surfaced trail would replace an existing informal trail that is actively used by residents and support pedestrians and cyclists.
- A transit stop is included at the Gateway Area fronting onto Oscar Street that provides all residents with access to transit within a 400m walking radius with an additional transit stop proposed at the unsignaled intersection area within the site. Future planning of the internal intersection area should allot space for an additional transit stop to support and enable transit service being routed through the neighbourhood in the future.

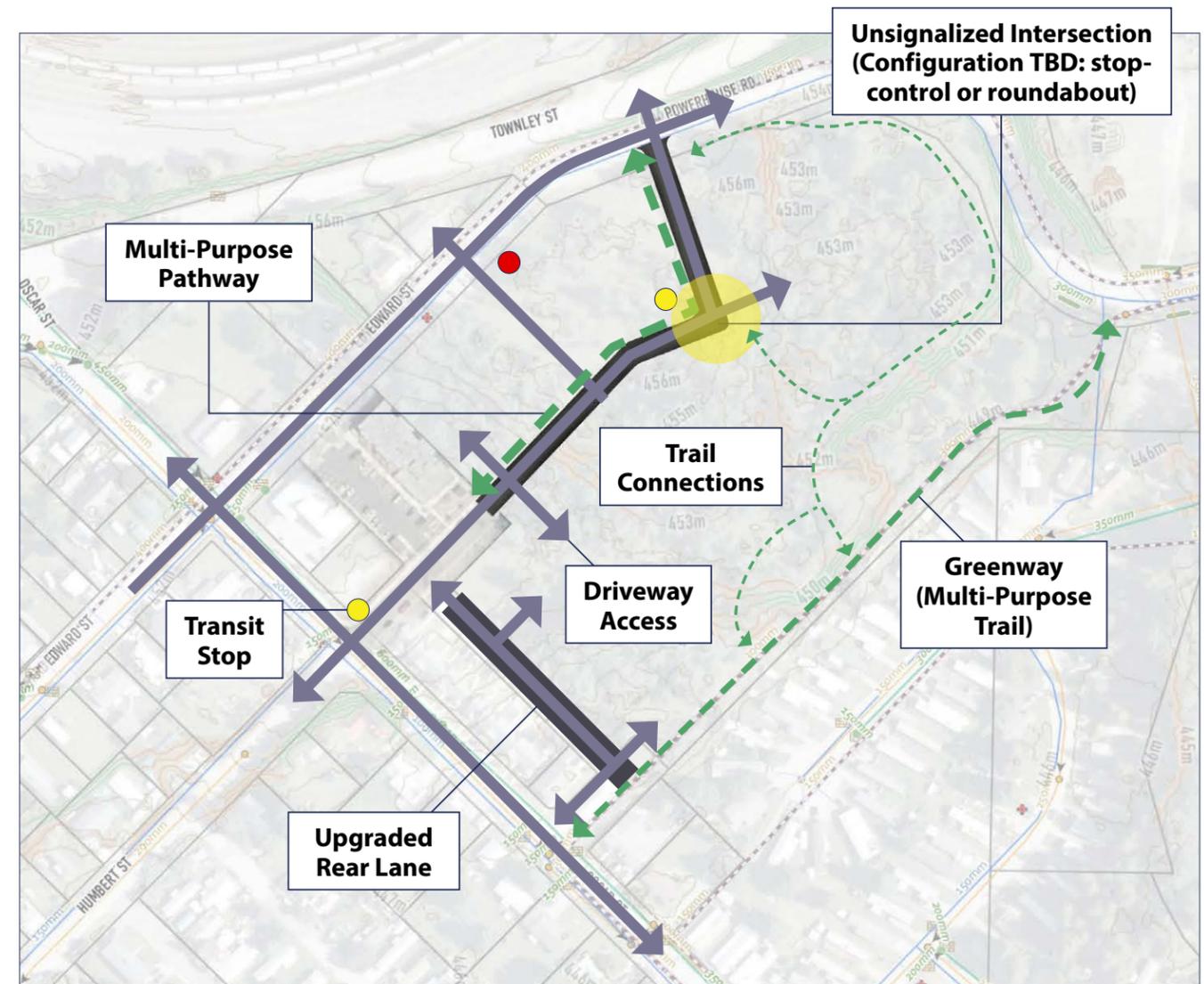


Figure 11 - Residential Mixed-Use Concept Transportation Plan (Preliminary)

Site Servicing Strategy

Water and Sewer

As described in Section 2.4 (Existing Servicing), the Oscar Lands has water and sewer service connection points that future development on the site can readily connect to, including 200mm watermain and 200mm sewer line extending into the site via Humbert Street and 250mm watermain along Powerhouse Road. As seen in Figure 12, water (blue) and sewer (red) servicing would be extended through the site as part of the internal road development to service each individual development node.

The 250mm watermain along Powerhouse Road is the preferred watermain to bring water service into the site due to its potential higher fire flows (Figure 12), dependent on if it is within the same pressure zone as the water main on Humbert Street. Future development of the site should see all water lines servicing different development nodes eventually loop back to the existing Humbert Street water connection. The exact sizing of watermain will be determined through future detailed engineering design stages. It is not anticipated that major off-site upgrades will be required to surrounding watermains but requires further examination and confirmation with City modelling.

The existing sewer service at the Humbert Street extension should be able to service most of the development site. An additional gravity sewer service is proposed to run from the northeast portion of the site to the southeast corner that connects to the Oscar Street gravity main (Figure 12). This would avoid the potential need for on-site lift stations required if trying to service lower-lying portions of the site where grade is not available for gravity sewer services to flow into the existing sewer connection on Humbert Street. Sewer sizing will be determined through future detailed engineering design stages. The ability to service for future development of the site will also require confirmation of the downstream capacity of sewer lines and Leach Road lift station to accommodate anticipate sewer flows.

Based on City requirements and the proposed land uses, floor areas, and dwelling units, the Concept could generate the following servicing requirements and loads:

Water	Demand	Sewer	Demand
Average Daily Flow	7.19 L/s	Average Dry Weather Flow	2.48 L/s
Peak Daily Flow	19.17 L/s	Peak Dry Weather Flow	9.67 L/s
Peak Hourly Flow	31.94 L/s	Peak Wet Weather Flow	9.86 L/s
Minimum Fire Flow	150 L/s		

Stormwater

Several options for the discharge of stormwater from the Oscar Lands could be utilized for minor and major systems. For the minor system, three potential connection and outlet points to the broader City stormwater system include:

- The 300 mm PVC stormwater main stubbed at the Humber Street extension to the site.
- The 350 mm PVC stormwater main on Oscar Street southeast of Oscar Lands.
- The drainage ditch to the north and northeast of Oscar Lands, which may not have sufficient capacity to accommodate additional stormwater flows.

For the major system, overland flow routes could include:

- The top of Edward Street and Humbert Street onto Oscar St. There is no defined ditch down Oscar St towards the river. Offsite improvement should be expected as overflow onto the road as-is will impact properties.
- Powerhouse Road and the drainage ditch to the north and northeast of Oscar Lands. The drainage ditch is likely to overflow onto Powerhouse Rd (see minor system comments above).

Future detailed planning and engineering activities completed for specific development proposals for the site will further determine the required servicing design. More information on the site servicing strategy is provided in **Appendix A** (Site Servicing and Transportation Strategy).

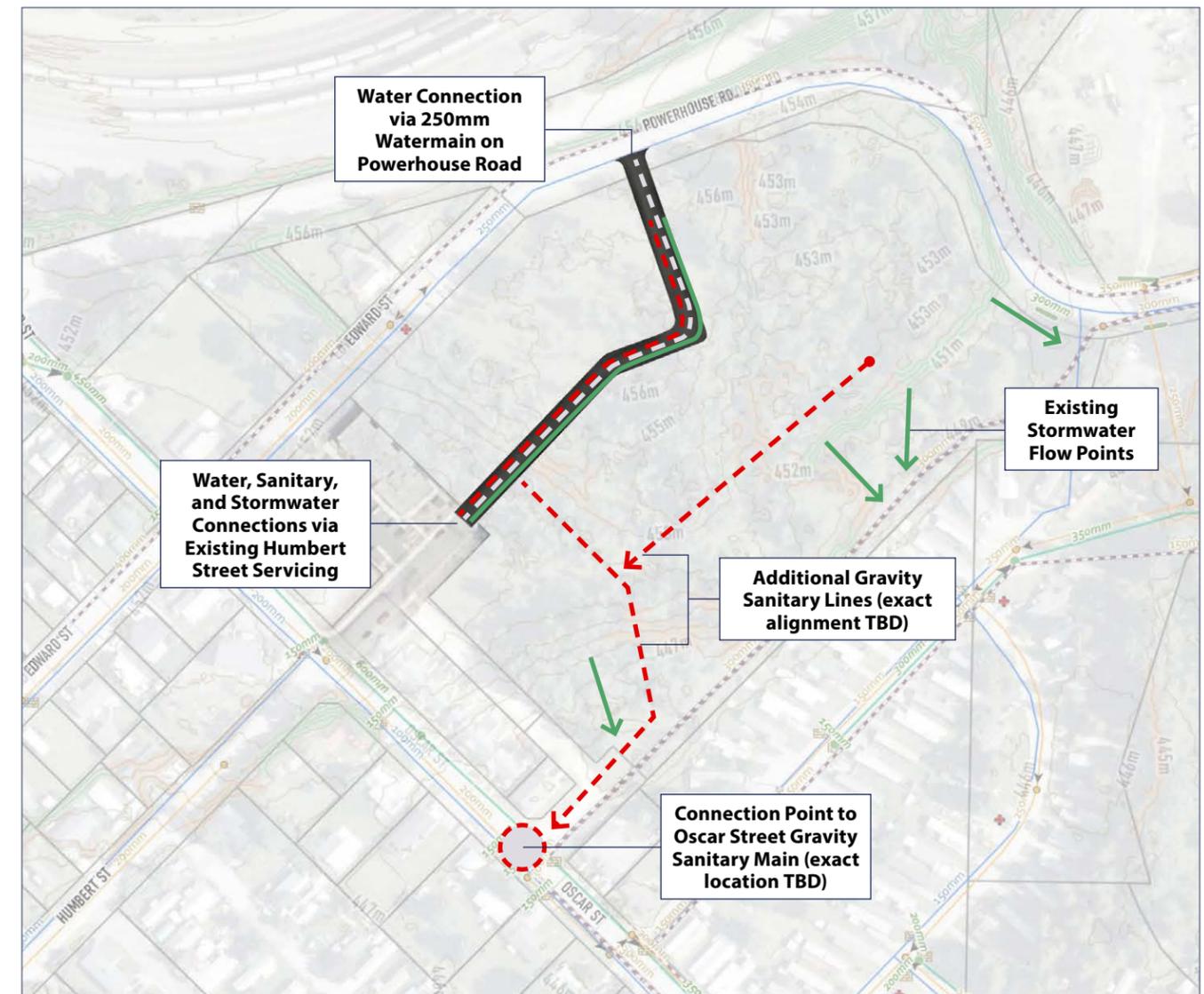


Figure 12 – Residential Mixed-Use Concept Servicing Plan (Preliminary)

3.4 Public Use Reserve Concept (Alternate Concept)

Land Use Description

The Public Use Reserve Concept features the allocation of a large portion of the site to be held as a public use reserve land for future community recreation spaces and facilities to be determined in the future. A future recreational facility that generates high traffic flows would be sited in the northwestern portion of the site. This would encourage motorists to access the facility via Powerhouse Road to limit traffic and other impacts on surrounding residential neighbourhoods and internally within the site. Supplementing the public use reserve area are three high-density residential apartment buildings and one medium-density townhome building spread over two development nodes.

To meet Master Plan objectives of accommodating a minimum of 250 dwelling units on the site, the concept prioritizes three and four-storey apartment buildings as the preferred residential building type. To promote a complete neighbourhood, the Concept includes ground floor commercial space as part of a mixed-use apartment building and a network of sidewalks, multi-purpose pathways, and trails to promote active modes of transportation and walkability of the neighbourhood. The concept includes 250 residential units that include a mix of studio, 1–3-bedroom apartments, and 3-bedroom townhomes and 300 parking stalls provided through ground level garages with lane access, surface parking lots, and underground parking areas.

Key design elements for the concept include:

- Inclusion of a large portion of the site as a public use reserve area to be held for the potential development of a future community recreation facilities and/or spaces.
- Higher proportion of high-density residential buildings to maximize dwelling unit yield with a larger mixed-use apartment building providing a large portion of the dwelling units included in the concept.
- Siting of buildings and parking areas to promote active street frontages, while limiting aesthetic impacts on adjacent residential areas.
- Provision of ground-oriented commercial space that is centrally located within the site to promote accessibility for residents across all residential buildings on the site.
- Internal road connecting Humbert Street to Powerhouse Road that includes shared vehicle and bicycle travel lanes and dedicated 2 metre walkspace.
- Gateway area on the separated parcel abutting Oscar street that includes a new transit stop, parklet, and cycling supportive facilities, including secure bike parking and lockers.

