City of Kelowna
Regular Council Meeting
AGENDA

Monday, November 23, 2020
9:00 am
Council Chamber
City Hall, 1435 Water Street

Pages

1. Call to Order

2. Confirmation of Minutes 3 - 4

Regular AM Meeting - November 16, 2020

3. Reports

3.1. Draft 2040 Official Community Plan - Urban Centre and Core Area Directions 60 m 5 - 293

To provide Council with a three-part report series that summarizes the key policy directions signaled in the draft 2040 Official Community Plan. This first report focuses on content with respect to the five Urban Centres and the Core Area.

3.2. 10-Year Capital Plan (2020 to 2029) 60 m 294 - 459

To provide Council with the 10-Year Capital Plan for their review and direction prior to endorsement.

4. Resolution Closing the Meeting to the Public

THAT this meeting be closed to the public pursuant to Sections 90(1)(c)(e)(f) and (2)(b) of the Community Charter for Council to deal with matters relating to the following:

- Labour Relations
- Land Disposition
- Law Enforcement
- Confidential Information from the Province

5. Adjourn to Closed Session

6. Reconvene to Open Session

7. Issues Arising from Correspondence & Community Concerns

7.1. Mayor Basran, re: Issues Arising from Correspondence 30 m

8. Termination

City of Kelowna
Regular Council Meeting
Minutes

Date:	Monday, November 16, 2020
Location:	Council Chamber City Hall, 1435 Water Street
Members Present	Mayor Colin Basran, Councillors Maxine DeHart, Ryan Donn, Gail Given, Brad Sieben, Mohini Singh and Luke Stack
Members participating remotely	Councillors Charlie Hodge and Loyal Wooldridge
Staff Present	City Manager, Doug Gilchrist; City Clerk, Stephen Fleming

(*Denotes partial attendance)

1. Call to Order

Mayor Basran called the meeting to order at 10:40 a.m.

2. Confirmation of Minutes

Moved By Councillor Donn/Seconded By Councillor Given

R0725/20/11/16 THAT the Minutes of the Regular AM Meeting of November 9, 2020 be confirmed as circulated.

Carried

3. Resolution Closing the Meeting to the Public

Moved By Councillor Hodge/Seconded By Councillor Singh

R0726/20/11/16 THAT this meeting be closed to the public pursuant to Sections 90(1)(c)(f) and (2)(b) of the Community Charter for Council to deal with matters relating to the following:

- Labour Relations
- Law Enforcement
- Confidential Information from the Province

Carried

4. Adjourn to Closed Session

The meeting adjourned to a closed session at 10:40 a.m.

DRAFT

5. Reconvene to Open Session

The meeting reconvened to an open session at 11:54 a.m.

6. Issues Arising from Correspondence & Community Concerns

There were no issues arising.

7. Termination

The meeting was declared terminated at 11:54 a.m.

Mayor Basran

City Clerk

sf/acm

DRAFT

Report to Council

Date: November 23, 2020

To: Council

From: City Manager

Subject: Draft 2040 Official Community Plan Part 1: Urban Centre and Core Area Directions

Department: Policy and Planning

Recommendation:
THAT Council receive, for information, the report from Policy and Planning dated November 23, 2020 with respect to the Urban Centre and Core Area directions (Part 1) of the draft 2040 Official Community Plan.

Purpose:
To provide Council with part one of a three-part report series that summarizes the key policy directions signaled in the draft 2040 Official Community Plan. This first report focuses on content with respect to the five Urban Centres and the Core Area.

Background:
Our social, economic, and environmental landscapes are shifting. Forty years ago, Kelowna was a city that approximately 59,000 people called home. Today, Kelowna's population has more than doubled, and is now home to 138,500 residents. Over the next 20 years, we expect to add 45,000 new people, elevating the need for more affordable and suitable housing. These shifts will impact how we design, build, live and play in our city in the years to come – and while the direction of these trends is predictable, their community effects and the associated City response remain uncertain. As such, taking action now to prepare for these shifts, like moving away from sprawling suburban neighborhoods and concentrating investment into five densified urban centres, will facilitate proactive preparedness, while enabling effective and context sensitive responses to emerging needs.

The draft 2040 OCP is an outcome-oriented document that aims to make a tangible, positive difference to the lives of current and future residents. As the world changes around us, and as our own community evolves, an adaptive OCP will allow the City to respond to emerging realities in nimble and sensitive ways. In developing the Imagine Kelowna vision, the community expressed aspirations for their city where natural assets are protected, economic opportunities are fostered, agricultural roots are protected, and where human connection is celebrated by fostering an inclusive and diverse community. Planning for this type of future requires strategic direction. This draft Plan honours Kelowna's history, embeds our community's aspirations and commits to shaping a new future together to balance its ambitions for responsible stewardship and ongoing transformation.

Discussion:
The 2040 OCP provides strategic direction for the future and is the roadmap to building our city in the decades to come. This Plan is built upon the aspirations and ideas of our community through extensive public engagement, technical studies, modelling data and professional review. It is also the first OCP in Kelowna that has been developed in tandem with an updated Transportation Master Plan and infrastructure plan to optimize land use, transportation and servicing synergies. Together with these other plans, the OCP frames the choices we need to make to achieve a healthier, more urban and climate resilient city that supports regional prosperity.

Draft OCP Launch Strategy
The draft 2040 OCP is a master plan level document that covers a wide range of land use topics across the entire city. As such, the breadth of content is vast and expansive. For it to be absorbed in right-sized pieces, staff have endeavored to break down this content volume into a series of reports as follows:

- This first report focuses on policy direction exclusive to Urban Centres and the Core Area. Principal topics include policies relating to urban housing, infill, employment, and corresponding infrastructure;
- The second report will focus on the remaining Districts – Rural Lands, Suburban Neighbourhoods and Gateway. This report will provide an overview of City-wide policy direction that applies to the topics of natural environment, climate change, transportation, parks and public spaces, and infrastructure;
- The third report will be a summary report compiling and unveiling all of the themes to launch the next phase of public engagement. Notably, this report will also share the online structure of the 2040 OCP, which is the first City's Master Plan document designed to be an online-first user experience with accompanying mapping tools. Community and stakeholder engagement will begin shortly after this series of reports is presented.

Staff's efforts on the look and feel of the Plan will prioritize the online version, giving the document a simple and clear design. Staff will provide Council with a demonstration of the online draft OCP interactive content at an upcoming Council meeting. A print version will still be available, but this will not be the primary form of the document for use (Attachment 1).

Draft 2040 Official Community Plan Structure
As noted above, the update to the OCP has resulted in both a new approach and structure to respond to the evolving complexities of growth management. This modernized approach aims to accomplish the following:

- Bundle policy direction that is specific and focused for each of the five Growth Strategy Districts, where unique context and conditions are considered. This allows users to easily navigate pertinent policies in one area when deliberating on project proposals.
- Guide the user from the high-level overarching growth strategy, to the more detailed objectives and policies and, lastly, into the fine-grained development permit guidelines. This helps users understand both the directions that are in the plan as well as what they are trying to accomplish.
- Update and revise the Future Land Use designations to correspond with each Growth District. This approach is less prescriptive, which allows greater flexibility, recognizing that the OCP's

vision can best be achieved by signaling the character of different types of neighbourhoods rather than speaking to specific land uses in many cases.

The 2040 OCP contains a number of components that will help to guide Kelowna's future growth and change. They are founded on 10 Pillars that include bold and transformative shifts for the community. The 10 Pillars are as outlined in Figure 1.

Figure 1: 2040 Official Community Plan Pillars

The draft 2040 OCP is organized as outlined below:

- ***The Big Picture****:* Introduces the Plan, focusing on the Growth Strategy, the OCP Pillars and how the OCP speaks to Imagine Kelowna. The Pillars serve as the building blocks of the Plan direction.
- ***Planning Context****:* Provides the community's history, population, housing, commercial and industrial projections and major trends influencing the anticipated growth of Kelowna.
- ***Future Land Use****:* Outlines the definitions for each of the Future Land Use designations and the accompanying Future Land Use map. The Future Land Use Map forms part of the system to manage growth and align land use policy and growth priorities to other system enhancements such as infrastructure, transportation and other city systems. These land uses are summarized in Attachments 2 and 3.
- ***District Based Directions****:* Provides district-specific objectives and policies that speak to land use, housing, the public realm, transportation and culture in each of the five Growth Strategy districts.
- ***City-Wide Directions***: Spanning numerous topic areas, this content applies across all of the Growth Districts to accomplish community and Council goals of creating a healthy city by

building complete communities, promoting equity and inclusion, enhancing climate resilience, and fostering regional prosperity.

- ***Making the Plan Work:*** A customized implementation strategy that articulates how the goals, objectives and performance measures will be monitored, evaluated and adjusted over time.
- ***Development Permit Guidelines:*** The DP Guidelines span multiple topics, and provide the translation of objectives into deliverables that will guide the physical design of Kelowna's urban form, density, physical image and identity.
- ***Definitions:*** Provides an inventory of all of the glossary and defined terms.

Policy Direction: The Urban Centres and Core Area Districts

Together, the Urban Centres and the Core Area districts make up the area that is targeted for the most future growth in the draft 2040 OCP. These two districts are expected to absorb approximately 73% of the city's residential growth and much of its employment growth. This growth will take place through redevelopment and infill, increasing the overall population and employment density. Accommodating this growth requires specific and targeted policies to ensure that this change can be managed in a way that fulfills the Imagine Kelowna vision.

1. **Urban Centres**

   Urban Centres are identified as the major hubs of activity in the city. They are targeted to accommodate approximately 48% of Kelowna's residential growth and continue to be the largest centres for employment and shopping. Most of the land area in Urban Centres is designated *UC: Urban Centre,* which signals high density mixed-use development as outlined in *Chapter 3: Future Land Use*. While this Future Land Use designation is broad and covers several possible uses, it is guided further by policy direction in the OCP and in some cases, more detailed Urban Centre Plans.

   Most policy direction for Urban Centres can be found in *Chapter 4: Urban Centres* in the draft 2040 OCP. While other chapters, such as *Chapter 10: Parks* and *Chapter 14: Natural Environment* have policies that apply to Urban Centres, Chapter 4 speaks directly to Urban Centres on topics such as land use, housing and transportation.

   The policy direction is intended largely to reinforce and build on the directions provided in the 2030 OCP and to encourage the most growth and development to 2040. The draft plan recognizes that each Urban Centre is unique and includes policies that are tailored to the distinct and unique conditions of each of the five Urban Centres. Such policy direction includes maximum building heights, mixed-use composition density targets, and in some Urban Centres, high streets, and appropriate locations for commercial retail at grade and mixed-use development. These policies are intended to provide high-level guidance for development in Urban Centres until such time as an Urban Centre Plan[1] is developed for each one. In the case of Capri Landmark, the draft Plan provides some general policy guidance, and refers the reader to the Capri Landmark Urban Centre Plan for finer grained planning direction.

[1] The draft Plan identifies the development of Urban Centre Plans for three Urban Centres to provide more detailed policy guidance: Rutland, Pandosy and Midtown in *Chapter 16: Making the Plan Work*.

In addition to the policy direction provided in the draft 2040 OCP, the *Form and Character Design Guidelines* (Chapter 18), will play a significant role in guiding how future development in Urban Centres will take shape over the next 20 years. These significantly overhauled Design Guidelines will elevate the caliber of urban design across all building forms, adding to the visual beautification of our streetscapes and enhancing livability and public realm experiences as the city densifies.

2. Residential Infill and Development in the Core Area

While the Urban Centres are expected to see the greatest amount of growth, the Core Area is signaled to accommodate residential growth as well to accommodate more housing variety throughout the city. This will be achieved through greater flexibility for mostly ground-oriented housing types considered in residential neighbourhoods.

Much of the Core Area is designated as Core Area Neighbourhood (C-NHD), which signals a more flexible approach to accommodating growth in existing low density residential neighbourhoods. The uses and forms supported in this Future Land Use designation, as outlined in *Chapter 3: Future Land Use*, are primarily ground oriented residential homes. Forms like single and semi-detached housing, fourplexes and rowhouses are therefore all uses that can be considered as part of a development application without an OCP amendment – as opposed to just exclusively single detached housing that is signaled in much of the Core Area today. C-NHD is not intended to phase out all single detached homes in these neighbourhoods; rather, it signals that other housing forms of a similar scale and orientation be considered as part of the neighbourhood, playing a large part in addressing the OCP Pillar of providing more housing diversity.

Within the context of this flexible approach in the C-NHD, more specific and detailed policy guidance is provided for the Abbott Street and Marshall Street Heritage Conservation Area (HCA). Specifically, the HCA is maintained in its current form and boundaries, and clear policy direction is provided that limits the range of development that would be considered within the conservation area to a range that is generally consistent with existing policy direction. That is to say that some small-scale infill – such as carriage homes, subdivisions, and two-dwelling development – is to be expected, but that larger redevelopments would be directed elsewhere. This policy direction is further reinforced by the maintenance of existing zoning in the area, which provides a relatively narrow range of permitted uses.

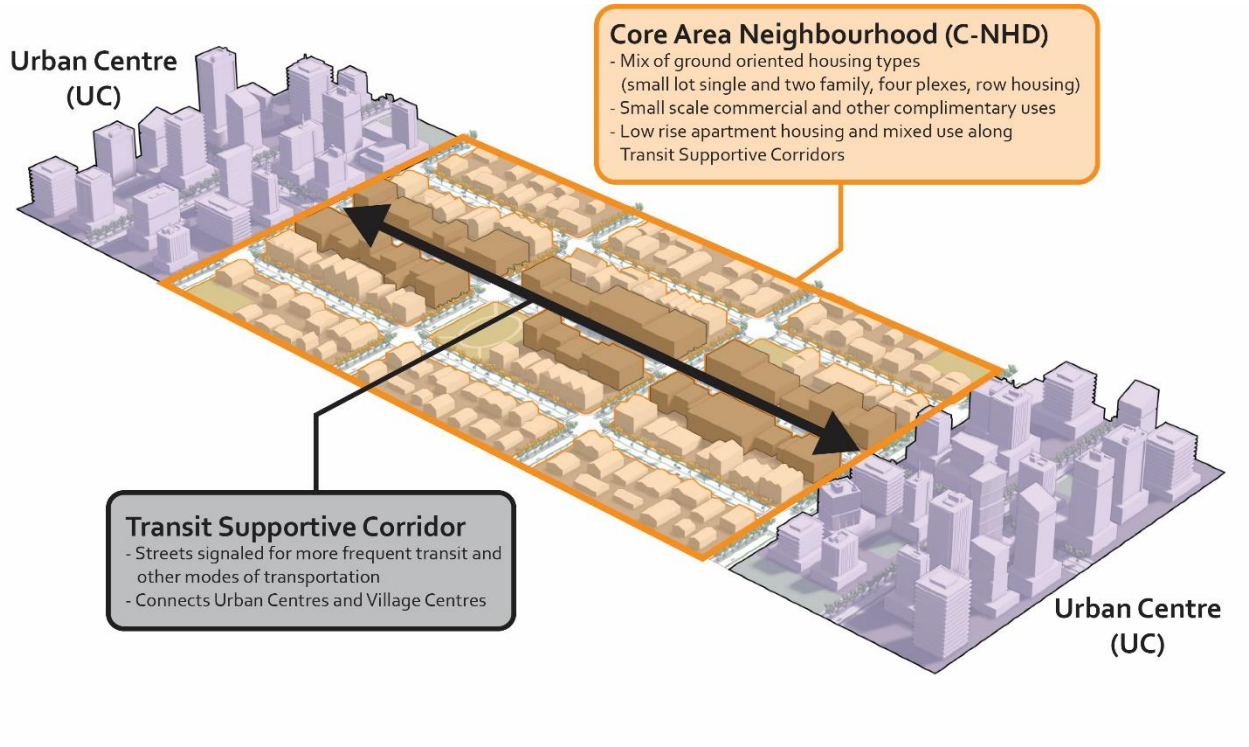
Transit Supportive Corridors

The identification of Transit Supportive Corridors formed part of the first draft of the Future Land Use Map in August 2019 and has been refined throughout the process. This is a big shift of this Plan's update, and optimizes land uses and transportation investments along key strategic locations.

The draft policy direction under Objective 5.2 makes clear that the intent of the Transit Supportive Corridors is to promote greater density and opportunities for mixed-use development on properties designated Core Area Neighbourhood and adjacent to the identified corridor. For a proposed project to be supported for these additional densities and uses, the property must front the street, creating the density and activity required to support greater transit use, while also respecting the character of the adjacent neighbourhood (see Figure 2).

The draft Plan recognizes that some Transit Supportive Corridors will require more detailed planning work that is beyond the scope of the 2040 OCP. As such, a land use and transportation planning study for the Pandosy and Richter Street corridors has been identified as an implementation action in *Chapter 16: Making the Plan Work.*

Figure 2: Transit Supportive Corridor Concept



As outlined in previous reports to Council, Village Centres in the Core Area act as the secondary hubs of activity in the Core Area, focusing mixed use commercial and residential uses into strategically located nodes along key transportation corridors. Policy direction for the Glenmore, Guisachan, Cook/Truswell and Lakeshore Village Centres can be found under Objective 5.1 in the draft plan.

3. **Industrial and Regional Commercial Lands**

The draft policy that speaks to industrial lands, covered primarily in Objective 5.7, focuses primarily on protecting the industrial base in the Core Area from erosion by other uses, particularly commercial, residential and mixed-use development. However, this policy guidance does seek to encourage more employment intensive industrial uses, aiming to increase the overall employment density in the Core Area.

The draft Plan recognizes that some industrial lands will need more refined directions and land use consideration beyond the scope of the OCP. As such, *Chapter 16: Making the Plan Work*, identifies a neighbourhood planning exercise for the North End Industrial Lands just north of Downtown and a land use planning exercise along the Okanagan Rail Trail corridor, both of which contain significant industrial lands. These two initiatives would take place as Implementation Actions following adoption of the 2040 OCP.

Regional Commercial lands accommodate the large format retail and commercial uses that are expected to be more commonly accessed by car over the 20-year life of this Plan. While many areas in the City are strategically targeted to redevelop into higher density mixed use neighbourhoods, the Regional Commercial lands (for the 20-year life of the 2040 OCP), are intended to continue to capture the growth of larger format commercial and service commercial uses.

Objective 5.5 outlines more detailed policy guidance for Regional Commercial lands. The policies discourage residential and large office developments, but outline circumstances for those uses to be considered, in keeping with the direction of the Plan to be flexible and adaptable over time.

Conclusion:
The world around us is becoming increasingly urban, and deliberately planning for this evolving context is an important part of our own urban future. To translate the Imagine Kelowna vision, the role of our Urban Centers and Core Area will be vital to building and supporting a community where we can all live, belong, access, and thrive. This report provides Council with its first look at the draft 2040 OCP focusing primarily on objectives and policies as they relate to the Urban Centres and the Core Area Growth Strategy Districts. These areas have been signaled by a policy framework that aims to balance competing demands and prioritize public investments; signal transit and alternative transportation system enhancements to connect people with their destinations; establish a network of transit corridors to focus population, business and employment growth; and to plan and budget for infrastructure improvements to manage ongoing change.

The next report in this series will focus on policy direction for the remaining three Growth Strategy Districts; Rural, Suburban and Gateway. It will also provide an overview of the City-wide policy directions and what big shifts have been included in the Plan's direction. This will then lead into the third report of this series to publicly launch the draft 2040 OCP and to commence Phase 4 public engagement of this multi-year Master Plan update.

Internal Circulation:
Divisional Director, Planning & Development Services
Divisional Director, Partnerships & Investment
Department Manager, Real Estate
Department Manager, Development Planning
Divisional Director, Financial Services
Divisional Director, Infrastructure
Divisional Director, Corporate Strategic Services
Divisional Director, Active Living and Culture
Department Manager, Integrated Transportation
Strategic Transportation Planning Manager
Infrastructure Engineering Manager
Parks and Buildings Manager
Communications Manager

Legal/Statutory Authority:
Local Government Act, Section 471

Legal/Statutory Procedural Requirements:
Local Government Act, Sections 472-478

Existing Policy:
Imagine Kelowna
2030 Official Community Plan
20 Year Servicing Plan
Council Policy No. 372: Engage Policy

Attachments:

1. Draft 2040 Official Community Plan
2. Abbreviated Summary of the Future Land Use designations
3. Draft Future Land Use Map

Submitted by: R. Miles, OCP Project Planner

Approved for inclusion: Danielle Noble-Brandt, Policy & Planning Dept. Manager

Draft Version
Fall 2020

City of Kelowna

2040 Official Community Plan

Our Kelowna as we grow

This is not an official bylaw document.
Early draft version provided for review and consultation purposes only.

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syilx/Okanagan Territorial Acknowledgement

The City of Kelowna is located in the beautiful Okanagan Valley of British Columbia, which is the traditional, ancestral, unceded territory of the syilx Okanagan people. Since time immemorial, the syilx Okanagan people prospered on these lands, living in balance with the natural abundance that these lands provide and creating a rich, vibrant culture.

Together, we call upon our collective honoured traditions to collaborate in building a thriving city for today and future generations. We thank the Indigenous partners who participated in the 2040 OCP engagement sessions and for enriching its content.

What is Kelowna? To some people, it's an outdoor oasis, filled with trails to hike and bike and lakes as a stunning backdrop. To others, this city is an economic powerhouse, home to robust traditional sectors like agriculture and construction, and burgeoning new sectors such as information technology. Kelowna is all these things, and much more. Most importantly, Kelowna is a collection of people. People who have been here for generations, people who have just recently started to call this place home, and even people who are just visiting. Kelowna finds its strength and **resilience** in the many ways in which its diverse residents and visitors interact, maintain, and ultimately shape the City's built and natural environment.

The 2040 Official Community Plan (OCP) reflects Kelowna's people driven growth. It works from and encourages diverse public participation. It directs growth by employing knowledge of the past and innovation of the now to imagine and create a better future.

Our Kelowna as We Grow

As one of the fastest growing cities in Canada, Kelowna is rapidly evolving. Its economy is diversifying, many of its neighbourhoods are transforming, and people are choosing new ways to get around. In short, Kelowna is becoming a more urban and dynamic city, and the pace of change is unlikely to let up. By 2040, Kelowna is expected to be home to another 50,000 people. This transition can be exciting, bringing a new energy, amenities, and employment and educational opportunities. Yet, rapid change can also bring anxiety as some residents grapple with increased traffic, home price escalation and the transformation of the small town they knew.

This growth is also taking place in a time of great societal, technological and environmental change, challenging the way that Kelowna has grown in the past. Advances in technology are changing how we work, shop and communicate. The impacts of a changing climate are now being felt, and income inequality is requiring new approaches to keeping the city an affordable place to live.

In this era of rapid growth and change, it is clear that there are new opportunities to consider, along with challenging and complex choices to be made. We must choose where and how we grow. We must choose how we invest and where we invest. We must make these choices while recognizing and building on what we already love about this city. The choices are rarely easy or obvious and often involve making difficult trade-offs.

How we make these choices must be guided by a bold vision and a clear strategy, a sometimes difficult undertaking. Fortunately, the citizens of Kelowna have crafted this bold vision called *Imagine Kelowna* which outlines what kind of city they want to live in. The 2040 Official Community Plan is one of the most critical strategies that will help us realize that vision by guiding how and where Kelowna will grow in the future. It includes strategic direction on how the city will house 50,000 more residents and how they will get around. It illustrates where new parks and schools will be located and where **employment areas** will be focused. It guides how we will face the challenges of climate change while making the city more equitable.

Each pillar, objective, policy and guideline in this Plan represents a deliberate choice made about how Kelowna will evolve in the future. With this guidance, Kelowna will not only grow in a way that withstands the coming changes, but will flourish.

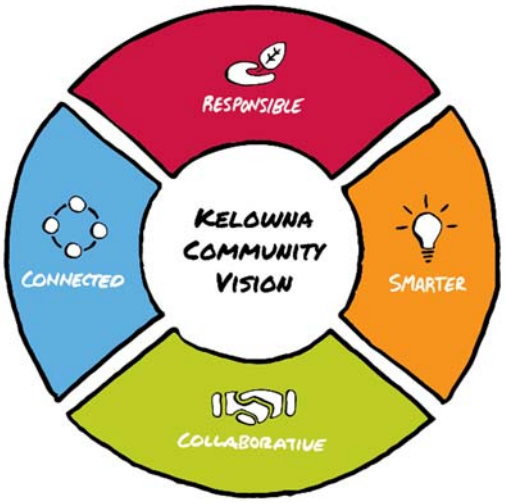
Imagine Kelowna: The Community's Vision

Imagine Kelowna is our response to the forces of change. Kelowna is a city in transition and *Imagine Kelowna* captures the community's vision, principles and goals to thrive in the face of unprecedented growth and change. It is the result of almost 4,000 resident contributions. It is a vision created by our community, for our community.

Kelowna Community Vision

In 2040, Kelowna is a thriving mid-sized city that welcomes people from all backgrounds. We want to build a successful community that honours our rich heritage and also respects the natural wonders that contribute to our identity. As a place with deep agricultural roots, Kelowna understands the need to protect our environment, manage growth and be resilient as our future unfolds.

Kelowna is a thriving city and an incredible place to call home. To flourish in the future, we need to be agile, resilient and unafraid to do things differently. The community has made it clear that as we grow, we need to look out for one another and protect the stunning environment that sustains us. Our vision for an inclusive, welcoming, prosperous and sustainable future calls upon us all to be ambitious and to embrace the challenges ahead. As a result, the principles and goals that make up *Imagine Kelowna* work together as a system to help the community achieve its vision (see Figure 1.1).



How Will We Get There?

In the face of rapid change, the 2040 Official Community Plan will help realize the *Imagine Kelowna* vision by leveraging growth to make our community more resilient and inclusive, and to enhance the quality of life for residents and visitors. Through land use decisions, capital investments, and community partnerships, this 2040 Official Community Plan will be the framework to guide growth and development over the next twenty years so the Kelowna we live in reflects the *Imagine Kelowna* vision.

Using the Imagine Kelowna goals, this OCP identifies a series of pillars, objectives and policies that will guide decision-making for the city's growth to 2040.

10 Pillars to Realize our Vision

The 2040 OCP sets strategic direction for the way Kelowna grows, supporting mobility options, open spaces, employment hubs, and preserving our natural features and landscape to maintain Kelowna's distinctiveness. To promote quality of life, 10 OCP Pillars have been established as a foundation on which to build the more detailed policy direction of the 2040 Official Community Plan. These pillars are informed by the bold vision of *Imagine Kelowna*, Council input and engagement with Kelowna residents, partners and stakeholders.

Focus investment in Urban Centres

Kelowna's five **Urban Centres** – Downtown, Capri-Landmark, Pandosy, Rutland and Midtown – are the largest hubs for activity in the city and are a critical component of a growing community. These **Urban Centres** will continue to evolve into vibrant, amenity-rich places in which people enjoy spending time**.**

We will prioritize residential density, public amenities, infrastructure, and cultural spaces to enrich these urban neighborhoods as diverse hubs. As there is a finite budget for transportation, parks, public spaces and city amenities, the 2040 OCP will prioritize these investments in the **Urban Centres** in order to deliver a high quality of life for our residents to live, work and move around.

Stop planning new suburban neighbourhoods

For the first time in Kelowna's history, the **Growth Strategy** does not designate any new residential neighbourhoods beyond those that are already signaled for development. This aligns with the *Imagine Kelowna* goals of limiting sprawl, protecting **agricultural lands** and embracing diverse transportation options.

While the city will continue to see new areas of development in suburban neighbourhoods that have already received approval, the identification of new suburban neighbourhoods beyond **the Permanent Growth Boundary** would be avoided.

Target growth along transit corridors

With the **Urban Centres** established as the hubs for activity and the highest residential densities, the 2040 OCP has identified a network of transit supportive corridors. These corridors will link the **Urban Centres** and Village Centres with low-rise apartment housing, row-housing and in some areas, mixed-use residential and commercial development. Corridors will be located alongside planned higher quality transit infrastructure, enhancing the frequency of transit service. This pillar will target growth along this sustainable transportation network, which will create attractive transportation choices in walkable, urban neighborhoods.

Promote more housing diversity

The 2040 OCP focuses growth in the **Urban Centres** and **Core Area**, with a goal to build a housing inventory that is healthy and resilient. This means diverse housing options, particularly **missing middle** housing, and greater prioritization of rental housing options, affordability and accessibility options for all ages and life stages. This approach houses more people close to employment, shopping, transit, **Active Transportation Corridors** and amenities.

Incorporate equity into city building

There has been a fundamental shift in how social policies, inclusivity and **equity** are included in the 2040 OCP. The 2040 OCP aims to ensure that the community we call home is welcoming, inclusive and equitable to meet the needs of all people, regardless of age, ability, gender, income, culture or background. To do this, **equity** and social policies are woven throughout to ensure that **equity** is engrained in city building. Importantly, **equity** needs to be incorporated in planning decisions and resource allocation in our community to ensure that as our city grows and changes, people are not displaced from their neighbourhoods.

We also want to identify, protect and restore the places and landscapes that define our community. We cannot move forward towards the *Imagine Kelowna* vision without first recognizing and understanding our collective past. Identifying and protecting the buildings, sites and landscapes that represent the shared indigenous and non-indigenous histories is the first step in building this greater understanding, and ultimately, a more fair and equitable community.

Strengthen Kelowna as the region's economic hub

The city's thriving technology, health care and tourism sectors are supported by a network of key institutions like the University of British Columbia Okanagan (UBCO), Kelowna International Airport, and Kelowna General Hospital. The continued growth of our diverse economy will provide good jobs for the region's residents, a critical step in achieving the *Imagine Kelowna* vision.

Protect agriculture

Across the province, agricultural land is a rare commodity. In Kelowna, it has played a crucial role in the local economy for generations and forms part of our local identity. Protecting this land for future generations is even more vital in the face of a changing climate, where local food production will increase in importance. As such, the 2040 OCP supports the **Agricultural Land Reserve** and avoids further intrusion of urban development.

Prioritize sustainable transportation and shared mobility

Embracing transportation options through a more robust network of transit, separated bike facilities, and shared mobility choices is a key goal of *Imagine Kelowna*. Investments in these options need to be targeted to the parts of the city where they will be most effective.

Protect and restore our environment

Over the past century, Kelowna's growth has come at the cost of the natural environment, and many priceless natural ecosystems have been lost or severely compromised. However, *Imagine Kelowna* envisions a city where the protection of our land, water and air resources is strengthened and the health of Okanagan Lake is preserved. Leveraging partnerships, collaboration and development, we can work to restore those ecosystems to a healthier state.

Over the past century, Kelowna's growth has come at the cost of the natural environment, and many priceless natural ecosystems have been lost or severely compromised. However, *Imagine Kelowna* envisions a city where the protection of our land, water and air resources is strengthened and the health of Okanagan Lake is preserved. Leveraging partnerships, collaboration and development, we can work to restore those ecosystems to a healthier state.

Take action on climate

Through *Imagine Kelowna*, residents have spoken clearly that action needs to be taken to not only reduce the community's greenhouse gas emissions, but also to become a more resilient community in the face of a changing climate. Focusing future growth in compact neighbourhoods with more energy efficient buildings and provision of a variety of transportation options that produce few greenhouse gas emissions, is the most effective action that a local government can take to reduce emissions.

The Growth Strategy: What Will the City Look Like?

The **Growth Strategy** illustrates the major land use directions that the 2040 Official Community Plan will be taking to create the city envisioned in the Pillars and in Imagine Kelowna. It consists of five **Growth Strategy Districts** in the city. Each district has its own role in realizing the vision outlined in the **Growth Strategy** and in supporting the pillars and the Imagine Kelowna vision (see Map 1.1).

Like the Pillars, the **Growth Strategy** is part of the foundation for the OCP's land use plan, objectives, policies, guidelines and implementation plan. Amendments to the OCP should consider the extent to which the proposal deviates from the **Growth Strategy**.

Urban Centres

Kelowna's five **Urban Centres** – Downtown, Pandosy, Capri Landmark, Midtown and Rutland – will continue to act as the hubs for activity in in the city. As such, they will see the highest concentration of employment, shopping, entertainment and high-density residential development. Prioritized investments in **Urban Centres** will make the use of transit, biking, walking, and other emerging transportation modes easy and accessible. Policy direction for **Urban Centres** can be found in Chapter 4.

Core Area

The **Core Area** includes neighbourhoods that are adjacent to the **Urban Centres** within the central part of the city. The **Core Area** will provide a wide variety of housing forms, focusing primarily on **ground-oriented** housing, such as smaller homes, house-plexes and row housing, along with low rise apartments along key corridors. It will also see continued commercial and **industrial** development along the Highway 97 corridor. Policy direction for the **Core Area** can be found in Chapter 5.

The Gateway

The Gateway includes the UBCO campus, Kelowna International Airport (YLW) and surrounding residential, commercial and **industrial** lands. While the **Urban Centres** will continue to be the largest employment hubs in the city, the Gateway will also emerge as a major employment destination. Policy direction for the Gateway can be found in Chapter 6.

Suburban Neighbourhoods

Suburban Neighbourhoods will be focused on building new residential communities within the **Permanent Growth Boundary** characterized by lower density development anchored in small areas of local shops and services. Policy direction for Suburban Neighbourhoods can be found in Chapter 7.