Node	Area	Proposed Uses	Units / Space
A	3.1 ac	Medium-Density Residential (Townhomes) Residential Mixed-Use (Apartment with Ground Floor Commercial)	184 dwelling units
B	0.9 ac	High Density Residential	66 dwelling units
C	4.5 ac	Public Use Reserve	N/A
D	0.2 ac	Gateway Area	N/A
E	2.7 ac	Natural Area	N/A

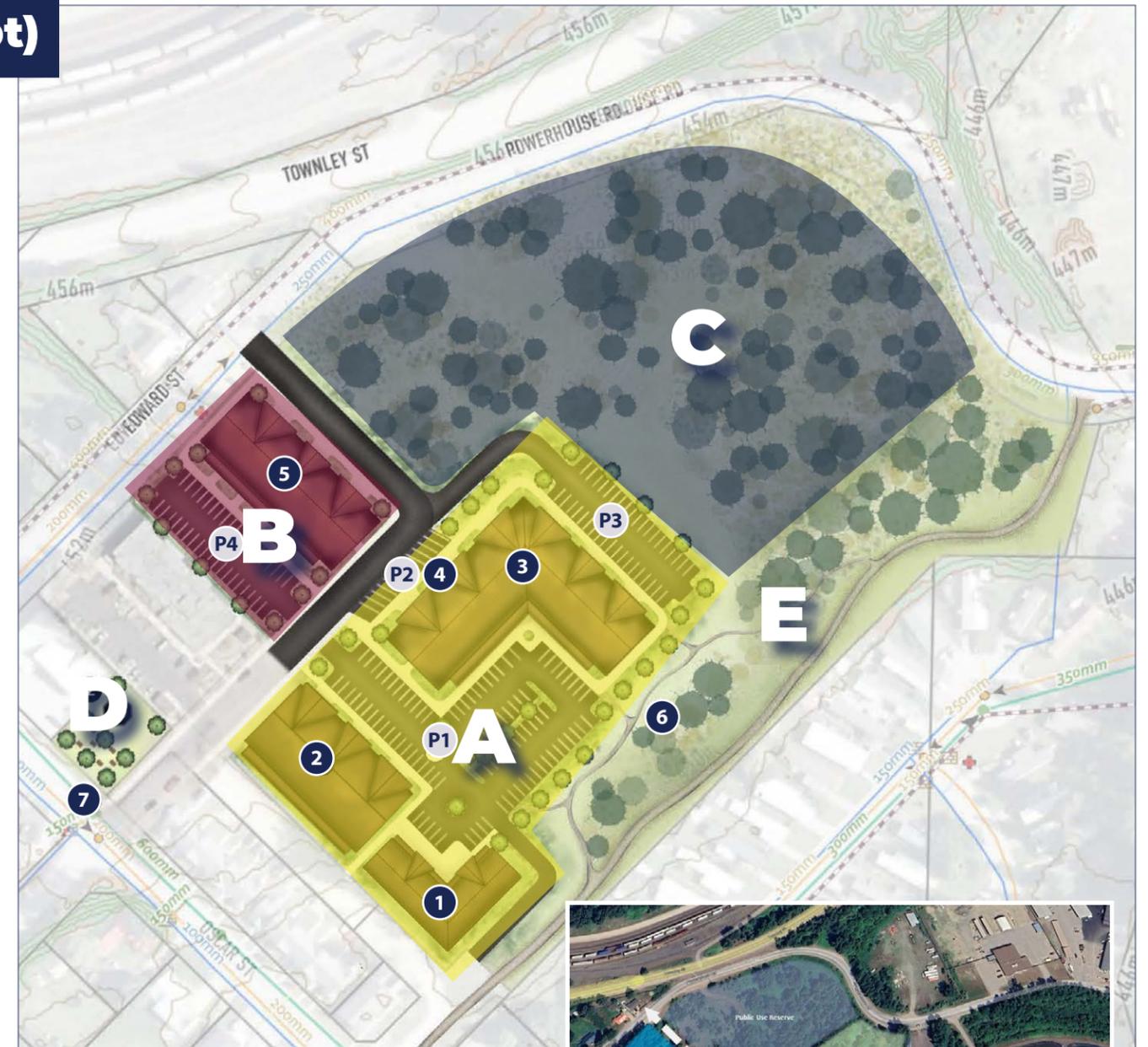


Figure 13 – Public Use Reserve Concept (Aerial)

Node A and B are described in further detail on the following pages with corresponding renders showing aerial and street level perspectives.



Development Overview (Looking Northwest)



Gateway Area (Looking North)



Development Overview (Looking Southeast)



Node B Parking Area (Looking East)

Node A is in the southeast portion of the Oscar Lands and includes one townhouse building and two apartment buildings, including ground floor commercial space fronting along the Humbert Street extension. There are two access points into the site via a driveway from Humbert Street and a driveway from the existing rear lane off Oscar Street. Buildings are sited in a manner to promote active street frontages with parking located internally within the site.

Buildings and Parking:

- Three storey townhouse building (8,400 sq/ft footprint) with 11 dwelling units (**1**)
- Three storey apartment building (15,500 sq/ft footprint) with 54 dwelling units (**2**)
- Four storey mixed-use apartment (27,500 sq/ft footprint) with 119 units and 5,000 sq/ft of commercial space (**3 & 4**)

158 parking stalls are included in **Node A** provided through surface and underground parking. 104 surface parking stalls (**P1**) provide parking for buildings #1, #2 and #3. An additional 40 parking spaces are provided (**P3**) for building #3 residents and guest parking for all buildings. 14 angled parking stalls (**P4**) abutting the Humbert Street extension are included to provide convenient parking options for employees and patrons of the ground floor commercial spaces (**4**) included in building #3.

A single underground level of parking under building #3 provides an additional 66 parking spaces for building residents.

Parks, Open Spaces, and Landscaping:

Trail connections run through the node, providing connections between individuals buildings and the passive recreation area

Streetscaping around the site includes the planting of trees along sidewalks and building edges and island planters in surface parking areas.

Node B is in the southwestern portion of the Oscar Lands and includes one apartment building. The node is accessed via a driveway off the Humbert Street extension through the site. The apartment building is oriented along the Humbert Street extension through the site to promote a vibrant street edge. A surface parking area is sited to create a buffer between the apartment building and existing apartment building to the south of the node.

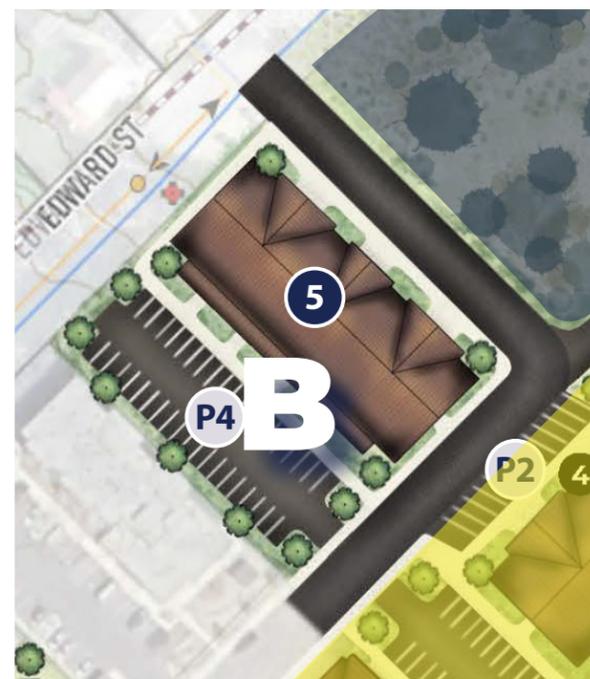
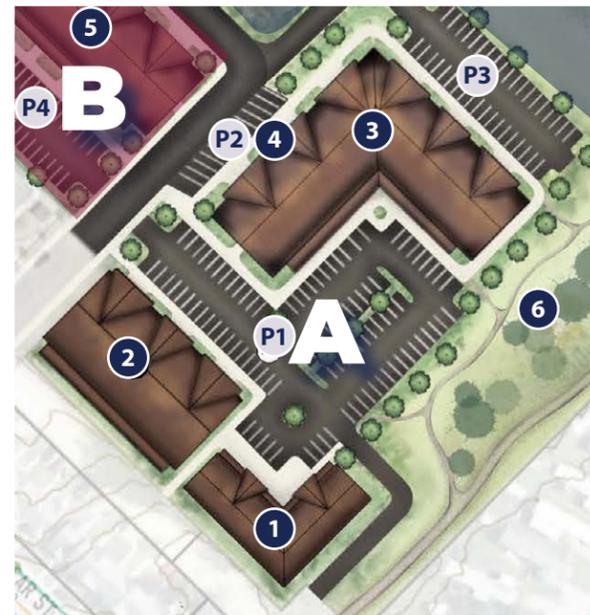
Buildings and Parking:

- Four storey apartment (14,400 sq/ft footprint) with 66 dwelling units (**7**)

40 parking spaces are included in Node B through surface parking located at the rear of the building (P4). An additional 36 underground parking spaces are included in building #5 through a single underground parking level.

Greenspace:

Streetscaping around the site includes the planting of trees along sidewalks and island planters in surface parking areas. Existing trees located on the south property edge of the node should be maintained to provide a vegetative buffer between the future apartment building and existing apartment building on the abutting lot to the south.



Access and Transportation Strategy

Site Access, Trip Generation, and Parking

As described in Section 2.5 (Transportation Overview), access to the Oscar Lands is provided via the existing Humbert Street extension into the site and through informal access points off Powerhouse Road and the rear lane north of Oscar Street. On-site vehicular circulation has been designed to allow safe and efficient movement of people and vehicles, while accounting for a potential community recreation facility in the public use reserve areas. As seen in Figure 14, the transportation layout includes an approximately 130m internal road through the site, connecting Humbert Street with Powerhouse Road with a 90-degree left turn (moving northbound).

Upgrades to the existing rear lane abutting the southeast portion of the parcel would include a new driveway access on the most southeastern portion of the site to provide access to internal surface parking areas and an additional access point to the southeast development node. The intersection on Powerhouse Road has adequate site distances for safe vehicle movements into and out of the site. Both accesses and internal intersections are expected to operate well with one-/two-way stop-control; however, a traffic circle design could be explored for the internal road intersection where vehicles would access the public use reserve area and future recreation facilities and spaces that may be developed. Based on the proposed land uses and floor areas, the following traffic volumes could be generated:

- 76 trips per hour during the weekday AM peak period; and
- 99 trips per hour during the weekday PM peak period.

In a situation where a recreation facility (e.g. multi-plex or arena) is developed on the public reserve area lands in addition to the other development nodes, the following traffic volumes could be generated:

- 159 trips per hour during the weekday AM peak period; and
- 208 trips per hour during the weekday PM peak period.

The Concept Plan provides room for approximately 300 parking spaces to accommodate automobile users while also incorporating landscaping, pedestrian pathways, greenspace, snow storage, and room for potential expansion of proposed buildings. The parking layout has been designed to include shared parking areas between buildings on **Node A** to provide flexibility in meeting the parking requirements of different residents as they change over time. The parking spaces provided by land use and parking space type are provided in the table below:

Land Use	Parking Type and Spaces	Parking Minimum Equivalent
Residential	Surface – 182 Underground – 104	Approx. 1.15 spaces per dwelling unit inclusive of provided guest parking spaces
Commercial	Surface – 14	Approx. 1 space per 30 sq/m of commercial space
Total	Surface – 196 Underground – 104	-

Active Transportation and Transit

The concept features the integration of active transportation and transit supportive infrastructure (Figure 14) to reduce reliance on automobile use for residents and visitors, support sustainability objectives, and encourages healthy and active lifestyles within the neighbourhood. Active transportation connections and transit facilities extend throughout the site that includes the following:

- A multi-purpose pathway extending through the site as part of the internal road cross-section in addition to the 2.0m walkspace to provide active connections on both sides of the road. It is envisioned that this pathway will connect to a future bikeway along Oscar Street and multi-use pathway along Powerhouse Road as included in the City's Transportation Master Plan.
- Trail connection linking Node A with the public use reserve area, passive recreation area, and greenway. This trail would be loose surfaced for pedestrians only and not support cycling or mountain biking.
- Development of a multi-purpose trail (greenway) extending across the eastern boundary of the site to connect Oscar Street with Powerhouse Road. This proposed hard-surfaced trail would replace an existing informal trail that is actively used by residents and support pedestrians and cyclists.
- A transit stop is included at the Gateway Area fronting onto Oscar Street that provides all residents with access to transit within a 200m walking radius.

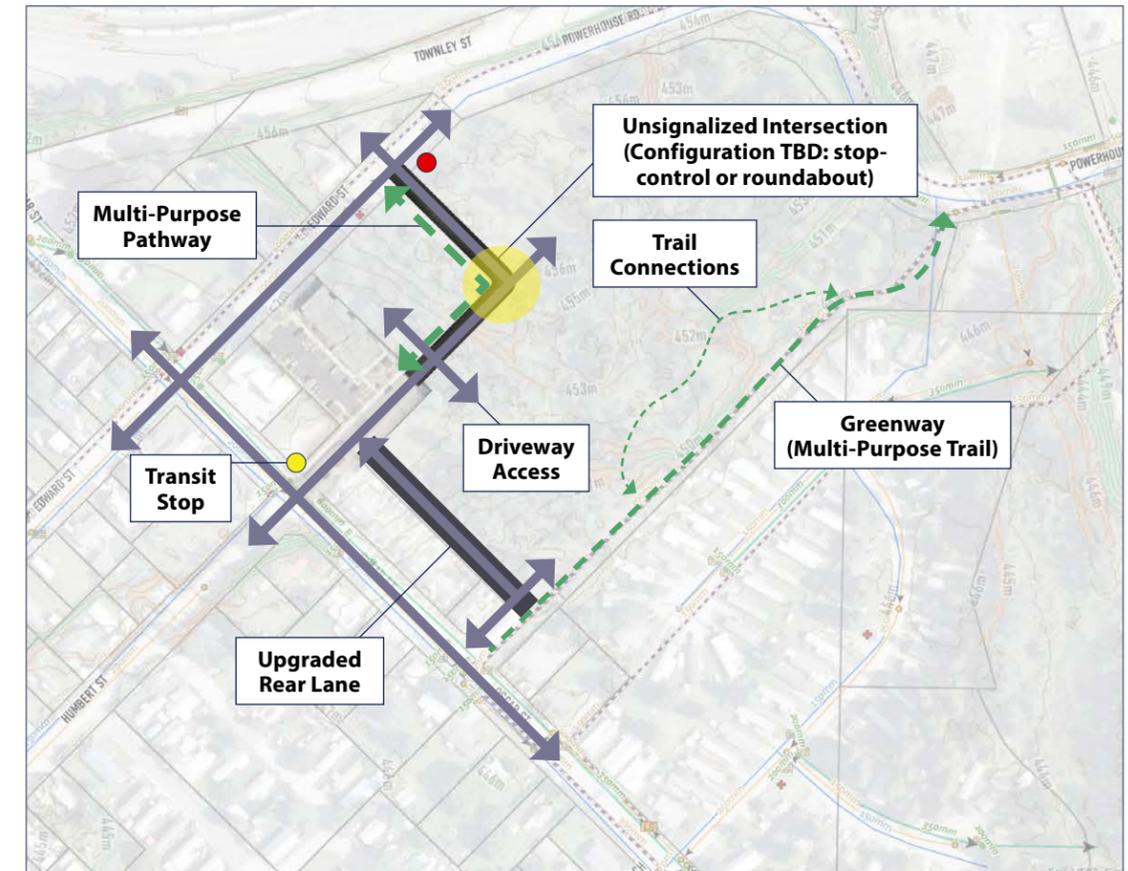


Figure 14 – Public Use Reserve Transportation Plan (Preliminary)

Servicing Strategy

As seen in Figure 15, water (blue) and sewer (red) servicing would be extended through the site as part of the internal road development to service each individual development node. The 250mm watermain along Powerhouse Road is the preferred watermain to bring water service into the site due to its potential higher fire flows, dependent on being within the same pressure zone as the water main on Humbert Street. Future development of the site should see all water lines servicing different development nodes eventually loop back to the existing Humbert Street water connection. The exact sizing of watermain will be determined through future detailed engineering design stages. It is not anticipated that major off-site upgrades will be required to surrounding watermains but requires further examination and confirmation with City modelling.

The existing sewer service at the Humbert Street extension should be able to service most of the development site. An additional gravity sewer service is proposed to run from Humbert Street extension through Node A and eventually connect to the Oscar Street gravity main. This would avoid the potential need for on-site lift stations to service lower-lying portions of the node where grade is not available for gravity sewer services to flow into the existing sewer connection on Humbert Street. Sewer sizing will be determined through future detailed engineering design stages. The ability to service for future development of the site will also require confirmation of the downstream capacity of sewer lines and Leach Road lift station to accommodate anticipate sewer flows.

Based on City requirements and the proposed land uses, floor areas, and dwelling units, the Concept could generate the following servicing requirements and loads:

Water	Demand	Sewer	Demand
Average Daily Flow	5.21 L/s	Average Dry Weather Flow	1.75 L/s
Peak Daily Flow	13.89 L/s	Peak Dry Weather Flow	6.95 L/s
Peak Hourly Flow	23.15 L/s	Peak Wet Weather Flow	7.14 L/s
Minimum Fire Flow	150 L/s		

Stormwater

Stormwater discharge options are the same as those included in the Residential Mixed-Use Concept. This includes the following potential minor system connection and outlet points to the broader City stormwater system:

- The 300 mm PVC stormwater main stubbed at the Humber Street extension to the site.
- The 350 mm PVC stormwater main on Oscar Street southeast of Oscar Lands.
- The drainage ditch to the north and northeast of Oscar Lands, which may not have sufficient capacity to accommodate additional stormwater flows.

For the major system, overland flow routes could include:

- The top of Edward Street and Humbert Street onto Oscar St. There is no defined ditch down Oscar St towards the river. Offsite improvement should be expected as overflow onto the road as-is will impact properties.
- Powerhouse Road and the drainage ditch to the north and northeast of Oscar Lands. The drainage ditch is likely to overflow onto Powerhouse Rd (see minor system comments above).

Future development of a potential community recreation facility and space may require in changes to the preliminary servicing strategy including in this Master Plan as further detailed planning and design activities are undertaken.

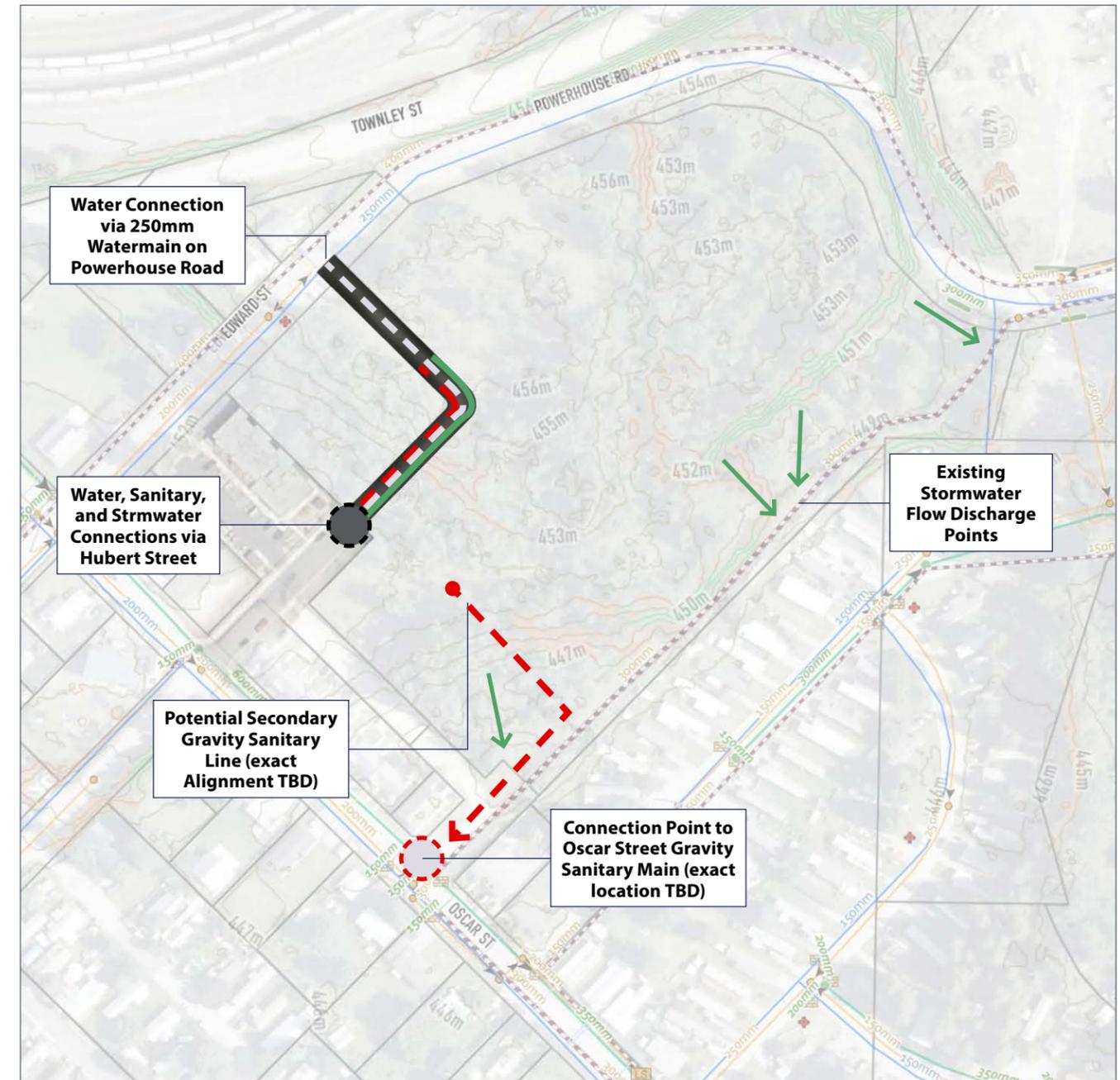


Figure 15 – Public Use Reserve Servicing Plan (Preliminary)

4.0 Master Plan Implementation

This section includes recommendations to support the future development of the Oscar Lands in alignment with the vision, concept plans, and planning direction contained in this Master Plan.

4.1 Development Process

The chart (right) outlines the planning and development process for future disposition and development of the Oscar Lands in alignment with the vision and direction of this Master Plan and existing City bylaws and Municipal Land Disposition Policy for Affordable Housing.

This process requires development proponents to be responsible for site specific improvements (e.g. grading, driveways, hard surfacing, servicing tie-ins, landscaping, etc.) for their respective developments.

The City may require development proponents to be responsible for installing the internal road and servicing extensions on an ad-hoc and piecemeal basis as required to service their specific development. In addition, a future City arms-length Housing Authority may be the preferential entity to assume the “developer” role on behalf of the City, including responsibility for development of site infrastructure and executing lease agreements.



Figure 16 – Development Process Diagram

4.2 Phasing Principles

Phasing of development on the Oscar Lands will take a “grow-as-you-go” phased approach that will be largely driven by market conditions, particularly the ability of non-market housing proponents to acquire the resources and capital necessary to advance housing developments. General phasing principles are included below to support an incremental, sustainable, and coordinated build out and efficient provision of City services:

- Encourage a phased approach to development of the site, with general sequencing of development to occur from the southern to northern portions of the site, beginning where Humbert Street extends into the site and where the back lane off Oscar Street abuts the site.
- Development of the Residential Mixed-Use Concept should follow the general sequencing:
 - Development Node A (Phase 1) – with initial development of the southern portion of the node abutting the Oscar Street rear lane and where Humbert Street first extends into the site.
 - Development Node B (Phase 2) – with initial development of the park and recreation area (by the City) and north portion of the node where the Humbert Street extension connects to Powerhouse Road.
 - Development Node C (Phase 3) – with initial development of the portion of node where Humber Street extension connects to Powerhouse Road.
- Development of the Public Use Reserve Concept should follow the general sequencing:
 - Development Node A (Phase 1A) – with initial development of the southern portion of the node abutting the Oscar Street rear lane and where Humbert Street first extends into the site.
 - Development Node B (Phase 1B) – development of Node B may occur as the initial phase of development of the Oscar Lands or concurrently with Node A.
 - Development Node C (Phase 2) – will be developed in accordance with City timelines and objectives for establishing new park and recreation facilities and spaces.
- Require development proponents to demonstrate the need and/or benefit of a proposed development that does not adhere to the general sequencing principles (e.g. leapfrogging) established for the Oscar Lands.
- Minimize disturbances to existing natural areas and features until a time where development on a specific portion of the site is imminent.

4.3 Comprehensive Zone Development

Comprehensive Development (CD) zoning for the Oscar Lands that is aligned with this Master Plan will support the realization of the unique mix of land uses, densities, building siting and orientation, and other features envisioned for the site. The Oscar Lands are currently zoned as Comprehensive Development 14 (CD14) zone. It is recommended that the following amendments are considered for the CD14 zone as listed below:

- Removal of “Dwelling, Single-Family”, “Dwelling, Two-Family”, and “Apartment” as a permitted uses and reference to those uses in other regulations contained in the CD14 zone;
- Addition of “Dwelling, Multi-family” and “Mixed-Use Building” as a permitted uses;
- Addition of “Playground”, “Recreation Complex” and “Recreation Facilities” as permitted uses;
- Addition of neighbourhood commercial uses, including “Café”, “Retail Stores”, “Professional Service Establishments” and “Personal Service Establishments” as permitted uses in mixed-use buildings;
- Reduce usable open space requirements for row house dwelling, stacked row house dwellings, and apartment buildings to account for open and recreation space included in the Master Plan concepts;
- Reduce minimum setbacks for street facing front yards for multi-family and mixed-use buildings to promote active street frontage along the internal access road;
- Removal of height restrictions by area of the site and increase height maximums for multi-family and mixed-use buildings to a 17.0m (55.0 ft) to enable five-stories;
- Maintain existing off-street parking requirements and potentially add provisions for shared parking facilities between different buildings and minimum bicycle storage/parking requirements; and
- Potential inclusion of the preferred concept plan into the CD Zone with reference to development aligning with the concept plan.

4.4 Land Disposition

Disposition of Oscar Lands for development will be enabled where future proponents demonstrate alignment of the Master Plan in the planning and design of their proposed developments. The City will dispose of portions of the site through the establishment of long-term leases (e.g. up to 99 years) to maintain the Oscar Lands as a City asset in general conformity with the City’s Municipal Land Disposition for Affordable Housing Policy (DS-26). This policy was established for the purpose of providing a “transparent process through which non-profit organizations in Revelstoke can access eligible municipal lands for the express purpose of building affordable housing.

The application process for municipal land disposition for affordable housing has three stages as described below:

- **Stage 1:** Entry-level application requirements to allow non-profits to explore preliminary concepts and access initial development funding.
- **Stage 2:** Requirements to complete preliminary viability components and site design to apply for the next tier of funding.
- **Stage 3:** Requirements for when non-profits have secured funding, prior to the disposition of municipal lands.