Rural Lands

Rural Lands are located outside of the **Permanent Growth Boundary** and are mostly composed of **agricultural lands** or large tracts of resource lands. Small pockets of residential neighbourhoods are also included in these areas where they are not signaled for significant growth alongside discrete **industrial** development. Rural lands would not be supported for further urban development beyond areas already zoned and designated in the 2030 OCP. Policy direction for Rural Lands can be found in Chapter 8.

How to Use the Official Community Plan

The 2040 Official Community Plan is a strategy to guide decision-making and navigate change as Kelowna continues to grow. It identifies changes needed to other City plans, bylaws and regulations, and prioritizes investments in assets and infrastructure, while being responsive and adaptable through monitoring and regular updates.

The OCP is intended for use by all members of the Kelowna community. Kelowna citizens and community organizations can use the OCP to see how and where the city will grow and change, ensuring they stay both informed and involved in decision-making processes. The 2040 OCP can be used by businesses and public institutions to help make major investment decisions, guiding choices to anchor their continued momentum as the economic engines of the city. The development community can have a clear and predictable picture of where and how the city will grow strategically, while remaining flexible enough to support innovation in new development.

Effective use of the OCP requires an understanding of how the plan is structured and the role that its components play in putting the *Imagine Kelowna* vision into action.

2040 OCP Plan Structure

The 2040 OCP is structured as a hierarchy, starting with the higher level direction provided by *Imagine Kelowna* and the Strategic Pillars, and moving to more detailed actions in policies and implementation actions.

Imagine Kelowna

Imagine Kelowna outlines the community's vision for how city will respond to growth and

change in the future and identifies a series of principles and goals for our city. This vision serves as the framework for the 2040 OCP.

OCP Pillars

The OCP Pillars are the essential and transformative elements of the 2040 OCP. Ongoing monitoring and evaluation of the 2040 OCP will continuously assess how the Pillars can be met more effectively in the future.

Growth Strategy

The **Growth Strategy** is a high level illustration of the future look of the city. Each **Growth Strategy District** plays a key role in the city's evolution.

Objectives and Policies

The 2040 OCP's objectives are statements of accomplishments to meet the intent of the **Growth Strategy** and the OCP Pillars. In contrast, policies are specific courses of action that contribute to meeting a specific objective. These objectives and policies are organized into a series of chapters, some of which are framed by one of the five **Growth Strategy Districts**, while others apply to the city as a whole. The District based objectives and policies tell the story of how the vision for that district will be achieved, while the other chapters apply to all areas of the city. When seeking policy direction, both the **District** based chapter and the city-wide chapters should be referenced.

Making the Plan Work

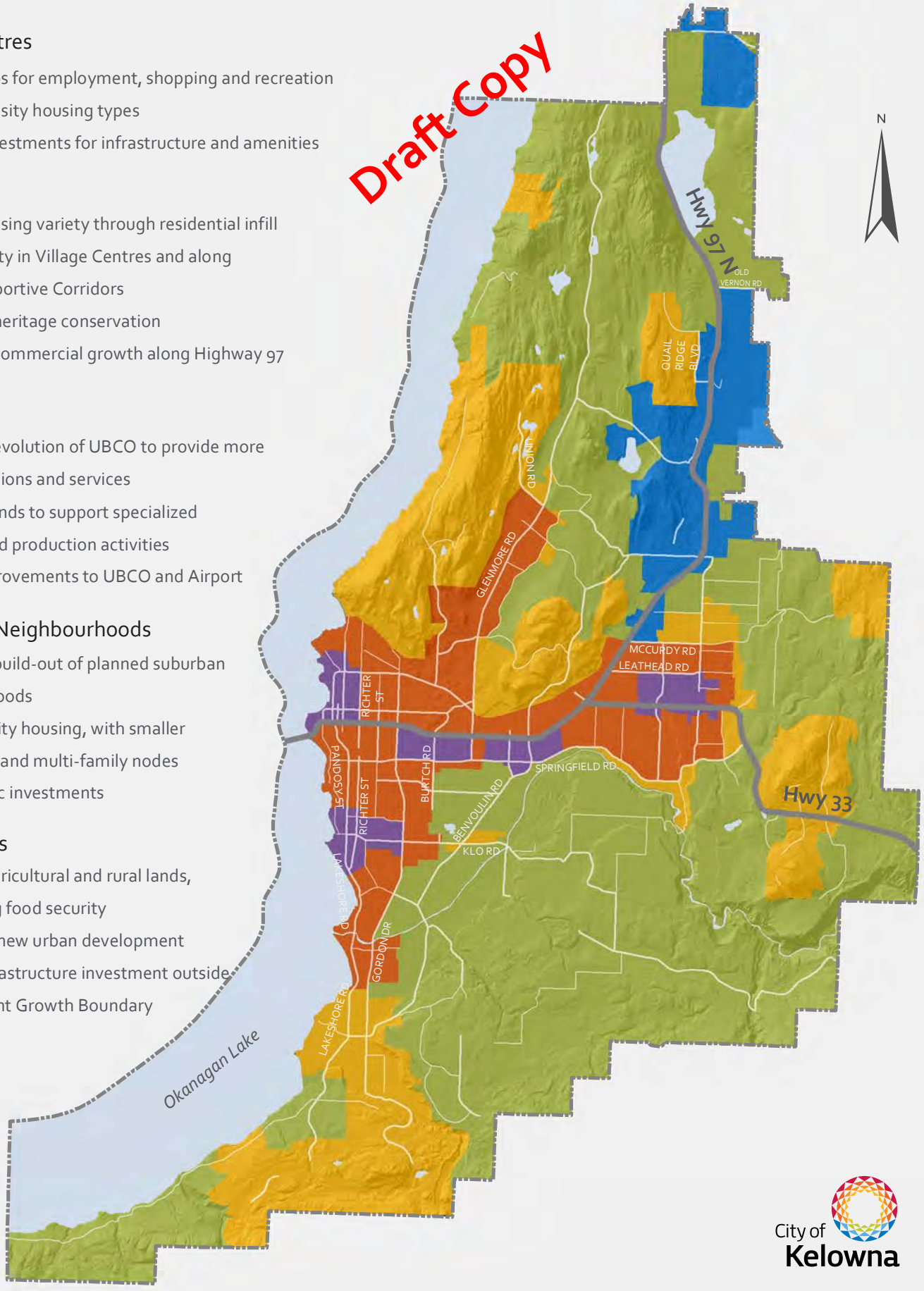
These are the activities that need to take place following the OCP's adoption to put the plan into action. They include more detail planning studies, neighbourhood plans and monitoring of outcomes to see how effectively the plan is moving towards the directions of the OCP Pillars and ultimately, *Imagine Kelowna*.

The Future is Ours

Cities are complex, and the 2040 OCP aligns the interdependencies of systems such as land use, transportation, environment, the economy and equity to be integrated. The Official Community Plan will require us to work together as a community to build our future city and will require organizations, institutions, businesses, agencies and other levels of government to change the way we work together, how we make decisions, and how we engage with Kelowna residents.

2040 Official Community Plan

Map 1.1 Growth Strategy Districts



Urban Centres

- Activity hubs for employment, shopping and recreation
- Highest density housing types
- Focused investments for infrastructure and amenities

Core Area

- Greater housing variety through residential infill
- Focus activity in Village Centres and along Transit Supportive Corridors
- Continued heritage conservation
- Continued commercial growth along Highway 97

Gateway

- Continued evolution of UBCO to provide more housing options and services
- Industrial lands to support specialized research and production activities
- Transit improvements to UBCO and Airport

Suburban Neighbourhoods

- Continued build-out of planned suburban neighbourhoods
- Lower density housing, with smaller commercial and multi-family nodes
- Limited civic investments

Rural Lands

- Primarily agricultural and rural lands, maintaining food security
- Little to no new urban development
- Limited infrastructure investment outside of Permanent Growth Boundary

Highway

City of Kelowna

Rev. Aug 24, 2020

This map is for consultation purposes only. This is not a final version.

0 1 2 Kms

The 2040 OCP is a visionary document that establishes how Kelowna will grow over the next 20 years. The plan directions are the result of background research, demographic analysis, and community engagement over the last three years. Through this work, we identified several trends that are likely to shift behaviours and influence decisions about housing, employment, and transportation on a day-to-day basis.

Community Histories

The City of Kelowna is located in the Okanagan Valley, the traditional unceded territory[1] of the syilx (or Okanagan) people. Of the seven communities[2] that comprise the syilx nation in Canada, the City of Kelowna neighbors two: Westbank First Nation and Okanagan Indian Band. Although the City and these communities enjoy a stable relationship, in years past, Canada's federal policies prevented syilx communities from experiencing an equally just history.

Syilx Pre-contact (Mellennia-1810)

The Okanagan Valley has been home to the syilx people for more than 12,000 years[3]. Time immemorial. According to Syilx Scholar and Knowledge Keeper, Dr. Jeannette Armstrong, the syilx nation "shared eight tribal districts that were very closely interconnected in terms of the different kinds of habitat that they resided in and the unique aspects that provided food and sustenance in those different areas of the syilx territory" [4]. For example, the syilx oral story of the *Four Food Chiefs* illustrates key foods the syilx people enjoyed for millennia, two of which are Saskatoon and Salmon, perhaps the most visible to Okanagan Residents.

European Initial Relationship (1811-1890)

Direct European contact occurred in 1811 with fur traders,[5] but the well established trade networks that syilx people had with neighboring Indigenous nations had long brought European goods such as fashioned metal tools[6] and horses that had been introduced in the Okanagan region in the first half of the eighteenth century[7] These impacts positively affected syilx people in their trade, and supported their hunting and trapping

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[1] The traditional territory of the Syilx-Okanagan people spans an area that dips down across the U.S. border into Washington state, and spans upwards just passed the Arrow Lakes. (Looking to put actual numbers for this). The City of Kelowna is situated roughly in the middle of this territory, with city boundaries/limits/legal space of _____.

[2] The Syilx nation crosses the 49th parallel and dips down into the Washington state, U.S.

[3] The consensus among scholars is that the Syilx Okanagan people inhabited the Okanagan Valley River Basin for 12,000 years, as a conservative estimate (Sam, 2008; Armstrong, Thompson, Teit & Boaz).

[4] " (Jeanette Armstrong. Interviewed by Lally Grauer, "Reciprocities: Kindness and the Land." *Lake: Journal of Arts and Environment*, Faculty of Creative and Critical Studies University of British Columbia Okanagan, 2008).

[5] ***)

[6] ***

[7] (Fraser, 2007).

activities [8] During this time, syilx people had a robust and complex economy that was dependent on the natural resources of syilx territory[9] and on their established trade and alliance relationships.

The arrival of settlers in the Okanagan Valley, and the colonial economy that began to emerge beginning in the mid 1800s, played a central role in the development and birth of the City of Kelowna. At this time, both syilx and non-syilx people participated in both the settler economy and the syilx economy as equals[10]. Due to the fact that the Okanagan region was not rich in fur-bearing animals, the Hudson's Bay Company mainly traded with syilx people for horses, potatoes, guiding and packing services [11]

In 1860, cattle ranchers and farmers began to take up low-lying land around the Catholic Oblate mission. At the same time, Governor James Douglas met with Interior-Salish leaders and came to an agreement that the Indigenous leaders saw as "tentative" and to be made full through negotiations and compensation - neither of which were ever concluded[12] [13]. What changed this reciprocal and fair relationship was the creation of Federal Indian Act policies that adversely affected syilx communities[14] This removal from traditional context was a powerful tool in opening the area for pioneers and, contrary to popular belief, this was actively resisted by Indigenous chiefs in the Okanagan[15]. Land was unequally dispersed to settlers, and syilx people were relegated to life on the new reservations. They were not allowed to purchase land off-reserve, nor were they given land in the same accordance as settlers. In 1865, the Okanagan reserves were drastically reduced in size by J.C. Haynes, a local Justice of the Peace, who argued the boundaries were unnecessary for the syilx people[16].

City Inception (1892-1945)

In 1892, the townsite of Kelowna was laid out on these unceded syilx lands. With its clear advantage of lake transportation, Kelowna became an economic and cultural hub and the townsite was incorporated in 1905. "Kelowna" is a Nsyilxcen word for a female grizzly - a reference to the previous landowner on which the city was founded, whom was called "Kum-a-stoose" or "bear face" by local syilx people[17].

The surrounding landscapes began to change dramatically a few years after incorporation. Between 1904 and 1914, thousands of acres of grazing land, hay flats, and grain fields were planted into symmetric rows of irrigated orchard trees and the entire area turned from brown to green. Industry quickly kept pace with the new agricultural economy, and the city's north end began to fill with packinghouses, box factories, canneries and more, all of these linked by a web of rail spur lines, sidings, and rail-barge slips. The seasonal rhythms and patterns of the tree fruit industry were quickly established. Through the 1920s and 1930s, Kelowna's economic, social, and cultural life continued to mature.

At the same time, the syilx population experienced increased isolation. They maintained, however, an important part of the regional economy as key and knowledgeable employees in farming, forestry, and other sectors.

World War II – present (2020)

In the decades since World War II, the pace and direction of change in Kelowna has shifted dramatically. Transportation improvements, such as the W.R. Bennett Bridge, the Okanagan Connector, and Highway 97C

[8] (Thomson, 1994).
[9] Turner, Bouchard & Kennedy, 1980
[10] (OHS, Clement, 1959, p.121
[11] (Thomson, 1994).
[12] The beginning of unceded
[13] (Thomson, 1994, p.102
[14] (Thomson, 1994).
[15] (Armstrong et al. p. 44-66; Thompson, 2007, p. 28-29)
[16] (Thomson, 1994).
[17] (OHS, Clement, 1959).

have allowed people to move and goods to flow to, from, and within the region more efficiently. Meanwhile, the "Ellison Field" airstrip that opened in 1947 has grown into Kelowna International Airport, Canada's 11th busiest airport.

The local economy began to shift in significant ways during this time as well. Kelowna's **industrial** base began to diversify, its tourism appeal grew in new directions, and the wine industry began to add a new complexity to both agriculture and tourism. More recently, the high-tech sector has strengthened in new links between the city and distant centres.

The city saw new suburban neighborhoods and shopping centers being developed. More recently, new neighbourhoods have begun to emerge in the hillsides surrounding the city, while efforts to encourage more growth Downtown and in the other urban town centres began to strengthen. Significant investments were made in parks, recreation centres, cultural facilities and other amenities.

During this time period, WFN (then Westbank Indian Band) was developing their land base as a means of securing economic security for their community. They developed a land use plan, bylaws and engaged in leasing portions of t heir land base. IN 1974, syilx people from all seven communities took part in the famous "sit-in" of the district Indian Affairs Office, located in Vernon. Syilx communities wanted to govern themselves, independent from the paternal policies of the Indian Act. In 1987, the syilx people signed the Okanagan Nation Declaration, declaring their sovereignty[18].

Kelowna Today (2021) – Looking forward

Kelowna continues to act as a regional hub and is expected to grow by approximately 40,000 citizens over the next 20 years. To accommodate this growth responsibly, planning decisions must consider social, economic and environmental factors. By focusing investment into Urban Centers, supporting a variety of transit options, promoting housing diversity and incorporating **equity** into City initiatives, Kelowna will be set up for success when it comes to addressing future challenges.

Today, the City of Kelowna actively engages with both syilx communities. There are currently four syilx reserves within city limits, three of which belong to Westbank First Nation, and one of which belongs to Okanagan Indian Band. The City of Kelowna committed to engaging with the **syilx/Okanagan** people and is actively working to build a relationship based on trust, understanding and mutual benefit, one that is built on a foundation that respects and learns from the past while embracing the environmental, social, economic and cultural realities of today.

Major Trends

The following major trends were identified during the 2040 OCP development process, and informed the plan's pillars, **Growth Strategy**, objectives and policies.

- Infrastructure challenge: The City is seeing a greater share of its annual budget being directed to cover maintenance and replacement of aging infrastructure, while also balancing the need to fund infrastructure for new growth. The tension between these objectives has resulted in a significant infrastructure deficit. The most vital step in the path towards financially sustainable service delivery is managing how and where we grow. Recent analysis indicates that the costs to maintain infrastructure in suburban areas are considerably higher than the tax revenue collected in these areas. In response, we are shifting our **Growth Strategy** to focus on multi-family and mixed-use development in the **Core Area** and **Urban Centres** to reduce long-term infrastructure life-cycle costs and deliver services in a more sustainable way.

[1818] https://www.syilx.org/about-us/syilx-nation/okanagan-nation-declaration/

- Amenity-rich walkable areas: There is a growing interest in urban places that provide a variety of amenities, such as shops and services, and that are close to jobs and economic opportunities. As younger generations seek amenity-rich neighbourhoods with diverse housing types, we anticipate increased demand for housing in walkable urban places. The 2040 OCP **Growth Strategy** anticipates that a higher proportion of development will occur in the form of townhouses and apartments in Kelowna's amenity-rich **Urban Centres** and **Core Area**.

- Changing demographics: Over the next 20 years, BC's retirement-aged population will increase while young professionals will continue to struggle with housing affordability in BC's largest centres. Seniors will be drawn to cities with access to health services, while young professionals are likely to be motivated by housing options, affordability, lifestyle preferences and employment opportunities as they enter peak earning years. To ensure Kelowna is an attractive destination, we are focusing on creating complete communities for all ages and abilities that have a diversity of housing and transportation options.

- **Equity** gap: Across Canada, citizens are experiencing increases in the cost of living, particularly for things like housing, transportation, energy costs and childcare, while the Canadian middle-class population shrinks. Additionally, racialized populations and people living with disabilities are experiencing an elevated risk of negative health outcomes and homelessness. For this reason, cities are rethinking their approach to infrastructure investment, planning and service delivery in recognition that these actions have a disproportionate impact on the quality of life and economic future of the most vulnerable. By infusing **equity** into the development of the 2040OCP, the City will be better positioned to ensure all citizens are able benefit from the City's growth – through improved health outcomes, access to opportunities and more affordable housing options.

- Low carbon future: Communities across Canada are recognizing the threat that climate change poses to community infrastructure, the environment, biodiversity, the economy and human health. Our region is increasingly experiencing the impacts of climate change through extreme weather events such as flooding, drought and wildfires, which are likely to occur more frequently in the future. To prevent rapid and extreme climate change, significant reductions in greenhouse gas emissions and a shift to a low-carbon community are required. At the same time, Kelowna must also be prepared for the impacts of a changing global climate. To meet climate change related goals, the 2040 OCP promotes complete communities that can support a major decrease in transportation emissions while investing in transit and active transportation. Additionally, the 2040 OCP identifies approaches to enhance green infrastructure and wildfire mitigation, acknowledging that the incidence of extreme weather events is increasing.

Housing & Population Projections

Population Projections

Kelowna's population is projected to grow at a rate of 1.43 per cent through to 2040, resulting in approximately 45,000 additional citizens by 2040. Overall, Kelowna's population is projected to reach an estimated 180,000 by 2040.

From 2020-2040, the City's growth rate will fluctuate depending on levels of economic growth, demographic trends, as well as national and international migration patterns. The projections provided in this chapter inform the land use plan and policies of the 2040 OCP, as well as the City's servicing plans and financial strategies. Furthermore, the 2040 OCP establishes five-year growth rates using the most recent Census statistics and BC Stats projections and adjusting for local growth trends.

Figure 2.1: 2040 Population Projection

Time Period	Average Annual Growth Rate	New Population	Population of End Period
2021-2025	1.59%	11,250	147,300
2026-2030	1.47%	11,250	158,550
2031-2035	1.29%	10,650	169,150
2036-2040	1.15%	10,050	179,200

Projected Age Distribution

Over the next 20 years Kelowna's population will grow significantly across all age groups. Generally, the demographic composition of the population is expected to be similar between 2020 and 2040. However, Kelowna is projected to see an increase in the proportion of seniors (65+) in 2040 and a decrease in proportion of children and youth under the age of 25. This reflects low levels of natural increase and Kelowna's reliance on national migration for population growth. The table below provides more detailed information.

Figure 2.2. Kelowna Age Distribution

Year / Age	Under 25	25-44	45-64	65+
2016 Census	26%	25%	29%	21%
2020	24%	27%	27%	22%
2030	24%	28%	24%	25%
2040	23%	24%	28%	25%

Housing Projections

In order to establish housing needs until 2040, the City's long-term population estimates were considered alongside the following trends that are anticipated to influence the local housing market:

- **Smaller households.** The primary household types by 2040 will be single occupants or couples without children. Generally, these households require smaller housing units, allowing 1 bedroom or 2-bedroom units to fulfill their housing needs.
- **More compact housing forms.** As a result of both affordability and shifting housing preferences, it is anticipated that demand for apartments, townhouses and compact family-friendly housing options will outpace the demand for new single-detached housing.
- **Urban living**. As a result of changing housing preferences, transportation behaviour and demographics of Kelowna, the 2040 OCP anticipates greater demand for housing in walkable mixed-use neighbourhoods. For this reason, the City is looking to drive a significant share of future growth to the City's **Urban Centres** in the form of medium to high-density apartments as well as **ground-oriented** units.
- **More renters**. As housing prices rise and household sizes decrease, it will be challenging for many citizens to afford home ownership. These forces will strengthen the demand for long-term rental housing and enhance the viability of purpose-built rental apartment projects.

From 2016-2020, many of these trends have already impacted the local housing market. In 2019, 75 per cent of all building permits issued were for multi-family units, highlighting the significant shift toward more compact housing forms. Kelowna also saw record levels of rental housing construction over the last five years with over 1,500 rental units completed in 2019. Collectively, these and other trends are expected to boost demand for multi-family housing units in the **Core Area** as Kelowna continues its evolution as an emerging mid-sized city over the next 20 years.

20-Year Average Household Size

1.7 person per new household = (43,145 person / 25,308 new unit)

The 20-year average household size is derived using the projections for new housing units and the population growth expected over the next 20 years. The projected housing need for 2040 is approximately 25,308 new

units. The five-year increments of growth provided in Figure 2.3 inform future infrastructure servicing requirements during these periods. For technical purposes, the 2040 OCP assumes 5,972 homes will be single or two-unit homes and 19,336 homes will be in the form of multi-family units (e.g. apartments and townhouses etc.). The reduction in household size from the 2030 OCP reflects the national trends driven by declining birth rates, smaller families and divorce rates.

Figure 2.3: Average Household Size

Year	Average Persons Per Household (New Growth)
2021-2025	2.0
2026-2030	1.74
2031-2035	1.70
2036-2040	1.68

The distribution of housing in Kelowna is currently skewed toward single-family housing, with approximately 59 per cent of all units in the form of single-family housing and 41 per cent in the form of multi-family housing. Based on the shift to a more urban **Growth Strategy**, the 2040 OCP anticipates the demand for multi-family housing will continue to increase over the next 20 years. This is expected to result in a balanced demand for single-family and multi-family units by 2040. To encourage housing that meets this demand, the 2040 OCP is projecting that 76 per cent of new units over the next 20 years will be in the form of multi-family housing and 24 per cent will be in the form of single and two-unit housing. The table below provides an estimate of housing unit projections over the next 20 years; however, it is expected that the number of building permits issued will fluctuate based on local real estate and land development cycles.

Figure 2.4: Housing Unit Projections

Year	Single/Two Units	Multiple Units	Single & Multiple Units
2021-2025	1,980	4,650	6,630
2026-2030	1,940	4,510	6,450
2031-2035	1,260	5,000	6,260
2036-2040	800	5,190	5,990
Total 2040	5,980	19,350	25,330

20-year Growth Scenario

Over the next 20 years, most new housing units projected by the 2040 OCP are expected to be accommodated in urban areas like **Urban Centres** and the **Core Area**, which will preserve rural lands outside the **permanent growth boundary** and allow for cost-effective servicing. Growth in urban areas will mainly take the form of redevelopment as parcels are assembled and redeveloped into townhouses, apartments and towers.

Over next 20 years roughly 73 per cent of the Kelowna's growth will occur in the City's five **Urban Centres** and the surrounding **Core Area**. Specifically, the 2040 OCP **growth scenario** projects that approximately 48 per cent of new units will be accommodated within the **Urban Centres** and 25 per cent per cent of units will be accommodated within the **Core Area**. Several Suburban neighbourhoods are expected to accommodate 23 per cent of new units to 2040; however, the 2040 OCP does not introduce any new suburban neighbourhoods beyond what was identified by the 2030 OCP.

Overall, the *20-year Servicing Plan* and *Financing Strategy* reflects the number and distribution of projected housing units to 2040 shown below on Map 2.1. The **growth scenario** targets provided below were used to establish long-term infrastructure servicing requirements as well as key projects for the City's Transportation Master Plan. The **growth scenario** targets have also informed the future land use designations and policies to ensure alignment between planning policy and the City's growth management strategy.

The new unit targets provided in the table below should be considered based on their location and the different servicing implications for urban and suburban areas. In the context of Suburban neighbourhoods and suburban growth areas, the targets should be interpreted as a cap on the growth that can be accommodated in these areas, recognizing that there would be significant servicing requirements for Suburban neighbourhoods that exceed the growth targets identified below.

The overall level of growth expected in the urban areas is a firm target, but the 2040 OCP acknowledges there is considerable flexibility in terms of the targets for the individual growth areas. Within the Core Area and **Urban Centres**, these targets are not a hard cap for growth – these areas are better positioned to support growth as most of the required infrastructure is already in place. The growth area targets will need to be monitored to inform prioritization of key capital projects as some **Urban Centres** will achieve their growth targets prior to 2040, while others will see slower rate of growth.

Figure 2.5: Housing Unit Projections by Growth Area

Growth Node	New Units 2040 (Approximate)	% of Total Growth
Black Mtn	450	2
Capri Landmark UC	3,650	15
Downtown UC	4,500	18
Core Central	3,800	15
Core Glenmore	1,630	6
Core Rutland	1,000	4
Kettle Valley South	250	1
Kirschner Mtn	350	1
McKinley Beach	375	1
Midtown UC	1,075	4
Mount Baldy	375	1
North Clifton	150	1
Remainder of City	1,500	6
Rutland UC	1,850	7
Pandosy UC	1,025	4
The Ponds	875	3
Tower Ranch	425	1
University South	1,050	4
Wilden	1,000	4
Total	**25,330**	

Commercial and Industrial Projections

Commercial Projections

Based on the expected population growth in the City and surrounding region, Kelowna is expected to see a significant increase in commercial development over the next 20 years. The 2040 OCP provides projections to inform the long-term demand for retail, office and **industrial** development.

Retail Commercial

The City of Kelowna is the regional retail centre for the Central Okanagan, serving the broader region from Penticton to Vernon as well as the growing local population in Kelowna. The 2040 OCP estimates

approximately 193,000 square metres of new retail space will be supportable in Kelowna by 2040, representing an increase of 32 per cent from the retail inventory in 2020. The 2040 OCP retail projection includes the following types of retail uses: convenience, comparison, service, food and beverage, entertainment and automotive.

The following trends were considered when preparing the City's 2040 retail projections:

- **E-commerce:** The growth in online shopping is anticipated to reduce long-term demand for retail space compared to historical averages. Further, the COVID-19 pandemic is expected to accelerate the shift in consumer behaviour away from traditional brick and mortar comparison retail to e-commerce.

- **Experiential Retail:** Future growth in retail will be driven by a desire for unique experiences, with comparison retail, convenience retail, restaurants, cafes and other entertainment predominantly occurring in **Urban Centres**. The growth of experiential retail is expected to occur through mixed-use residential projects in ground floor commercial space, which will animate **retail street**s and serve the growing population of urban dwellers in Kelowna.

- **Covid-19 Impacts:** Due to the recession caused by the COVID-19 pandemic, the 2040 OCP anticipates that there will be a decrease in demand for several types of retail space in the near- term. An increase in unemployment, lower levels of discretionary income and social distancing measures will result in greater rates of closures and bankruptcies and present a challenging climate to start new retail businesses. The 2040 OCP anticipates reduced demand for specific sectors (e.g. food and beverage) in the near-term with greater development activity expected from 2031-2040. However, the 2040 OCP also assumes that the recovery of the comparison retail sector will be challenged as COVID-19 accelerates the shift to online shopping and decreases the demand for this type of space in Kelowna moving forward.

Figure 2.6: Anticipated Retail Space Demand

Time Period	2021-2025	2026-2030	2031-2035	2036-2040	Total
Commercial Retail Space Demand (sq. m.)	41,740	49,780	52,480	49,100	193,000*

**New retail floor area will require limited new land as most new retail space will be accommodated in the podiums of larger mixed-use residential developments.*

Office Inventory

Over the next twenty years the City's inventory of office space is likely to see a major increase. Kelowna is the primary employment centre for the Central Okanagan and is home to almost all Class A office space in the region with office towers concentrated throughout the **Core Area**. Over the next 20 years the 2040 OCP projects an annual net absorption rate of 5,500 to 7,500 square metres of office with a total of 119,450 square metres to be developed by 2040.

Demand for Class A office space will continue to be strongest within centrally located and amenity-rich **Urban Centres** (i.e. Downtown, Pandosy and Capri-Landmark). As tenants shift to newer and more modern Class A office space, there is likely to be higher vacancies in Class B office space in older and less desirable locations, encouraging redevelopment to realize value from declining properties. Demand for office space is expected to increase from 2030-2040 after major Class A projects are absorbed by the local market, translating into higher rates of office development from 2030-2040.

There are several national and regional trends that are expected to impact demand for commercial development over the next 20 years.

- **Major Office Projects:** In 2019-2020, construction began on a 28,000 square metre Class A office project in the Landmark District which is expected to reduce demand for Class A office space for the first 5-10 years of the 2040 OCP.

- **Technology Accelerates**: Growth in the Okanagan's technology sector continues to ensure a stable demand for office space, especially for smaller Class B office inventory in central locations.

- **Coworking Growth:** Coworking is already part of the local sharing economy of Kelowna with approximately 6,000 square metres in operation. Coworking also allows smaller firms to avoid signing expensive leases, reducing overhead costs and offering the potential for collaboration and mentorship within the coworking community. The growth of coworking could result in less demand for conventional brick and mortar office space within certain sectors, and overall reduce demand for smaller office projects.

Figure 2.7: Anticipated Commercial Space Demand

Timeframe	2021-2025	2026-2030	2031-2035	2036-2040	Total
Commercial Office Space Demand (sq. m.)	20,250	27,700	34,700	36,800	119,450

The total amount of new office space development projected by the 2040 OCP is an increase of approximately 30% between 2021 and 2040.

Industrial Projections

The 2040 OCP projects a significant increase in **industrial** development over the next twenty years. Over this time, it is expected that Kelowna's manufacturing sector will continue to decrease, but growing demand for storage, distribution, warehousing, cannabis and other uses will drive demand for **industrial** space. The shift away from manufacturing and heavy **industrial** activity reflects Kelowna's ongoing transformation to a regional service centre and the growth of knowledge-based employment.

Over the last several years Kelowna has seen a severe shortage of affordable, serviced **industrial** space as a result of speculation on **industrial** land for more valuable commercial uses, such as hotels and retail. From 2017-2019, the City has seen extremely low **industrial** vacancy rates (1-3 per cent), highlighting the strong demand for industrial space. By 2040 the OCP projects roughly 323,000 square metres of new **industrial** space with the greatest demand from 2031-2040.

Industrial development will be challenged by the lack of land available for low-density **industrial** projects and the inability for **industrial** uses to be incorporated into mixed-use projects. Overall, the 2040 OCP projects the need for between 85-95 hectares of land to meet the demand for **industrial** businesses as well as retail businesses using industrial space over the next 20 years. This projection is based upon the assumption that recent densities (floor area ratio of approximately 0.25) of **industrial** development will be achieved. However, if land becomes particularly constrained it is possible densities could rise closer to a floor area ratio of 0.35.

Figure 2.8: Anticipated Industrial Space Demand

Timeframe	2021-2025	2026-2030	2031-2035	2036-2040	Total
Industrial Floor Space (sq. m.)	67,000	57,400	95,000	104,300	323,700
Total Land Required (hectares)	19.5	16.6	28.2	31	95.3

Institutional Projections

Over the last 10 years, Kelowna has seen an annual average of 12,000 square metres of institutional development. Institutional development in Kelowna largely occurs through government funded infrastructure programs related to airports, hospitals, care facilities, schools and college and university expansions. This type of development is heavily reliant on regional population growth and availability of senior government funding and infrastructure programs. As a result, this form of development is less influenced by the development market and private sector, but instead more driven by major civic or provincial projects (e.g. educational or health facilities). The 2040 OCP anticipates most of the new institutional development will occur on underutilized lands designated institutional or park as well as in the Hospital District. Although a 20-year target is not established, the 2040 OCP has provided for the future expansion of critical institutions such as schools, hospitals, and other civic facilities.

Regional Context Statement

In accordance with Section 446 of the *Local Government Act*, an OCP must include a Regional Context Statement where a Regional Growth Strategy (RGS) applies to the same area as the OCP. Kelowna is within the jurisdictional boundary of the Regional District of Central Okanagan (see map 2.2). The Regional District of Central Okanagan Regional Growth Strategy Bylaw No. 1336, 2013 was adopted on June 23, 2014. The RGS establishes a vision for the region to grow in a manner that promotes economic, environmental and social health. The policy direction of the City of Kelowna OCP is consistent with the intent of the RGS. Figure 2.9 below demonstrates the connection between the RGS issue areas and goals and relevant OCP objectives and policies.