Amendments to the existing DS-26 policy may be required to address housing affordability and tenure objectives of the Master Plan. This includes amending the policy to enable the inclusion of market housing units as part of mixed-income housing developments eligible for municipal land disposition. The City may also opt to amend the DS-26 policy to include policy directives requiring applicants to demonstrate alignment with the Oscar Lands Master Plan to be eligible for municipal land disposition consideration.

4.5 Planning and Design Guidelines

Planning and design guidelines have been established to provide a framework for the planning, design, and delivery of development of the Oscar Lands in alignment with the vision and direction of this Master Plan. They are intended to inform development proponents when planning their respective developments and guide City decision making with respect to future lease agreements and issuance of development approvals. Implementation of these guidelines may be done through future amendments to the City's Zoning Bylaw, including the creation of a new Comprehensive Development Zone and associated Development Permit Area Guidelines.

A Neighbourhood that is Complete

Future development will include a mix of land uses, housing forms, public amenities, and other elements to create a complete neighbourhood. Development proposals will be evaluated for their contribution towards creating a complete and livable neighbourhood:

- Permitted residential land uses and densities for the Oscar Lands includes town and rowhouses, garden apartments, village cluster housing, and mixed-use apartment buildings. Higher-density residential proposals will be preferred over medium to lower-density proposals.
- Commercial development will be integrated through ground floor commercial spaces in mixed-use buildings that serves the daily needs of neighbourhood residents, with design that supports an active interface between commercial spaces, sidewalks, and streets.
- Universal and accessible design will be integrated into all public spaces and encouraged for all buildings and dwelling units on the Oscar Lands.
- Buildings and building entrances will be oriented along sidewalks and streets, with parking areas being located internally within development areas to promote a vibrant and pedestrian oriented streetscape and active street edges.
- Residential buildings should integrate amenity spaces to promote and foster social and recreation activity among residents of all ages and backgrounds.
- Apartment and mixed-use apartment buildings are encouraged to integrated tuck-under and underground parking, when possible, to minimize the presence of surface parking on the site and enable greater development and densification of the Oscar Lands.
- Spaces for public art and placemaking will be integrated within public street right-of-ways and as part of buildings and public spaces developed on the Oscar Lands. Buildings are encouraged to integrate art and other design features that promote local character and heritage of the community.
- Residential buildings shall include amenities that support active modes of transportation, including the provision of outdoor and indoor bicycle parking and storage.
- The integration of urban agricultural and spaces to support neighbourhood food security, such as edible landscaping and community gardens, is encouraged for future development.
- Temporary uses for the Oscar Lands that support the quality of life of residents and neighbourhood vibrancy for portions of the site where development is not imminent will be considered.

A Neighbourhood that is Attainable

Future development will prioritize the development of housing that is attainable for a range of families, seniors, workers, and other residents. Development proposals will be evaluated for their ability to provide housing that is attainable and aligned with the diverse and different needs of residents, including meeting the general ratios and for dwelling units as included below:

- Residential buildings will include a mix of dwelling unit types, including studio (20%), one bedroom (30%), two bedroom (40%), and three-bedroom units (10%) to meet the diverse needs of different residents and families. These unit ratios are not applicable for townhouse buildings and may be modified to fit evolving market and tenant demands for housing.
- Approximately 70% of dwelling units will be attainable (non-market housing), which may include seniors, rent-geared-to-income, and other attainable housing forms.
- Approximately 30% of dwelling units will be market housing with the intention of supporting the financial viability of mixed market and attainable housing projects.
- Multi-family residential buildings will integrate market and attainable housing units in the same building wherever possible and avoid the segregation of market and attainable housing through separate buildings, separate floors, and/or separate entrances within the same building.
- Approximately 10% of dwelling units will be dedicated for seniors housing and encouraged to be included in mixed-use buildings that include ground floor commercial uses that support daily living needs.

A Neighbourhood that is Coordinated

Future development will be coordinated to promote neighbourhood livability, sense of place, and sustainability as the Oscar Lands are developed incrementally over the short to long-term. A coordinated approach will ensure that infrastructure, buildings, public spaces, and natural areas all fit together cohesively and in alignment with the vision and direction of this Master Plan.

- Development proposals for the Oscar Lands will align with the general vision and direction of this Master Plan. Future development proposals may deviate from the Master Plan as more detailed planning and design tasks are completed specific to a proposal where flexibility is required to establish project viability. Deviations from the Master Plan must be minor and not result in development that restricts further implementation.
- Buildings will generally maintain consistent designs and aesthetics, such as consistent use of building materials, through existing Development Permit Areas (DPA) in effect for the City. This may include the development of a new neighbourhood specific DPA to promote a coordinated aesthetic across the neighbourhood.
- Roads, access, parking, and servicing infrastructure for development will be coordinated within the site as generally outlined in the transportation and servicing strategies included in this Master Plan and in alignment with City infrastructure and transportation plans and requirements.
- Driveways providing access from Humbert Street extension to individual development nodes should be aligned to create four-way intersections.
- Consistent and neighbourhood themed wayfinding and signage will be included in public spaces and encouraged for buildings to promote sense of place and navigation of the neighbourhood.

A Neighbourhood that is Sustainable

Future development will integrate sustainable practices where possible to limit the environmental footprint of the neighbourhood, limit greenhouse gas emissions, reduce energy consumption, and mitigate impacts on the environment and natural values on the Oscar Lands and surrounding areas.

- Development proponents will include sustainability goals and strategies as part of their development proposals that identify project contributions towards neighbourhood sustainability and alignment with sustainable principles included in the Master Plan.
- Buildings should reduce operational energy needs through the inclusion of net zero design and/or BC Energy Step Code requirements.
- Buildings should integrate renewable energy sources, such as rooftop solar and solar street/parking lights to reduced operational energy needs.
- Buildings are encouraged to reduce operation water consumption using grey, recycled, and stormwater and through the inclusion of low-flow fixtures and appliances.
- Natural areas will be preserved and enhanced and include opportunities for residents to connect with nature through low-impact trails and gathering spaces that are connected to developed areas.
- Stormwater will be managed on-site to minimize downstream impacts of development on stormwater runoff and quality. Rain gardens and bioswales are encouraged as a stormwater management strategy.
- Flexibility of parking requirements associated with development on the site will be given, such as a reduction in parking minimums, for developments that include amenities and facilities that support non-vehicle modes of transportation.
- The inclusion of electric vehicle charging stations is encouraged for all parking areas.
- Development will include landscaping with trees and vegetation to enhance air quality, neighbourhood aesthetics, provide shade and protection from sun exposure, and other benefits to support quality of life and sustainability.
- Landscaping will utilize native and drought resistant plant species and discourage the use of non-native plant species.
- FiresSmart principles will be integrated into the planning, construction, and operation of buildings, including setbacks from forested areas, landscaping, vegetation management, and use building materials as outlined in the BC FireSmart "Begins at Home Guide".
- Sustainable and safe solid waste management practices are encouraged, including the inclusion of bear-resistant garbage bins, community composting containers, and recycling storage in residential buildings.

4.6 Subdivision Strategy

A subdivision strategy as been prepared for each Master Plan concept for the Oscar Lands to provide general guidance for the City when working with proponents on future disposition and subdivision of portions of the site for development. It includes a subdivision concept for each concept plan that show potential lot layouts that could be developed through an initial phase of future subdivision of the site to facilitate development in the immediate to short-term without compromising long-term development opportunities and overall Master Plan vision for the Oscar Lands. The subdivision concepts were designed to create larger and proportionate lots that could be further subdivided in the future in response to the specific spatial requirements of development proposals.

The subdivision concept for Option 1 includes the following:

- Subdivision of the internal road right-of-way to provide access within the site;
- Subdivision of the outdoor recreation area (e.g. basketball and pickleball courts) and open/natural area out of the parent parcel;
- Subdivision of large development nodes out of the parent parcel that may be further subdivided into smaller parcels as required in the future; and
- Examples of smaller lots that may be further subdivided (dashed line) to accommodate initial phases of development in the immediate to short-term.



Figure 17 – Option 1 Map

- Legend
- Proposed Parcels
 - Subdivision
 - 18m ROW

The subdivision concept for Option 2 includes the following:

- Subdivision of the internal road right-of-way to provide access within the site;
- Subdivision of the proposed public use area and open/natural area out of the parent parcel;
- Subdivision of a smaller development node in the southwest portion of the site; and
- Subdivision of a large development node out of the parent parcel that may be further subdivided into smaller parcels as required in the future; and
- Example of smaller lots that may be subdivided (dashed line) to accommodate initial phases of development in the immediate to short-term.



Figure 18 – Option 2 Map



Appendix A - Site Servicing and Transportation Strategy

DATE: January 18, 2024
TO: Paul Simon, Planning Lead, Steve Black, Director of Engineering and Public Works
FROM: Dan Penner
FILE: 1577.0120.01
SUBJECT: Oscar Lands Master Plan: Transportation and Servicing Strategy Memorandum

1.0 INTRODUCTION

The City of Revelstoke (the City) obtained Urban Systems Ltd. (Urban Systems) to complete a Master Development Plan and Servicing / Transportation Analysis for a key City-owned property, known as the Oscar Lands. The City-owned parcel located at 1004 Oscar Street is 4.76 hectares (11.75 acres) in size.

This memorandum includes a summary of technical analysis completed regarding:

- Summary of existing servicing and transportation infrastructure available to the site;
- Anticipated servicing demands for water, sewer, and stormwater resulting from the proposed build out of the site;
- Anticipated transportation demands resulting from the proposed build out of the site;
- Proposed functional layouts for vehicle movements to, from, and within the site; and

In addition to the analysis summarized in this report, several considerations for City staff have been included where clarification or further information is required or would help supplement the servicing analysis.

1.1 PROJECT BACKGROUND

The City of Revelstoke is located in the southern part of Area B in the Columbia Shuswap Regional District (CSRD) and is surrounded by the Monashee and Selkirk Mountain Ranges. The City is intersected by the Trans Canada Highway and the Canadian Pacific Railway (CPR) and the economy in the area is strongly supported by forestry, tourism, and transportation sectors.

The City has experienced an increase in tourism, economic development, and growth in the community since 2007 when the local ski resort was opened and began operating. As a resort community, the City has seen growth in the number of long-term residents, seasonal residents, short-term visitors, and seasonal workforce. This growth is expected to continue as a result of the expanding tourism industry, draw of the mountain culture lifestyle, and the planned expansion of industry operations like CPR. However, this growth has applied pressure to the housing market, including rising land and home costs, and increased strain on the rental market and workforce housing stock. The Oscar lands represent a legacy opportunity for the City and community to progress on two core community priorities, the diversity and supply of housing, recreation, and open spaces.

This project was identified in the City's Land Use Inventory and Housing Action Plan as a housing and affordable housing opportunity in the community. As such, this project must:

- Integrate a mix of market and non-market housing, neighbourhood-scaled commercial uses, and recreation/amenity space in an efficient and thoughtful and well-planned manner that maximizes development potential of the Oscar Lands while mitigating impacts on surrounding areas and City transportation and servicing infrastructure.

- Include a mix of multi-family residential types, including row houses, low-rise (under five storeys) residential buildings, and other suitable housing forms that are feasible in Revelstoke given local market conditions, community sentiments, and other context-sensitive factors.
- Complete a technical analysis to identify how transportation and servicing (e.g., water, sewer, and storm) infrastructure can be developed to meet development demands, including identifying internal and off-site improvements required to realize the development vision for the Oscar Lands. This includes the potential re-alignment of Powerhouse Road to improve site access and traffic flow.
- Allocate between three to four acres of land in one of the Land Use Concepts for the Oscar Lands to accommodate a future arena or multiplex that is cognisant of the associated transportation and servicing requirements of a larger community recreation facility.

1.2 PROPOSED SITE DEVELOPMENT

The City-owned parcel located at 1004 Oscar Street is designated for Mixed-Use development under the Official Community Plan and zoned under the City's Comprehensive Development Zone 14, which encourages the development of affordable housing in diverse housing forms.

Currently, the vision for the development is to be illustrated through two (2) concept plans that incorporate the following design elements:

- Mixture of market and non-market residential dwelling units
 - Ground oriented multi-family (e.g. townhomes and row housing) to 3 – 4+ storey apartment and mixed-use buildings.
 - The development is being planned to accommodate between approximately 250 and 350 additional residential units, depending on building height and if a new arena or multiplex facility is implemented on this site.
- Local commercial at a scale suitable for the immediate and surrounding neighbourhoods.
- Potential public recreation amenity space for a future arena or multiplex facility between 1.6 hectares (4.00 acres) and 2.4 hectares (6.00 acres) in size to be presented in one of the concepts.

The City is completing public engagement for the development of a new arena or multiplex building, and the location has not yet been determined. As such, two development concepts have been considered in this plan, both of which will include the residential and commercial uses stated above:

1. With a potential new arena or multiplex with additional uses, and
2. Without the new arena or multiplex.

The property is not within any identified environmentally sensitive areas (riparian or terrestrial). However, steep slopes exist on the property (20-30%+) that are considered environmentally hazardous development permit areas.

2.0 TRANSPORTATION ANALYSIS

The transportation analysis and site considerations for the Oscar Lands are summarized in the following section, including a high-level review of existing conditions and City standards, high-level traffic analysis, site layout network and other considerations.