Figure 2.9: Relationship between Regional Issue Areas and the OCP

Regional Growth Strategy Issue Area & Goal	Related OCP Section	
	Pillars	**Key Objective**
Our Land To manage the land base effectively to protect natural resources and limit urban sprawl	 	**Objective 4.1.** Strengthen the **Urban Centres** as Kelowna's primary hubs of activity. **Objectives 4.15 and 5.15.** Protect and increase greenery in **Urban Centres** and the **Core Area**. **Objective 5.1.** Encourage Village Centres as Kelowna's secondary hubs of activity. **Objective 5.2.** Focus residential density along Transit Supportive Corridors to improve **Core Area** Neighbourhood livability. **Objective 7.2.** Design Suburban Neighbourhoods to be low impact, context sensitive and adaptable. **Objective 8.4.** Stop urban sprawl into Rural Lands. **Objective 13.1.** Prioritize infrastructure investment targeting high growth areas.
Our Economy To develop and enhance a positive business environment in the region to achieve a dynamic, resilient and sustainable economy		**Objective 4.1.** Strengthen the **Urban Centres** as Kelowna's primary hubs of activity. **Objective 5.5.** Focus large format commercial along the Highway 97 corridor. **Objective 5.7.** Encourage employment-intensive **industrial** uses in the **Core Area**.

	 	Objective 6.1. Support the evolution of the University of British Columbia – Okanagan into a more complete community. **Objective 6.3.** Support the strategic and planned growth of Kelowna International Airport as a regional economic generator. **Objective 6.4.** Support the continued development of **industrial** lands. **Objectives 6.7 and 8.1.** Protect and preserve agricultural land and its capacity.
Our Water Resources To manage and protect water resources	 	**Objective 12.9.** Adapt to a changing water supply. **Objective 13.3.** Design stormwater infrastructure to mitigate flooding and pollution to our neighbourhoods, streams and Okanagan Lake. **Objective 13.4.** Provide a secure supply of water. **Objective 13.5.** Protect the supply of high-quality drinking water. **Objective 14.3.** Preserve Okanagan Lake for its environmental, traditional, cultural, spiritual, and recreational values.
Our Health To contribute to the improvement of community health, safety, and social wellbeing	 	**Objectives 4.14 and 5.13.** Design **Urban Centres** and **Core Area** public spaces to foster strong social connections and community safety. **Objective 4.2.** Foster more inclusive and socially connected **Urban Centres**. **Objective 5.4.** Strategically locate community services to foster greater inclusion and social connections in the **Core Area**. **Objective 5.6.** Support the strategic and planned growth of the Kelowna General Hospital campus as the region's most critical health facility. **Objective 9.1.** Incorporate **equity** into planning decisions and resource allocation in our community. **Objective 9.2.** Strengthen the relationship with the **syilx/Okanagan** people through initiatives and processes to advance and support reconciliation in Kelowna. **Objective 9.3.** Develop diverse partnerships to advance complex social planning issues and increase community wellbeing. **Objective 10.1.** Acquire new parks to enhance livability throughout the city. **Objective 14.1.** Promote strategies that reduce local air pollution and people's exposure to air pollutants.

Our Food To support a regional food system that is healthy, resilient and sustainable	 	**Objectives 4.9, 5.8, 6.5 and 7.5.** Strengthen the local food system to increase food security, equitable access to healthy food and social connections. **Objectives 4.10, 5.9, 6.8, 7.4 and 8.2.** Ensure a compatible urban-rural interface that protects agricultural uses. **Objectives 6.7 and 8.1.** Protect and preserve agricultural land and its capacity. **Objective 6.18.** Maintain safe roads that support agricultural uses. **Objective 8.3.** Strengthen the local food system to increase food security and social connections. **Objective 8.4.** Stop urban sprawl into Rural Lands.
Our Housing To improve the range of housing opportunities to meet the social and economic needs of the region	 	**Objective 4.1.** Strengthen the **Urban Centres** as Kelowna's primary hubs of activity. **Objectives 4.11 and 5.10.** Increase the diversity of housing types and tenures to create inclusive, affordable and complete **Urban Centres** and **Core Area**. **Objectives 4.12 and 5.11.** Protect citizens from displacement due to Urban Centre and Urban Core development. **Objectives 4.13 and 5.12.** Protect the rental housing stock. **Objective 5.2.** Focus residential density along Transit Supportive Corridors to improve **Core Area** Neighbourhood livability. **Objective 5.3.** Design residential infill to be sensitive to neighbourhood context. **Objective 6.10 and 7.7.** Prioritize the construction of purpose-built rental housing. **Objective 7.6.** Support a variety of low-density housing.
Our Climate To minimize regional greenhouse gas emissions and respond to the impacts of climate change	 	**Objective 4.1.** Strengthen the **Urban Centres** as Kelowna's primary hubs of activity. **Objective 8.4.** Stop urban sprawl into Rural Lands. **Objective 12.1.** Design the community to reduce greenhouse gas (GHG) emissions. **Objective 12.2.** Prioritize climate change mitigation and adaptation in City operations. **Objective 12.3.** Encourage the community to take action to mitigate and adapt to climate change. **Objective 12.4.** Improve energy efficiency and reduce greenhouse gas emissions of new buildings **Objective 12.5.** Improve energy efficiency and reduce operational greenhouse gas emissions of existing buildings.

		Objective 12.6. Transition toward 100 per cent renewable energy by 2050. **Objective 12.7.** Support the transition to emerging low-emission transportation technologies. **Objective 12.8.** Support the community to prepare for and become resilient to the impacts of climate change. **Objective 12.10.** Invest in ecosystem services and green infrastructure to mitigate and adapt to a changing climate. **Objective 12.11.** Increase **resilience** to extreme weather events.
Our Ecosystems Be responsible stewards of natural ecosystems to protect, enhance and restore biodiversity in the region	 	**Objective 12.12.** Reduce risk to public health, the local economy and the environment related to invasive species. **Objective 14.2.** Protect and expand a healthy and viable **urban forest.** **Objective 14.4.** Preserve and enhance biodiversity and landscape diversity, integrating and connecting ecological networks through the city. **Objective 14.5.** Protect and restore environmentally sensitive areas from development impacts. **Objective 14.6.** Provide compensation for unavoidable habitat losses.
Our Transportation To enhance the regional transportation system to ensure that it is accessible, affordable, and efficient	 	**Objective 4.16.** Make **Urban Centres** safe and enjoyable for walking, biking, transit and shared mobility. **Objective 4.17.** Develop a well-connected grid network of streets to shorten walking distances and improve traffic circulation. **Objectives 4.21, 5.22 and 6.20.** Adapt and respond to emerging transportation technologies. **Objective 5.2.** Focus residential density along Transit Supportive Corridors to improve **Core Area** Neighbourhood livability. **Objective 5.17.** Create major streets that are walkable, support local retail and connect neighbourhoods to **Urban Centres** by car, bike and transit. **Objectives 5.19, 6.17 and 13.8.** Protect and enhance the Okanagan Rail Trail as a vital transportation corridor linking communities in the Okanagan Valley. **Objective 6.16.** Develop a well-connected supporting street network to facilitate travel by alternate modes and reduce reliance on Highway 97. **Objective 7.10.** Reduce dependence on the automobile where possible.

Our Governance To respond to the needs of the region with an effective and efficient governance service model		**Objective 16.3.** Strategically deliver on implementation actions.

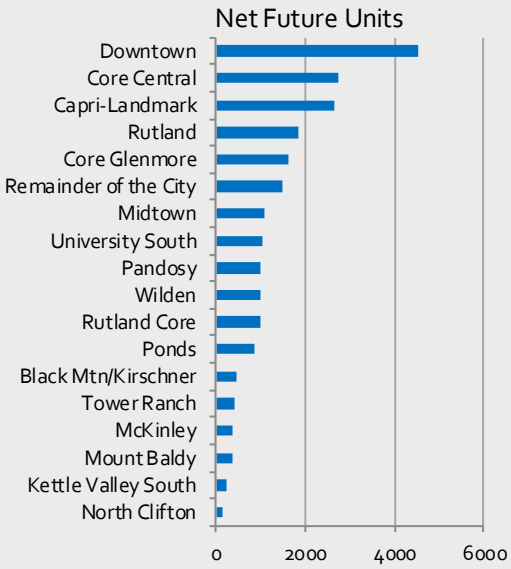
Placeholder for Map 2.1

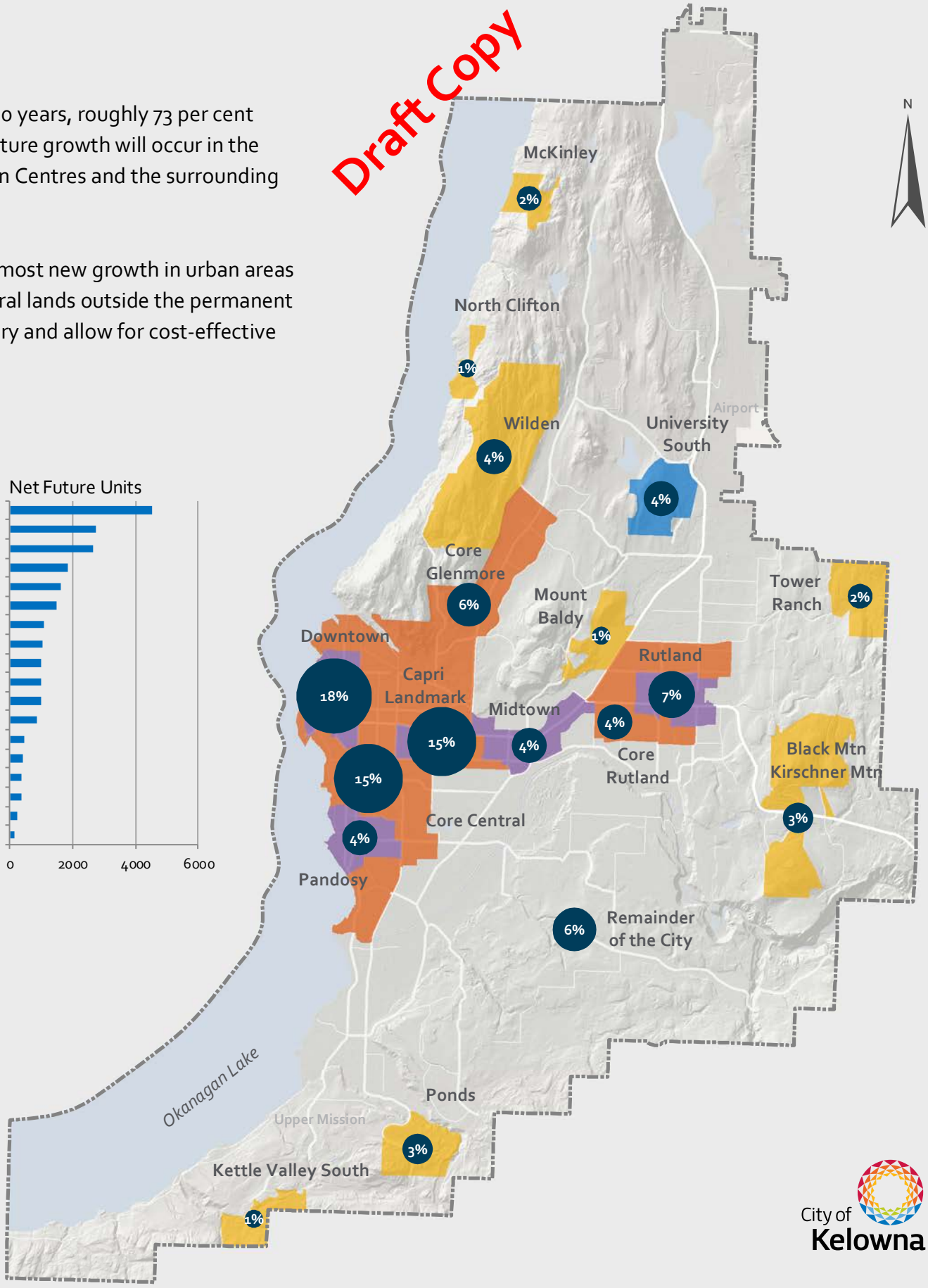
Map 2.2 Anticipated Residential Unit Distribution

Over the next 20 years, roughly 73 per cent of Kelowna's future growth will occur in the City's five Urban Centres and the surrounding Core Area.

Concentrating most new growth in urban areas will preserve rural lands outside the permanent growth boundary and allow for cost-effective servicing.

Draft Copy





This draft map is for consultation purposes only. This is not a final version.

How to use these designations

The Future Land Use Designations for the Official Community Plan are outlined below and summarized in Map 3.1 – Future Land Use. They were developed using the **Growth Strategy** outlined in *Chapter 1: The Big Picture* and the projections and **Growth Scenario** outlined in *Chapter 2: Planning Context*. They both inform and respond to the policies and directions set out in the Transportation Master Plan and the 20 Year Servicing Plan.

While the Future Land Use designations establish a general land use vision for Kelowna, it is the **Zoning Bylaw** that regulates the specific uses and density that are permitted to occur on the land. Each Future Land Use designation includes a range of uses, densities and forms to guide decision making for development in a particular neighbourhood or property, but the intent is to allow for site specific land use decisions to consider the site's characteristics and context, as well as all relevant 2040 OCP policies and **supplementary plans**. As such, not every property will achieve the full development potential outlined by these land use designations. For some properties, a land assembly may be required for a project to achieve a designation's intent.

Future Land Use Designations

Urban Centres (UC)

Growth Strategy Role

Urban Centres are the city's largest activity hubs. They are characterized by a mix of **high density** residential development, the largest concentration of commercial and employment uses in the city, arts and cultural services, and a high quality public realm. They offer the most walkable environments, have the best transit service and the most access to active transportation and shared mobility options.

There are five **Urban Centres** in Kelowna: Downtown, Pandosy, Capri Landmark, Midtown and Rutland, each of them with their own unique characteristics. The **Urban Centres** focus anticipated growth to provide a greater variety of housing and employment closer together. This makes more effective use of infrastructure investments, promotes transit use, walking and biking and reduces development pressure in rural and agricultural areas.

Supported Uses and Typologies

This designation is characterized by the highest densities of mixed-use, commercial, institutional and residential uses in the city, as well as other uses that support a vibrant and growing urban neighbourhood. Commercial uses are located at grade with commercial and/or residential uses located above.

More detailed policy for the **Urban Centres** can be found in *Chapter 4: Urban Centres.*

Urban Centres Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• Multi-dwelling residential • Apartment housing • Mixed use development • Commercial, including office, retail and visitor accommodation • Institutional	• Ground oriented multi-dwelling housing • Low, mid and **high-rise buildings**, as outlined in Chapter 4: Urban Centres	• Downtown: Approximately 9.0, where consistent with Urban Centre policy • Capri-Landmark: Approximately 4.5 and guided by the Capri Landmark Urban Centre Plan • Other **Urban Centres**: Approximately 2.5 and guided by Urban Centre policy.	• Guidance through Urban Centre Plans, other supplementary plans

Village Centre (VC)

Growth Strategy Role

Village Centres act as small hubs of activity in the city serving their immediate surroundings, providing basic, day-to-day services within a short walking or biking trip. This contributes to the overall livability of **Core Area**, Gateway and Suburban neighbourhoods by providing these options closer to residents. Village Centres in the **Core Area** would typically have a larger commercial component, servicing a more densely populated neighbourhood, while Village Centres in Suburban Neighbourhoods would likely have a smaller commercial component and serve a more sparsely populated neighbourhood. The University South Village Centre plays a unique role in the Gateway, serving growth at UBCO.

Supported Uses and Typologies

Village Centres should support a mix of commercial and multi-dwelling residential uses that form an activity hub, serving nearby neighbourhoods. Commercial floor space is typically between 3,000 and 15,000 square metres. Residential uses are supported at grade and commercial uses would be located at grade along key transportation routes or as signaled in more detailed policy.

More detailed policy for the Village Centres can be found in *Chapter 5: The Core Area, Chapter 6: Gateway and Chapter 7: Suburban Neighbourhoods.*

Village Centres Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• Multi-dwelling residential • Apartment housing • Mixed use development • Commercial, including small scale office, retail • Institutional • Tourist accommodation (Cook Truswell Village Centre only)	• Ground oriented multi-dwelling housing • Low-rise buildings • Mid-rise buildings (Cook / Truswell Village Centre only)	• Approximately 2.0 or as guided by policy. • Approximately 3,000 – 15,000 m^2 of commercial floor space. Core Area village centres are expected to be larger than	• Guidance through additional as outlined in Chapter 5: Core Area, Chapter 6, Gateway and Chapter 7: Suburban Neighbourhoods.

		Suburban village centres	

Core Area Neighbourhood (C-NHD)

Growth Strategy Role

Core Area Neighbourhoods will accommodate much of the city's growth through sensitive residential infill, some **low rise buildings** permitted in strategically located properties, and more opportunities for local commercial and institutional development. Except where located along a Transit Supportive Corridor, new development would be largely in keeping with the existing scale and building orientation of the neighbourhood to maintain the overall feel, particularly in Heritage Conservation Areas. Residents of **Core Area** Neighbourhoods would have easier access to **Urban Centres** and Village Centres for many of their day-to-day shopping and employment needs while their alignment along Transit Supportive and **Active Transportation Corridors** would make it easier to reach other areas of the city without a car.

Supported Uses and Typologies

Core Area Neighbourhoods should support a variety of **ground-oriented** housing types, including **small lot single detached housing, two-dwelling housing, secondary suites, carriage houses** and **ground-oriented multi-dwelling housing**. Small-scale local commercial and institutional uses that serve the surrounding residents, like corner stores, daycares and places of worship, are also supported in **Core Area** Neighbourhoods.

Stacked townhouses and **low-rise apartments** are supported adjacent to **Transit Supportive Corridors**, with mixed use commercial and residential development supported where two such corridors intersect. Consideration for these uses and typologies in areas not adjacent to **Transit Supportive Corridors** may be considered strategically on larger sites where a project provides affordable housing, amenity space, and parks, and transitions sensitively into adjacent neighbourhoods as guided by Policy 5.3.3: Strategic Density.

Additional policy direction for **Core Area** Neighbourhoods can be found in *Chapter 5: The Core Area.*

Core Area Neighbourhood Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• Single and two dwelling residential • Ground oriented multi-dwelling residential • Small-scale commercial and institutional • Stacked townhouses* • Apartment housing* • Mixed use development*	• Attached and detached buildings up to 3 storeys • Multi-dwelling buildings up to approximately 6 storeys*	• Approximately 1.0 • Allow for up to approximately 1.8 along Transit Supportive Corridors and strategic locations	• Sensitive infill in keeping with neighbourhood scale and orientation • Buildings oriented to Transit Supportive Corridor • Sensitivity to Heritage Conservation Areas

** Along Transit Supportive Corridors.*

Core Area – Health District (C-HTH)

Growth Strategy Role

The Health District supports the operations of Kelowna General Hospital campus and associated health care uses and integrates the campus with the surrounding neighbourhoods, recognizing their unique heritage character.

Supported Uses and Typologies

The Health District integrates uses in support of the Kelowna General Hospital campus with the surrounding communities and provides a moderating transition in scale from a major institutional centre to adjacent established residential areas that incorporate heritage components. Accordingly, the Health District will

accommodate a range of health focused uses that complement the Kelowna General Hospital including health administration, health education, patient services or care facility operation.

The Health District designation also encompasses a range of residential uses that are intended to support the hospital as well as transition between the hospital and surrounding low-density residential areas. Based on the location within the hospital district, residential uses envisioned include ground oriented residential forms such as row housing, stacked townhouses and low-rise apartments in cases where lots are assembled and an adequate transition is provided with surrounding neighbourhoods. Integration of health services with these residential uses is encouraged.

Core Area – Health District Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• Institutional (health services) • Ground oriented multi-dwelling residential • Small-scale commercial • Apartment housing	• Attached and detached buildings up to 3 storeys • Multi-dwelling buildings up to approximately 6 storeys*	• Approximately 1.5 • Allow for up to approximately 1.8 for residential uses along TSCs and strategic location.	• Development should be consistent with the Hospital Area Plan.

Suburban – Residential (S-RES)

Growth Strategy Role

Suburban Residential lands will accommodate most of the city's single and two dwelling residential growth in the Suburban Neighbourhoods and Gateway Districts using clustering and neighbourhood design that responds to the surrounding context, including hillsides and environmentally sensitive areas.

Supported Uses and Typologies

These portions of suburban neighbourhoods support single and two dwelling housing, with opportunities for secondary suites and carriage houses. Complimentary uses such as minor care centres and home based business may also be supported, but larger non-residential uses in Suburban Neighbourhoods should be directed towards Neighbourhood Commercial or Village Centre lands.

Additional policy direction for Suburban Residential lands can be found in *Chapter 6: Gateway and Chapter 7: Suburban Neighbourhoods.*

Suburban – Residential Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• Single and two dwelling residential • Secondary suites and carriage houses. • Small scale institutional uses.	• Attached and detached buildings	• N/A	• Considerations for hillside and environmental context.

Suburban – Multiple Unit (S-MU)

Growth Strategy Role

Suburban Multiple Unit lands support a greater variety of multi-dwelling housing in the Gateway and Suburban Neighbourhoods District, located strategically to support the viability of Local Commercial areas, Village Centres and, in some cases, transit service, schools and other community amenities. Some Suburban Multiple Unit lands are located in the Rural Lands District to reflect existing multi-dwelling development only.

Supported Uses and Typologies

Suburban Multiple Unit lands support various forms of single and two family residential, ground oriented multi-dwelling housing, including house-plexes, row housing and low rise apartments. Small scale commercial or institutional uses may be incorporated into Suburban Multiple Unit lands where they are integrated into the larger residential component.

Additional policy direction for Suburban Multiple Unit lands can be found in *Chapter 6: Gateway*, *Chapter 7: Suburban Neighbourhoods and Chapter 8: Rural Lands.*

Suburban – Multiple Unit Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• Single and two dwelling residential • Ground oriented multi-dwelling residential • Low rise apartments • Secondary suites and carriage houses.	• Attached and detached buildings up to 4 storeys	• Up to approximately 1.3.	• Considerations for hillside and environmental context.

Regional Commercial (RCOM)

Growth Strategy Role

Regional Commercial lands accommodate the **large format retail** and commercial uses that are expected to be more commonly accessed by car over the 20 year life of this plan. While many areas in the City are strategically targeted to redevelop into higher density mixed use neighbourhoods, the Regional Commercial lands, for the 20 year life of this OCP, are intended to continue to capture the growth of larger format commercial and service commercial uses.

Supported Uses and Typologies

Regional Commercial lands are characterized by large format development for the sale of goods and services and includes businesses that require extensive onsite storage as well as service commercial uses. Office uses may be considered where secondary to commercial uses and where they are located on the second storey or above.

While residential uses may be present in some circumstances, they are secondary to the commercial uses and their location must be carefully considered based on proximity and access to amenities like parks and schools as well as adjacent uses as guided by Policy 5.5.4.

Additional policy direction for Regional Commercial lands can be found in *Chapter 5: Core Area and Chapter 6: Gateway.*

Regional Commercial Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• Commercial, including, retail, tourist accommodation and small scale office. • Service commercial • Apartment housing*	• Buildings up to approximately 4 storeys	• N/A	• Considerations for transit orientation and pedestrian safety and comfort.

** Where guided by policy in Chapter 5: Core Area.*

Neighbourhood Commercial (NCOM)

Growth Strategy Role

Neighbourhood Commercial areas are envisioned to support small scale commercial development in Suburban Neighbourhoods and Rural lands to provide basic day to day services in closer proximity to those residents. This allows residents of these neighbourhoods to access these services by way of a walk, bicycle trip or a shorter drive that reduces demand on the city's major road network.

Supported Uses and Typologies

Neighbourhood Commercial development is characterized by buildings with commercial uses at grade primarily one to two storey development, and where in keeping with the neighbourhood context, up to approximately four storeys. Commercial floor space is typically up to approximately 3,000 square metres.

Neighbourhood Commercial Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• Retail commercial • Apartment housing above the first floor.	• Buildings up to approximately 4 storeys	• Up to approximately 3,000 m2 of commercial space.	• Integration with surrounding neighbourhoods.

Industrial (IND)

Growth Strategy Role

Industrial lands are an important component to Kelowna's economic development and diversification. However, in a growing city, uses on these lands are often outcompeted for commercial and residential uses, eroding this local employment base. As outlined in the **Growth Strategy**, **industrial** lands should be protected, but new and creative ways for these lands to maintain the economic viability are key to retaining them as a critical piece of Kelowna's future as it grows.

Supported Uses and Typologies

Industrial lands consist of a range of manufacturing, production, repair, processing, storage and distribution activities. Office space is discouraged but may be supported where ancillary to the primary **industrial** activities. **Industrial** uses that are characterized by higher employment densities should be located near or adjacent to **Urban Centres** or within the **Core Area**. **Industrial** uses with larger footprints and massing would be directed to the Gateway.

Complementary uses, such as retail associated with the production on site and restaurants, would be supported in these areas, but would be secondary to the production activities that characterize these areas.

Additional policy direction for **Industrial** lands can be found in *Chapter 5: Core Area* and *Chapter 6: Gateway.*

Industrial Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• **Industrial** uses including manufacturing, repair, processing, storage and distribution • Accessory retail and office space	• Buildings up to approximately 4 storeys	• N/A	• Sensitive transitions into adjacent neighbourhoods • Higher employment densities in **Core Area**, lower employment densities in the Gateway.

Educational / Institutional (EDINST)

Growth Strategy Role

The location of key educational and institutional uses, such as schools, post-secondary institutions and hospitals, is critical to the quality of life of Kelowna residents. As neighbourhoods evolve and change as the city grows, the City, senior levels of government and other key institutions must be well positioned to offer their services in areas that are close to areas targeted for growth, easy to access by modes other than the automobile and be well designed and integrated into the surrounding neighbourhood.

Increasing development pressure may result in the loss of institutional lands, making it more difficult for those uses to be accommodated in the future. Any proposals for new uses, such as residential development, should considered carefully on a site by site basis and could require an OCP Amendment.

Supported Uses and Typologies

The Educational / Institutional designation signals where key educational, cultural, government and religious activities take place. The designation is characterized by schools, hospitals, places of worship, recreation centres and other facilities that provide public services delivered by governments or not-for-profit institutions.

Educational / Institutional Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• Schools and post secondary institutions • Government and not-for-profit offices and services • Health services • Cultural and recreation facilities • Places of worship • Shelters and supportive housing	• Various	• N/A	• N/A

Rural – Residential (R-RES)

Growth Strategy Role

Rural Residential lands have been developed for low-density residential use and are generally located outside of the **Permanent Growth Boundary** (PGB) in the Rural Lands district. Due to their rural location, these areas may or may not have urban utility services. However, some residential neighbourhoods that have servicing or are signaled for servicing for health and safety reasons are also included in this designation. No further intensification would be supported in these locations, as doing so would increase interface issues with **agricultural lands** and places a greater burden on transportation and utility infrastructure. However, secondary suites within a primary building are supported and carriage houses may be considered in certain circumstances.

Supported Uses and Typologies

Rural Residential lands support primarily single dwelling housing on larger lots, as well as complimentary uses that do not place a significant burden on the limited utility and transportation infrastructure in these areas, such as home based businesses, home based child care centres and secondary suites.

Additional policy direction for Rural Residential lands can be found in *Chapter 8: Rural Lands.*

Rural Residential Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• Single dwelling housing • Secondary suites and carriage houses. • Low impact complimentary uses	• Single detached homes	• N/A	• Limited urban services.

Rural – Agricultural and Resource (R-AGR)

Growth Strategy Role

The Agricultural/Resource designation applies primarily to lands used for agricultural purposes both inside and outside of the **Agricultural Land Reserve** (**ALR**). The designation also includes lands that are not actively farmed, but which are located outside of the **Permanent Growth Boundary** (PGB). This designation primarily aims to protect **agricultural lands** from urban encroachment and incompatible uses, and in doing so, reinforces the PGB and focuses growth into lands within the PGB.

Supported Uses and Typologies

Lands within the Agricultural and Resource designation will be supported for agricultural and resource uses, but will not be supported for urban development or for uses that could have a negative impact on agriculture.

Additional policy direction for Rural – Agricultural and Resource lands can be found in *Chapter 6: Gateway and Chapter 8: Rural Lands.*

Rural – Agricultural and Resource Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• Single dwelling housing • Low impact complimentary uses • Agriculture • Resource extraction	• Single detached homes • Agricultural structures	• N/A	• Limited urban services.

Parks (PARK)

Growth Strategy Role

Parks are a critical component to the success of Kelowna's **Growth Strategy** given their central role in providing a high quality of life for residents. As neighbourhoods evolve and change as the city grows, the strategic location of parks will help ensure that these neighbourhoods become even more attractive, desirable places to live.

Supported Uses and Typologies

The Parks designation is characterized by public parks and outdoor recreation uses where there is a high level of activity anticipated. Limited small scale complimentary commercial or institutional uses may be supported where they enhance the enjoyment of park users.

Additional policy direction for Parks lands can be found in *Chapter 10: Parks.*

Parks Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• Recreation and cultural services	• Variable to support parks uses	• N/A	• Designed for active uses.

• Limited retail commercial to support park uses			

Natural Areas (NAT)

Growth Strategy Role

As the city grows, natural areas will need to be protected and preserved for the ecological or public safety services they provide and in some cases, for the enjoyment of Kelowna residents and visitors.

Supported Uses and Typologies

The Natural Areas designation consists of lands that are intended to remain largely in their natural state, requiring little or no maintenance by the City. Wetlands, hillsides, ravines, **riparian areas** and other environmentally sensitive lands may be included in this designation. While the intent is for these areas to remain primarily natural, access for low impact activities, such as hiking, are often incorporated in these areas. These lands could also include infrastructure that mimics natural processes. These may include reservoirs, stormwater ponds, and channelized creeks.

Additional policy direction for Parks lands can be found in *Chapter 10: Parks* and *Chapter 14: Natural Environment.*

Natural Areas Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• Recreation and cultural services • Natural open space	• Variable to support parks uses	• N/A	• Designed for passive uses.

Private Recreational (REC)

Growth Strategy Role

Private Recreational lands are privately owned properties that complement the publicly owned parks in Kelowna by offering specific outdoor recreational activities, contributing to the quality of life of Kelowna residents and visitors.

Supported Uses and Typologies

Private Recreational lands are characterized by large scale private outdoor recreation uses where there is a high level of activity anticipated. Uses could include golf courses or driving ranges, and similar activities operating as commercial ventures or clubs.

Private Recreational Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• Recreation and cultural services • Limited retail commercial to support recreational uses	• Variable to support recreational uses	• N/A	• Designed for active uses.

Public Services / Utilities (PSU)

Growth Strategy Role

Utility and transportation infrastructure is required to provide Kelowna residents, visitors and businesses with a high quality of life, economic growth and improved health and safety outcomes.

Supported Uses and Typologies

Public Services / Utilities lands signal locations of existing and future facilities that provide utility and transportation services to the public. Such uses include the landfill operation, electrical, gas or telephone

installations, sewage treatment facilities, irrigation and water infrastructure and Kelowna International Airport.

Public Services / Utilities Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• Utility and communication infrastructure • Airport and aviation uses • Transportation infrastructure • Landfill operations • Renewable energy infrastructure	• Variable to support utility and transportation infrastructure uses	• N/A	• As guided by OCP policy.

Transportation Corridor (TC)

Growth Strategy Role

The Transportation Corridor designation illustrates the route for the Okanagan Rail Trail, which acts as an important transportation and recreation corridor in the city.

Supported Uses and Typologies

Uses along the Transportation Corridor focus on alternatives to the private automobile. Such uses include biking and walking infrastructure, with the possibility of transit service in the future. Automobile access and use is strongly discouraged.

Transportation Corridor Summary

Supported Uses	Supported Forms	Density (FAR)	Other Characteristics
• Transportation infrastructure	• N/A	• N/A	• Automobile access and use discouraged.

First Nations Reserve (FNR)

The First Nations Reserve designation signals reserve lands as provided by the Federal Government for use by First Nations people. Okanagan Indian Band's Reserve #7, located at the northerly limit of the city, is currently developed as **industrial**, manufactured home parks, recreational vehicle resorts and campgrounds. Additional development potential has not been identified at this time.

Westbank First Nation's Reserves #8 and #12 are located in the Rural Lands District along Mission Creek near Casorso Road and towards the City's eastern boundary. These lands today are largely rural in character and are currently in a primarily natural state.

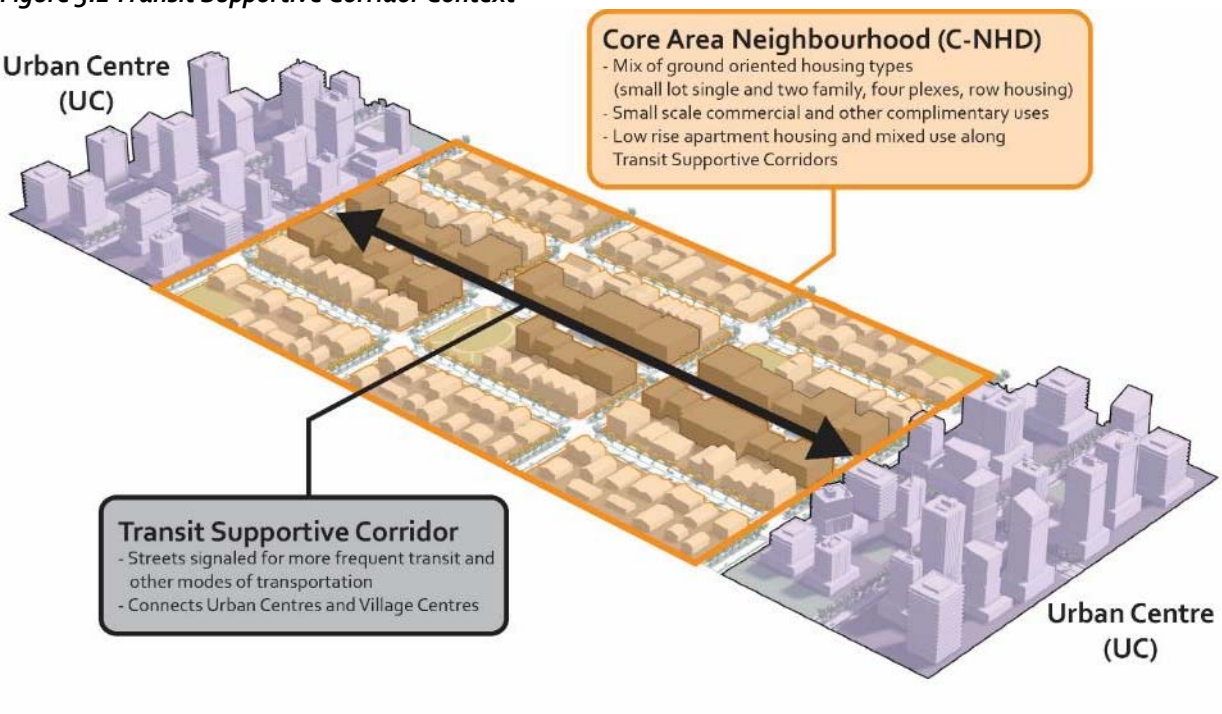
Additional Mapping Notes

Transit Supportive Corridors

Transit Supportive Corridors are streets that are identified to support a higher density and greater mix of uses in the **Core Area** generally along the Frequent Transit Network where investments in service are anticipated, as outlined in Figure 3.1, below.

Detailed policy direction for development proposed along Transit Supportive Corridors can be found in *Chapter 5: The Core Area.*

Figure 3.1 Transit Supportive Corridor Context



Permanent Growth Boundary

Lands within the **permanent growth boundary** may be considered for **urban uses** within the 20 year planning horizon ending 2040. Lands outside the **permanent growth boundary** will not be supported for **urban uses**. Non-ALR land outside the **Permanent Growth Boundary** will not be supported for any further parcelization.

Temporary Use Permits

In accordance with the Local Government Act Section 492, an Official Community Plan may designate areas where Council may consider allowing temporary uses, and may specify general conditions regarding the issuance of temporary use permits in those areas. The temporary use designation is intended to apply to operations that are temporary in nature and the designation does not in itself permit specific uses on the designated sites. Within these areas, Council may, by resolution, issue a Temporary Use Permit and specify the conditions under which the temporary use be carried on. Upon the expiration of a Temporary Use Permit, the permitted uses revert to those outlined in the City of Kelowna Zoning Bylaw 8000.

Temporary Use Permits may be considered within the **Permanent Growth Boundary** (PGB) on all lands designated as Urban Centre, Village Centre, Regional Commercial, Neighbourhood Commercial, Education / Institutional, **Industrial**, or Public Service / Utility. Temporary Use Permits outside the PGB may be considered on lands designated Rural – Agricultural and Resource, with a stated time period considerably less than the maximum three (3) year time limit. A Temporary Use Permit on lands in the ALR will require the approval of the **Agricultural Land Commission.** All Temporary Use Permits must conform to other policy direction in this OCP, including fit within the character of the neighbourhood and surrounding uses. Appropriate landscaping, screening and buffering will be included as conditions of the permit to protect adjacent land uses.

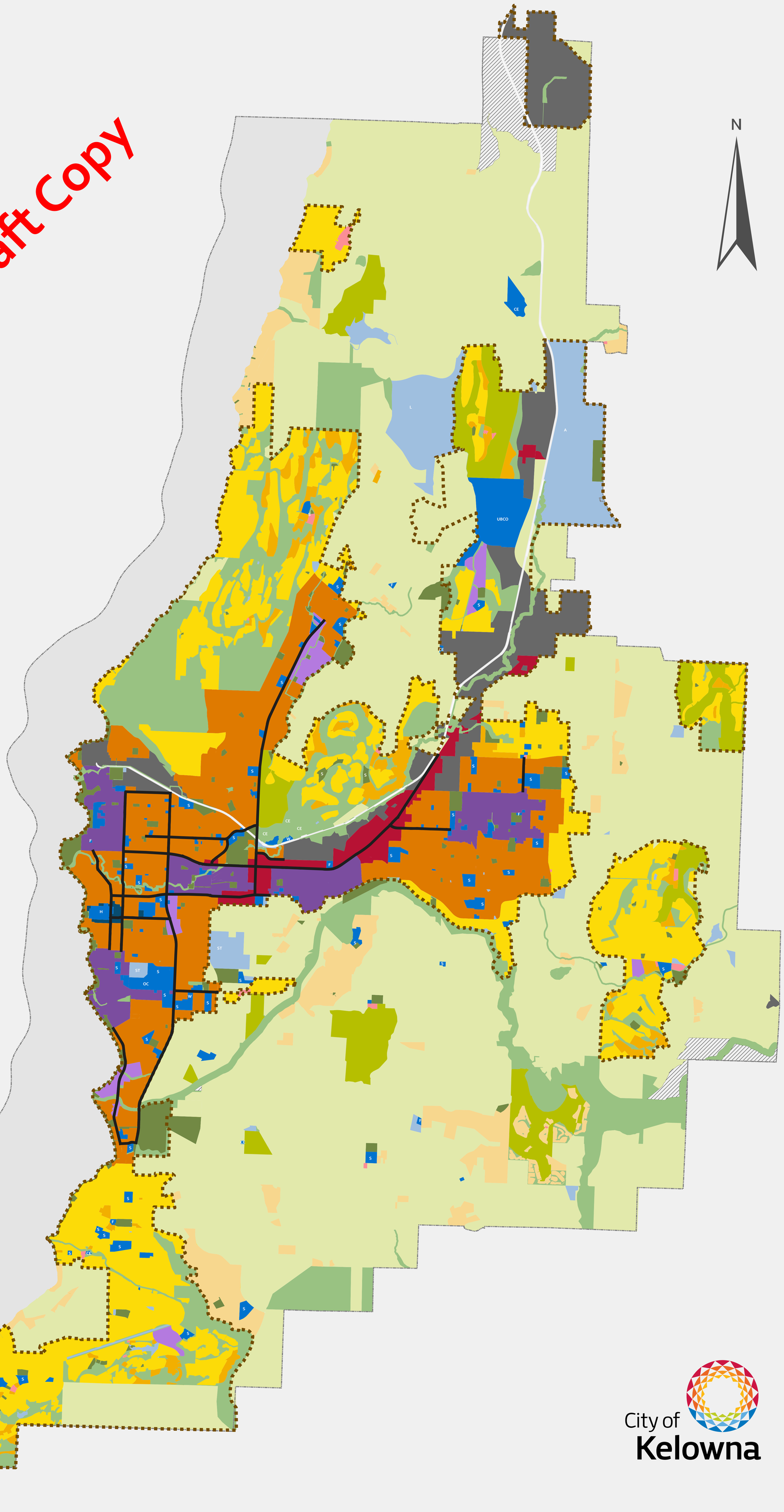
2040 Official Community Plan

Map 3.1 Future Land Use

Draft Copy

- Permanent Growth Boundary
- UC - Urban Centre
- VC - Village Centre
- C-NHD - Core Area Neighbourhood
- C-HTH - Core Area - Health District
- S-RES - Suburban Residential
- S-MU - Suburban Multiple Unit
- R-RES - Rural Residential
- R-AGR - Rural - Agricultural & Resource
- RCOM - Regional Commercial Corridor
- NCOM - Neighbourhood Commercial
- IND - Industrial
- EDINST - Education / Institutional
- PARK - Park and Open Space
- REC - Private Recreational
- NAT - Natural Area
- TC - Transportation Corridor
- PSU - Public Service Utilities
- FNR - First Nations Reserve
- Transit Supportive Corridor

A Airport
F Firehall
H Hospital
L Landfill
S School
W Works Yard
CE Cemetery
ST Sewage Treatment
UBCO University of B.C. Okanagan
OC Okanagan College



Adaptive Re-Use of Heritage Buildings may be permitted within any Future Land Use Designation.

Temporary Commercial and Industrial Uses are not shown on this map.

Landuse designations apply only to legal parcels (i.e. roads, creeks, wetlands, etc. that are not a separate legal parcel have no land use designation applicable). The colours on the Future Land Use Map that extend to the middle of these features are applied to improve map aesthetics.

City of Kelowna

Rev. Aug 21, 2020

This draft map is for consultation purposes only. This is not a final version.

0 1 2 Kms

When most people think of cities, they think of places that are dense, vibrant hubs humming with activity all day long. These places are where work, live and play collide to build a whole greater than the sum of each part. Not only are these places vital and engaging places to be, they also play a central role in Kelowna's **Growth Strategy** as the city's **Urban Centres**. By investing in and supporting our **Urban Centres**, we are also able to make the shift away from urban sprawl towards a model that embraces complete communities and sustainable transportation options.

However, **Urban Centres** do not happen by accident and they do not happen overnight. They are the result of careful, deliberate decisions and actions over a long period of time. Directions around land use, housing, and transportation must all work together towards the same ends if our **Urban Centres** are to succeed.

Urban Centres should support the city's greatest intensity and range of land uses– from offices, retail to restaurants, schools and parks – to support a complete community. A variety of medium to high-density housing types and tenures should also be available for residents, all supported by easy, reliable access to multiple sustainable transportation options.

Even with those key elements in place, **Urban Centres** must reach further by creating compelling, attractive and walkable environments for residents, workers and visitors, and by satisfying the community's need to engage with and to celebrate culture.

Land Use and Urban Design

Land use and urban design decisions should support a greater intensity of employment and residential density to ensure **Urban Centres** become Kelowna's primary hubs of activity. They should aim to provide all daily necessities within a short walk or cycle, preparing communities for the shift to a low-carbon economy. These complete communities should also reflect the diversity of the citizens of Kelowna and build connections between the people that live, work and visit these areas.

Both the City and the community have a role to play in making the **Urban Centres** exciting hubs of activity. New development should carefully consider its role in creating a lively street and be very thoughtful of the impacts of larger, taller buildings in the surrounding neighbourhood. The City should support new and innovative approaches to land use that contribute to the vibrancy of **Urban Centres** while advancing inclusion and support services for existing and future citizens.

Objective 4.1. Strengthen the Urban Centres as Kelowna's primary hubs of activity.

Policy 4.1.1. **Live/Work Balance.** Direct growth in **Urban Centres** to achieve densities of 150-250 combined residents and jobs per hectare, with a composition of 2:1 residents to jobs or as outlined in an Urban Centre Plan.

Policy 4.1.2. **Urban Centre Hierarchy.** Focus the greatest intensity of uses and scale of development Downtown in recognition of its role as the largest Urban Centre. Scale development in other **Urban Centres** in accordance with Figure 4.1 and based on their anticipated context, supporting infrastructure and amenities.

1. Downtown
2. Capri-Landmark
3. Midtown
4. Pandosy
5. Rutland

Figure 4.1 Urban Centre Hierarchy

Policy 4.1.3. **Urban Centres Roadmap.** Use the *Urban Centres Roadmap* to assist in providing guidance for growth and development in **Urban Centres**.

Policy 4.1.4. **Office Development.** Direct **large office** developments to **Urban Centres** first, with emphasis on Downtown as a preferred destination. Within **Urban Centres**, encourage office development near the **Frequent Transit Network,** transit stations and exchanges.

Policy 4.1.5. **Post-Secondary Institutions.** Encourage the growth of post-secondary institutions and satellite campuses in **Urban Centres**.

Policy 4.1.6. **High Density Residential Development.** Direct medium and **high-density** residential development to **Urban Centres** to provide a greater mix of housing near employment and to maximize use of existing and new infrastructure, services and amenities.

Policy 4.1.7. **Temporary and Mobile Uses.** Support temporary and **mobile uses,** such as patio applications and **parklets** to animate streets and public spaces and publicly accessible private spaces.

Policy 4.1.8. **Auto-oriented Development.** Direct **large format retail** and other commercial development that is **auto-dependent** to Regional Commercial lands to ensure that **Urban Centres** continue to grow into the city's most walkable neighbourhoods.

Policy 4.1.9. **Sequencing Development.** Discourage development on individual lots and small assemblies that would result in adjacent properties being unable to develop in a manner consistent with the vision for the Urban Centre.

Objective 4.2. Foster more inclusive and socially connected Urban Centres.

Policy 4.2.1. **Accessible Community Services.** Prioritize locating the following services in **Urban Centres** to create a more accessible and inclusive community, including, but not limited to:

- Government services;
- Medical, health and wellness services;
- Childcare, schools, libraries, and post-secondary institutions;
- Places of worship, recreation centres, and other community gathering spaces;
- Food retail, services and programs; and
- Banks and credit unions.

Policy 4.2.2. **Safety Net Supports and Services.** Recognize **Urban Centres** as key locations for **safety net supports and services**, such as shelters and services that support them, for people experiencing homelessness. Recognize that shelters are used by a diversity of people with different needs such as women fleeing violence, youth and adults. Ensure information is provided to the community to foster positive relationships and promote acceptance for these supports, services and the citizens that are using them.

Policy 4.2.3. **Complementary Uses Adjacent to Public Spaces.** Encourage opportunities for complementary uses nearby or adjacent public spaces, such as parks, including uses such as schools, care facilities, day care centres, and retail services, to provide easy access to, and animation of, public space in **Urban Centres**.

Policy 4.2.4. **Urban Centre School Sites.** Encourage the retention of existing schools and the location of new schools in areas easily accessible by children. Locations within **Urban Centres** should be promoted wherever possible and incorporate a design approach that prioritizes the needs of children while responding to smaller land acquisition requirements, including, but not limited to:

- Shared use of facilities, sports fields and playgrounds;
- Pedestrian oriented access and site circulation;
- Increased building heights; and
- Reduced parking standards.

Policy 4.2.5. **Child Care Spaces.** Facilitate the development of child care spaces including accessible, affordable, and inclusive spaces that meet the needs of the community.

Policy 4.2.6. **CPTED Principles.** Support development in **Urban Centres** that demonstrate **Crime Prevention Through Environmental Design** (**CPTED**) and **CPTED 2nd Generation** principles in its design.

Objective 4.3. Reinforce Downtown as the Urban Centre with the greatest diversity and intensity of uses in the city.

Policy 4.3.1. **Downtown Supplementary Plans.** Use the *Downtown Plan* and the *Civic Precinct Plan* for detailed policy guidance Downtown. Where policies in those plans conflict with policies in the *Official Community Plan*, the *Official Community Plan* policies shall take precedence.

Policy 4.3.2. **Major Civic and Cultural Facilities.** Continue to locate major civic and cultural facilities Downtown in a manner consistent with the *Downtown Plan* and the *Civic Precinct Plan*.

Policy 4.3.3. **Downtown Building Heights.** Support building heights Downtown that are generally consistent with Map 4.1 to accomplish the following:

- Tapering of heights from taller buildings in the centre of Downtown to lower buildings towards Okanagan Lake and adjacent **Core Area** Neighbourhoods;
- Preservation of the existing form and character of historic Bernard Avenue and other heritage sites;
- Consistency with the objectives of the Civic Precinct Plan; and
- The development of taller towers that incorporate distinct architectural features in strategic locations near Okanagan Lake.

Consideration may be given for taller buildings in unique circumstances where significant public benefit is demonstrated.

Policy 4.3.4. **Downtown Street Character.** Support development in the Downtown Urban Centre that includes the following characteristics at grade, as outlined in Map 4.2.

- Retail space along Bernard Avenue integrated with a high-quality urban streetscape experience, reinforcing the street as Downtown's high street;
- Retail space along designated **retail streets** to create more dynamic spaces with high levels of pedestrian activity; and
- Civic and cultural uses, with supporting retail uses along the Art Walk and portions of Water Street designated as **civic streets**, in keeping with the directions of the *Civic Precinct Plan.*

Policy 4.3.5. **Downtown Revitalization Tax Exemption.** Continue to support a revitalization tax exemption program to encourage investment in the Downtown.

Objective 4.4. Promote more residential development to balance employment uses in the Capri-Landmark Urban Centre.

Policy 4.4.1. **Capri-Landmark Urban Centre Plan.** Use the *Capri-Landmark Urban Centre Plan* for detailed policy guidance in the Capri-Landmark Urban Centre.

Policy 4.4.2. **Capri-Landmark Building Heights.** Support building heights in the Capri-Landmark Urban Centre that are generally consistent with Map 4.3 to accomplish the goals and objectives of the *Capri-Landmark Urban Centre Plan.*

Objective 4.5. Support infill and redevelopment to promote housing diversity and enhanced services and amenities in the Pandosy Urban Centre.

Policy 4.5.1. **Pandosy Building Heights.** Support development in the Pandosy Urban Centre that is generally consistent with the building heights outlined in Map 4.4 to accomplish the following:

- Focusing taller buildings along Pandosy Street and Lakeshore Road and tapering heights down towards Okanagan Lake to maximize the area's visual and physical connection to the lake; and
- Tapering building heights down east of Richter Street to transition into adjacent **Core Area** neighbourhoods.

Policy 4.5.2. **Pandosy Retail Street Hierarchy.** Support development in the Pandosy Urban Centre that includes the following characteristics at grade, as outlined in Map 4.5:

- Retail space along Pandosy Street and Lakeshore Road integrated with a high-quality urban streetscape experience, reinforcing this corridor as the Urban Centre's **high street**; and
- Retail space along Tutt Street and nearby streets in the "Pandosy Village" area designated as **retail streets** to create more dynamic spaces with high levels of pedestrian activity.

Policy 4.5.3. **Pandosy Character Transition.** Ensure new development along the south side of KLO Road west of Richter Street is complimentary with the form and character of the "Pandosy Village" area, as illustrated in Map 4.5, through the following approaches:

- Design of retail facades that are consistent in scale with the adjacent Pandosy Village to create a cohesive **high street** along Pandosy Street and Lakeshore Road;
- Identification of new streets and pathways that break up the shopping centre blocks, providing better east/west connectivity;
- Consistent design of off-site infrastructure, such as sidewalks, street furniture, and street trees; and
- Provision of new public spaces to provide more activity at the pedestrian scale.

Policy 4.5.4. **Okanagan College.** Support the continued growth of the Okanagan College KLO campus and its integration with the Pandosy Urban Centre.

Objective 4.6. Focus new development in Rutland strategically to create a new high-density hub to support improved services and amenities.

Policy 4.6.1. **Rutland Building Heights.** Support development in the Rutland Urban Centre that is generally consistent with the building heights outlined in Map 4.6 to accomplish the following:

- Focusing taller buildings between Shepherd Road, Dougall Road, Rutland Road and Highway 33 to support the viability of Rutland's designated **high streets**, the Rutland Transit Exchange and Rutland Centennial Park.
- Directing more modest heights along the Highway 33 and Rutland Road corridors to support transit use and the viability of commercial uses in those two corridors,
- Tapering heights down towards surrounding **Core Area** Neighbourhoods.

Policy 4.6.2. **Rutland Retail Street Hierarchy.** Support development in the Rutland Urban Centre that includes the following characteristics at grade, as outlined in Map 4.7:

- Retail space along Roxby Road and portions of Shepard and Asher Road, integrated with Roxby Square and a high-quality urban streetscape experience, reinforcing these streets as the Urban Centre's **high streets** and creating a new centre for Rutland; and
- Retail space along designated **retail streets**, including central portions of Highway 33 and Rutland Road to reinforce those major transportation routes and streets surrounding Rutland's **high streets**, to support the evolution of a new centre for Rutland.

Policy 4.6.3. **Rutland Revitalization Tax Exemption.** Continue to support a revitalization tax exemption program to encourage investment in Rutland.

Objective 4.7. Support modest residential development to transition Midtown into a transit-supportive neighbourhood.

Policy 4.7.1. **Midtown Residential Development.** Prioritize the development of multi-unit residential uses over employment uses in Midtown to support a greater live work balance, as outlined in Policy 4.1.1.

Policy 4.7.2. **Midtown Urbanization.** To address Midtown's deficiency in the pedestrian environment, poor street connectivity, lack of housing choices and public spaces, support the redevelopment of properties where the proposal demonstrates the following characteristics:

- Improved street connectivity, particularly east-west connectivity, through the identification of new streets and pathways that break up large blocks;
- Improved pedestrian environment;
- Identification and dedication of parks and public spaces;
- Integration of pedestrian oriented connections to transit infrastructure; and
- Housing mix, with consideration for affordable housing as outlined in the *Healthy Housing Strategy*.

Policy 4.7.3. **Midtown Building Heights.** In keeping with Midtown's emerging status as an Urban Centre as outlined in Policy 4.1.2, support development that is generally consistent with the building heights outlined in Map 4.8. Building heights should be highest towards the **mass transit corridor,** the Frequent Transit Network and transit exchanges, tapering down towards Springfield Road.

Policy 4.7.4. **Midtown At-Grade Retail.** Require retail at-grade along Highway 97 and adjacent to transit exchanges to support the highway's role as a **mass transit corridor**. To further support transit use, locate buildings closer to and oriented towards the corridor, provide additional landscaping treatments, and do not locate surface parking between Highway 97 and new development.

Objective 4.8. Transition sensitively to adjacent neighbourhoods and public spaces.

Policy 4.8.1. **Transitioning to Industrial and Service Commercial Uses.** Provide transitions between **Urban Centres** and adjacent **industrial** or **service commercial** uses to reduce the impacts of nuisances from those lands and to protect them from speculation for residential and commercial development. Transition approaches may include, but are not limited to:

- Introducing transitional uses that reduce compatibility concerns, such as offices, and professional and personal services;
- Strategically orienting residential and retail commercial uses on the site away from the adjacent **industrial** and service commercial uses; and
- Transitioning to lower densities and heights towards the edge of **Urban Centres**.

Policy 4.8.2. **Transitioning to Core Area Neighbourhoods.** Use height and scale to ensure that buildings avoid **height cliffs** and shadowing, transitioning gradually to adjacent **Core Area** Neighbourhoods.

Policy 4.8.3. **Shadowing Impacts.** Use height and scale to ensure that **mid-rise** and **high-rise buildings** avoid shadowing over adjacent parks, public spaces and **high streets**.

Objective 4.9. Strengthen the local food system to increase food security, equitable access to healthy food and social connections.

Policy 4.9.1. **Equitable Food Access.** Encourage the inclusion of small and mid-size grocery stores, seasonal farmers markets and emergency food services in Urban Centre neighbourhoods.

Policy 4.9.2. **Farmer's Markets.** Encourage and facilitate the development of both year-round and seasonal farmer's markets in **Urban Centres** to provide access to healthy food options.

Policy 4.9.3. **Urban Agriculture.** Encourage **urban agriculture** as a way of supporting a **healthy food system** and reducing the greenhouse gas emissions associated with food production, processing and transportation.

Policy 4.9.4. **Multi-Residential Shared Garden.** Encourage new development to include garden space and services (i.e.: water and storage) for citizens.

Policy 4.9.5. **Food Opportunities.** Allow food production on public and private land including rooftops, beehives and edible landscaping on residential boulevards, park land, backyards and rights-of-way.

Policy 4.9.6. **Community Gardens.** Encourage private and non-profit sector universally-accessible community gardens. Where appropriate, consider the use of city-owned land for use as community gardens.

Policy 4.9.7. **Indigenous Forest Gardens.** Partner with **syilx/Okanagan** communities to develop, forest gardens that focus on the cultivation of native and culturally important species of plants for food and medicine.

Objective 4.10. Ensure a compatible urban-rural interface that protects agricultural uses.

Policy 4.10.1. **Agricultural Land Protection.** Retain the **agricultural land** base for the long-term by supporting the **ALR** and by protecting **agricultural lands** from the impacts of adjacent development and redevelopment.

Policy 4.10.2. **Urban-Rural Interface Uses.** Where a property is adjacent to **agricultural lands**, encourage land uses that are compatible with adjacent agricultural uses, such as **urban agriculture** and **passive recreational** uses. Encourage uses that accommodate people who may be at risk, such as seniors, children and people with health challenges, to parcels that are not adjacent to agriculture to limit interface incompatibilities.

Policy 4.10.3. **Urban-Rural Buffers.** Where a property is adjacent to land in the **ALR** and lands designated Rural - Agricultural and Resource (R-AGR), ensure that development limits associated negative impacts on adjacent agricultural operations by including appropriate buffers, setbacks and site planning, consistent with the Farm Protection Development Permit Guidelines outlined in *Chapter 16: Development Permit Areas.*

Housing

As **Urban Centres** become even more desirable places for living, the demand for housing in these amenity-rich areas will continue to increase. This demand could make it more difficult for lower income citizens to find housing that is attainable or affordable in **Urban Centres**, where services and amenities are within easy walking distance and car ownership is not required.

To address this, the City will encourage the development of new rental options and protection of existing rental stock in the **Urban Centres** to ensure housing options for a range of ages and incomes. **Urban Centres** will be prioritized for partnerships with senior government for housing types across the Wheelhouse as per the Healthy *Housing Strategy* including shelters and housing with supports to ensure that these citizens are close to important services. The City will explore ways to limit displacement of lower income citizens currently living in **Urban Centres** to ensure all citizens have access to housing in close proximity to services and amenities.

These outcomes cannot be achieved by the City alone. Partnerships with the non-profit sector, the development community and senior levels of government will be needed to provide stable, affordable housing in Kelowna's **Urban Centres**.

Objective 4.11. Increase the diversity of housing types and tenures to create inclusive, affordable and complete Urban Centres.

Policy 4.11.1. **Diverse Housing Forms.** Ensure a diverse mix of **medium-density** and **high-density** housing forms that support a variety of households, income levels and life stages.

Policy 4.11.2. **Family-Friendly Housing.** Incorporate **ground-oriented** units in the design of multi-family developments to support family-friendly housing types. Ensure that multi-family developments include a variety of unit sizes, encouraging 10 per cent of new units to be three or more bedrooms.

Policy 4.11.3. **Diverse Housing Tenures.** Encourage a range of rental and ownership tenures that support a variety of households, income levels and life stages. Promote underrepresented forms of tenure, including but not limited to co-housing, fee-simple row housing, co-ops, and rent-to-own.

Policy 4.11.4. **City Land Acquisition.** Focus land acquisition and housing partnerships in the **Urban Centres**, in addition to the **Core Area**, to support affordable rental housing in areas near transit, services and amenities.

Policy 4.11.5. **Social Connections Through Design.** Encourage housing design that incorporates private open space, rooftops, gardens, greenspace and children's play areas to foster social connections, inclusion and intergenerational relationships.

Policy 4.11.6. **Accessible Design.** Integrate universal design features and principles to create housing options for people of all ages and abilities, including those aging in place.

Objective 4.12. Protect citizens from displacement due to Urban Centre development.

Policy 4.12.1. **Housing with Supports.** Prioritize the development of subsidized housing and housing with supports in the **Urban Centres** in addition to the **Core Area**, particularly near employment, public transit, services and amenities. Promote acceptance by the community for these supports, services and the citizens that are using them.

Policy 4.12.2. **Displacement Effects of Gentrification.** Ensure Urban Centre planning initiatives and significant redevelopment opportunities include affordable housing and access to services to ensure low to moderate income renters are protected from **displacement** effects of **gentrification**.

Policy 4.12.3. **Tenant Assistance.** Work towards the creation of a Council policy to protect tenants displaced by redevelopment through fair relocation assistance from the developer. Such relocation assistance should ensure that tenants retain their access to services and amenities, such as employment, transportation and schools.

Objective 4.13. Protect the rental stock in Urban Centres.

Policy 4.13.1. **Protection of Existing Rental Stock.** Ensure retention or replacement of existing rental units as redevelopment occurs in the **Urban Centres** through planning tools that may include, but are not limited to, **Rental Only Zoning** and **Rental Replacement Obligations.**

Policy 4.13.2. **Rental Conversion.** Prohibit the conversion of existing residential rental buildings to condominium status when the rental vacancy rate falls below five per cent in Kelowna.

Policy 4.13.3. **Short-Term Rentals.** Ensure short-term rental accommodations limits impact on the long-term rental housing supply.

Public Realm

The quality of the public realm is critical to the enjoyment that people have living in or visiting **Urban Centres**. Many citizens in **Urban Centres** will not have access to large back yards or private green space, meaning that the experience of walking along a street, people watching in a plaza, or meeting friends in a park takes on added importance. This makes investments in the public realm vital to the success of areas with the highest concentration of residents and greatest levels of activity.

New development should consider how it can incorporate these elements into building and site design, while the City will continue to prioritize the **Urban Centres** for investments in parks and public space to support development of amenity-rich **urban centres**.

Objective 4.14. Design Urban Centres to Foster Strong Social Connections and Community Safety.

Policy 4.14.1. **Streets as Gathering Places.** Supplement park space in **Urban Centres** by providing other places for people of all ages, incomes, backgrounds and abilities to gather, including but not limited to:

- Encouraging public spaces such as urban plazas and activation at street intersections and mid-block connections;
- Establishing pedestrian only streets either permanently or during certain times of the year and/or certain times of the day;
- Undertaking laneway improvements that transform them into multi-functional public spaces and pedestrian linkages; and
- Supporting restaurant patios, pop-up parks and **parklet** initiatives.

Policy 4.14.2. **Reduce Social Isolation.** Design public spaces in **Urban Centres** to be geared towards groups who may face higher levels of **social isolation**, including seniors, people with diverse abilities, Indigenous people, and newcomers.

Policy 4.14.3. **Accessible Urban Centres.** Design civic facilities, public spaces, streetscapes, infrastructure, programs and services that are accessible, available and inclusive of all ages, incomes and abilities. Prioritize accessibility retrofits in **Urban Centres** for existing civic facilities, public spaces, streetscapes and infrastructure.

Policy 4.14.4. **Public Space through Future Development.** Develop policies and regulations that incentivize the provision of onsite publicly accessible open space early in planning process to further enhance the public amenities in **Urban Centres** to enhance overall development benefit.

Policy 4.14.5. **Residential Amenity Space.** Develop policies and regulations that incentivize the provision of private amenity space early in the planning process as part of multi-unit residential through mutual consideration to enhance overall development benefit.

Policy 4.14.6. **Public Washrooms.** Provide public washrooms that are centrally located, accessible and open year-round.

Policy 4.14.7. **Urban Edge and Park Interaction.** Activate the edges of parks with visual and physical connections to land uses, such as facing doorways, front steps, windows, patio spaces, and pathways, to activate and develop a unique character for each park based on its context.

Policy 4.14.8. **Walled Developments.** Prohibit developments enclosed on all sides by walls, gates or other physical or visual barriers that hinder efforts to create more pedestrian, bicycle and transit friendly communities, block access to public park land or inhibit the efficient use of infrastructure.

Objective 4.15. Protect and Increase Greenery in Urban Centres.

Policy 4.15.1. **Engage Nature.** Encourage nature within **Urban Centres** with design elements that include, but are not limited to:

- Natural connections such as wildlife corridors and creeks; and
- Habitat for native and pollinator species;

- Urban forestry; and
- Green roofs and/or rooftop gardens.

Policy 4.15.2. **Urban Forest Canopy.** Protect exiting mature trees where possible and encourage the installation of **street trees** in **Urban Centre** development and streetscape improvement projects. Design considering the critical role trees play in pedestrian comfort, cooling of the urban heat island, habitat for local animal species and beautification of the public realm. Implement requirements for the specific needs of trees in the urban streetscape, to protect soil volume, roots, trunk and canopy over the long term.

Policy 4.15.3. **Integrated Street Design.** Integrate innovative street design and tree planting details to achieve storm water management and water-wise objectives in the urban setting.

Policy 4.15.4. **Heritage and Significant Trees.** Ensure that **significant trees** are given priority for protection through land development.

Transportation

Kelowna's **Urban Centres** will be hubs of high-density living and employment, generating a significant number of shorter trips. The transportation response in **Urban Centres** acknowledges that low-carbon transportation options such as walking and biking and transit will be the most efficient and sustainable way to move people in our **Urban Centres** and responds with approaches that prioritize those modes. At the same time, these modes will only be successful if they are pleasant and safe to use, meaning transportation in **Urban Centres** is closely linked to the public realm with streets also playing an important role as a public space.

Both the City and development community have important roles in supporting the shift to more sustainable transportation options. New development must consider the transportation vision of the street through development process, identifying ways to enhance the walkability of the street, extend the city's biking network or integrate a transit stop into their site plan. Meanwhile, the City must prioritize infrastructure investments that lead the transition to a low-carbon future and support the shift away from a car-oriented community.

Objective 4.16. Make Urban Centres safe and enjoyable for walking, biking, transit and shared mobility.