2.1 EXISTING TRANSPORTATION NETWORK

This parcel is well connected to the transportation network, facilitating easy access to adjacent neighborhoods, the downtown area, industrial lands, and community amenities, including Southside Market and the proposed Powerhouse Road Park. BC Transit operates one route (Route 1) near the study area that connects downtown Revelstoke to the Queen Victoria Hospital and Arrow Heights neighbourhood. This route runs along Oscar Street

The property is bounded by Edward Street / Powerhouse Road to the north / west, and Oscar Street to the south / east. The development is in proximity to a manufactured home park, the City’s wastewater treatment plant, single detached residential development, and multi-unit residential development. The existing row house development adjacent to Oscar Street and the recently completed apartment complex at the extended portion of Humbert Street (both adjacent to the subject property) are developed for affordable housing on land owned by the City and managed by the local Revelstoke Community Housing Society.

The Transportation Master Plan proposes to enhance the multi-modal connections to the Oscar Lands through the addition of on-street multi-use pathways and bikeways.

2.2 DEVELOPMENT TRIPS ESTIMATE

The Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021) was referenced to estimate the number of trips that could be generated by the proposed developments for both Concept 1 and Concept 2. The total number of trips estimated is based on the anticipated site components, summarized above in **Section 1.2**.

Oscar Lands – Concept 1							
Anticipated Development		AM			PM		
		In	Out	Total	In	Out	Total
Residential Units*	250 Units	22	54	76	56	43	99
Commercial Space*	5,000 sq.ft.						
Recreation Space	~1 acre building area	55	28	83	51	58	109
Total		77	82	159	107	101	208
Oscar Lands – Concept 2							
Anticipated Development		AM			PM		
		In	Out	Total	In	Out	Total
Residential Units*	354 Units	31	92	123	88	58	146
Commercial Space*	16,000 sq.ft.						
Total		31	92	123	88	58	146

* Assuming commercial space will be integrated into the residential buildings on the ground floor.

The peak traffic generated by the proposed development (Concept 1) will likely occur in the PM period and could be as high as approximately 208 trips per hour (two-way).

A high-level traffic analysis exercise was conducted for the proposed development site which is summarized in the attached memo. The analysis was based on recent traffic count data that was collected in October 2023 and was forecast to the 2033 horizon year and for peak summer traffic conditions. Results of the traffic analysis found that with two accesses to the Oscar Lands site once fully built-out (assumed by the year 2033), the existing intersections on Oscar Street at Edward Street and Humbert Street are expected to operate well and may not require traffic control upgrades. Further, based on the BC Ministry of Transportation and Infrastructure's warrant for traffic signals (provided in their *Electrical and Traffic Engineering Manual*), traffic signal control is likely not warranted at the development access intersection(s).

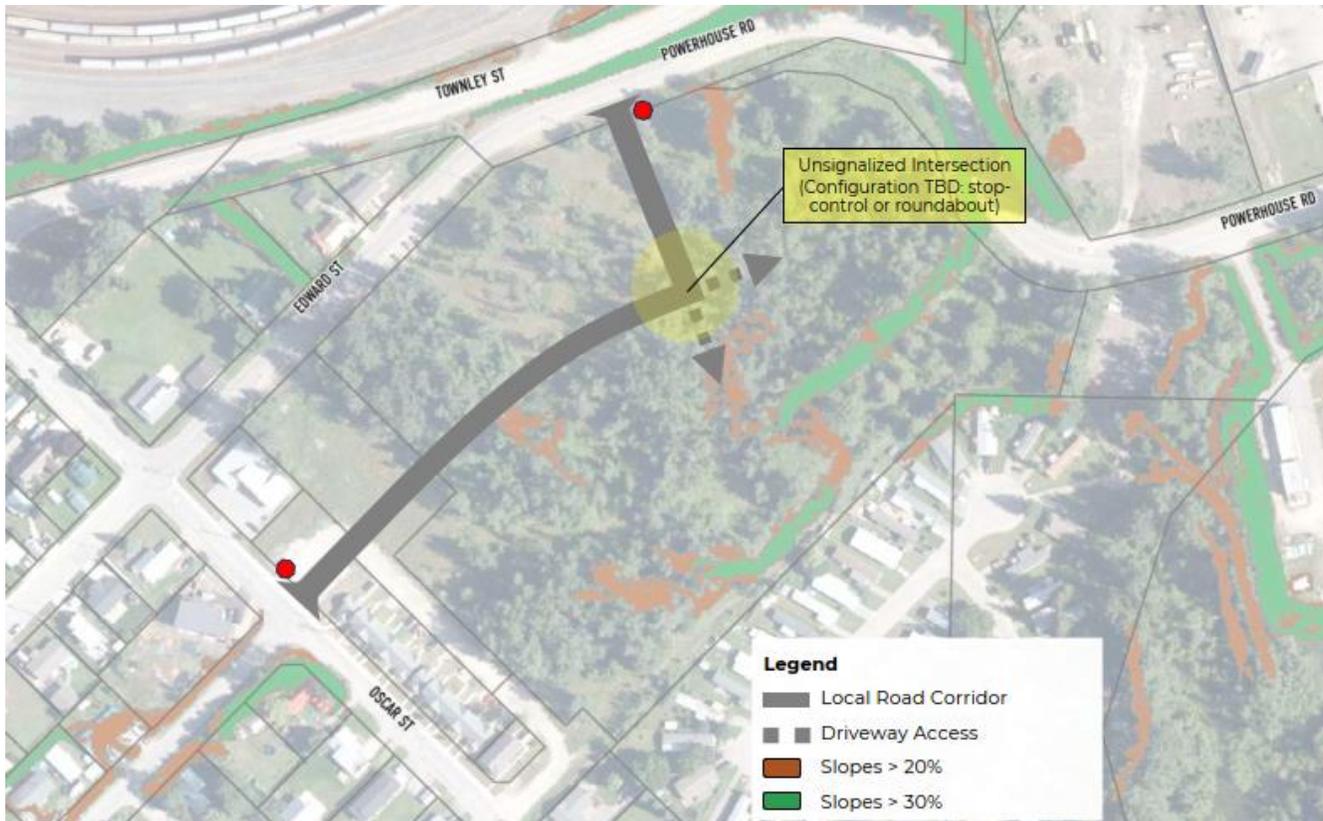
2.3 SITE ACCESS & LAYOUT CONSIDERATIONS

Various site access locations and internal road networks were investigated to best service the Oscar Lands site. Generally, two or more site accesses are recommended to the site for emergency access and network redundancy. The potential access locations for this development are discussed below. It is assumed that one access will be provided on Oscar Street via the northeast leg at the existing Humbert Street intersection where a new housing development was recently constructed. Two access and layout options are presented below for consideration; however, the specific layout of the internal roads is flexible and can be further refined once the access locations are confirmed.

2.3.1 Option 1: Powerhouse

A second access could be provided on the north end of the development site on Powerhouse Road, just east of where the corridor changes names from Edward Street. The internal road layout is basic with tangent road sections which would host driveway access to the site components. The intersection on Powerhouse Road has adequate site distances. Both accesses and any internal intersections are expected to operate well with one-/two-way stop-control; however, a traffic circle design could be explored for the internal road intersection. This layout also avoids most of the area with existing steep slopes.

Figure 1: Site Layout and Access Option 1

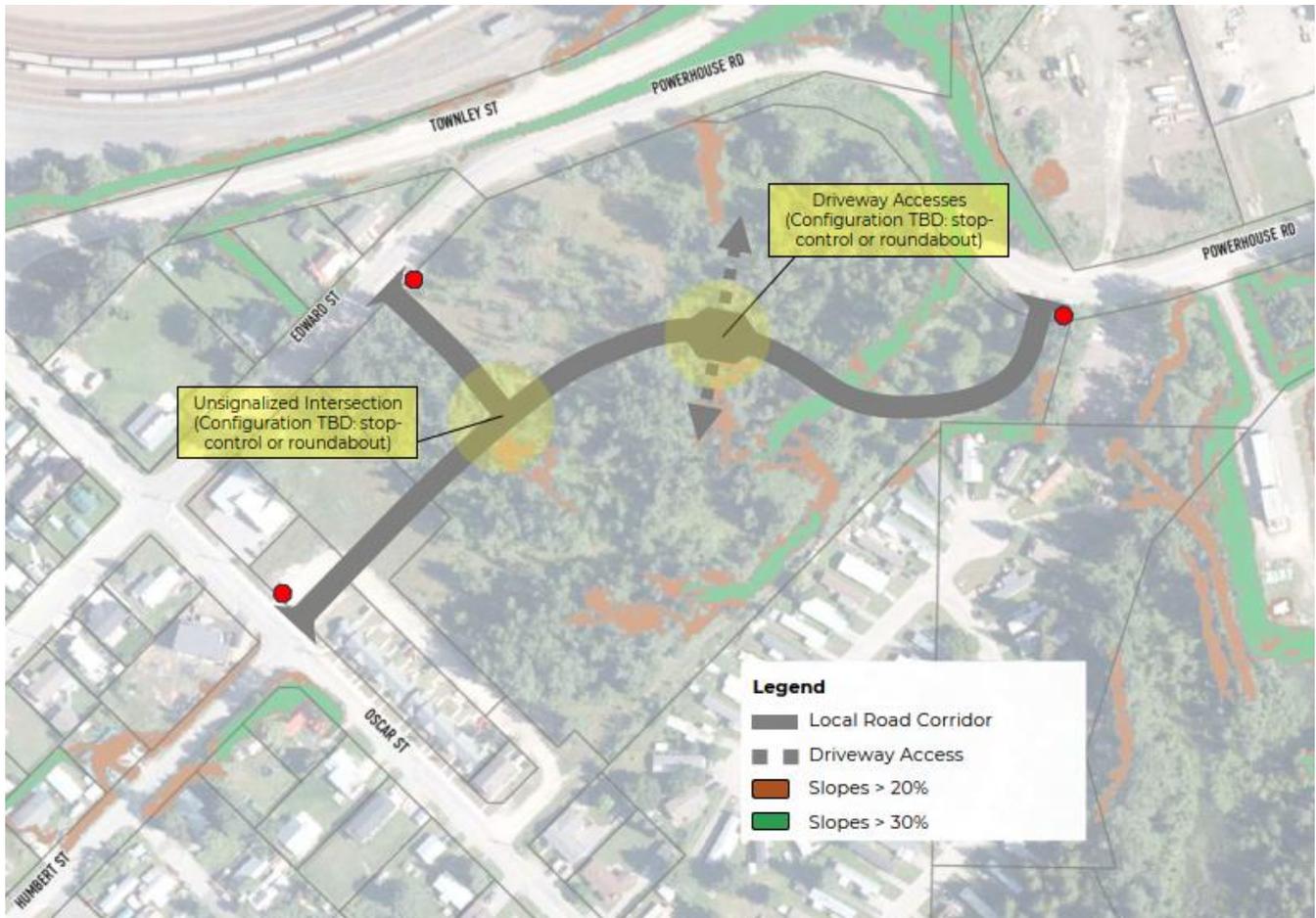


2.3.2 Option 2: Powerhouse & Edward

Another site layout option has a total of three access points: on Oscar Street, Edward Street, and a third on the east end of the site on Powerhouse Road. The internal roads would host driveway access for all site components. All accesses and internal intersections are expected to operate well with one-/two-way stop-control; however, traffic circle designs could be explored for any internal road intersections.

All three access intersections have adequate site distance. However, the curve on Powerhouse Road where the third access intersection is proposed is sub-standard based on current transportation design guidelines and standards for a 40 and 50km/hr design speed. The internal road connecting to the east intersection also traverses through steep terrain and boggy lands, which may have constructability challenges. Further design and investigation are required to confirm if the proposed east intersection is feasible.

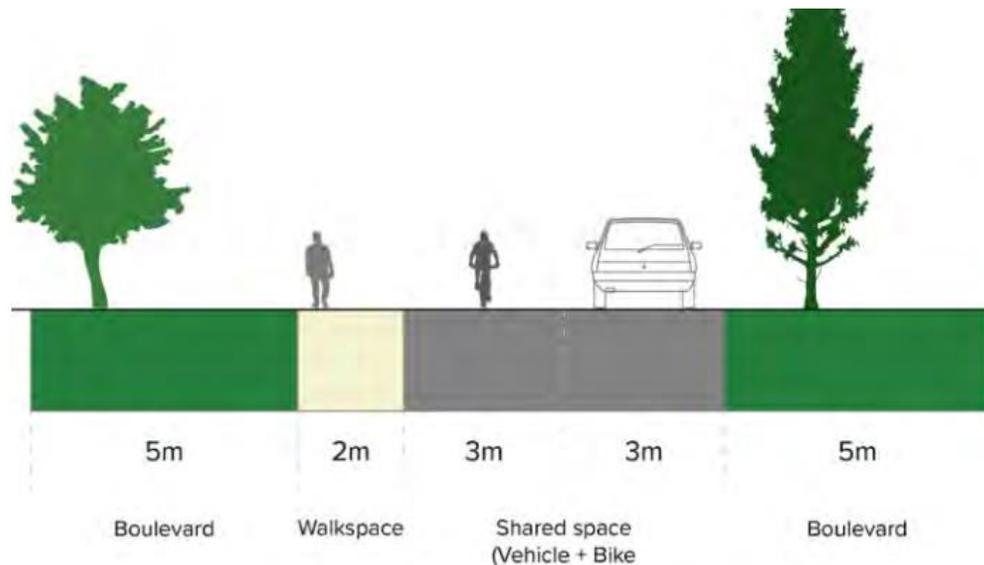
Figure 2: Site Layout and Access Option 2



2.4 ROAD CROSS-SECTIONS

The City's Transportation Master Plan (TMP; Stantec, March 2023) provides guidance on cross-section design. It is assumed that any internal roads would be classified as local roads, with a two-lane cross-section and posted speed of 30km/hr. For Local roadways, the TMP cross-section includes 3.0 meter (m) shared lanes and one 2.0m sidewalk or walkspace. The total right-of-way width is 20m, which includes 5.0m boulevards on either side of the road.

Figure 3: Proposed Local Street Cross-Section (TMP: Figure 4.6)



2.5 ACTIVE TRANSPORTATION CONSIDERATIONS

The active transportation (AT) facilities shown in the City's TMP cross-sections adhere to current active transportation design standards¹, given the low posted speed of 30km/hr. This should be considered minimum treatment for AT facilities; sidewalks on both sides of the street could be included. Other connections through the site are recommended, such as pathways and trails, to provide direct and safe access to all site amenities and lots.

AT connections to and from the site should also be provided, to encourage and facilitate AT modes throughout the community.

2.6 TRAFFIC DEMAND MANAGEMENT CONSIDERATIONS

Transportation demand management (TDM) refers to strategies that aim to increase the efficiency of transportation resources, thereby reducing the number of trips generated by a particular development. In addition to increasing the efficiency of transportation resources, TDM measures can also encourage other more sustainable modes of transportation than single occupancy vehicles.

¹ Based on the BC Active Transportation Design Guide

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Based on research of TDM measures in other jurisdictions and industry best practices, TDM measures were identified that are deemed appropriate and feasible for the Oscar Lands development given the local context. These initiatives and measures are recommended to implement when and where possible to reduce overall trips to and from the site and result in lower overall parking demand:

- Continue to build connected and accessible AT facilities on the surrounding and internal networks.
- Liaise with BC Transit to ensure an accessible bus stop for Route 1 is located adjacent to the development on Oscar Street.
- Provide secure bicycle parking on site and at nearby bus stop(s).
- Provide trip-end facilities (e.g., bike storage, showers, changerooms, and bicycle repair equipment) at commercial and recreational facilities, where appropriate.

3.0 WATER ANALYSIS

3.1 EXISTING INFRASTRUCTURE

There are existing watermains installed along Powerhouse Road and Oscar Street, providing multiple points of connection to the City’s water system for the development. This includes a 200mm watermain that extends into the site via Humbert Street.

3.2 DOMESTIC AND FIRE FLOWS

Domestic flows will be contingent on the equivalent population as set out in the table in Section 2.2. The Peak Daily Demand (PDD) under options 1 and 2 will be **19.2 L/s** and **13.9 L/s** respectively.

The minimum fire flow for higher density multi-family, commercial and institutional development is **150 L/s**, as set out in the City’s Subdivision Development and Servicing Bylaw No. 1846 (SDS Bylaw).

Table 1: Water Demand Calculations

Criteria Description	Criteria Units	Buildout Scenario	
		Maximum	Minimum
Residential units	count	345	250
Residential type	-	Multi-family	Multi-family
Residential density	people/unit	2	2
Residential population	count	690	500
Average daily flow	L/capita/day	900	900
Average daily flow	L/s	7.19	5.21
Peak daily flow	L/capita/day	2400	2400
Peak daily flow	L/s	19.17	13.89
Peak hourly flow	L/capita/day	4000	4000
Peak hourly flow	L/s	31.94	23.15
Minimum fire flow	L/s	150	150

3.3 SITE SERVICING CONSIDERATIONS

The existing 250mm watermain along Powerhouse Road is likely to have the highest fire flow availability and would be the preferred watermain from which to bring a service into the development site.

In addition, if the site is being subdivided into multiple parcels for different pockets of development, then it would be beneficial to loop the on-site watermain back to Oscar Street, providing increased fire flow capacity and redundancy for the City system. This may require a right-of-way dedication over the on-site watermain unless the on-site roads will become public (City) roads.

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The site building design and layout will impact the needed fire flow per Fire Underwriters Survey (FUS) guidelines. The architect and mechanical designers may be required to modify their design – use different materials, install sprinklers – to limit fire flow requirements to the available fire flow, as determined by the City's hydraulic water model.

Furthermore, the development may be responsible to upgrade off-site water distribution and storage volume availability should the minimum available fire flow be less than 150 L/s as determined by the model and residual capacity of the reservoir(s) deem so.

4.0 SANITARY SEWER ANALYSIS

The site generally slopes from north to south, with the lowest part of the property closest to Oscar Street and having an approximate elevation of 447m. The City's wastewater facilities are located on Powerhouse Road, roughly 50m east of the northeast corner of the development site.

4.1 EXISTING INFRASTRUCTURE

There is an existing 200mm gravity sewer flowing southeast along Oscar Road towards a lift station near Leach Road. A 200mm sewer extends into the site via the Humbert Street extension. There are also multiple forcemains along the east property line of the site, that convey pumped flow from Oscar Street to the sewage facility on Powerhouse Road.

4.2 DESIGN FLOWS

The design flows will be dependent on both the area of the site (for infiltration and inflow) as well as the number of developed units (dry weather flow). The table below shows the calculation of the Peak Wet Weather Flow (design flow) for the site development options.

Table 2: Sanitary Sewer Calculation

Criteria Description	Criteria Units	Buildout Scenario		
		Option 2	Op 2 no Arena	Option 1
Residential units	count	250	250	345
Residential type	-	Multi-family	Multi-family	Multi-family
Residential density	people/unit	2	2	2
Residential population (total)	people	500	504	701
Residential peaking factor	-	3.97	3.97	3.89
Commercial area	sq.ft	5000	5000	16000
Commercial area	Ha	0.05	0.05	0.15
Population equivalent density	ppl/Ha	75	75	75
Equivalent population	people	4	4	11
Average dry weather flow (ADWF)	L/capita/day	300	300	300
Average dry weather flow (ADWF)	L/s	1.74	1.75	2.48
Peak dry weather flow (PDWF)	L/s	6.90	6.95	9.67
Arena building - toilet rooms	count	30	0	0
Daily usage per toilet room	L/day	1700	1700	0
Average dry weather flow	L/day	51000	0	0
Average dry weather flow	L/s	0.59	0.00	0
Peaking factor (events)	-	10	10	0
Peak dry weather flow (PDWF)	L/s	5.90	0.00	0

Developable area	Ha	3.3	3.3	3.3
Infiltration & inflow rate	L/Ha/day	5000	5000	5000
Infiltration & inflow	L/s	0.19	0.19	0.19
Peak wet weather flow (PWWF)	L/s	12.99	7.14	9.86

4.3 SITE SERVICING CONSIDERATIONS

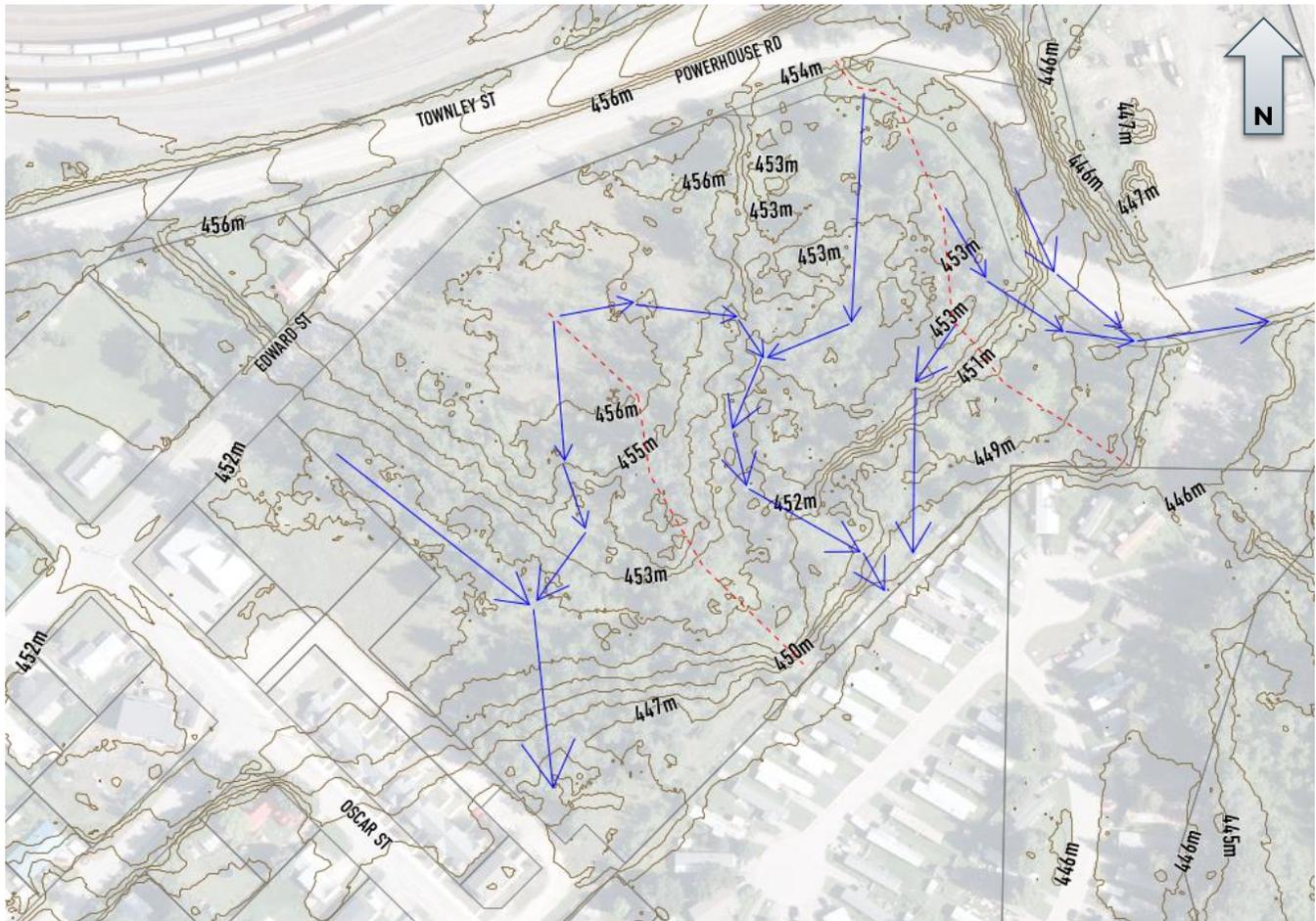
The existing sewer service provided at the Humbert Road extension should be able to service most of the development site. However, to provide the most flexibility in developable area for the site, a new, second gravity sewer service is proposed at the southeast corner of the site, connected to the Oscar Street gravity main. This would avoid the need for on-site lift stations that may be required if trying to service portions of the development using the existing service stub on the Humbert Street extension into the site.

5.0 STORMWATER ANALYSIS

5.1 EXISTING SITE TOPOGRAPHY & CONNECTING STORM INFRASTRUCTURE

The Oscar Lands parcel generally slopes from the northwest to the southeast (see **Figure 4**). The high point is on the northwest edge of the property near where Edward Street connects to Powerhouse Road. Stormwater will predominantly flow to the southeast edge of the parcel from the high point.

Figure 4: Oscar Lands Contours (Brown), Flow Paths (Blue), and Prominences (Red)



A cut exists for Powerhouse Road on the northeast edge of the site that slopes downward in excess of 30% over 1-3 vertical meters. The Revelstoke Utility Web Map (City's GIS) depicts a drainage ditch starting on the northernmost point of Powerhouse Road and conveys flows east from the parcel, past the sewer treatment plant lagoons, and outlets to the south into the Illecillewaet River (see **Figure 5**).

Figure 5: Oscar Lands Existing Servicing – Storm (Green), Septic (Red), and Electrical (Yellow)



The barbell of Oscar Street to the southeast of the Oscar Lands is low lying with two residential cul-de-sacs. Runoff waters must be controlled to protect these Oscar Street residences. The City's GIS depicts a 300 mm PVC storm main draining eastward from the Oscar Street barbell to the drainage ditch that passes the treatment plant lagoons (see **Figure 5**).

Humbert Street ends at the property line on the southwest side. There is an existing 300 mm PVC storm main stubbed into the property at the end of Humbert Street (see **Figure 5**). It connects to the 600 mm corrugated metal storm main on Oscar Street which conveys flows to the southeast and drains into the Illecillewaet River. The conveyance capacities and utilization rates of these mains are presently unknown.

The City's GIS indicates the Oscar Street 600 mm main reduces to 350 mm prior to the outfall. Under existing land uses, the Storm Water Master Plan (2016 SMWP) recommends upsizing the 350 mm portion to a 900 mm main (a 265 m segment) as modelling indicated the main will surcharge above ground in minor events. The 2016 SWMP recommends more detailed modelling to confirm the suitability of the 900 mm main.

5.2 GEOTECHNICAL & ENVIRONMENTAL

Calibre Geotechnical Engineering's 2019 report (Calibre 2019) indicates Oscar Lands is suitable for infiltration; conditional to the removal of all topsoil, fill, and silt to expose the underlying sandy gravel layer. Calibre 2019 suggests roof drains can connect to rock pits and drywells or release onto splashpads or landscaped areas.

Section 11A.14.12 of the City's Zoning Bylaw No. 2299 (Zoning Bylaw) requires all areas not covered by impervious structures to be landscaped. Topsoil reuse on landscaping is acceptable, although it may reduce infiltration rates. A geotechnical engineer should review and comment on the infiltration capacity of landscaped areas since the landscaping lot coverage may be significant.