Policy 4.16.1. **Transportation Infrastructure Priority.** Transportation infrastructure will be funded, designed, constructed and maintained to meet the needs of users and according to the following priority, recognizing that Urban Centre streets play an important role in supporting a range of transportation modes beyond cars:

i. Active Transportation (Walking and Biking)
ii. Transit
iii. Shared Mobility
iv. Movement of Goods & Services
v. High-Occupancy Vehicles (HOVs)

vi. Single-Occupancy Vehicles (SOVs)

Policy 4.16.2. **Congestion Tolerance**. Recognize and accept that Kelowna's streets and parking will become busier as the city grows. **Urban Centres** will have the busiest streets, but also the highest potential to shift trips away from driving. For **Urban Centres** to thrive, walkable streets, protected bike routes, and improved transit service should be provided as growth and development occurs.

Policy 4.16.3. **Transit Service.** Implement a network of frequent transit routes to connect **Urban Centres** and major **employment areas**.

Policy 4.16.4. **Transit Priority.** Utilize transit priority measures on key corridors to optimize transit travel time on the **Frequent Transit Network.**

Policy 4.16.5. **Transit Infrastructure.** Ensure **Frequent Transit Network** routes are supported by key infrastructure (i.e. transit stops, bus pull out bays, bus shelters, benches, sidewalks, lighting, accessibility features, or other transit amenities) to make taking transit more comfortable and enjoyable in **Urban Centres**.

Policy 4.16.6. **Walkability.** Design streets and sidewalks to promote safety and comfort of pedestrians through enhanced public realm treatments, such as curb extensions, median refuge islands, street tree planting, adequate clear space for pedestrians, street furniture, curb-side parking and **parkettes**.

Policy 4.16.7. **Pedestrian and Biking Connectivity.** With new developments, require dedication of on-site walking and biking paths as outlined in Map 13.3 to provide links to adjacent parks, schools, transit stops, recreation facilities, **employment areas** and other activity areas.

Policy 4.16.8. **Active Transportation Corridors.** Ensure **Active Transportation Corridors** are designed for cyclists and pedestrians of all ages and abilities in accordance with the objectives of the Pedestrian and Bicycle Master Plan.

Policy 4.16.9. **Bicycle-oriented Development.** Prioritize bicycle parking and **end-of-trip facilities** through site planning and design of new development to ensure biking is an attractive and convenient transportation option.

Objective 4.17. Develop a well-connected grid network of streets to shorten walking distances and improve traffic circulation.

Policy 4.17.1. **Highway 97.** Recognize the role that Harvey Avenue plays as a **mass transit corridor** and to facilitate the movement of goods and services for the region.

Policy 4.17.2. **Highway Permeability**. Work with Ministry of Transportation and Infrastructure to improve access across provincial highways for all modes to promote neighbourhood connectivity to and within **Urban Centres**.

Policy 4.17.3. **Transportation Networks.** Ensure transportation networks prioritize effective and efficient levels of transit service and convenient walking and biking connections between key **employment areas** and surrounding residential areas.

Policy 4.17.4. **Urban Street Network.** Enhance street network connectivity and redundancy; strengthen people capacity to improve sustainable transportation and make it easier to access the surrounding major road network.

Policy 4.17.5. **Public Pathways.** As redevelopment occurs, seek public pathways that would complement linear parks, multi-use trails, parks, plazas, greenways or sidewalks to form continuous pedestrian and bicycle networks.

Policy 4.17.6. **Laneway Access.** Maintain or enhance laneways as redevelopment occurs, to provide primary vehicle access to rear parking garages and commercial loading areas.

Policy 4.17.7. **Safe Crossing.** Create accessible crossing opportunities for pedestrians and bicycles across collectors and arterials that serve all ages and abilities.

Policy 4.17.8. **Roadway Modifications.** Implement roadway modifications based on the goals and priorities of the Transportation Master Plan to support mobility options for all modes.

Objective 4.18. Create urban streets that are attractive to live, work and shop on.

Policy 4.18.1. **Animated Pedestrian Realm.** Animate the pedestrian realm in **Urban Centres**, particularly along **high streets** and **retail streets**, as illustrated in Maps, 4.2, 4.5 and 4.7, as well as the waterfront, through walkable street design features, event programming and temporary and **mobile uses**. Key design features could include, but are not limited to:

- Street furniture;
- Space for outdoor patios;
- Pedestrian scale lighting;
- Removal of visual clutter;
- **Street trees** and planted boulevards;
- Placemaking features; and
- Provide significant clear space for pedestrian movement.

Policy 4.18.2. **High Streets.** Animate the pedestrian realm by creating **high streets** and **retail streets** that are attractive destinations, as outlined in Maps, 4.2, 4.5 and 4.7, attracting people and activity throughout the year.

Policy 4.18.3. **Context Sensitive Streets.** Ensure arterial and collector road designs reflect their land use context as walkable urban places that serve as destinations and important public spaces.

Policy 4.18.4. **Complete Streets.** Design streets to accommodate various combinations of transportation modes and uses, recognizing the intended role of a street in supporting key transportation networks (e.g. Active Transportation Corridor, Frequent Transit, Highway). Also, designs should prioritize efficient movement of people over vehicles to optimize future network capacity.

Policy 4.18.5. **Accessible Streets.** Streets should be accessible, with wheelchair ramps, accessible pedestrian signals at signalized intersections, tactile walking surface indicators, accessible curb ramps and other features to support all ages and abilities.

Policy 4.18.6. **Shared Use Streets.** Consider opportunities to pilot pedestrian-only streets or shared use streets in areas with high levels of pedestrian activity in **Urban Centres**.

Objective 4.19. Manage curb space to reflect a range of community benefit.

Policy 4.19.1. **Parking Costs.** Optimize pricing of on-street parking in high demand areas to promote turnover and ensure availability.

Policy 4.19.2. **Shared Mobility Access.** Adapt management of curb space to improve access to shared mobility options and reflect changing community priorities (e.g. car share, micro, electric vehicle charging stations, ride-hailing and emerging mobility options).

Policy 4.19.3. **Parking Spillover.** Introduce parking management strategies to reduce the impact of new multi-family residential parking on nearby low to **medium density** residential areas.

Objective 4.20. Adapt and respond to shifting long-term demand for off-street parking facilities.

Policy 4.20.1. **Parking Relaxations.** Consider parking requirement relaxations, where the development provides a robust Transportation Demand Management strategy (e.g. car share memberships, bicycle parking, co-working space) or includes occupants (rental housing tenure) that would contribute to lower rates of vehicle ownership.

Policy 4.20.2. **Parking in Urban Centre Parks.** Limit the area used for automobile parking in Urban Centre parks, reflecting the constrained land area and greater mobility options in these urban neighbourhoods.

Policy 4.20.3. **Leverage Cash-in-Lieu.** Explore changes to cash-in-lieu parking programs to prioritize funding of sustainable transportation options over parking investments to support climate action and urban centre development.

Policy 4.20.4. **Parking Maximums.** Discourage oversupplying parking in new development as it promotes car use and detracts from the human scale and pedestrian vibrancy of our **Urban Centres**.

Policy 4.20.5. **Parking Pays its Own Way.** Optimize off-street parking pricing at public parking facilities to recover the costs of constructing and operating parking facilities.

Policy 4.20.6. **Shared Parking Options.** Explore opportunities to facilitate access to untapped parking supply, recognizing residential and commercial uses often have parking demands that peak at different times of the day.

Policy 4.20.7. **Public Electric Vehicle Charging Stations.** Provide public access to electric vehicle charging stations in public off-street parking areas.

Objective 4.21. Adapt and respond to emerging transportation technologies.

Policy 4.21.1. **Shared Mobility Programs.** Continue to support pilot programs and partnerships to improve access to emerging on-demand mobility options that reduce greenhouse gases and enhance sustainable transportation options.

Policy 4.21.2. **Emerging Transportation Technology.** Work with other levels of government and industry to leverage potential of emerging transportation technologies (self-driving, ride-hailing etc.) to reduce congestion and greenhouse gases while supporting the transition away from a car centric culture.

Policy 4.21.3. **Electric Vehicle Charging in New Development.** Integrate electric vehicle charging stations in off-street parking plans for new multi-family, institutional and commercial developments.

Culture

Culture embraces diversity, attracts and retains talent, fosters entrepreneurship and cultivates collaboration and partnerships – all elements important to building vibrant **Urban Centres**. Culture is on full display in the city's downtown Cultural District, where most of City's major cultural facilities will continue to be located. As **Urban Centres** grow, they should celebrate the cultural community and find ways to enhance its profile, particularly through the occupancies and design of the ground floor and public realm.

The City will prioritize the development of new cultural infrastructure or the redevelopment of already-existing cultural infrastructure in the **Urban Centres** in order to create a place where people want to live, work and play. Partnerships with the development community, creative sector and non-profit organizations will be integral to ensuring our **Urban Centres** remain vibrant, animated spaces.

Objective 4.22. Develop Kelowna's Cultural District as a primary destination for showcasing the cultural and artistic talents of the community.

Policy 4.22.1. **Cultural District Directions.** Support the development of the Cultural District as outlined in the endorsed Civic Precinct Plan and Cultural Plan, as a centre for culture, entertainment and a catalyst for downtown revitalization.

Policy 4.22.2. **Mixed-Use Cultural District.** Promote targeted mixed-use redevelopment in the Cultural District that will create a vibrant place for people to live, work and play.

Objective 4.23. Develop and maintain major cultural infrastructure to support vibrant Urban Centres.

Policy 4.23.1. **Cultural Investments in Urban Centres.** Focus major investments in cultural infrastructure in **Urban Centres**.

Policy 4.23.2. **Cultural Infrastructure.** Design a multi-functional and adaptable public realm to support and celebrate diversity through cultural programs, public events, performances, and public art installations.

Policy 4.23.3. **Creative Industries.** Support measures to create affordable, flexible studio or workshop spaces to expand creative industries.

Policy 4.23.4. **Live/Work Space.** Consider innovative ways to increase the supply of live/work space that is affordable for artists, and work/live space for **industrial** design and related activities.

Objective 4.24. Encourage artistic innovation and creative expression in the built environment across both the private and public sectors.

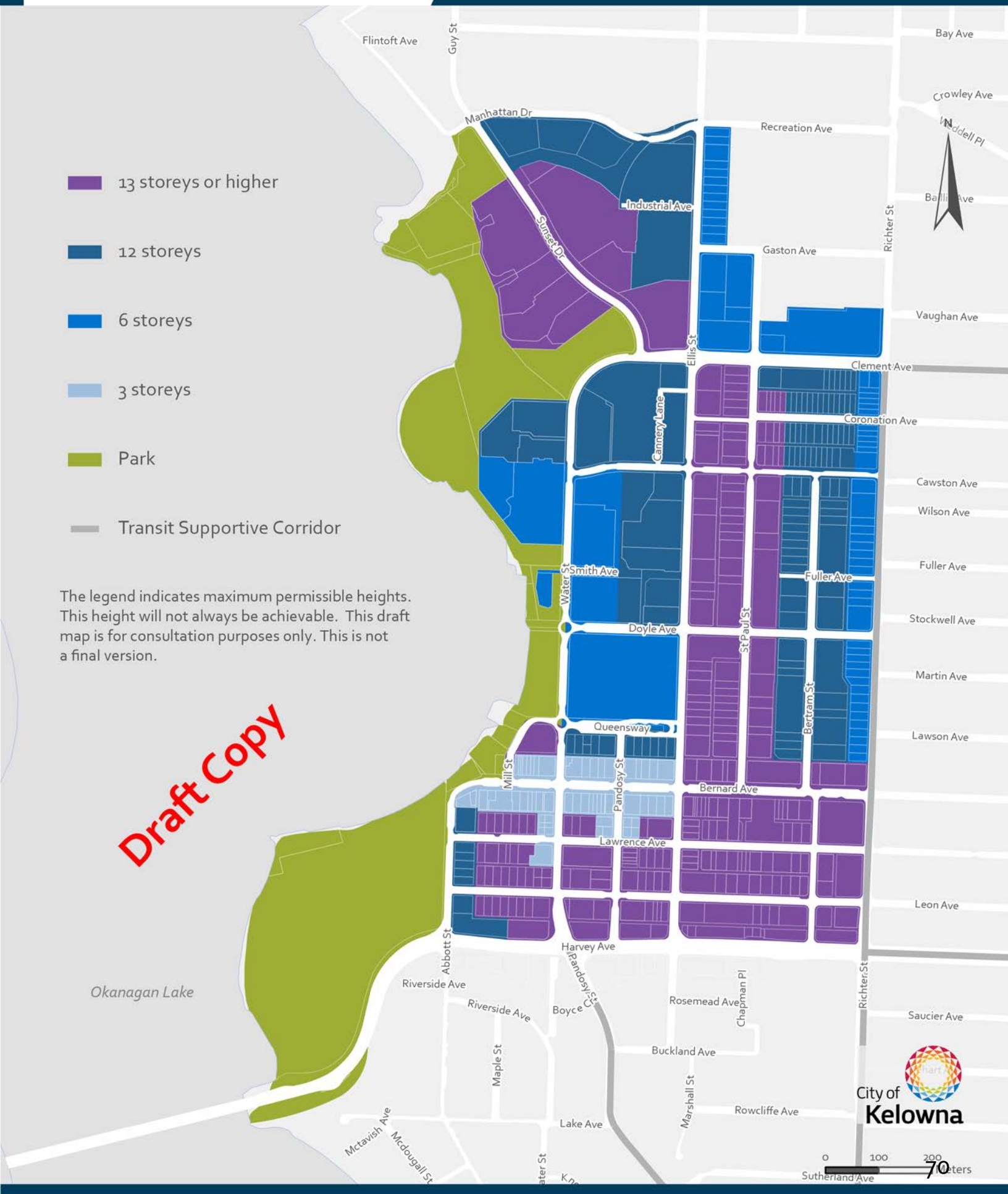
Policy 4.24.1. **Public Art Promotion.** Promote public art that celebrates the culture and diversity of Kelowna while reflecting unique character and qualities within a specific Urban Centre. Seek opportunities to partner and collaborate with Westbank First Nation and Okanagan Indian Band on public art and placemaking initiatives that acknowledge and celebrate their traditional territory and cultural values.

Policy 4.24.2. **Showcase Art in New Development.** Expand public art as an integral part of the public realm and new development within the **Urban Centres**. Encourage public art in conjunction with major public and private development.

Policy 4.24.3. **Alternative Artistic Expression.** Encourage opportunities to showcase alternative artistic expression through the animation of public spaces, such as busking and pianos in the park, for example. Encourage art that invites people to engage in community building, celebration of diversity and consideration of social issues.

2040 Official Community Plan

Map 4.1 Downtown Building Heights



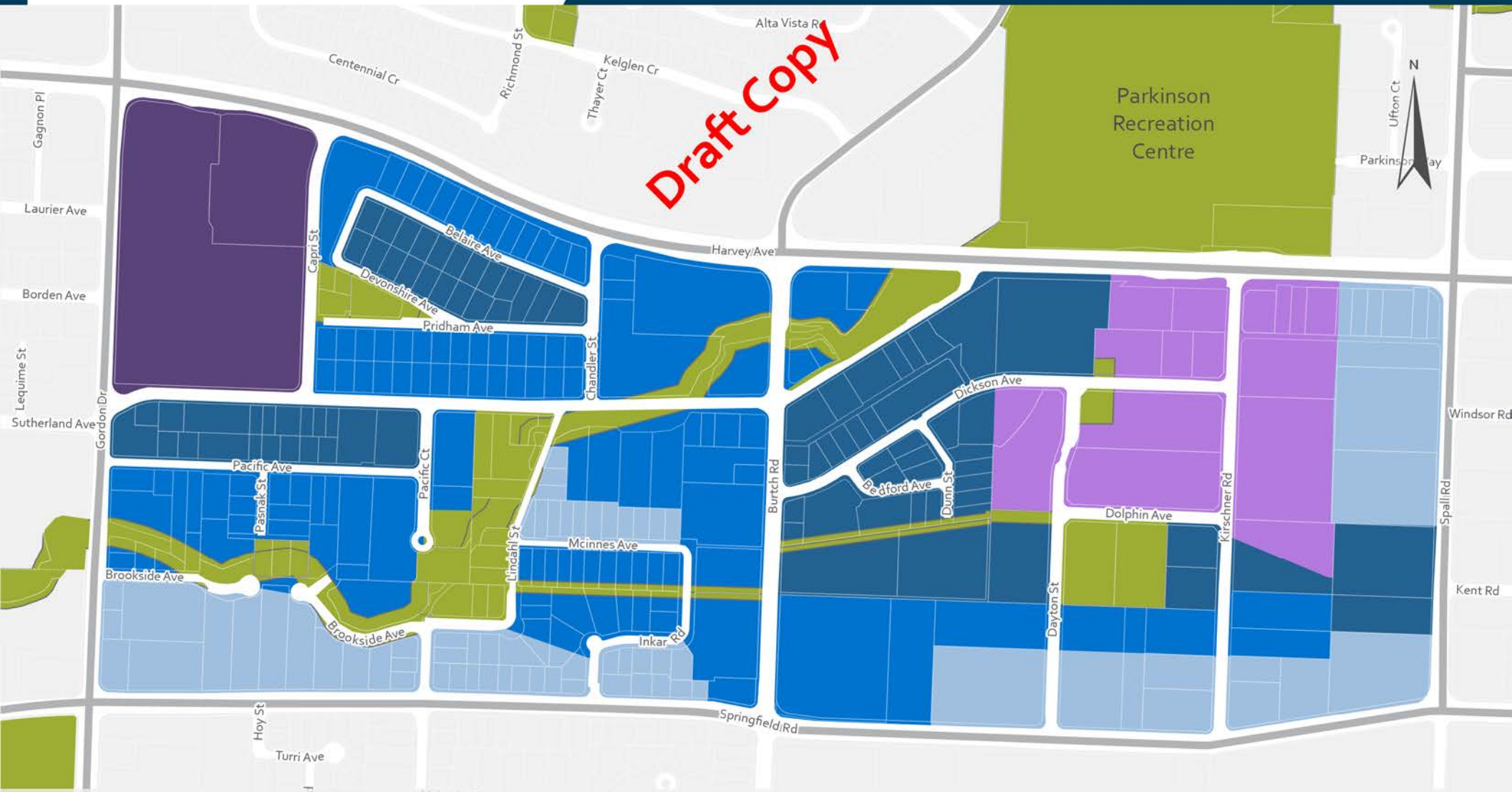
Map 4.2 Downtown Street Character

Rev. Sep 30 2020

This map is for consultation purposes only. This is not the final version.

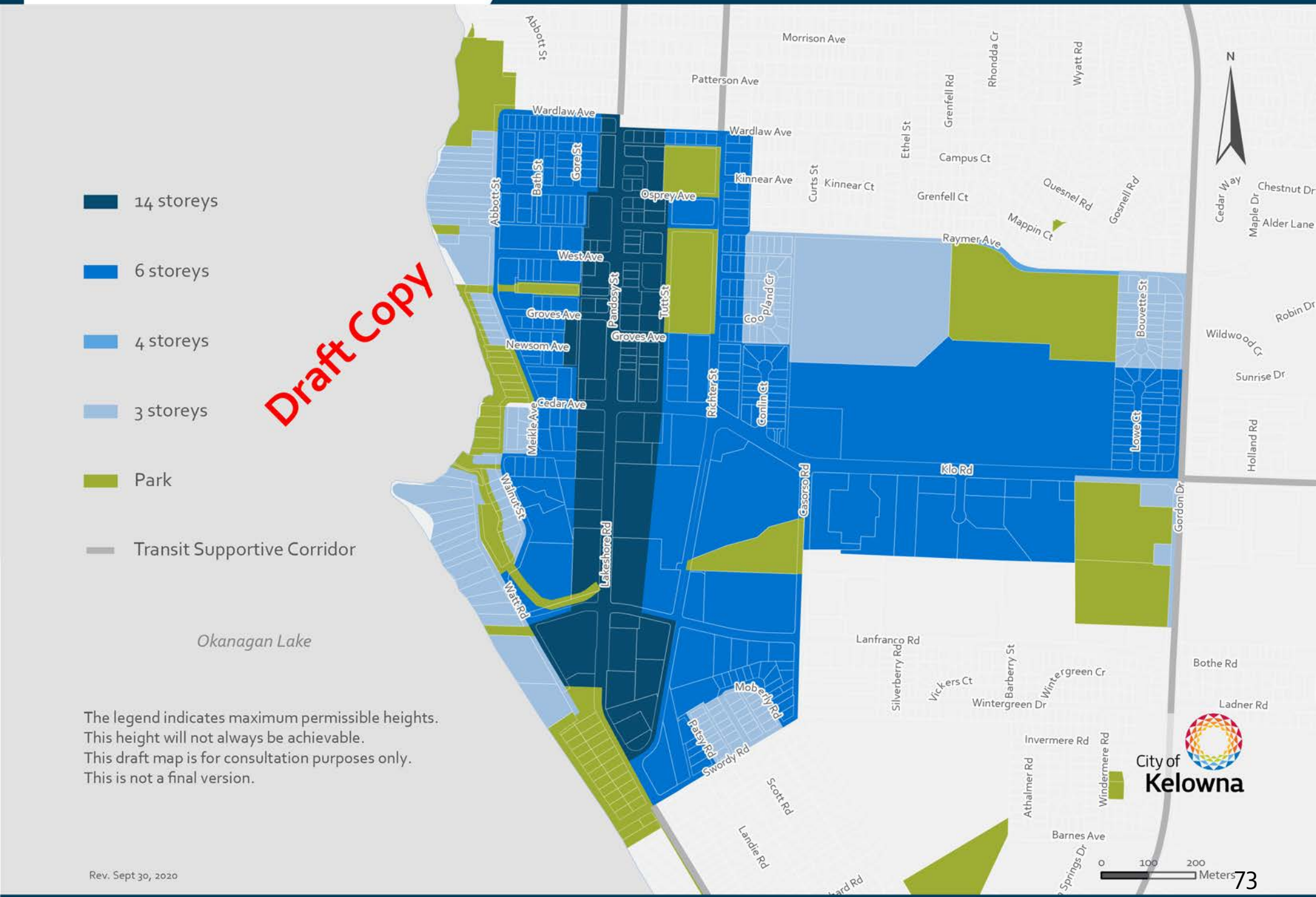
2040 Official Community Plan

Map 4.3 Capri Landmark Building Heights

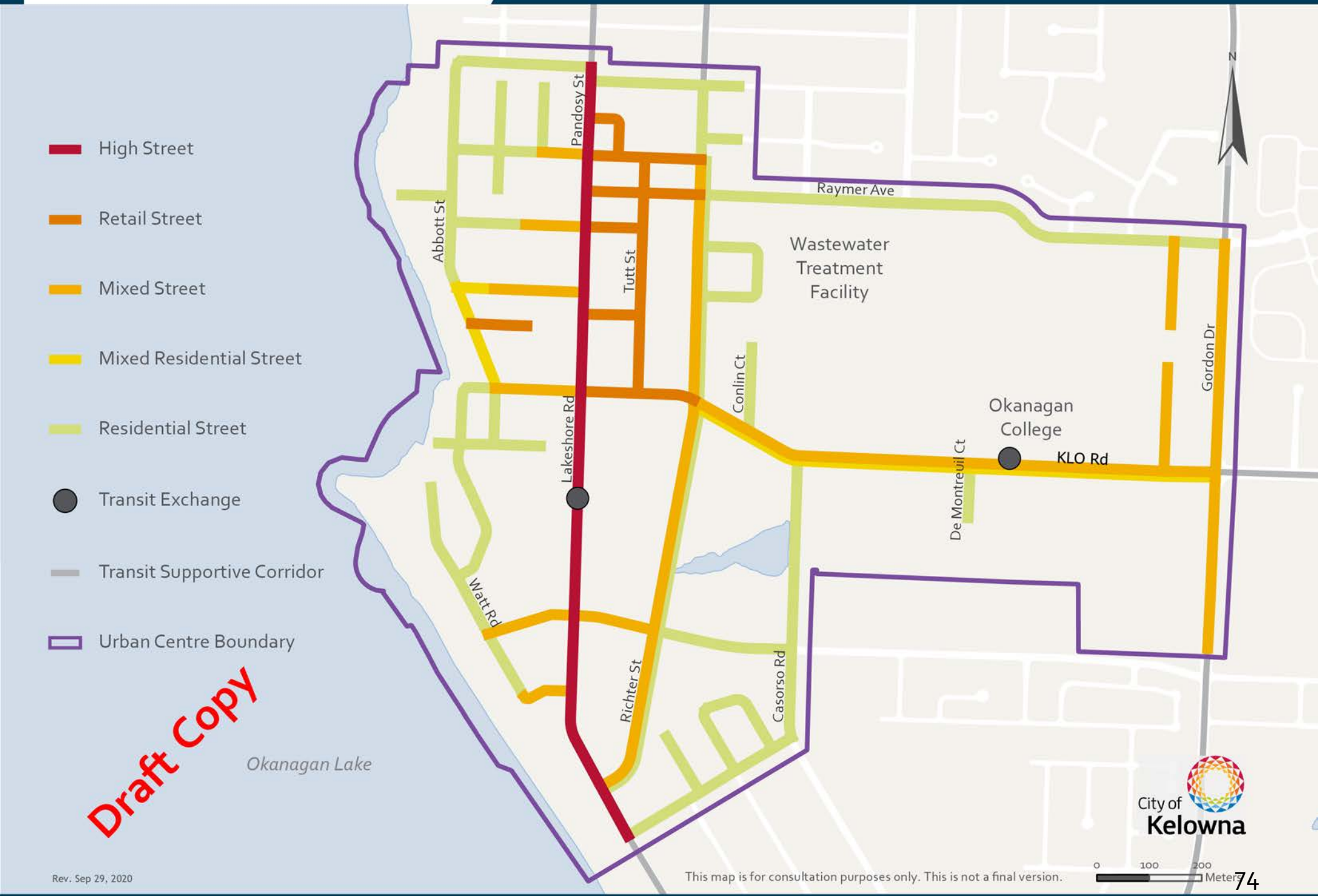


Rev. Sept 30, 2020

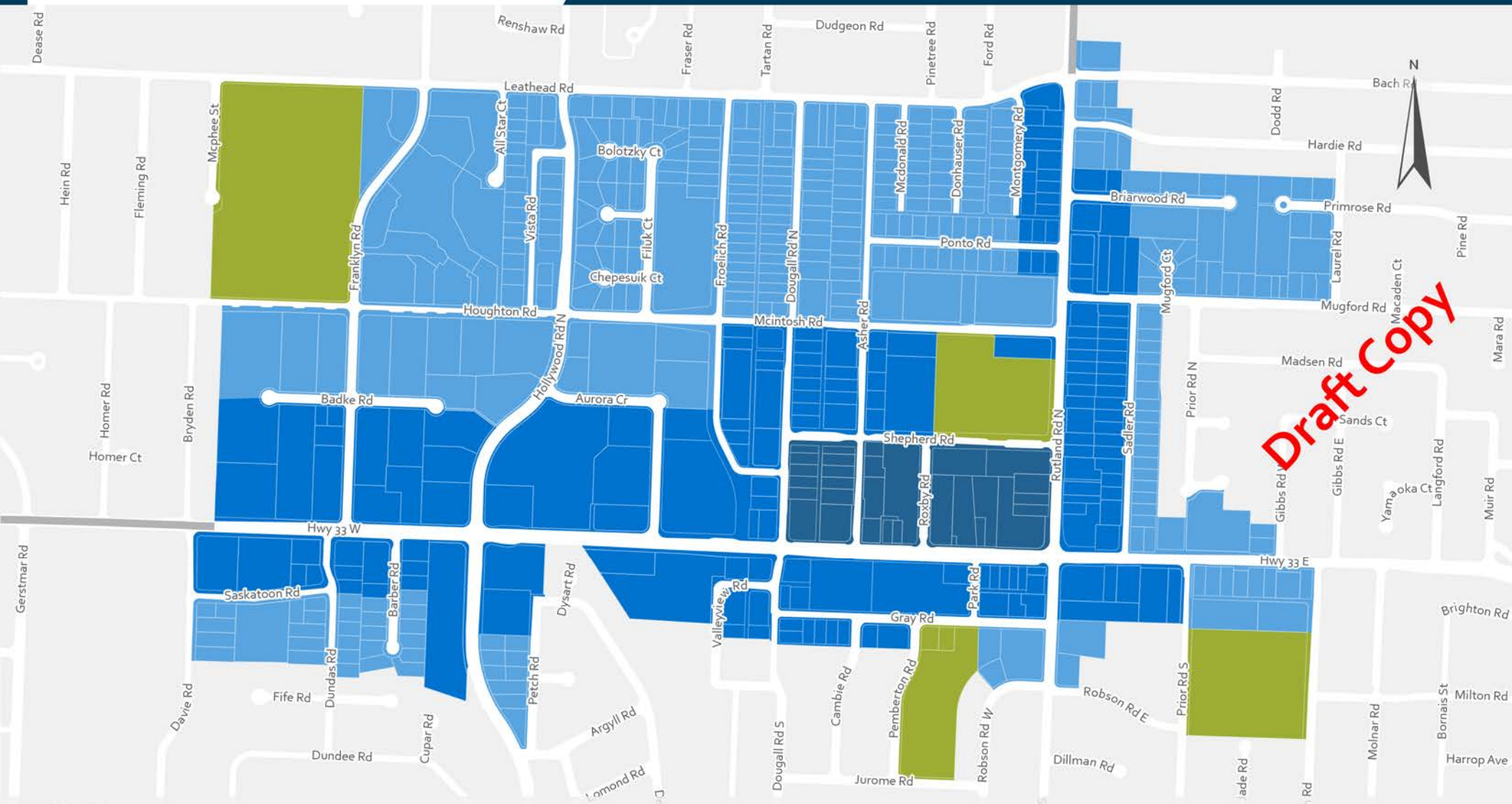
Map 4.4 Pandosy Building Heights



Map 4.5 Pandosy Street Character



Map 4.6 Rutland Building Heights



Draft Copy

12 storeys

6 storeys

4 storeys

Park

Transit Supportive Corridor

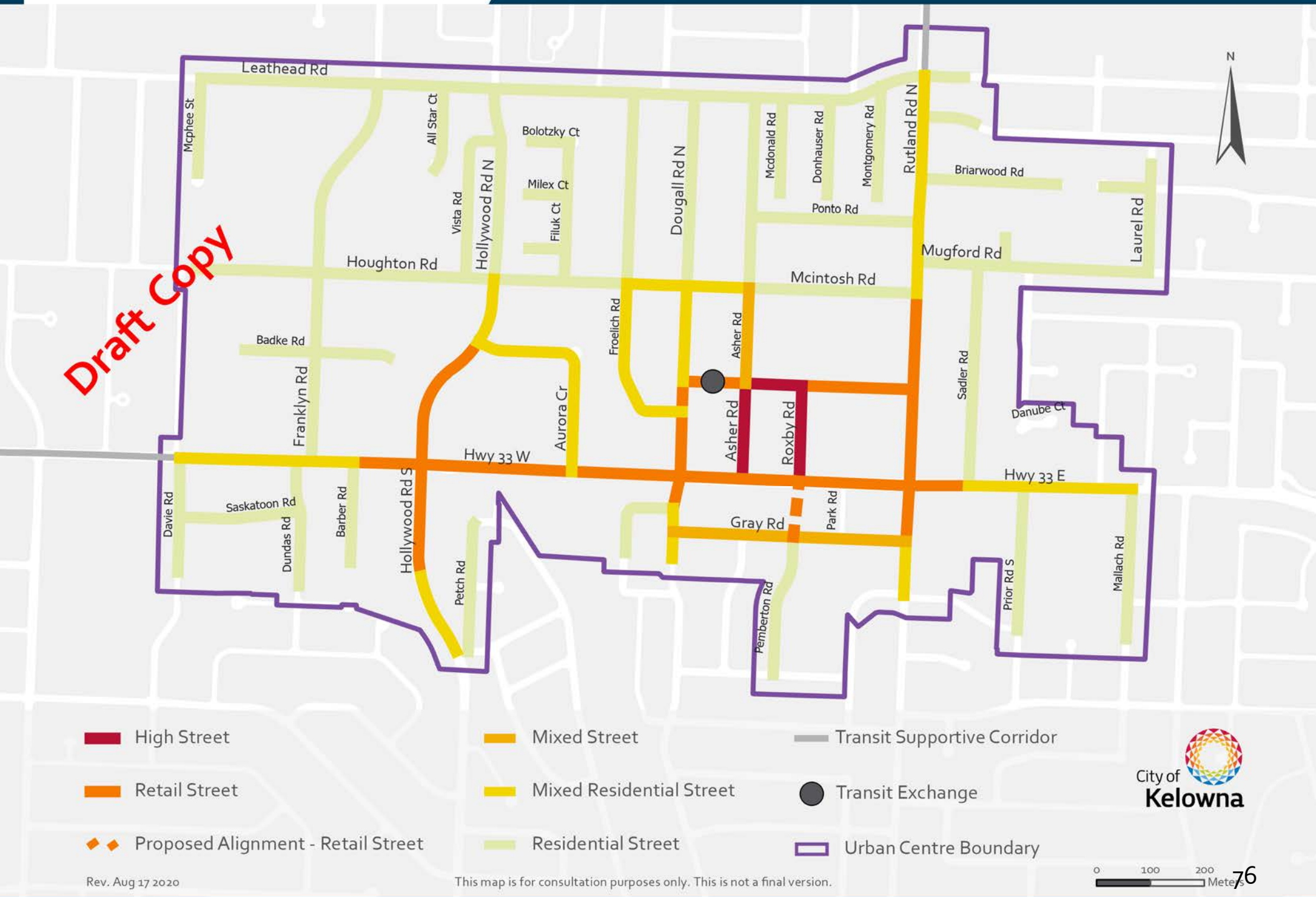
The legend indicates maximum permissible heights. This height will not always be achievable. This draft map is for consultation purposes only. This is not a final version.