As per Calibre 2019, the winter site investigation completed in February 2019 discovered groundwater at a 2.45 m depth in five out of seven test pits. Groundwater was not encountered in the two test pits along the southwest property line, although they were terminated at depths of 1.2 m due to sloughing. The northeast half of Oscar Lands was not examined at all. Additional geotechnical investigations of the whole site will be necessary to support the development of conceptual designs. Preferably, such investigations will monitor conditions at various times of year due to the potential influence of the season and recent rainfall on the depth-to-groundwater.

Further to groundwater, the 2009 Form E – Preliminary Determination by the Ministry of Environment (now the Ministry of Environment and Climate Change Strategy, MOECCS) provides a list of the metals present in the groundwater and soils. The site was deemed uncontaminated in 2009. In 2018, Lakeshore Environmental Ltd. (Lakeshore) conducted a site visit and reviewed the Stage II investigation completed by AMEC Earth and Environmental in 2007. Lakeshore observed no areas of potential environmental concern during their site visit or review of the Stage II sampling work.

Lakeshore described the site in 2018 as previously wooded and currently vegetated with grasses and small shrubs. An old dirt road was also noted in the southern portion of the property. To characterise the runoff from the 4.76ha site, the following development scenarios are proposed:

- 1) Historic conditions (wooded lot),
- 2) Current conditions (pre-development grass and shrubbery), and
- 3) Future conditions (post-development with new impervious area and landscaping; not inclusive of detention/retention structures).

For these three scenarios, Urban Systems used PCSWMM to develop preliminary estimates of the runoff depths and flowrates that correspond to the historical and climate change (CC) storms for both the 5-year and 100-year recurrence intervals. The historical values are based on the 2007 Intensity Duration Frequency (IDF) curves included in standard drawing COR-S21. The future values are based on scaling the historical values with the Clausius-Clapeyron equation. This method suggests a 37% increase in precipitation intensity in the final 30 years of the century compared to 2007 levels based on data retrieved from the Canadian Climate Atlas. See Table 3 for the results of this analysis.

Table 3: Preliminary Stormwater Precipitation, Runoff Depth, and Flowrate Estimates

Storm Description ¹	Precipitation (mm)	Runoff Depth and Flowrate Units	Development Scenario		
			Historic	Current	Future (no attenuation) ²
5-yr Historical Storm	38.76	mm L/s/ha	1.94 8.3	1.94 8.3	27.27 87.2
5-yr CC Storm	53.09	mm L/s/ha	2.66 10.6	2.66 10.6	37.36 126.2
100-yr Historical Storm	61.06	mm L/s/ha	3.05 14.0	3.06 14.0	43.17 160.3
100-yr CC Storm	83.62	mm L/s/ha	4.19 18.4	5.47 34.6	60.41 259.8

1. To test the impact of partially saturated soils, a 2-year storm was simulated 24 hours before the above four storm in all three scenarios.
2. The values in Table 3 reflect a “do nothing” approach for the future scenario and do not include the effects of stormwater conveyance infrastructure or detention/retention structures.

Comparing the future scenario runoff values to the historic and current scenario runoff values highlights the need for detention/retention structures. The property in its undeveloped state is not expected to produce significant runoff, including in higher magnitude storms. To match this pre-development runoff, the post-development infrastructure will need to attenuate the majority of the runoff, depending on the desired level of service. Urban Systems can refine the above development scenarios and climate change considerations based on the City’s input.

The current SDS Bylaw does not provide guidance on a climate change allowance for rainfall projections. The 2016 SWMP suggested a 20% allowance which was not adopted in the SDS Bylaw. Common practice has since advanced from providing standardized percent increases for precipitation values and has instead adopted the use of scaling methods such as the Clausius-Clapeyron equation or the use of tools such as the University of Western Ontario’s (UWO) “IDF_CC Web-based Tool for Updating Intensity-Duration-Frequency Curves to Changing Climate.” Comparisons of UWO’s tool and the Clausius-Clapeyron equation yielded similar percentage increases for the 100-year storm. A 37% increase on the SDS Bylaw’s 2007 IDF curves was used for both the 5-year and 100-year climate change storms. However, the SDS Bylaw’s IDF curve does not provide information about its data source; if this was originally based on data older than 2007, the climate change increase could correspondingly be higher than 37%. A detailed review of IDF curves and climate change projections prior to detailed design is recommended to establish future design criteria and/or updated City IDF curves.

5.3 BUILDING DRAINAGE

The City’s SDS Bylaw permits roof leaders to discharge to splashpads or ground unless a geotechnical engineer advises against this practice. It does not permit their discharge to driveways draining to any City right-of-way.

The SDS Bylaw specifies minimum grades to direct flows to minor and major systems. Driveways are to drain to the street frontage, and grading directly adjacent to buildings must convey flows away from the foundations. Where drainage would cross lot lines, redirect flows from private property with swales or other methods. Knowledge sharing regarding any planned downstream drainage improvements would assist Urban Systems in providing comment on the potential impacts of proposed upstream drainage regime changes on Oscar Lands.

5.4 SITE SERVICING CONSIDERATIONS

5.4.1 Water Quantity

One of the directives for the 2016 SWMP was to recognize stormwater as a resource. Section 5.8.2.1 of the 2016 SWMP includes low-impact development techniques for utilizing and managing stormwater via source/conveyance control. With resourcefulness in mind, prescriptions for stormwater volumes should prioritise re-use and recharge, limit retention storage, and minimize disposal. Such stormwater prescriptions could include the following:

- 1) Re-use in irrigation of landscaped areas – Green rooftop technology can help reduce runoff through plant evapotranspiration. Temporary roof and parking storage could reduce dedicated onsite storage volumes by draining into adjacent garden beds. Other possible applications which may not be locally suitable could include cooling tower replenishment and detention in thermal batteries.
- 2) Retention and detention – The low-lying area in the south corner of the site could be considered for bioswales, vegetated filter strips, ponds, and naturally vegetated areas. Providing greenspace and preserving naturalized areas on the site can help serve the Official Community Plan's Community Goals for Healthy Ecosystems by providing access to nature and improving wildlife corridor connectivity. The northeast half of the Oscar Lands parcel is depicted as containing a wildlife corridor in Drawing 3 of the 2016 SWMP. For any implementations that provide permanent storage, they are to be owned and operated by the City and sized as per the SDS Bylaw.
- 3) Infiltration for groundwater recharge – The SDS Bylaw requires groundwater recharge to be utilised as much as possible. Infrastructure such as permeable driveways, catch basins to drywells with perforated pipes, and roof leaders to rock pits can increase recharge volumes.
- 4) Disposal – Discharge to municipal systems can be achieved with manhole/drywell overflow to storm mains and piped conveyance to existing drainage ditches. Conveyance infrastructure to move flows off site can form the last line of defence for any volumes that onsite implements cannot utilize.

The effective impervious area contributing to city infrastructure can be reduced by diverting the runoff generated by onsite impervious areas, such as roofs and driveways, to the re-use and recharge implements listed above in items 1-3. In the case of roofs, their runoff can be directed to splashpads, rainwater tanks, landscaped areas, or rock pits. The City may want to consider minimizing reliance on residential rock pits to limit long-term maintenance requirements.

5.4.2 Water Quality

Section 3.2 of the SDS Bylaw specifies that all flows up to half of the two-year storm at a one-hour duration must be treated. Appropriate treatment must utilize best management practices for the removal of suspended solids and floatables. Any such facility must have appropriate access for maintenance activities. The allowable discharge criteria are listed in Schedule A of the City of Revelstoke Sewer Regulations Bylaw #1683 (Sewer Bylaw).

The SDS Bylaw reference to the Sewer Bylaw implies that treatment must be provided before discharge to the municipal sewer. Treatment should be situated upstream of drywells to protect aquifers and groundwater from parking lot contaminants such as metals and hydrocarbons. Treatment should be situated upstream of any surface detention structures, such as wet ponds, that will discharge to municipal overland drainage routes (i.e., the drainage ditch on the northeast corner of the site). Finally, treatment should be planned for and evaluated specific to any capture to re-use implementations, such as roof leaders to rainwater tanks.

It is important to treat stormwater onsite prior to discharge because Revelstoke's storm infrastructure conveys several tributaries that are not affected by upslope development (see Section 5.5 of the 2016 SWMP). Urban runoff is added to "clean" upslope runoff. Treatment at outfalls would have to treat larger volumes than necessary. Onsite treatment at required sites more effectively targets flows requiring treatment.

The 2016 SWMP includes a map of the TSS concentrations expected under existing runoff conditions for different areas of the City (see Drawing 5A). Under 2016 conditions, TSS concentrations >110 mg/L are expected on the southwest half of the parcel and concentrations of 70-80 mg/L on the northeast half. TSS concentrations are expected to increase during construction activities (reference Table 7-2 of the 2011 City of Calgary Stormwater Management Design Manual 2011 for an example of active development concentration increases). Erosion and sedimentation control measures, as described in the SDS Bylaw, should be utilized to help protect receiving water bodies from mobilized soil during construction activities. This is particularly relevant for Oscar Lands given the proximity of the Illecillewaet River.

The SDS Bylaw specifies that peak flow attenuation should be designed to limit downstream impacts by controlling peak flow rates and volumes. Discharging near any erosion-prone areas should be avoided.

5.5 SITE DRAINAGE

Several options for the discharge of stormwater from Oscar Lands are detailed below. The conveyance capacity and current utilization of the existing assets at the potential tie-in points are unknown. A capacity assessment is outside the scope of the present work. Urban Systems will provide comment on the expected runoff increase from pre-development to post-development conditions.

5.5.1 Minor and Major System Considerations

For the minor system, three potential connection and outlet points to the broader City stormwater system include:

- 1) The 300 mm PVC stormwater main stubbed at the southwest property line.
- 2) The 300 mm PVC stormwater main on Oscar Rd to the southeast of Oscar Lands.
- 3) The drainage ditch to the north and northeast of Oscar Lands. The existing ditch does not appear to have much capacity and it currently has a power pole situated in it. Regrading along Powerhouse Rd should be expected.

For the major system, overland flow routes could include:

- 1) The top of Edward St and Humbert St onto Oscar St. There is no defined ditch down Oscar St towards the river. Offsite improvement should be expected as overflow onto the road as-is will impact properties.
- 2) Powerhouse Rd and the drainage ditch to the north and northeast of Oscar Lands. The drainage ditch is likely to overflow onto Powerhouse Rd (see minor system comments above).

In a future minor system, uncaptured runoff from the lot frontages (driveways, front yards) are likely to drain to the street and either flow southwest to Oscar St in Option 1 and 2 (see Section 2.3.1 or 2.3.2) or northeast to Powerhouse Rd in Option 2 (see Section 2.3.2).

Uncaptured runoff from the rear of the lots (roofs, backyard) are likely to drain to the drainage swale to the northeast in Option 1, east in Option 2, or onto Oscar St next to 1016 Oscar St. This will depend on whether the low-lying end of Oscar Lands is regraded. A gentle prominence currently constrains flow paths to contribute to

either the northeast or southwest halves of the parcel and ultimately to the east and south corners (see Figure 4 in Section 5.0).

5.5.2 SDS Bylaw Requirements for Minor and Major System Components

The SDS Bylaw specifies, but is not limited to, the following:

- 1) In minor storms
 - a. Mains to be free flowing and at least 250mm in size. If recharge capacity is greater than 50% or required conveyance, mains still need to be sized for 50%.
 - b. Drainage ditches to provide 0.3m of freeboard and erosion protection.
 - c. Side-inlet catch basins on all curbed roads.
 - d. Manholes located at all catch basins connections, corners, pipe size changes, and outfalls.
 - e. Ponding at catch basins in road sags to be 150mm or less with no curb overtopping.
- 2) In major storms
 - a. Road ponding must not exceed 0.3m.
 - b. Road sags must outlet to an overland flow route able to safely convey the received flows.
 - c. Outfalls to water courses (such as the Illecillewaet River) require MOECCS approval.

DATE: January 18, 2024

PAGE: 20 of 20

SUBJECT: Oscar Lands Master Plan: Transportation and Servicing Strategy Memorandum

6.0 RECOMMENDATIONS & NEXT STEPS

This memo summarizes preliminary servicing and transportation analysis and recommended servicing strategies in relation to the proposed buildout of the Oscar Lands site. The information presented in this memo provides a baseline to further refine as final concept plans for the site are produced that will inform and support further planning and design stages.

We look forward to discussing this memo at your convenience and finalizing the servicing analysis and strategy with your feedback and input.

Sincerely,

URBAN SYSTEMS LTD.

Dan Penner
Community Planner and Partner

/j/l/js/jb
Enclosure

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Appendix B - Public Engagement Summary Report

DATE: November 2, 2023

TO: Paul Simon, Planning and Development Services Lead, City of Revelstoke

SUBJECT: Oscar Lands Master Plan Public Engagement Summary Memo

1.0 OSCAR LANDS PUBLIC AND STAKEHOLDER ENGAGEMENT SUMMARY

Urban Systems (Urban) is supporting the City of Revelstoke (City) on developing a Master Plan for the Oscar Lands site to guide future development and build out of the site. As part of the planning process, community engagement was included to provide opportunities for key stakeholders and the broader community to learn about the project and provide informed feedback needed to support the planning and design process of the Oscar Lands. This included the development and release of a community survey (online and hard copy) and completion of a series of engagement activities completed over the course of one day (engagement-in-a-day).