City of Kelowna

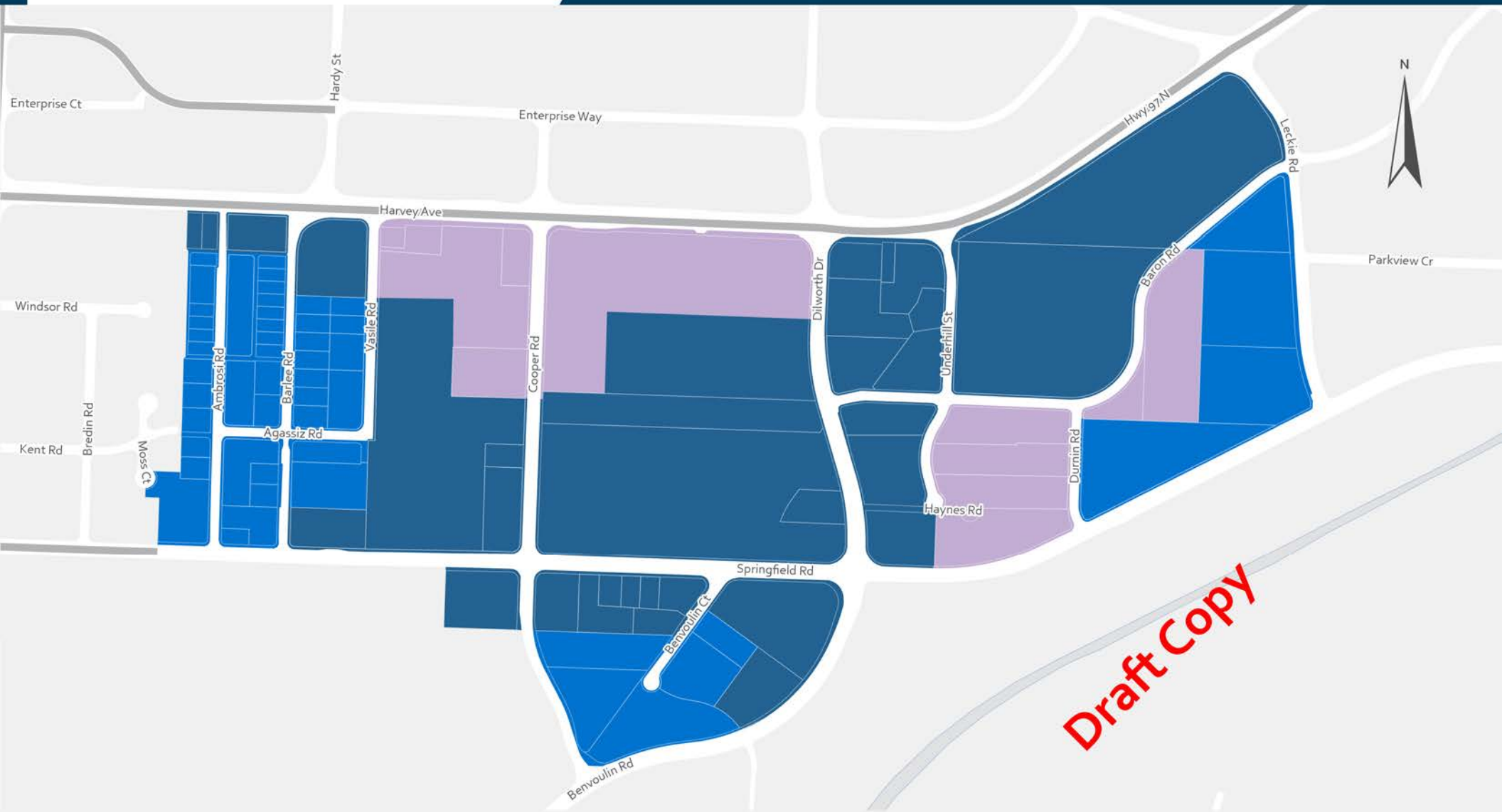
0 100 200 Meters

Rev. Aug 17 2020

Map 4.7 Rutland Street Character



Map 4.8 Midtown Building Heights



Rev. Sept 30, 2020

Outside of Kelowna's **Urban Centres**, the city's **Core Area** contains the greatest diversity of land uses and plays the widest range of roles in our community, from vibrant residential neighbourhoods, transit corridors and their Village Centre hubs to **large format retail** and service commercial uses. In part because of this diversity, the **Core Area** is one of the districts most critical to the City's long-term growth management plan.

The building block of the Core is the neighbourhood. Situated just outside of our **Urban Centres**, these neighbourhoods will be diverse, with a range of **ground-oriented** housing options that meet the needs of all Kelowna residents. Transit Supportive Corridors are the connective tissue that link these neighbourhoods to Village Centres both by providing easy transportation connections and options, and by supporting fronting land uses that feature denser residential development and mixed-use land uses. Within the **Core Area**, Village Centres are the secondary hubs of local activity, providing a range of daily needs – employment, local retail, personal services, places of worship – for area residents.

The **Core Area** also acknowledges the immense regional value provided by the commercial and service commercial businesses located around the Highway 97 corridor. In fact, the unique and vital role that this area plays is encouraged and reinforced, ensuring that Kelowna remains a hub for the Okanagan Valley and the Southern Interior region.

Land Use and Urban Design

The approach to land use in the **Core Area** focuses on modest residential growth primarily through residential infill in existing neighbourhoods, with some targeted redevelopment in the **Core Area**'s Village Centres and along **Transit Supportive Corridors**. Larger shopping destinations like big box stores or shopping centres continue to be focused near or along Highway 97. **Industrial** uses continue to grow and diversify in Kelowna's North End and **Packing District**, and in strategic locations along the highway corridor and Enterprise Way.

The City and the community share responsibility in shaping the **Core Area** over the next 20 years. New development should carefully consider it's neighbourhood context, keeping in mind the scale of existing residential neighbourhoods areas, but supporting a shift to a new feel in Village Centres and along **Transit Supportive Corridors**. The City should support this evolution with strategies to create more walkable environments and focusing more investment in transportation options, parks and other amenities.

Objective 5.1. Encourage Village Centres as Kelowna's secondary hubs of activity.

Policy 5.1.1. Village Centre Composition. Encourage the development of a range of services, small scale and **specialty retail,** and limited office employment in scale with supporting **low rise** residential development in Village Centres to serve the surrounding **Core Area** Neighbourhoods.

Policy 5.1.2. **Village Centre Density.** Target an overall density of 30 to 60 jobs and people per hectare in Village Centres in the **Core Area**.

Policy 5.1.3. **Village Centre Retail Corridors.** Locate retail and restaurant uses in Village Centres at grade, prioritized along **Transit Supportive Corridors,** to create a more vibrant pedestrian and transit supportive environment.

Policy 5.1.4. **Cook Truswell Village Centre.** Continue to support the evolution of the Cook Truswell Village Centre into a mixed use tourist commercial destination by supporting development that contributes to the following vision for the area:

- A mix of tourist accommodation, with supporting residential and commercial development;
- Buildings that are generally between two to six storeys in height, with opportunities for taller buildings being explored with additional considerations such as:
    - Building design that maximizes views of the lake, using point towers and podiums of two to three storeys in height;
    - High activity uses, such as retail commercial or restaurants, being provided at grade to contribute to a lively pedestrian-oriented tourist environment;
    - Publicly accessible spaces, such as urban places or **parklets**;
    - Development that enhances the public's access and enjoyment of the waterfront at Okanagan Lake; and
    - Protection, restoration and dedication of Okanagan Lake foreshore as well Mission Creek and Wilson Creek **riparian areas**.
- Orientation of buildings towards Truswell Road, creating a small **retail street**;
- Increased transportation connectivity from Lakeshore Road to Okanagan Lake and surrounding neighbourhoods to the east; and
- Creation of public and private gathering spaces.

Policy 5.1.5. **Lakeshore Village Centre.** Support the continued development of the Lakeshore Village Centre that shares the following characteristics:

- A mix of residential and commercial uses that serve the Lower Mission; neighbourhoods, with commercial uses located along the Lakeshore Road Transit Supportive Corridor;
- Buildings up to approximately six storeys in height; and
- Additional public gathering places, such as urban plazas.

Policy 5.1.6. **Glenmore Village Centre.** Support development in the Glenmore Village Centre to serve citizens in neighbourhoods in north Kelowna, such as Glenmore, Wilden, and McKinley. Development in the Glenmore Village Centre should share the following characteristics:

- Commercial uses located east of Glenmore Road;
- Buildings between approximately two to six storeys in height; and
- Orientation of buildings along Brandt's Creek towards creek and trail system.

Policy 5.1.7. **Guisachan Village Centre.** Support development in the Guisachan Village Centre that shares the following characteristics

- Mixed use commercial and residential development, and residential development between approximately two to six storeys in height; and
- Additional public gathering places, such as urban plazas.

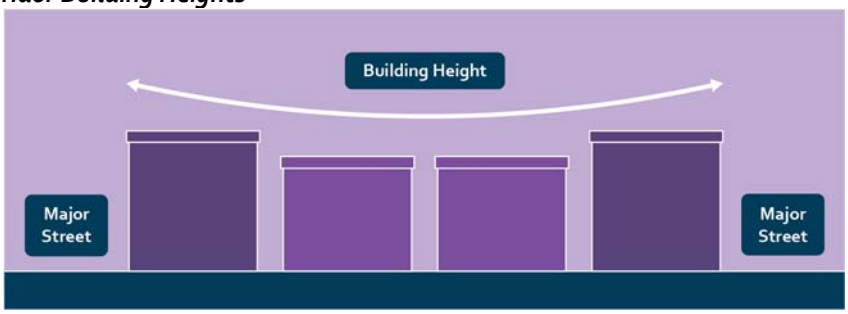
Objective 5.2. Focus residential density along Transit Supportive Corridors to improve Core Area Neighbourhood livability.

Policy 5.2.1. **Transit Supportive Corridor Densities.** Encourage **medium density** residential development, such as low rise apartments and stacked townhouses, in **Core Area** Neighbourhoods adjacent to **Transit Supportive Corridors**. Target an overall population density within 200 metres of each corridor of between 50 – 100 people per hectare to achieve densities that support improved transit service.

Policy 5.2.2. **Commercial Areas in Corridors.** Support small-scale employment and commercial uses in **Core Area** Neighbourhoods where the proposed project is located at an intersection of two **Transit Supportive Corridors** and is integrated with residential uses. Consider such uses at other intersections based on surrounding population density, amenities and proximity to **Active Transportation Corridors.**

Policy 5.2.3. **Corridor Building Heights.** Support development of **low-rise** residential buildings along corridors, allowing for slightly taller buildings at major intersections, as illustrated in Figure 5.1. Consider slightly taller buildings adjacent to parks.

Figure 5.1 Corridor Building Heights



Policy 5.2.4. **Corridor Access and Consolidation.** Encourage consolidation of properties and location of automobile accesses from lanes or side streets to reduce or eliminate the number of accesses directly onto **Transit Supportive Corridors**.

Policy 5.2.5. **Clement Avenue Corridor.** Along the Clement Avenue corridor, gradually transition from taller buildings towards Richter Street to lower buildings towards Gordon Drive as illustrated in Figure 5.2.

Figure 5.2 Clement Avenue Corridor

Objective 5.3. Design residential infill to be sensitive to neighbourhood context.

Policy 5.3.1. **Ground Oriented Infill.** Promote a broad range of **ground-oriented residential infill** development to improve housing diversity and to support local services and amenities in **Core Area** Neighbourhoods.

Policy 5.3.2. **Transition Towards Transit Supportive Corridors.** Consider greater height and massing in **Core Area** Neighbourhoods within 50 metres of a **Transit Supportive Corridor** where it provides transition from the low rise apartment development and lower density residential uses.

Policy 5.3.3. **Strategic Density.** Where a proposed development in **Core Area** Neighbourhoods is not adjacent to **a Transit Supportive Corridor**, consider support for stacked rowhousing and low rise apartment and mixed use buildings, under the following circumstances:

- The property, at the time a rezoning or development permit application is made, has an area of 1 hectare or greater; and
- The project proposal illustrates that the larger buildings will be able to sensitively transition their height and massing towards adjacent **Core Area** Neighbourhoods, with the first priority being a transition to **ground-oriented** multi-unit housing within the project; and
- The project proposal includes a public park component; and
- The project proposal includes an affordable and/or rental housing component; and
- The project does not exceed a FAR of approximately 1.2 over the entire site.

Policy 5.3.4. **Casorso Road Neighbourhood Plan.** Consider redevelopment of the Casorso Road Neighbourhood Plan Area as outlined on Map 16.1, only at such time as a Neighbourhood Plan is completed, in keeping with Policy 5.3.3. This plan should be initiated by the property owners, and include at minimum, a community park of approximately 2.0 hectares in size fronting Casorso Road and linear park and pedestrian connections from Wintergreen Drive and Invermere Road to Casorso Elementary School.

Policy 5.3.5. **Existing Uses and Scales.** Consider support for stacked rowhousing, low rise apartments and mixed use buildings in **Core Area** Neighbourhoods where the property was zoned to allow for such uses on the date that the Official Community Plan was adopted.

Policy 5.3.6. **Respect the Heritage Conservation Area.** Consider limited opportunities for infill, such as carriage homes, second homes, subdivisions, the conversion of existing single detached homes into suites, and new multiple dwelling housing where such developments maintain the appearance of a single detached home, in a manner consistent with the Abbott Street and Marshall Street Heritage Conservation Areas Development Guidelines. Discourage larger infill projects where lot consolidations are required.

Policy 5.3.7. **Small Lot Development.** Encourage residential infill development in **Core Area** Neighbourhoods that can be accommodated in one or a few consolidated small lots to reflect the existing neighbourhood context. Discourage large lot consolidations except where properties front a **Transit Supportive Corridor**, **Active Transportation Corridor**, or an **Arterial Road**.

Policy 5.3.8. **Local Commercial Integration.** Support the sensitive integration of small scale local commercial uses, such as convenience stores and cafés, into **Core Area** Neighbourhoods to promote those services in easy walking distance of residents. Such uses should be located at high profile intersections of collector and arterial streets. Discourage such uses mid-block.

Objective 5.4. Strategically locate community services to foster greater inclusion and social connections in the Core Area.

Policy 5.4.1. **Accessible Community Services.** Prioritize services required to meet daily needs in the Village Centres first to create a more equitable and inclusive community while continuing to support such services throughout the **Core Area**. These services include, but not limited to:

- Medical, health and wellness services;
- Child care facilities, schools and smaller library branches;
- Places of worship and other community gathering spaces;
- Food retail, services and programs; and
- Banks and credit unions.

Policy 5.4.2. **Safety Net Supports and Services.** Allow **safety net supports and services** in the **Core Area** for people experiencing homelessness. **Safety net supports and services** include, but are not limited to, shelters and the supports associated with the shelter. Recognize that shelters are used by a diversity of people with different needs such as women fleeing violence, youth and adults. Ensure information is provided to the community to foster positive relationships and promote acceptance for these supports, services and the citizens that are using them.

Policy 5.4.3. **Complementary Uses Adjacent to Public Spaces.** Encourage opportunities for complementary uses nearby or adjacent public spaces, such as parks, including uses such as schools, care facilities, day care centres, and service retail, to provide easy access to, and animation of, the public space in the **Core Area**.

Policy 5.4.4. **Core Area School Sites.** Encourage the retention of existing schools and the location of new schools in central areas in **Core Area** Neighbourhoods and Village Centres that are easily accessible by children. Locations within the **Core Area** should be promoted wherever possible and incorporate design approaches that prioritize the needs of children while responding to smaller land acquisition requirements, including, but not limited to:

- Shared use of facilities, sports fields and playgrounds;
- Pedestrian oriented access and site circulation;
- Pick-up and drop off locations that minimize impacts on the road network, but continue to prioritize the safety of students, faculty and parents;
- Increased building heights; and
- Reduced parking standards.

Policy 5.4.5. **Child Care Spaces.** Facilitate the development of childcare spaces throughout the **Core Area** including accessible, affordable, and inclusive spaces that meet the needs of the community.

Objective 5.5. Focus large format commercial along the Highway 97 corridor.

Policy 5.5.1. **Large Format Commercial.** Support **large format retail** and other commercial development that is **auto-dependent** to Regional Commercial lands to provide easy access to regional vehicle traffic. Do not support such uses in Village Centres or **Core Area** Neighbourhoods.

Policy 5.5.2. **Transit Oriented Design.** Development on Regional Commercial lands that is adjacent to **Transit Supportive Corridors** should be designed to be **transit-oriented**. Approaches include locating buildings closer to and oriented towards the corridor, additonal landscaping treatments, and the location of surface parking in the rear, away from the corridor.

Policy 5.5.3. **Protection of Commercial Space.** Support the intensification of existing automobile-oriented sites on lands designated Regional Commercial by increasing the scale of existing buildings or by adding new commercial space on underutilized land, such as surface parking lots. Discourage development that reduces the amount of commercial space available in Regional Commercial lands.

Policy 5.5.4. **Residential Development on Regional Commercial Lands.** To continue focusing residential growth in strategic locations such as **Urban Centres**, Village Centres and **Core Area** Neighbourhoods, discourage residential development on Regional Commercial lands. Consideration for residential development may be explored where a project proposal meets the following criteria:

- The project is located within 200 metres of a **mass transit station**;
- Existing park spaces and/or other amenities;
- The project proposal includes an affordable and/or rental housing component;
- The project proposal includes a significant public space or amenity component; and
- The residential uses are secondary to the commercial uses.

Policy 5.5.5. **Office Development on Regional Commercial Lands.** To ensure that employment density and transportation objectives in **Urban Centres** and Village Centres are met, discourage the development of **large office** projects on Regional Commercial lands. Such projects may be considered where they are within 200 metres of a **mass transit station**.

Policy 5.5.6. **Service Commercial Lands Protection.** Encourage the retention of **service commercial** uses in Regional Commercial lands where such uses do not front the Highway 97 **Transit Supportive Corridor**, recognizing the unique role that they play in the city's economy. Discourage the encroachment of office space, residential uses into these lands.

Objective 5.6. Support the strategic and planned growth of the Kelowna General Hospital campus as the region s most critical health facility.

Policy 5.6.1. **Kelowna General Hospital.** Work with Interior Health to support the continued growth of Kelowna General Hospital, respecting the context of the surrounding neighbourhoods, through the implementation of the *Hospital Area Plan*.

Policy 5.6.2. **Health District.** Use the *Hospital Area Plan* for planning guidance in the Health District.

Objective 5.7. Encourage employment-intensive industrial uses in the Core Area.

Policy 5.7.1. **Protection of Industrial Lands.** Discourage the re-designation of **industrial** lands and ensure their use for **industrial** purposes to protect employment, production, manufacturing, warehousing, logistics and repair functions in the city. This includes limiting residential and commercial uses within **industrial** areas that promote speculation and make developing **industrial** uses challenging.

Policy 5.7.2. **Employment-Intensive Industrial.** Increase the employment density of **industrial** land in the **Core Area** by supporting **industrial** uses that make more efficient use of underutilized land. Discourage new commercial storage facilities in the **Core Area**.

Policy 5.7.3. **Packing District.** Support the growth of **industrial** development in Kelowna's **Packing District** with additional opportunities for **specialty retail** where it is supportive of the production and manufacturing in the area. Develop more detailed policy guidance for this area through an in-depth area planning process.

Policy 5.7.4. **Regional Collaboration for Industrial Lands.** Support a regional approach to managing **industrial** lands, recognizing that **industrial** business needs are connected across the region, with different local contexts playing unique and important roles.

Objective 5.8. Strengthen the local food system to increase food security, equitable access to healthy food and social connections.

Policy 5.8.1. **Equitable Food Access.** Encourage the inclusion of small and mid-size grocery stores, seasonal farmers markets and emergency food services in Village Centres and **Core Area** Neighbourhoods.

Policy 5.8.2. **Farmer's Markets.** Support the development of both year-round and seasonal farmer's markets in the **Core Area** to provide access to healthy food options.

Policy 5.8.3. **Urban Agriculture.** Encourage **urban agriculture** as a way of supporting a **healthy food system** and reducing the greenhouse gas emissions associated with food production, processing and transportation.

Policy 5.8.4. **Multi-Residential Shared Garden.** Encourage new development to include garden space and services (i.e.: water and storage) for citizens.

Policy 5.8.5. **Food Opportunities.** Allow food production on public and private land including rooftops, beehives and edible landscaping on residential boulevards, park land, backyards and rights-of-way.

Policy 5.8.6. **Community Gardens.** Encourage private and non-profit sector universally-accessible community gardens. Where appropriate, consider the use of city-owned land for use as community gardens.

Policy 5.8.7. **Indigenous Forest Gardens.** Partner with **syilx/Okanagan** communities to develop, forest gardens that focus on the cultivation of native and culturally important species of plants for food and medicine.

Objective 5.9. Ensure a compatible urban-rural interface that protects agricultural uses.

Policy 5.9.1. **Agricultural Land Protection.** Retain the **agricultural land** base for the long-term by supporting the **ALR** and by protecting **agricultural lands** from the impacts of adjacent development and redevelopment.

Policy 5.9.2. **Urban-Rural Interface Uses.** Where a property is adjacent to **agricultural lands**, encourage land uses that are compatible with adjacent agricultural uses, such as **urban agriculture** and **passive recreational** uses. Encourage uses that accommodate vulnerable populations, such as seniors, children and people with health challenges to parcels that are not adjacent to agriculture to limit interface incompatibilities.

Policy 5.9.3. **Urban-Rural Buffers.** Where a property is adjacent to land in the **ALR** and lands designated Rural - Agricultural and Resource (R-AGR), ensure that development limits associated negative impacts on adjacent agricultural operations by including appropriate buffers, setbacks and site planning, consistent with the Farm Protection Development Permit Guidelines outlined in *Chapter 16: Development Permit Areas.*

Housing

As the City focuses growth in the **Core Area**, urban neighbourhoods will become increasingly desirable as more people choose to live close to services and amenities. By expanding the variety of housing forms and tenures, the **Core Area** will be better able to provide housing options for all citizens, including smaller households and families. Also, by encouraging the creation of new rental housing and protecting existing rental housing, there will be more affordable and attainable housing options for low-income households. As land values increase in the **Core Area**, it will be important to promote strategies and actions that limit displacement of low-income citizens currently living in these neighbourhoods.

Partnerships between different levels of government, development community and non-profit housing organizations will be needed to provide stable, affordable housing in the **Core Area**. The City will prioritize investment in land for affordable housing within the **Core Area** to ensure that affordable housing is in proximity to sustainable transportation options, services and amenities.

Objective 5.10. Increase the diversity of housing forms and tenure to create an inclusive, affordable and complete Core Area.

Policy 5.10.1. **Diverse Housing Forms.** Ensure a diverse mix of low and **medium density** housing forms that support a variety of households, income levels and life stages.

Policy 5.10.2. **Diverse Housing Tenures.** Encourage a range of rental and ownership tenures that support a variety of households, income levels and life stages. Promote underrepresented forms of tenure, including but not limited to co-housing, fee-simple row housing, co-ops, and rent-to-own.

Policy 5.10.3. **Family-Friendly Housing.** Incorporate ground-oriented units in the design of multi-family developments to support family-friendly housing types. Ensure that multi-family developments include a variety of unit sizes, encouraging 10 per cent of units to be three or more bedrooms.

Policy 5.10.4. **Accessible Design.** Integrate universal design features and principles to create housing options for people of all ages and abilities and to support aging in place.

Policy 5.10.5. **City Land Acquisition.** Prioritize land acquisition and housing partnerships in the **Core Area**, in addition to **Urban Centres**, to support affordable rental housing that is in close proximity to services and amenities.

Policy 5.10.6. **Social Connections through Design.** Encourage housing design that incorporates front porches, gardens, greenspace and children's play areas to foster social connections, inclusion and intergenerational relationships.

Objective 5.11. Protect citizens from displacement due to Core Area development.

Policy 5.11.1. **Housing with Supports.** Prioritize the development of subsidized housing and housing with supports in the **Core Area** in addition to the **Urban Centres**, particularly near employment, public transit, services and amenities. Promote acceptance to the community for these supports, services and the citizens that are using them.

Policy 5.11.2. **Displacement Impacts of Gentrification.** Ensure **Core Area** planning initiatives include affordable housing and access to services to ensure low to moderate income renters are protected from **displacement effects** of **gentrification**.

Policy 5.11.3. **Tenant Assistance.** Work towards the creation of a Council policy to protect tenants displaced by redevelopment through fair relocation assistance from the developer. Such relocation assistance should ensure that tenants retain their access to services and amenities, such as employment, transportation and schools.

Policy 5.11.4. **Protection of Mobile Home Parks.** Prioritize retention of mobile home parks as an important source of affordable housing in our community. Only consider redevelopment of mobile home parks if 1:1 replacement of affordable units is included in the redevelopment.

Policy 5.11.5. **Redevelopment of Mobile Home Parks.** During redevelopment, ensure owners of mobile home parks create and implement a viable relocation plan for current tenants and provide them with a first refusal to purchase, as per *Council Policy #229.*

Objective 5.12. Protect the rental housing stock.

Policy 5.12.1. **Protection of Existing Rental Stock.** Ensure retention or replacement of existing rental units as redevelopment occurs in the **Core Area** through planning tools that include, but are not limited to, **Rental Only Zoning** and **Rental Replacement Obligations**.

Policy 5.12.2. **Rental Conversion.** Prohibit the conversion of existing residential rental buildings to condominium status when the rental vacancy rate falls below five per cent in Kelowna.

Policy 5.12.3. **Short-Term Rentals.** Ensure short-term rental accommodations do not negatively impact the long-term rental housing supply.

The Public Realm

How a neighbourhood's public realm is designed is critical to the overall enjoyment that people have living in it. In urban neighbourhoods where many citizens don't have large back yards or natural spaces, public spaces become vital to the livability of the city's urban neighbourhoods. The approach to providing a great public realm starts in the **Core Area** begins with making these areas more enjoyable for walking, allowing for easy access to parks and green space as well as local shops. The urbanization of local streets will extend the network of sidewalks with leafy **street trees**, making them more attractive and pleasant to walk along. In addition, making commercial areas that have typically been automobile-dominated more pedestrian friendly helps to extend this network.

The City will continue to work with the development community to make investments in public spaces and streetscapes in the **Core Area**, recognizing that such investments are critical to delivering on the City's infill housing targets and providing all citizens with equitable access to local parks and other neighbourhood amenities.

Objective 5.13. Design Core Area public spaces to foster strong social connections and community safety.

Policy 5.13.1. **Streets as Gathering Places.** Supplement park space in the **Core Area** by providing other places for people to gather, including but not limited to:

- Encouraging public spaces such as urban plazas and activation at street intersections and mid-block connections; and
- Undertaking laneway improvements that transform them into multi-functional public spaces and pedestrian linkages.

Policy 5.13.2. **Reduce Social Isolation.** Design public spaces in the **Core Area** to be geared towards groups who may face higher levels of **social isolation** including seniors, people with diverse abilities, Indigenous communities and newcomers.

Policy 5.13.3. **Accessible Core Area Spaces.** Design and retrofit civic facilities, public spaces, streetscapes, infrastructure, programs and services to be accessible, available and inclusive of all ages, incomes and abilities.

Policy 5.13.4. **Public Space through Future Development.** Develop policies and regulations that incentivize the provision of onsite publicly accessible open space early in planning process to further enhance the public amenities in Urban Centres to enhance overall development benefit.

Policy 5.13.5. **Residential Amenity Space.** Develop policies and regulations that incentivize the provision of private amenity space early in the planning process as part of multi-unit residential through mutual consideration to enhance overall development benefit.

Policy 5.13.6. **Urban Edge and Park Interaction.** Activate the edges of parks with visual and physical connections to land uses, such as facing doorways, front steps, windows, patio spaces, and pathways, to activate and develop a unique character for each park based on its context.

Policy 5.13.7. **CPTED 2nd Generation.** Incorporate principles of **Crime Prevention Through Environmental Design** (**CPTED**) **2nd Generation** in the planning and design of new development, civic facilities and public spaces including parks, **Active Transportation Corridors**, transit hubs and community gathering spaces to create safer neighbourhoods.

Policy 5.13.8. **Walled Developments.** Prohibit developments enclosed on all sides by walls, gates or other physical or visual barriers that hinder efforts to create more pedestrian, bicycle and transit friendly communities, block access to public park land or inhibit the efficient use of infrastructure.

Objective 5.14. Make the Highway 97 corridor a more attractive space.

Policy 5.14.1. **Highway 97 Streetscape.** Partner with the Ministry of Transportation and Infrastructure to advance beautification efforts along Highway 97. In addition, prioritize landscaping and **street trees** and separated pedestrian facilities in new development along the Highway 97 corridor, recognizing its role as a **mass transit corridor** and screening surface parking lots from view.

Policy 5.14.2. **Pedestrian Priority in Parking Lots.** Create a safe and pleasant pedestrian experience in Regional Commercial lands by requiring dedicated pathways that clearly delineate pedestrian space. Landscaping should be designed to maximize shade in the summer months.

Objective 5.15. Protect and increase greenery in the Core Area.

Policy 5.15.1. **Core Area Natural Spaces.** Encourage nature within the **Core Area** with design elements that include, but are not limited to:

- Urban forestry;
- Habitat for native and pollinator species; and
- Natural connections such as wildlife corridors and creeks.

Policy 5.15.2. **Urban Forest Canopy.** Encourage the installation of **street trees** in **Core Area** streetscape improvement projects, recognizing the critical role they play in pedestrian comfort, cooling of the urban heat island, habitat for local animal species and beautification of the public realm. Protect exiting mature trees where possible.

Transportation

To support the transformation of the **Core Area** areas to a more resilient low carbon future, the 2040 OCP envisions expanded roles for transit, walking and biking.

The availability of frequent transit service, protected bike lanes and more walkable streets will facilitate a high level of connectivity between the **Core Area** neighbourhoods and the services and employment located in the nearby Urban and Village Centres. In particular, the extension of the frequent transit network to align with **Transit Supportive Corridors** will improve connections to destinations across the city over time.

To realize this vision, the City and developers will need to partner on frontage improvements on key corridors to support frequent transit investments and enhance walkability. The City will continue to make strategic investments in protected bike lanes, local street urbanization works and pursue partnerships with BC Transit to establish the frequent transit network.

Objective 5.16. Provide safe, walkable, Core Area neighbourhoods that are connected to key destinations.

Policy 5.16.1. **Walkability.** Promote safety and comfort of pedestrians through the design of streets and sidewalks that integrate street tree planting, enhanced public realm treatments, street furniture, curb-side parking and **parkettes**.

Policy 5.16.2. **Accept Congestion.** Recognize and accept that Kelowna's streets and parking will become busier as the city grows. The **Core Area** has the opportunity to shift trips away from driving. By creating walkable streets, protected bike routes and investing in improved transit service it is possible to reduce reliance on vehicles as redevelopment occurs in the **Core Area**.

Policy 5.16.3. **Pedestrian and Biking Connectivity.** With new developments, require dedication of on-site walking and biking paths where necessary to provide links to adjacent parks, schools, transit stops, recreation facilities, **employment areas** and other activity areas.

Policy 5.16.4. **Base Level Transit Service.** Prioritize basic transit service for all citizens in the **Core Area** in Transit Service Plan updates to ensure diverse transportation options in areas with population densities that meet acceptable performance standards to ensure financial viability of service.

Policy 5.16.5. **Frequent Transit.** Establish a network of frequent transit routes along key corridors to link **Core Area** Neighbourhoods and Village Centres with **Urban Centres** as well as key institutional and community services such as Kelowna General Hospital, UBCO, Okanagan College and major recreation areas.

Policy 5.16.6. **Active Transportation Corridors.** Establish **Active Transportation Corridors** that are designed for bicyclists and pedestrians of all ages in accordance with the objectives of the Pedestrian and Bicycle Master Plan.

Policy 5.16.7. **Bicycle-oriented Development.** Prioritize bicycle parking and end-of-trip facilities through site planning and design of new development to ensure biking is an attractive and convenient transportation option.

Policy 5.16.8. **Urban Street Network.** Enhance street network connectivity and redundancy; strengthen people capacity to improve sustainable transportation and make it easier to access the surrounding major road network.

Policy 5.16.9. **Roadway Modifications.** Implement roadway modifications based on the goals and priorities of the Transportation Master Plan to support mobility options for all modes.

Policy 5.16.10. **Access Management.** Protect the functionality of **transit supportive corridors** and arterial roads by limiting direct driveway accesses. Ensure that new development takes vehicular access via laneways or secondary streets. Where that is not possible, encourage lot assemblies that reduce the total number of driveway accesses.

Objective 5.17. Create major streets that are walkable, support local retail and connect neighbourhoods to Urban Centres by car, bike and transit.

Policy 5.17.1. **Complete Streets.** Design streets to accommodate various combinations of transportation modes and uses, recognizing the intended role of a street in supporting key transportation networks (e.g. ATC, Frequent Transit, Highway). Also, designs should prioritize efficient movement of people over vehicles to optimize future road capacity.

Policy 5.17.2. **Transit Supportive Corridor Streets.** Create pedestrian-friendly corridors that are home to a series of bustling commercial areas—connected by tree-lined streets and multifamily residences, providing easy movement by all modes of transportation along the corridor.

Policy 5.17.3. **Highway 97.** Recognize the role that Highway 97 plays as both a **mass transit corridor** and goods and services transportation link between Kelowna and its business markets.

Policy 5.17.4. **Highway Permeability.** Work with Ministry of Transportation and Infrastructure to improve access across provincial highways for all modes to promote neighbourhood connectivity within the **Core Area**.

Policy 5.17.5. **Transit Priority.** Utilize transit priority measures to optimize transit travel time on **Frequent Transit Routes**.

Policy 5.17.6. **Transit Infrastructure.** Ensure frequent transit network routes are supported by key infrastructure (i.e. transit stops, bus pull out bays, bus shelters, benches, sidewalks, lighting, accessibility features, or other transit amenities) to optimize transit service in the **Core Area**.

Policy 5.17.7. **Safe Crossings.** Create safe & accessible crossing opportunities on collectors and arterials.

Objective 5.18. Create neighbourhood streets that are safe and comfortable for people to walk bike and play on.

Policy 5.18.1. **Local Streets.** Create a pedestrian friendly environment on local streets with a continuous boulevard treatment to support a robust urban tree canopy.

Policy 5.18.2. **Neighbourhood Short-Cutting.** Assess options to mitigate cut-through vehicle traffic through traffic calming, traffic diversion and other design when considering development applications and infrastructure investments.

Objective 5.19. Protect and enhance the Okanagan Rail Trail as a vital transportation corridor linking communities in the Okanagan Valley.

Policy 5.19.1. **Okanagan Rail Trail Protection.** Ensure the long-term protection of the Okanagan Rail Trail by avoiding encumbrances within the Okanagan Rail Trail corridor, including but not limited to: driveways, crossings, and utilities.

Objective 5.20. Manage curb space to reflect a range of community benefits.

Policy 5.20.1. **Parking management.** Use parking management strategies to ensure adequate turnover and availability in high demand areas and to encourage greater uptake of sustainable transportation options.

Policy 5.20.2. **Parking Spillover.** Introduce parking management strategies to reduce the impact of new multi-family residential parking on **Core Area** neighbourhood streets.

Policy 5.20.3. **Shared Mobility Access.** Adapt management of curb space to improve access to shared mobility options and reflect changing community priorities (e.g. car share, electric vehicle charging stations, ride-hailing and emerging mobility options).

Objective 5.21. Adapt and respond to shifting long-term demand for parking facilities.

Policy 5.21.1. **Parking Relaxations**. Consider parking requirement relaxations, where the development provides a robust Transportation Demand Management strategy (e.g. car share memberships, bicycle parking, co-working space) or includes occupants (e.g. low income citizens) that would contribute to lower rates of vehicle ownership.

Policy 5.21.2. **Parking in Core Area Parks.** Limit the area used for automobile parking in **Core Area** parks, reflecting the constrained land area and greater mobility options in these centrally located neighbourhoods.

Policy 5.21.3. **Leverage Cash-in-Lieu.** Explore opportunities to expand cash-in-lieu parking program to **Core Area** neighbourhoods to fund sustainable transportation priorities and support climate action.

Policy 5.21.4. **Electric Vehicle Charging.** Integrate electric vehicle charging stations in off-street parking plans for new multi-family, institutional and commercial developments.

Objective 5.22. Adapt and respond to emerging transportation technologies.

Policy 5.22.1. **Shared Mobility Programs.** Support pilots and partnerships to improve access to emerging on-demand mobility options that reduce greenhouse gases and improve sustainable transportation options.

Policy 5.22.2. **Emerging Transportation Technology.** Work with other levels of government and industry to leverage potential of emerging transportation technologies (self-driving, ride-hailing etc.) to reduce congestion and greenhouse gases while supporting the transition away from a car centric culture.

Culture

Culture within Kelowna's **Core Area** is evident within its parks, public spaces and streetscapes. Public art installations, both publicly and privately owned, make walking through the **Core Area** streets, open spaces and parks a delight for citizens and visitors alike. While Downtown's Cultural District will act as the main focus on cultural investments, opportunities for cultural expression in the Core Area should still be encouraged and supported, especially in Village Centres and **Transit Supportive Corridors**.

As the Core Area grows, the development of new cultural infrastructure will require creative partnerships between the City, other stakeholders, and the private sector.

Objective 5.23. Develop and maintain cultural infrastructure to support a vibrant Core Area.

Policy 5.23.1. **Cultural Infrastructure.** Design parks, public spaces and streetscapes in the **Core Area** to support cultural programs, public events, performances, and public art installations.

Policy 5.23.2. **Creative Industries.** Support measures to create affordable studio or workshop space, live/work uses, and flexible spaces to expand creative industries.

Policy 5.23.3. **Live/Work Space.** Consider innovative ways to increase the supply of live/work space that is affordable for artists, and work/live space for **industrial** design and related activities.

Objective 5.24. Encourage artistic innovation and creative expression in the built environment across both the private and public sectors.

Policy 5.24.1. **Public Art Promotion.** Promote public art that celebrates the culture and diversity of Kelowna while reflecting unique character and qualities within the **Core Area**. Seek opportunities to partner and collaborate with Westbank First Nation and Okanagan Indian Band on public art and placemaking initiatives that acknowledge and celebrate their traditional territory and cultural values.

Policy 5.24.2. **Showcase Art in New Development.** Expand public art as an integral part of urban design and development within the **Core Area**. Encourage public art in conjunction with major public and private development.

The Gateway district represents the entryway to Kelowna and plays a unique role as a driver of innovation and economic growth in the Okanagan region. It contains the Kelowna International Airport, which welcomes residents as well is visitors from around the world, and straddles Highway 97, which is traveled by thousands of people every day and is a significant goods movement corridor. The Gateway is also home to UBC's Okanagan Campus, connecting international students to Kelowna, and connecting local students to the world.

But the synergies aren't just in the name. These institutions and infrastructure are connected in other ways. The University benefits from close proximity to one of the fastest growing airports in the country for easy access to international talent and markets. Partnerships between the university and adjacent **industrial** development stand to build an exciting future for research. And, all of the uses in the area benefit from the easy access to local and regional markets provided by Highway 97.

Leveraging these partnerships is encouraged as the area's **industrial** base grows and matures, supported and driven by the university and airport. Student-focused residential and commercial uses are also encouraged in the area to facilitate the continued growth of UBC's Okanagan campus. This kind of growth will also drive the area to embrace a shift in transportation behaviour to a greater focus on transit.

Land Use and Urban Design

Land use directions in the Gateway focus primarily on three distinct types of development, each of which play a unique role in the city and in the region: the rapidly diversifying University of British Columbia Okanagan (UBCO) campus and associated commercial and residential uses, Kelowna International Airport (YLW) and the **industrial** lands along Highway 97 and the North Kelowna Industrial Park.

Continuing to facilitate growth in this important regional hub will require working closely with community and institutional partners in the Gateway, but also continuing to seek ways to limit the erosion of industrial land uses, retaining these lands as primarily employment uses that serve the specific needs of **industrial** employers. Concurrently, residential uses should be limited to targeted areas within or near the University South Village Centre to support the University and other major employers in the area.

Objective 6.1. Support the evolution of the University of British Columbia – Okanagan into a more complete community.

Policy 6.1.1. UBCO Vision. Support the University of British Columbia in implementing the vision outlined in its *Okanagan Campus Plan,* working towards the following:

- Recognizing the university's role as a hub for innovation in the city;

- Supporting the expansion of university facilities on Educational and Institutional lands;
- Supporting the development of **medium density** residential development on the UBCO campus;
- Encouraging the provision of a range of services, particularly access to healthy food, to meet the daily needs of the growing student, employee, and resident population; and
- Improving connectivity through all modes of transportation.

Policy 6.1.2. **Innovation Precinct.** Increase the employment density of **industrial** land within and adjacent to the **Innovation Precinct** by supporting more employment-intensive **industrial** uses and by making more efficient use of underutilized land.

Policy 6.1.3. **University Building Heights.** Support **low rise** and **mid rise** buildings as the highest buildings at the UBCO campus where it complies with the Obstacle Limitation Surface as outlined in the Airport Zoning Bylaw.

Objective 6.2. Build a complete University South Village Centre.

Policy 6.2.1. **Village Centre Commercial Area.** Maximize opportunities for commercial uses and services at grade towards the north end of the University South Village Centre that cannot be accommodated on campus to create a hub of activity between village centre residents and UBCO.

Policy 6.2.2. **University South Density.** Encourage **medium density** residential development in the University South Village Centre to support opportunities to live near the growing **employment areas** in the Gateway, particularly UBCO and Kelowna International Airport.

Policy 6.2.3. **University South Building Heights.** Support **low-rise** buildings as the highest buildings in the University South Village Centre where it complies with the Obstacle Limitation Surface as outlined in the Airport Zoning Bylaw.

Policy 6.2.4. **University South School Site.** Support the development of a new school site within the University South Village Centre.

Policy 6.2.5. **Automobile-Oriented Commercial.** Direct large format commercial development to lands designated Regional Commercial to provide easy access to regional vehicle traffic. Do not support such uses in the University South Village Centre or Educational and Institutional lands.

Objective 6.3. Support the strategic and planned growth of Kelowna International Airport as a regional economic generator.

Policy 6.3.1. **Kelowna International Airport Master Plan.** Support the continued growth of Kelowna International Airport (YLW), through the implementation of the recommendations in the *YLW Airport Master Plan 2045*, as amended.

Policy 6.3.2. **International Airport Expansion.** Continue to secure land to allow for the expansion and development of Kelowna International Airport as outlined in the YLW *Airport Master Plan 2045*, as amended.

Policy 6.3.3. **Aircraft Noise Impacts.** Prohibit increases in residential density within the NEF 25 contour and above, as illustrated in Map 6.1, to accommodate for growth in aircraft travel from Kelowna International Airport. In addition, new development that falls within the Federal Aviation Zone, as illustrated in Map 6.2, should include upgraded sound proofing and must provide a covenant that saves the City harmless with respect to noise complaints.

Policy 6.3.4. **Building Heights Near Airport.** Require that all proposed development projects within the Federal Aviation Zone, as illustrated in Map 6.2, include consultation with Kelowna International Airport, Transport Canada, and NavCanada with respect to building heights as per **Airport Zoning Regulations** under the authority of the Aeronautics Act (1977).

Policy 6.3.5. **ALR Lands at YLW.** Support the exclusion of ALR lands at YLW, as identified in the *YLW Airport Master Plan 2045*, as amended, in time to allow for airport expansion and development.

Policy 6.3.6. **Preservation of ESA Lands at YLW.** Preserve **environmentally sensitive areas** on YLW lands while not impacting aircraft safety until such time they are needed for YLW expansion and development.

Objective 6.4. Support the continued development of industrial lands.

Policy 6.4.1. **Erosion of Industrial Lands.** Do not support the re-designation of **industrial** lands in the Gateway and ensure their use for **industrial** purposes to protect employment, production manufacturing, warehousing, logistics and repair functions in the city. This includes limiting residential and commercial uses within **industrial** areas that promote speculation, which make developing **industrial** uses challenging.

Policy 6.4.2. **North Kelowna Industrial Lands:** Encourage the development of the North Kelowna Industrial Lands, recognizing the unique role that the area plays as a large scale industrial area, by undertaking the following:

- Encouraging heavy/large format industrial uses in this area, such as manufacturing and warehousing that may not transition well into other Kelowna neighbourhoods;
- Discouraging the creation of small lot industrial properties;
- Discouraging integration of residential uses; and
- Planning for and coordinating the provision of utility and transportation infrastructure to service industrial growth.

Policy 6.4.3. **Industrial / Residential Interface.** Require low impact **industrial** uses where **industrial** lands are adjacent to residential lands. Such uses should be primarily indoors, have limited outdoor storage and include extensive buffering and screening to reduce impacts on residential neighbourhoods.

Policy 6.4.4. **Highway 97 Industrial Orientation.** Design new **industrial** development that is adjacent to Highway 97 to provide a more attractive façade facing the highway. Approaches may include greater façade articulation, colour variation, windows and other features that add to the visual interest along the highway corridor.

Policy 6.4.5. **Regional Industrial Lands.** Support a regional approach to managing **industrial** lands, recognizing that **industrial** business needs are connected across the region, with different local contexts playing unique and important roles.

Objective 6.5. Strengthen the local food system to increase food security, equitable access to healthy food and social connections.

Policy 6.5.1. Urban Agriculture. Encourage **urban agriculture** as a way of supporting a **healthy food system** and reducing the greenhouse gas emissions associated with food production, processing and transportation.

Policy 6.5.2. Multi-Residential Shared Garden. Encourage new development to include garden space and services (i.e. water and storage) for citizens.

Policy 6.5.3. Food Opportunities. Allow food production on public and private land including rooftops, beehives and edible landscaping on residential boulevards, park land, backyards and rights-of-way.

Policy 6.5.4. Community Gardens. Encourage private and non-profit sector universally-accessible community gardens. Where appropriate, consider the use of city-owned land for use as community gardens.

Policy 6.5.5. Land Linking. Collaborate with others to increase farming opportunities on city-owned properties.

Policy 6.5.6. Indigenous Forest Gardens. Partner with **syilx/Okanagan** communities to develop, forest gardens that focus on the cultivation of native and culturally important species of plants for food and medicine.

Objective 6.6. Support the development of a complete community in the Gateway.

Policy 6.6.1. Child Care Spaces. Support the development of child care spaces including accessible, affordable and inclusive spaces that meet the needs of citizens living or working in the Gateway.

Objective 6.7. Protect and preserve agricultural land and its capacity.

Policy 6.7.1. Protect Agricultural Land. Retain the **agricultural land** base for the long-term by supporting the **ALR** and by protecting **agricultural lands** from urban development and the impacts of adjacent development and redevelopment.

Policy 6.7.2. Agricultural Land Designation. Protect and support the continued designation and use of **agricultural land** for agricultural purposes regardless of soil types and capabilities. Locate agricultural structures to maximize the agricultural potential of prime soil resources.

Policy 6.7.3. ALR Exclusions. Do not support **ALR** exclusion applications to the **ALC** except in extraordinary circumstances where such exclusions are otherwise consistent with the goals, objectives and other policies of the 2040 OCP such as airport expansion as outlined in Objective 6.3. Soil capability alone should not be used as justification for exclusion.

Policy 6.7.4. Agri-tourism, Alcohol Production Facilities, Farm Retail Sales. Support **agri-tourism** uses that can be proven to be in aid of and directly associated with established farm operations as a primary use. Permit alcohol production facilities and farm retail sales on ALR lands where consistent with existing ALC policies and regulations.

Policy 6.7.5. **Non-farm Uses.** Restrict **non-farm uses** that do not directly benefit agriculture except where such non-farm uses are otherwise consistent with the goals, objectives and other policies of this OCP. Support non-farm use applications on **agricultural lands** only where approved by the **ALC** and where the proposed uses:

- Are consistent with the Zoning Bylaw and the OCP 2040;
- Provide significant benefits to local agriculture;
- Do not require the extension of municipal services;
- Will not utilize productive **agricultural lands**;
- Will not preclude future use of the lands for agriculture; and
- Will not harm adjacent farm operations.

Policy 6.7.6. **Subdivision of Agricultural Land.** Maximize the potential for **agricultural land** to be used for agriculture by not allowing it to be subdivided into smaller parcels, except where significant positive benefits to agriculture can be demonstrated or in the case of homesite severances approved by the **ALC**.

Policy 6.7.7. **Secondary Suites.** Secondary suites on **agricultural land** must be located within a permitted principal dwelling.

Policy 6.7.8. **Farm Help Housing.** Farm help housing should be located within the **Permanent Growth Boundary**, providing access to amenities for workers. Accommodation for farm help on the same **farm unit** will be considered only where:

- Agriculture is the principal use on the parcel; and
- The applicant demonstrates that the on-site housing for farm workers is necessary for the overall operation of the farm. The primary consideration is whether the scale of the farm operation is large enough that permanent help is deemed necessary.

Temporary farm working housing, such as **bunkhouse accommodation** on non-permanent foundations, is the preferred solution where farm worker housing is justified.

Policy 6.7.9. **Homeplating.** Locate buildings and structures, including farm help housing and farm retail sales areas and structures, on agricultural parcels in close proximity to one another and where appropriate, near the existing road frontage.

Policy 6.7.10. **Conservation Tools.** Promote the use of conservation covenants on **agricultural land**. Conservation covenants will:

- Balance agricultural and environmental priorities and recognize the complex relationships between some agricultural uses and areas of environmental interest;
- Protect environmentally sensitive areas identified through current statutory provisions (e.g. **Species at Risk**) and identified through current federal, provincial and local inventory programs; and
- Focus on environmentally sensitive areas and should not unduly restrict agriculture elsewhere on the property.

Policy 6.7.11. **Large Scale Alternative Energy on Agricultural Land.** Prohibit the use of solar farms (photovoltaics) or other large scale alternative energy solutions, developed for the sale of power to third parties, on properties in the **Agricultural Land Reserve**.

Objective 6.8. Ensure a compatible urban-rural interface.

Policy 6.8.1. **Agricultural Land Protection.** Retain the **agricultural land** base for the long-term by supporting the **ALR** and by protecting **agricultural lands** from the impacts of adjacent development and redevelopment.

Policy 6.8.2. **Urban-Rural Interface Uses.** Where a property is adjacent to **agricultural lands**, encourage land uses that are compatible with adjacent agricultural uses. Encourage uses that accommodate vulnerable populations, such as seniors, children and people with health challenges to parcels that are not adjacent to agriculture to limit interface incompatibilities.

Policy 6.8.3. **Urban-Rural Buffers.** Where a property is adjacent to **agricultural lands**, ensure that development limits associated negative impacts on adjacent agricultural operations by including appropriate buffers, setbacks and site planning, consistent with the Farm Protection Development Permit Guidelines outlined in *Chapter 10: Development Permit Areas.*

Policy 6.8.4. **Glenmore Landfill Nuisance Impacts.** Do not support additional urban development and intensification in the landfill impact buffer area, as illustrated in Map 13.6.

Housing

Kelowna's Gateway will include housing forms and tenures that support the UBCO campus as well as nearby employment centres, offering greater housing options for students and faculty of UBCO and well as other key employers in the area. This approach focuses on the expansion and protection of rental housing in anticipating of the area becoming one of the main housing hubs for university students, requiring the City will need to work closely with senior levels of government and UBCO.

Objective 6.9. Encourage housing forms that support students, faculty and staff of nearby employment centres.

Policy 6.9.1. **Student and faculty housing.** Encourage the development of residential units that meet the needs of students and UBCO faculty, including units that can accommodate families, such as units with three or more bedrooms.

Policy 6.9.2. **Range of housing tenure.** Support a range of rental and ownership tenures that support a variety of households and income levels. In addition, support underrepresented forms of tenure, including but not limited to co-housing, fee-simple row housing, co-ops, and rent-to-own.

Policy 6.9.3. **Social connections through design.** Encourage housing designs that incorporate spaces that foster social connections and inclusion, such as courtyards and rooftop patios.

Policy 6.9.4. **Accessible Design.** Integrate universal design features and principles to create housing options for people of all ages and abilities.

Objective 6.10. Prioritize the construction of purpose-built rental housing.

Policy 6.10.1. **Housing Tenure Diversity.** Support the development of rental housing in the Gateway District, within UBCO and the University South Village Centre.

Policy 6.10.2. **Protection of Existing Rental Stock.** Ensure retention or replacement of existing rental units as redevelopment occurs in the Gateway through planning tools that include, but are not limited to, **Rental Only Zoning** and **Rental Replacement Obligations.**

Policy 6.10.3. **Rental Conversion.** Prohibit the conversion of existing residential rental buildings to condominium status when the rental vacancy rate falls below five per cent in Kelowna.

Policy 6.10.4. **Tenant Assistance.** Ensure that tenants displaced by redevelopment are protected through relocation assistance from the developer.

Policy 6.10.5. **Short-Term Rentals.** Ensure short-term rental accommodations limits impact on the long-term rental housing supply.

The Public Realm

Recognizing that the Gateway is a major entry point to Kelowna from both the land and air, approaches to the public realm along the highway and the airport focus on welcoming visitors and creating a more attractive first impression of the city. Additionally, the area in and around the UBCO campus will focus on strengthening the connections between key destinations through public realm improvements, particularly from the pedestrian perspective.

Much of this work will be undertaken by the UBCO through partnerships with the City of Kelowna, while continued investments by the City at the Airport will make this regional hub a more attractive space for citizens and visitors.

Objective 6.11. Support the University of British Columbia – Okanagan in developing a pedestrian friendly and vibrant public realm.

Policy 6.11.1. **University Public Realm.** Support the University of British Columbia in its efforts to provide high quality public spaces as per the *Okanagan Campus Plan.*

Objective 6.12. Use public realm improvements to strengthen the connection between the University South Village Centre, the Innovation District, and UBCO.

Policy 6.12.1. **Private Open Space.** Encourage the development of private open space amenities as part of new residential development in the University South Village Centre. In addition, encourage public accessible private open space in **Industrial** and Regional Commercial lands.

Policy 6.12.2. **Street Tree Linkages.** Within the Gateway, prioritize the installation of trees in as part of boulevards in the University South Village Centre and the Innovation District to maximize pedestrian and cyclist comfort for trips to and from the University.

Objective 6.13. Make the Highway 97 corridor a more attractive entry point for the city.

Policy 6.13.1. **Highway 97 Beautification.** Partner with the Ministry of Transportation and Infrastructure to advance beautification efforts along Highway 97 near UBCO and Kelowna International Airport, recognizing that these areas represent key entry points to the city.

Policy 6.13.2. **Traditional Territory Welcome.** Consider the use of artistic elements to signal to citizens and visitors are in the traditional territory of **syilx/Okanagan** people.

Objective 6.14. Create Safe and Accessible Public Spaces in the Gateway.

Policy 6.14.1. **CPTED 2nd Generation.** Incorporate principles of **Crime Prevention Through Environmental Design (CPTED) 2nd Generation** Guidelines in the planning and design of new development, civic facilities and public spaces including parks, **Active Transportation Corridors**, transit hubs and community gathering spaces to create safer neighbourhoods.

Transportation

To support the growth of key employment centres in the Gateway, improvements to transportation options for the thousands of employees in the area are needed. New roadway investments will improve access within the district, while maintaining access to Highway 97. At the same time, the Okanagan Rail Trail will continue to be the spine for people walking and biking in the area with future investments targeting improved access and linkages to it. Enhancements to transit service will be vital to support growth of UBCO, while providing low carbon transportation options for the thousands of people working and studying in this area of the City.

City investments in the area will focus on targeted investments to expand access to Highway 97, the Okanagan Rail Trail and partnerships with UBCO, YLW and BC Transit to extend frequent transit service to major employment centres in the district.

Objective 6.15. Maintain access to goods movement and reduce dependence on the automobile where possible.

Policy 6.15.1. **Transportation Master Plan.** Advance the implementation of the vision, goals and programs of the *Transportation Master Plan* and Okanagan Gateway Transportation Study to promote diverse transportation options that transition Kelowna from a car centric culture.

Policy 6.15.2. **Pedestrian and Biking Connectivity.** With new developments, require dedication of on-site walking and biking paths where necessary as outlined in Map 13.3 to provide links to adjacent parks, schools, transit stops, recreation facilities, **employment areas** and other important activity areas.

Policy 6.15.3. **Transit infrastructure.** Ensure **Frequent Transit Network** routes are supported by key infrastructure (i.e. transit stops, bus pull out bays, bus shelters, benches, lighting,

accessibility features) to achieve transit service goals of UBCO and Kelowna International Airport.

Policy 6.15.4. **Frequent transit.** Invest in a network of frequent transit routes that connect Kelowna International Airport and UBCO with the City's **Core Area** and **Urban Centres**.

Policy 6.15.5. **Transit priority.** Utilize transit priority measures on key corridors to optimize transit travel time on the **Frequent Transit Network**.

Policy 6.15.6. **Kelowna International Airport.** Recognize the regional role that YLW has in transporting goods and people in and out of the region and beyond as a significant driver of the regional business economy.

Policy 6.15.7. **Highway 97.** Recognize the regional role that Highway 97 plays as both a **mass transit corridor** and goods and services transportation link between Kelowna and its business markets.

Policy 6.15.8. **Roadway modifications.** Implement roadway modifications based on the goals and priorities of the TMP and Okanagan Gateway Transportation Study to support mobility options for all modes and goods movement.

Objective 6.16. Develop a well-connected supporting street network to facilitate travel by alternate modes and reduce reliance on Highway 97.

Policy 6.16.1. **Transportation Networks.** Ensure transportation networks support continued success and future expansion of key **employment areas**, such as UBCO and Kelowna International Airport. Seek enhancements in transit service, biking infrastructure and other sustainable modes of transportation in conjunction with planned roadway investments in the Gateway District.

Policy 6.16.2. **Street network.** Enhance street network connectivity and redundancy to support diverse transportation options and make it easier to access the surrounding major road network.

Policy 6.16.3. **Safe crossing.** Create safe and accessible pedestrian crossings for all ages and abilities at key intersections on collectors and arterials.

Objective 6.17. Protect and enhance the Okanagan Rail Trail as a vital transportation corridor linking communities in the Okanagan Valley.

Policy 6.17.1. **Okanagan Rail Trail Protection.** Ensure the long-term protection of the Okanagan Rail Trail by not permitting encumbrances within the Okanagan Rail Trail corridor, including but not limited to: crossings, utilities, stormwater management.

Objective 6.18. Maintain safe roads that support agricultural uses.

Policy 6.18.1. **Trucking Routes.** Recognize major trucking routes that support larger processing and production in agricultural areas.

Policy 6.18.2. **Service Corridors.** Minimize the impact of road and utility corridors through **agricultural lands**, using only those lands necessary and to the maximum capacity prior to seeking new corridors. Ensure provisions are made for farm traffic to cross major roads.

Objective 6.19. Adapt and respond to shifting long-term demand for parking facilities.

Policy 6.19.1. **Parking facilities.** Investigate opportunities to develop shared parking options between UBCO and Kelowna International Airport.

Policy 6.19.2. **Public electric vehicle charging stations.** Provide public access to electric vehicle charging stations in strategic locations.

Policy 6.19.3. **Parking management.** Introduce parking management strategies coupled with TDM approaches to encourage greater uptake of sustainable transportation options.

Policy 6.19.4. **Parking Relaxations**. Consider parking requirement relaxations where projects provide a robust TDM strategy (e.g. transit passes, bicycle end-of-trip facilities) and are well served by the **Frequent Transit Network** and the Okanagan Rail Trail.

Objective 6.20. Adapt and respond to emerging transportation technologies.

Policy 6.20.1. **Shared Mobility Programs.** Continue to support pilots and partnerships to improve access to emerging on-demand mobility options that reduce greenhouse gases and enhance sustainable transportation options.

Policy 6.20.2. **Emerging Transportation Technology.** Work with other levels of government and industry to leverage potential of emerging transportation technologies (self-driving, ride-hailing etc.) to reduce congestion and greenhouse gases and support the transition away from a car centric culture.

Policy 6.20.3. **Electric Vehicle Charging in New Development.** Integrate electric vehicle charging stations in off-street parking plans for new multi-family, institutional and commercial developments.

Culture

Culture builds social connections and reinforces a sense of place. As culture emerges and develops, it generates a unique identity that impacts the lives of citizens and visitors. With the Gateway acting as one of the main entry points to Kelowna and a major post-secondary destination, it is important that culture be captured within the built environment through both artistic innovation and creative expression.

Objective 6.21. Encourage artistic innovation and creative expression in the built environment across both the private and public sectors.

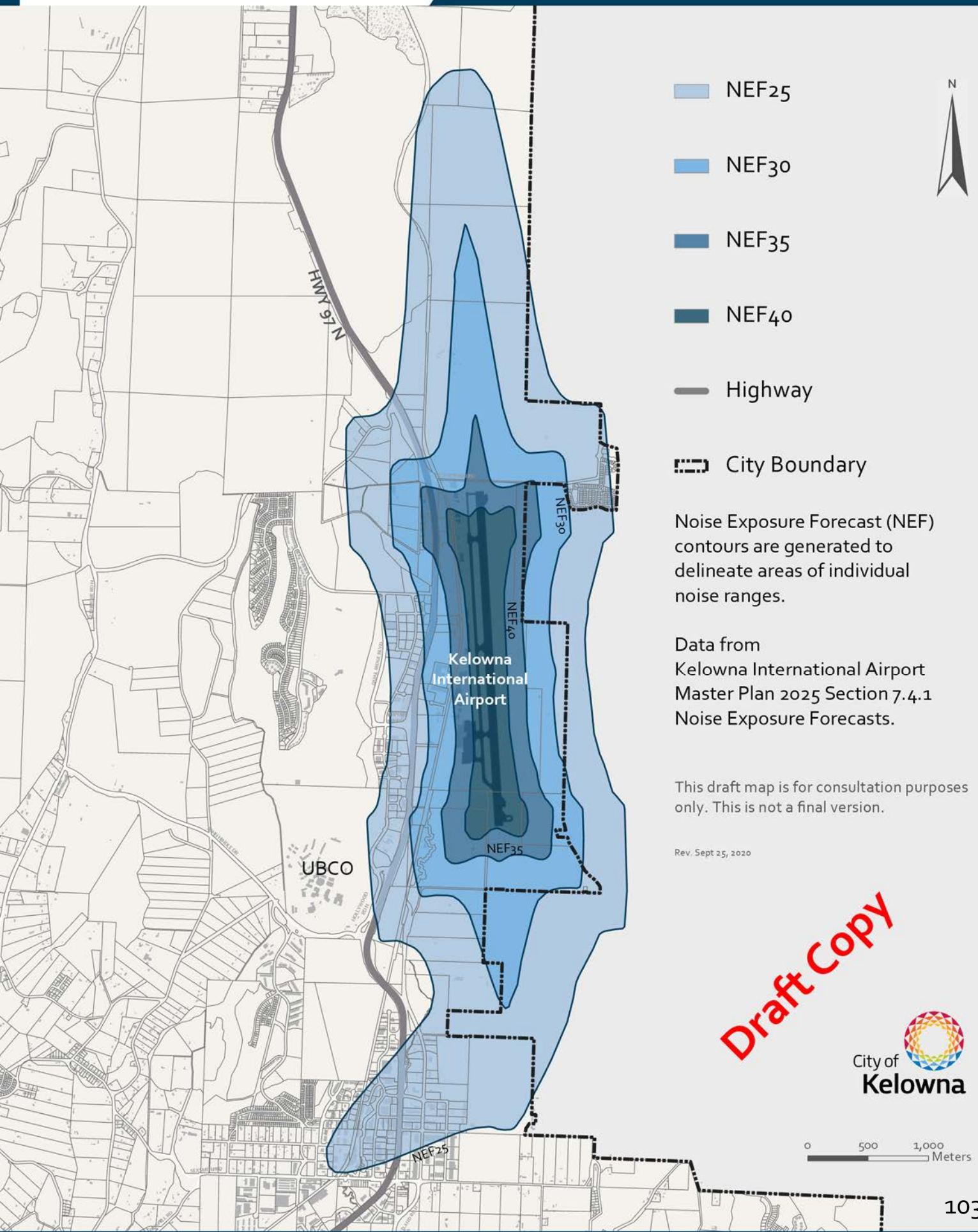
Policy 6.21.1. **Public Art Promotion.** Promote public art that celebrates the culture and diversity of Kelowna. Seek opportunities to partner and collaborate with Westbank First Nation and

Okanagan Indian Band on public art and placemaking initiatives that acknowledge and celebrate their traditional territory and cultural values.

Policy 6.21.2. **Showcase Art in New Development.** Expand public art as an integral part of urban design and development within the Gateway District. Encourage public art in conjunction with major public and private development.

Policy 6.21.3. **Welcoming Artwork.** Emphasize the Gateway's role as an entry point to the city by both land and air by encouraging artwork that welcomes people to the city. Celebrate the traditional territory of the **syilx/Okanagan** people by incorporating the traditional Nsyilexcen language.

Map 6.1 Airport Noise Buffer Areas



NEF25

NEF30

NEF35

NEF40

Highway

City Boundary

N

Noise Exposure Forecast (NEF) contours are generated to delineate areas of individual noise ranges.

Data from
Kelowna International Airport Master Plan 2025 Section 7.4.1 Noise Exposure Forecasts.

This draft map is for consultation purposes only. This is not a final version.