In total, over 275 participants provided input into the project through the community survey and engagement-in-a-day activities. The following memorandum summarizes the results of the engagement activities and key themes derived from communication with stakeholders and members of the public.

2.0 ENGAGEMENT IN A DAY SUMMARY

On October 26, 2023, the Urban Systems Project Team travelled to the City of Revelstoke to engage with the community, key stakeholders, and City staff on the Oscar Lands Master Plan. The engagement activities that took place included an open house, two (2) stakeholder meetings, and pop-up booth.

POP-UP BOOTH

From 9:00am to 4:00pm, a pop-up booth was arranged in the lobby of the Save-On-Foods Grocery Store at 555 Victoria Road. Urban Systems staff present at the pop-up booth engaged with approximately 40 people. The pop-up booth provided members of the public with the opportunity to comment on ideas for the Oscar Lands Master Plan including themes such as housing typology, tenure, and other potential uses of the Oscar Lands site.



What We Learned

The results of the pop-up booth engagement are summarized below:

Residents had a positive response to several aspects of the Oscar Lands Master Plan including:

- Positive responses to the potential for affordable housing development.
- Positive responses to the variety of housing proposed and the potential to include mixed-use development.
- Positive responses to the location of the proposed development and use of City lands to increase housing opportunities in the City.

Conversely, residents expressed some concerns regarding the Oscar Lands Master Plan including:

- The potential negative impact on wildlife and environmental protection
- The Oscar Lands' proximity to the adjacent wastewater treatment facility and nuisance impacts to future residents.
- The current lack of transportation connectivity and need to connect the Oscar Lands to active transportation networks. It was noted that the city should move away from vehicle use and support greater transportation connectivity.
- Concerns regarding access to daily needs such as grocery stores and medical offices.

One resident noted their connection to Oscar Street having previously lived close to the Oscar Lands site. The resident highlighted the importance of undertaking a Master Plan on city-owned lands for the purpose of creating more affordable housing. Other residents noted the extent of existing housing development around the site as a positive factor for further developing the Oscar Lands to providing more housing opportunity and choice. One elderly resident showed concern for connectivity of the site to grocery stores and other key amenities.

STAKEHOLDER MEETINGS

From 10:00am to 3:00pm, the Project Team undertook two stakeholder meeting sessions with developers and builders, local realtors, and members of the City of Revelstoke Community Housing Society. A total of 13 participants were engaged in the stakeholder meetings at the Revelstoke Community Centre.

What We Learned

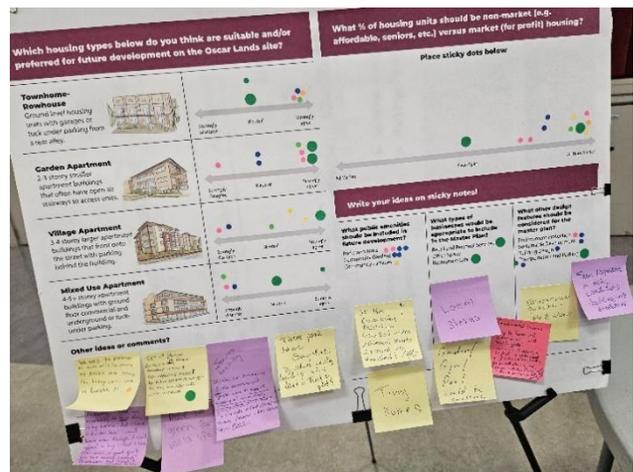
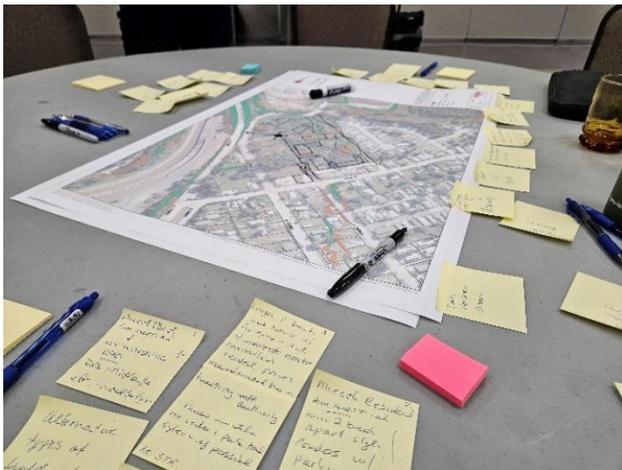
The stakeholder discussion was similar in both meeting sessions. Below is a high-level summary of key themes that emerged from the stakeholder meetings.

- Generally, want to have buildings no more than 4-5 storeys high on the parcel.
 - Operating buildings / developments in Revelstoke is costly (closest elevator maintenance company is based in Kamloops).
 - Community is not ready for high-rise and high-density developments.
 - Local fire equipment cannot service buildings higher than 4-5 storeys currently.
- Would like to see a mix of market housing developed on the site.
 - Middle-income housing, below-market housing, seniors, etc.
 - Desire for market-controlled housing but would require housing authority.
- Commercial services and amenities are desired to support the neighbourhood.

- Ensure building and development aesthetics align with the surrounding neighbourhood.
- Concerns related to traffic around the site:
 - Current issues include high speeds on Edwards / Powerhouse.
 - Traffic volumes are expected to increase on all adjacent streets which highlights need for traffic calming, improved active transportation facilities, and potentially improved traffic control.
 - Notably, Humbert Street needs active transportation facilities.

OPEN HOUSE

From 5:00pm to 8:00pm, the Project Team held an Open House at the Revelstoke Community Centre to further engage with members of the public on the Oscar Lands Master Plan. The open house provided an opportunity for attendees to sketch and envision what potential development on the Oscar Lands site might include regarding building orientation, housing typology, traffic flow, and connection to transit and public amenities. Approximately 20 residents attended the open house.



What We Learned

Below is a high-level summary of key themes that emerged from the open house:

- General support from attendees on the use of the Oscar Lands site for predominately non-market housing
- A mix of housing types, tenures, densities, and heights was supported to ensure development is not uniform
- Push higher density buildings to back (north) portions of the site away from existing residential areas
- Integrate commercial uses that are active and create a sense of community (e.g. cafes, neighbourhood retail, restaurants, etc.)
- Integration of trails and park/open spaces critical to support higher densities
- General concerns or considerations to include in future planning include:
 - Ensuring adequate space for snow removal
 - Preserving natural areas and ensuring buffer spaces between development and existing adjacent residential areas
 - Ensuring the transportation network will be able to accommodate additional traffic resulting from development

- Maximize solar exposure through building orientation on the site
- Avoid or be aware of community perceptions of the site as being strictly “low-income” or social housing.

3.0 COMMUNITY SURVEY

An Oscar Lands Master Plan Community Survey was available to the public between October 18th and October 31st, 2023. The survey was designed to ask participants key questions about the Master Plan including topics such as preferred, residential building types, building heights, housing tenure and affordability, commercial uses and amenities. Participants completed the survey online, using the platform SurveyMonkey. A link to the survey was available on the project website: <https://talkrevelstoke.ca/oscar-street-master-plan>. Hard copies were also available at the in-person pop-up booth and open house.

What We Learned

The following is a summary of the results of the engagement survey, organized by question theme:

Residential Building Types

- The majority of survey respondents (49%) identified Village Cluster housing (3-4 storey apartment) as being appropriate for the Oscar Lands site.

Village Cluster Housing



- 48% of survey respondents selected townhouses and row housing as being preferred for the site.

Townhouses and Row Housing



- 46% of survey respondents identified garden apartments (2-3 storey) as being appropriate for the site.

Garden Apartments



- 38% of survey respondents selected mixed-use apartments as being appropriate for the site.

Mixed-Use Apartments



- 11% of survey respondents selected “other” housing. Survey respondents that selected “other” housing offered tiny homes or seniors-specific housing as a potential appropriate building type for the site.

Residential Building Heights

- Most survey respondents (62%) identified that residential building heights ranging from 3 storeys to 4 storeys would be most suitable for the site.
- 11% of respondents identified that residential building heights ranging from 1 to 2 storeys would be most suitable for the site.
- 23% of respondents identified that residential building heights up to 5 or more storeys would be most suitable for the site.

Housing Affordability

- On average, survey takers identified that about 64% of new housing on the Oscar Lands site should be non-market (e.g. affordable, seniors housing).

Commercial Uses

- Many respondents prioritized affordable housing over commercial spaces due to housing shortages in Revelstoke.
- Food and Beverage: Requests for coffee shops, cafes, grocery stores, restaurants, and convenience stores.
- Service Businesses: Suggestions for medical clinics, daycare centers, barbershops, and various health and wellness services.
- Community Amenities: Ideas for community-oriented spaces such as gyms, bookstores, gathering places.
- Office and Practitioner Spaces: Mention of office and service-oriented business spaces, including medical, legal, and counseling services.
- Mixed-Use: Some respondents suggested a mix of residential and commercial spaces to create a neighborhood hub.
- Local and Small Businesses: Some survey respondents showed a preference for locally owned and non-chain businesses to support the community.

Public Amenities

- Green Spaces and Parks: Many respondents emphasized the need for green spaces, parks, and playgrounds to provide recreational opportunities and a natural environment for the existing neighbourhood around the site.
- Outdoor Facilities and Park Uses: Suggestions for outdoor amenities such as sports complexes, skate parks, bike paths, walking trails, and dog parks.
- Community Gardens: Several respondents mentioned the importance of community gardens for gardening and local food production.
- Public Facilities: Requests for public washrooms, public plaza or performance space, public library spaces, and covered bike parking.
- Infrastructure and Utilities: Suggestions for upgrading the adjacent sewage treatment plant or providing more space for storage and parking.
- Housing: A few respondents indicated the need to prioritize housing without additional amenities.
- Sustainability: Some respondents mentioned the need for sustainability features such as green energy generation and low impact development.
- Cultural and Social Spaces: Ideas for gathering places, murals, art installations, and community event.

General Comments or Feedback Regarding the Oscar Lands Master Plan

- **Concerns about Sewage and Odor:** Many respondents expressed concerns about the adjacent sewage treatment plant's impact on the area and the odor it produces, suggesting that addressing this issue is essential before further development.
- **Affordable Housing:** There's a strong emphasis on the need for affordable housing to address the housing crisis in Revelstoke. Respondents emphasized the need for housing options specifically for local residents and workers.
- **Traffic and Parking:** Several respondents raised concerns about traffic congestion and parking issues in the area. They emphasized the need to plan for increased traffic due to the new development.
- **Green Spaces:** Some respondents stressed the importance of preserving the Oscar Lands as a green space, while others mentioned the need for amenities like a dog park.
- **High-Density Development:** Many respondents advocated for high-density development to maximize housing units and promote affordability. Respondents also mentioned the importance of minimizing the reliance on personal vehicles.
- **Connectivity and Pedestrian-Friendly Infrastructure:** Suggestions were made to create pedestrian-friendly roads and pathways that connect the new development to the rest of the community.
- **Non-Market Housing:** Some respondents recommended a mix of non-market and market housing, with controlled resale pricing to benefit the City of Revelstoke.
- **Infrastructure Upgrades:** Infrastructure upgrades, such as an improved sewage treatment system was seen as necessary to support the new housing development.
- **Commercial Space:** A few respondents mentioned the potential for commercial spaces outside the downtown core on the Oscar Lands.
- **Environmental Considerations:** Environmental concerns included terrain and sun direction for building units, the need for an environmental study due to the presence of river rocks, and considerations of Indigenous archaeological discovery.

Demographics

- 70% of the survey respondents are aged between 25 to 44, only a small portion of the survey respondents were under the age of 18 or over the age of 65.
- More than half of the survey respondents were female, while under 40% were male.
- Most survey respondents indicated that they live within the South Revelstoke neighbourhood. Other neighbourhoods in which respondents reside in include Arrow Heights, Big Eddy, Central Revelstoke, and Columbia Park. Only a small percentage of survey respondents resided within the Highway Corridor and Johnson Heights neighbourhoods.

URBAN SYSTEMS MEMORANDUM

DATE: November 2, 2023

FILE: 0543.0095.01

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SUBJECT: Oscar Lands Master Plan Public Engagement Summary Memo

- Most survey respondents indicated that they live in Revelstoke full-time (year-round), while only 1% of respondents indicated that they live in Revelstoke on a part-time (seasonal) basis.

A sample of verbatim comments from the community survey is provided below:

- "A mixture of housing types, everything but single family"
- "Low income and affordable housing"
- "As much local / worker housing as possible in high density"
- "Leave it as a forest until sewer lagoon is fixed/upgraded"
- "Meet the needs of residents - groceries, drugstore"
- "It's a hard part of town to have coffee shops, restaurants or stores but this town needs more shop space for small businesses. But before talking about businesses, affordable housing is so much more important at this time!"
- "Would rather see this as strictly residential space, given the current lack of affordable housing that we are seeing in our community."
- "All housing. We need affordable housing. No commercial. Maybe upgrade and improve sewer lagoon to accommodate growth of community."
- "Small park, tennis or basketball court or fenced off leash dog park"
- "Green space, park area for children, good walking paths, adequate parking"
- "Public park/parkette, dog park, benches, murals, art installations, a public greenhouse"
- "Consideration for sewage proximity."
- "Traffic patterns!! The road system doesn't support high density development."
- "Active transport routes to school, work, downtown shopping. recreational routes to the greenbelt and arena."

Sincerely,

URBAN SYSTEMS LTD.

Alexandra Labuda, Community Planner, USL

Dan Penner, Community Planner, USL