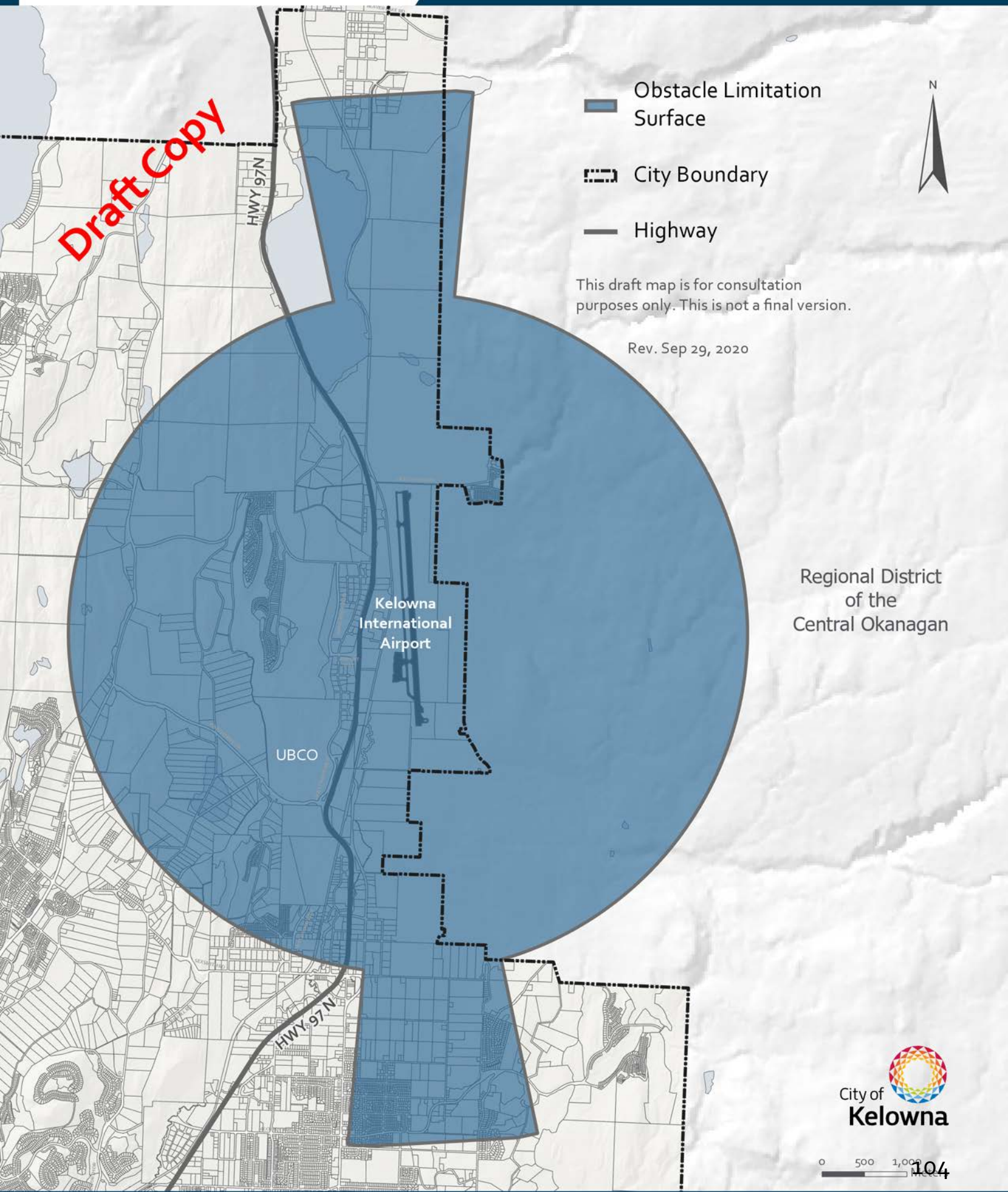
Rev. Sept 25, 2020

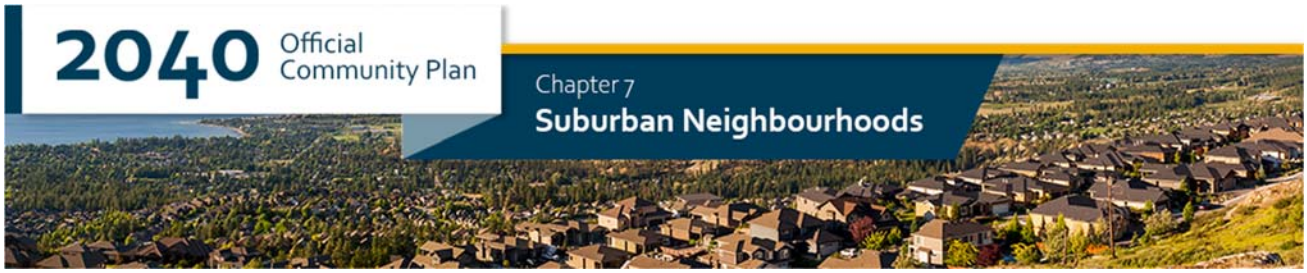
Draft Copy

City of Kelowna

0 500 1,000 Meters

Map 6.2 Airport Height Restriction Area





Suburban Neighbourhoods, which typically consist of low-density, single-family homes on medium to large lots, are the dominant development pattern outside of the city's **Core Area**. These neighbourhoods are expected to continue to fulfill their role in accommodating growth, but are not prioritized for further growth or investment beyond what is already signaled in their guiding **Area Structure Plans**. They are heavily reliant on cars to meet their transportation needs, since they are too far from work and their daily needs for convenient walking or biking, and transit service is limited. While they remain attractive to many residents for a variety of reasons, the continued expansion of this form of development is unsustainable.

Suburban Neighbourhoods are not the focus for residential or commercial growth over the next 20 years, though some new suburban neighbourhoods will continue to expand until they have been completed. Instead, secondary suites, lot splits, duplexes and carriage houses will become even more common in this area, building on a trend evident in recent decades. Some modest multi-family can be expected in support of Village Centres, neighbourhood commercial, schools and parks.

Land Use and Urban Design

Land use in suburban neighbourhoods will focus primarily on single and two family development with strategic areas targeted for multi-unit development and areas of commercial activity. Future development of many these neighbourhoods are guided by **Area Structure Plans** (ASPs) that were endorsed prior to the development of the 2040 OCP, but continue to be in effect. However, these neighbourhoods represent the last remaining lands for suburban development, with no new neighbourhoods signaled beyond these areas. Two Village Centres – the Ponds and Black Mountain – will see opportunities for small activity hubs of commercial and multi-unit residential development, providing more opportunities for residents of these neighbourhoods to travel shorter distances for day-to-day errands.

The City and the development community share responsibility in seeing Suburban Neighbourhoods be completed in a way that makes more efficient use of infrastructure, reduces the overall urban footprint, and creates more complete communities.

Objective 7.1. Enable the completion of planned Suburban neighbourhoods.

Policy 7.1.1. **Area Structure Plans.** Support development that is consistent with the visions outlined in the adopted **Area Structure Plans** (ASPs) for Suburban neighbourhoods. Future reviews of, and amendments to, **Area Structure Plans** must align with the policies of the *Official Community Plan*.

Policy 7.1.2. **Residential Unit Targets.** Support the development of total residential units to the maximums outlined in the following Suburban Neighbourhoods (see Map 7.1). Proposals

for significantly higher units than those outlined should be considered in the context of a revised **Area Structure Plan** that addresses additional infrastructure requirements.

- Wilden: approximately 2,000 units
- Black Mountain: approximately 1,400 units
- Kirschner Mountain: approximately 600 units
- The Ponds: approximately 1,100 units
- McKinley Landing: approximately 1,300 units
- Tower Ranch: approximately 700 units

Objective 7.2. Design Suburban Neighbourhoods to be low impact, context sensitive and adaptable.

Policy 7.2.1. **Ground Oriented Housing.** Consider a range of low-density **ground-oriented** housing development to improve housing diversity and affordability and to reduce the overall urban footprint of Suburban Neighbourhoods. Focus more intensive **ground-oriented** housing where it is in close proximity to small scale commercial services, amenities like schools and parks, existing transit service and/or active transportation facilities.

Policy 7.2.2. **Hillside Housing Forms.** Encourage housing forms that best match to the topography and have the lowest amount of impact on **steep slopes**, such as minimum cuts and fills, for example, and provide greatest environmental protection. Discourage housing forms and associated roadways that cause high amounts of slope disturbance and visual impact.

Policy 7.2.3. **Shared Use Facilities.** Consider joint-use opportunities that allow for a variety of uses or users on a single parcel. Examples include shared parks and school playgrounds and shared opportunities where it can be demonstrated that parking areas will be or are currently underutilized.

Policy 7.2.4. **Complementary Uses Adjacent to Public Spaces.** Encourage opportunities for complementary uses nearby or adjacent public spaces, such as parks, including uses such as schools and daycare centres, to provide easy access to, and animation of, the public spaces in Suburban Neighbourhoods.

Policy 7.2.5. **Aircraft Noise Impacts.** Prohibit increases in residential density within the NEF 25 contour and above, as illustrated in Map 6.1, to accommodate for growth in aircraft travel from Kelowna International Airport. In addition, new development that falls within the Federal Aviation Zone, as illustrated in Map 6.2, should include upgraded sound proofing and must provide a covenant that saves the City harmless with respect to noise complaints.

Policy 7.2.6. **Building Heights Near Airport.** Require that all proposed subdivision, multi-unit, **industrial**, institutional and commercial development projects within the Federal Aviation Zone, as illustrated in Map 6.2, include consultation with Kelowna International Airport and Transport Canada with respect to building heights as per **Airport Zoning Regulations** under the authority of the Aeronautics Act (1977).

Objective 7.3. Create more complete communities in Suburban Neighbourhoods.

Policy 7.3.1. **Suburban Village Centre Services.** Encourage the provision of a range of services by developing Suburban Village Centres that are scaled to support residential development in the surrounding neighbourhood. Such services may include, but are not limited to:

- Food, retail, services and programs;

- Banks and credit unions;
- Medical, health and wellness services;
- Daycares and schools; and
- Places of worship and other community gathering spaces.

Policy 7.3.2. **Pedestrian Oriented Village Centres.** Promote human scaled, walkable Suburban Village Centres. Approaches shall include, but not be limited to:

- Locating retail, restaurants and service uses at grade;
- Public gathering places such as urban plazas;
- Providing clear, comfortable pedestrian routes through surface parking lots; and
- Strategically locating landscaping and **street trees** to maximize pedestrian comfort.

Policy 7.3.3. **The Ponds Village Centre.** Support development in the Ponds Village Centre that includes the following characteristics:

- A mix of commercial and residential development to a maximum height of approximately four storeys; and
- Orientation of buildings towards Frost Road, with minimal surface parking between the road and the buildings.

Policy 7.3.4. **Black Mountain Village Centre.** Support development in the Black Mountain Village Centre that includes the following characteristics:

- A mix of commercial and residential development to a maximum height of approximately six storeys;
- A street network that integrates the Village Centre with the surrounding neighbourhoods, specifically by linking Loseth Road with Forest Avenue and Alpine Avenue;
- Orientation of the buildings towards one or more streets, with minimal surface parking between the street and the buildings;
- Articulation of building facades and landscaping to soften the visual impact of the buildings towards Highway 33; and
- Integration of the Gopher Creek Linear Park into the design of the Village Centre. This could include pedestrian access points and orientation of some buildings towards the park.

Policy 7.3.5. **Neighbourhood Commercial Areas.** Encourage the development of small scaled Neighbourhood Commercial areas to provide, basic day-to-day services to surrounding residential neighbourhoods.

Policy 7.3.6. **Suburban School Sites.** Support and assist School District #23 in the development of new schools in central and easily accessible areas as well as retention of existing school sites, with due consideration for the prioritization of school sites in **Urban Centres** and the **Core Area**.

Policy 7.3.7. **Child Care Spaces.** Support the development of small-scale child care spaces including accessible, affordable and inclusive spaces that meet the needs of residents living in Suburban Lands.

Objective 7.4. Ensure a compatible urban-rural interface that protects agricultural uses.

Policy 7.4.1. **Agricultural Land Protection.** Retain the **agricultural land** base for the long-term by supporting the **ALR** and by protecting **agricultural lands** from the impacts of adjacent development and redevelopment.

Policy 7.4.2. **Urban-Rural Interface Uses.** Where a property is adjacent to **agricultural lands**, encourage land uses that are compatible with adjacent agricultural uses, such as **urban agriculture** and **passive recreational** uses. Encourage uses that accommodate vulnerable populations, (e.g. seniors, children, health-challenged), to parcels that are not adjacent to agriculture to limit interface incompatibilities.

Policy 7.4.3. **Urban-Rural Buffers.** Where a property is adjacent to land in the **ALR** and land designated Rural - Agricultural and Resource (R-AGR), ensure that development limits associated negative impacts on adjacent agricultural operations by including appropriate buffers, setbacks and site planning, consistent with the Farm Protection Development Permit Guidelines outlined in *Chapter 16: Development Permit Areas*.

Objective 7.5. Strengthen the local food system to increase food security, equitable access to healthy food and social connections.

Policy 7.5.1. **Urban Agriculture.** Encourage **urban agriculture** as a way of supporting a **healthy food system** and reducing the greenhouse gas emissions associated with food production, processing and transportation.

Policy 7.5.2. **Multi-Residential Shared Garden.** Encourage new development to include garden space and services (i.e.: water and storage) for citizens.

Policy 7.5.3. **Food Opportunities.** Allow food production on public and private land including rooftops and edible landscaping on residential boulevards, park land, backyards and rights-of-way.

Policy 7.5.4. **Community Gardens.** Permit private and non-profit sector universally-accessible community gardens.

Policy 7.5.5. **Indigenous Forest Gardens.** Partner with **syilx/Okanagan** communities to develop forest gardens that focus on the cultivation of native and culturally important species of plants for food and medicine.

Housing

The 2040 OCP is the first OCP in Kelowna that does not signal any new residential neighbourhoods beyond those that are already signaled through endorsed plans. While Kelowna will continue to see housing added to Suburban Neighbourhoods with approved land use designations, housing forms in the Suburban Neighbourhoods will mostly comprise of low-density **ground-oriented** housing with some multi-family in areas closer to key community amenities and services.

Efforts for new affordable and rental housing projects will continue to be focused in the **Urban Centres** and **Core Area**, where there is easier access to services, jobs and transportation options.

Objective 7.6. Support a variety of low-density housing.

Policy 7.6.1. **Family-friendly multi-unit housing.** Encourage multi-family developments near schools to include a variety of unit sizes, including three or more bedrooms.

Policy 7.6.2. **Social connections through design.** Encourage design for multi-unit residential buildings that incorporates common spaces that foster social connections, such as gardens, greenspace and children's play areas.

Objective 7.7. Support the protection and construction of purpose-built rental housing.

Policy 7.7.1. **Protection of Existing Rental Stock.** Ensure retention or replacement of existing rental units as redevelopment occurs in Suburban Neighbourhoods through planning tools that include, but are not limited to, **Rental Only Zoning** and **Rental Replacement Obligations**.

The Public Realm

While Suburban Neighbourhoods typically have larger backyards than their more urban counterparts, designing these neighbourhoods to facilitate social interaction is important to create inclusive communities. As such, the approach to providing a great public realm in these communities focuses on improving accessibility, providing more opportunities for social interaction and ensuring access to green space in these neighbourhoods as they grow.

Success will require partnership between the City and the development community. Developers will be expected to dedicate parklands and trails to ensure natural areas are well integrated into new development. The City will look for ways to improve connectivity and create community opportunities for community gathering.

Objective 7.8. Protect and Enhance Greenery in Suburban Areas.

Policy 7.8.1. **Integrate Nature.** Integrate the design of active parks with adjacent natural areas while maintaining individual park standards. Reduce the impacts of parks on adjacent natural systems.

Policy 7.8.2. **Boulevard and Neighbourhood Trees.** Require subdivision plantings of **street trees** and individual **lot trees** to create a comfortable suburban environment over the long term.

Objective 7.9. Create spaces for social interaction.

Policy 7.9.1. **Private Open Space.** Encourage the development of private open space amenities as part of new multi unit residential development in Suburban Neighbourhoods.

Policy 7.9.2. **Reduce Social Isolation.** Design Suburban Neighbourhoods to be geared towards groups who may face higher levels of **social isolation** including seniors, people with diverse abilities, Indigenous communities and newcomers.

Policy 7.9.3. **Urban Edge and Park Interaction.** Activate the edges of parks with visual and physical connections to land uses, such as facing doorways, front steps, windows, patio spaces, and pathways, to activate and develop a unique character for each park based on its context.

Policy 7.9.4. **Walled Developments.** Discourage developments enclosed on all sides by walls, gates or other physical or visual barriers that hinder walkability, block access to neighbourhood amenities or inhibit the efficient use of infrastructure.

Policy 7.9.5. **CPTED 2nd Generation.** Incorporate principles of **Crime Prevention Through Environmental Design (CPTED) 2nd Generation** in the planning and design of new development, civic facilities and public spaces including parks, **Active Transportation Corridors**, transit hubs and community gathering spaces to create safer neighbourhoods.

Transportation

The majority of people living in Kelowna's Suburban Neighbourhoods are reliant on personal automobiles for most of their day-to-day trips due to their distance from employment hubs and their largely hillside context. As a result, there is limited opportunity to shift transportation trips to more sustainable forms of transport such as walking, biking or transit. Each new development in Suburban Neighbourhoods often require costly roadway expansion that create significant long-term costs for the City.

As new development areas continue to build roads, sidewalks and paths to connect to the existing transportation network, efforts will be made to improve connectivity to destinations like schools, parks and Village Centres through walking, biking and other transportation options. However, the City will continue to prioritize efforts for biking and transit expansion in **Urban Centres** and the **Core Area**.

Objective 7.10. Reduce dependence on the automobile where possible.

Policy 7.10.1. **Accept Congestion.** Recognize and accept that Kelowna's streets will become busier as the city grows. Suburban neighbourhoods will have limited potential to shift away from driving, meaning that greater roadway capacity will be needed to support growth in suburban areas. Increases to roadway capacity should consider ways to mitigate impacts on livability of neighbourhoods in the **Core Area** and **Urban Centres**.

Policy 7.10.2. **New Residential Developments.** Ensure that new residential developments and subdivisions have active transportation links to the nearest arterial road at developer cost.

Policy 7.10.3. **Active Transportation Connectivity.** Seek opportunities to improve pedestrian and biking connectivity during the design and development review process in Suburban Neighbourhoods, including, but not limited to, improvements to the sidewalk network, cul-de-sac walkways, and biking routes. Prioritize connections to neighbourhood areas such as Village Centres, parks, schools, transit stops and recreation facilities, and where

possible, formalize informal pedestrian routes through the use of trail dedications and statutory right of ways for public access.

Policy 7.10.4. **Transit Service.** Provide access to a base level of transit service (every 30 minutes) in areas with population densities that meet acceptable performance standards to ensure financial viability of service and ensure a range of transportation options.

Policy 7.10.5. **Transit Connections.** Leverage emerging technologies and shared mobility options to connect suburban areas to the **frequent transit network** and reduce reliance on single occupant vehicles.

Policy 7.10.6. **Parking Relaxations**. Discourage parking relaxations for projects where residents or tenants are expected to be car dependent, indicated by higher rates of vehicle ownership and limited potential for sustainable transportation options.

Policy 7.10.7. **Utility and R.O.W. Corridors.** Seek opportunities for preserving rights of way formerly for utilities or other purposes, such as future linear paths as part of the pedestrian and bicycle networks.

Objective 7.11. Create neighbourhood streets that are comfortable and safe for people to walk and play on.

Policy 7.11.1. **Access to Schools.** Invest in sidewalks, crosswalks, bicycle routes and trails that provide safe routes to and from schools first in Suburban Neighbourhoods. Such investments should adhere to CPTED principles, as well as the City's Guidelines for Accessibility in Outdoor Areas.

Policy 7.11.2. **Neighbourhood Short-Cutting.** Assess options at the time of subdivision for how the developer could mitigate cut-through vehicle traffic using traffic calming, traffic diversion and other design strategies through Subdivision and Servicing Bylaw. Priority should be given to traffic calming measures on roads near elderly and child-oriented spaces and facilities.

Objective 7.12. Maintain connectivity for emergency response and evacuation.

Policy 7.12.1. **Emergency Access and Egress.** Design road networks in suburban areas to allow for multiple points of access/egress to facilitate emergency services response and to support community evacuations.

Culture

Culture contributes to our sense of place and quality of life. Within our Suburban Neighbourhoods, artistic and cultural expression is an important part of improving quality of life and contributing to their distinct character. The placement of public art ultimately enhances the unique character of these neighbourhoods and further contributes to the overall sense of place that many of the citizens' experience daily.

Objective 7.13. Increase the vibrancy of Suburban neighbourhoods through artistic and cultural expression.

Policy 7.13.1. **Cultural Spaces.** Allow for private sector creation of small-scale spaces to experience and participate in cultural programs, public events, performances, and public art installations. Larger facilities should be directed to **Urban Centres** and the **Core Area**.

Policy 7.13.2. **Public Art Promotion.** Promote public art that celebrates the culture and diversity of Kelowna while reflecting unique character and qualities within each neighbourhood. Seek opportunities to partner and collaborate with Westbank First Nation and Okanagan Indian Band on public art and placemaking initiatives that acknowledge and celebrate their traditional territory and cultural values.

Map 7.1 Suburban Area Structure Plan Boundaries

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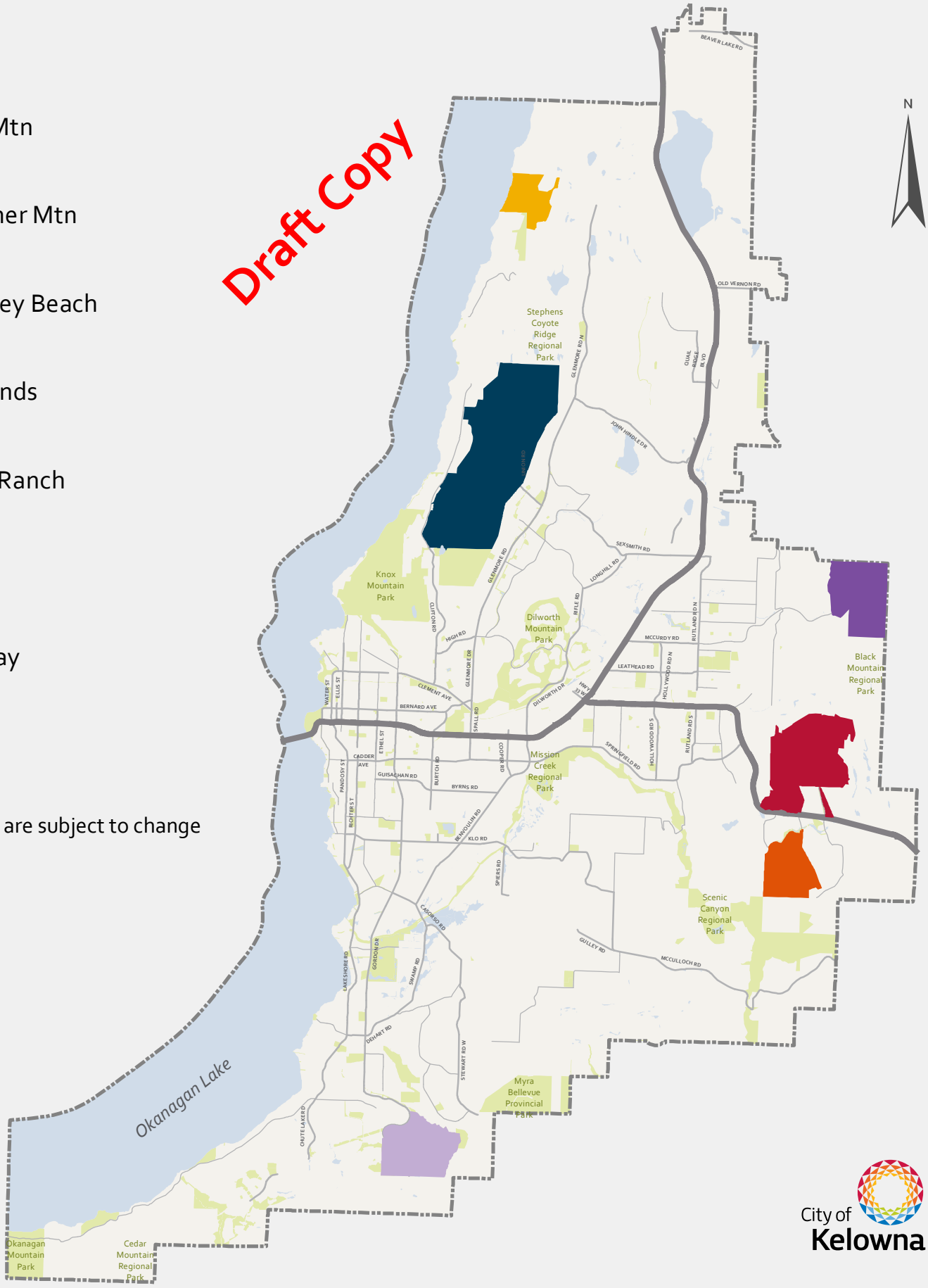
- Black Mtn
- Kirschner Mtn
- McKinley Beach
- The Ponds
- Tower Ranch
- Wilden
- Highway

Area boundries are subject to change



City of Kelowna

Rev. Oct. 8, 2020

This draft map is for consultation purposes only. This is not a final version.

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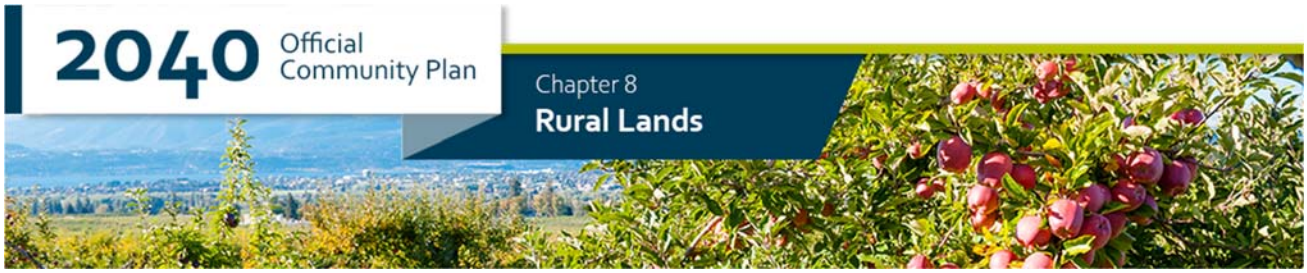


While Kelowna is home to the largest population in the Interior Region, over 55% of the land base is dedicated to agriculture and rural uses. For residents and visitors of Kelowna, agriculture is one of the defining features of the city and drives a significant amount of economic activity and tourism. Produce from the Kelowna region has developed a national and international reputation and the wine industry is continuing to grow.

In part because of this success and the draw of the community as a whole, managing growth and change on rural lands and on abutting urban lands is a constant challenge. The pressure to find new land for a growing city can undermine otherwise viable **agricultural lands** over time. Meanwhile, demands from land owners for increased commercial, **industrial** and residential uses on rural and **agricultural lands** can pose an equal threat to the long-term survival of this sector.

Nevertheless, protecting and preserving rural and **agricultural lands** has never been more important, and not only for their economic and aesthetic value. As climate change becomes a local reality and food security grows in importance, **agricultural lands** will play a growing role.

Land Use and Urban Design

The land use approach in Rural Lands is to focus on preserving them for agricultural and rural purposes and focusing urban growth to districts that are inside the **Permanent Growth Boundary** over the life of this plan. However, it is not enough to limit urban development in rural lands. The OCP also supports agricultural producers, ensuring the sector continues to be attractive and economically viable.

Putting this vision into action will require working with the agricultural community, the **Agricultural Land Commission** and other senior government organizations as the plan is implemented over the next 20 years.

Objective 8.1. Protect and preserve agricultural land and its capability.

Policy 8.1.1. **Protect Agricultural Land.** Retain the **agricultural land** base by supporting the **ALR** and by protecting **agricultural lands** from development. Ensure that the primary use of agricultural land is agriculture, regardless of parcel size.

Policy 8.1.2. **Agricultural Land Designation.** Protect and support the continued designation and use of **agricultural land** for agricultural purposes regardless of soil types and capabilities. Locate agricultural structures to maximize the agricultural potential of prime soil resources.

Policy 8.1.3. **ALR Exclusions.** The City of Kelowna will not support **ALR** exclusion applications to the **ALC** except in extraordinary circumstances where such exclusions are otherwise

consistent with the goals, objectives and other policies of this OCP. Soil capability alone should not be used as justification for exclusion.

Policy 8.1.4. **Urban Uses.** Direct **urban uses** to lands within the **Permanent Growth Boundary**, to minimize development and speculative pressure on **agricultural land**.

Policy 8.1.5. **Agri-tourism, Alcohol Production Facilities, Farm Retail Sales.** Support **agri-tourism** uses that are directly associated with and supportive of established farm operations as a primary use. Permit alcohol production facilities and farm retail sales on **ALR** lands where consistent with **ALC** policies and regulations.

Policy 8.1.6. **Non-farm Uses.** Restrict **non-farm uses** that do not directly benefit agriculture except where such non-farm uses are otherwise consistent with the goals, objectives and other policies of this OCP. Support non-farm use applications only where approved by the **ALC** and where the proposed uses:

- Are consistent with the Zoning Bylaw and the 2040 OCP;
- Provide significant benefits to local agriculture;
- Do not require the extension of municipal services;
- Will not utilize productive **agricultural lands**;
- Will not preclude future use of the lands for agriculture; and
- Will not harm adjacent farm operations.

Policy 8.1.7. **Subdivision of Agricultural Land.** Maximize the potential for **agricultural land** to be used for agriculture by not allowing it to be subdivided into smaller parcels, except where significant positive benefits to agriculture can be demonstrated or in the case of homesite severances approved by the **ALC**.

Policy 8.1.8. **Secondary Suites.** Secondary suites on **agricultural land** must be located within a permitted principal dwelling.

Policy 8.1.9. **Farm Help Housing.** As a first option, farm help housing should be located within the **Permanent Growth Boundary**, providing access to amenities for workers. Accommodation for farm help on the same **farm unit** will be considered only where:

- Agriculture is the principal use on the parcel; and
- The applicant demonstrates that on-site housing for farm workers is necessary for the overall operation of the farm. The primary consideration is whether the scale of the farm operation is large enough that permanent help is deemed necessary.

Temporary farm working housing, such as **bunkhouse accommodation** on non-permanent foundations, is the preferred solution where farm worker housing is justified.

Policy 8.1.10. **Homeplating.** Locate buildings and structures, including farm help housing and farm retail sales areas and structures, on agricultural parcels in close proximity to one another and where appropriate, near the existing road frontage.

Policy 8.1.11. **Conservation Tools.** Promote the use of conservation covenants on **agricultural land**. Conservation covenants will:

- Balance agricultural and environmental priorities and recognize the complex relationships between some agricultural uses and areas of environmental interest;
- Protect environmentally sensitive areas identified through current statutory provisions (e.g. **Species at Risk**) and identified through current federal, provincial and local inventory programs; and

- Focus on environmentally sensitive areas and should not unduly restrict agriculture elsewhere on the property.

Policy 8.1.12. **Large Scale Alternative Energy on Agricultural Land.** Prohibit the use of solar farms (photovoltaics) or other large scale alternative energy solutions, developed for the sale of power to third parties, on properties in the **Agricultural Land Reserve**.

Objective 8.2. Ensure a compatible urban-rural interface that protects agricultural uses.

Policy 8.2.1. **Agricultural Land Protection.** Retain the **agricultural land** base for the long-term by supporting the **ALR** and by protecting **agricultural lands** from the impacts of adjacent development and redevelopment.

Policy 8.2.2. **Urban-Rural Interface Uses.** Where a property is adjacent to **agricultural lands**, encourage land uses that are compatible with adjacent agricultural uses, such as **urban agriculture** and **passive recreational** uses. Encourage **urban uses** that accommodate vulnerable populations (e.g. seniors, children, health-challenged) to parcels that are not adjacent to agriculture to limit interface incompatibilities.

Policy 8.2.3. **Urban-Rural Buffers.** Where a property is adjacent to land in the **ALR** and land designated Rural - Agricultural and Resource (R-AGR), ensure that development limits associated negative impacts on adjacent agricultural operations by including appropriate buffers, setbacks and site planning, consistent with the Farm Protection Development Permit Guidelines outlined in *Chapter 10: Development Permit Areas.*

Objective 8.3. Strengthen the local food system to increase food security and social connections.

Policy 8.3.1. **Urban Agriculture.** Encourage **urban agriculture** as a way of supporting **healthy food systems** and reducing the greenhouse gas emissions associated with food production, processing and transportation.

Policy 8.3.2. **Community Gardens.** Support the use of community gardens as a way of strengthening the transition of the urban-rural interface.

Policy 8.3.3. **Land Linking.** Collaborate with others to increase farming opportunities on city-owned properties.

Policy 8.3.4. **Indigenous Forest Gardens.** Partner with **syilx/Okanagan** communities to develop, forest gardens that focus on the cultivation of native and culturally important species of plants for food and medicine.

Objective 8.4. Stop urban sprawl into Rural Lands.

Policy 8.4.1. **Intensification of Rural Lands.** Do not support **urban uses** on lands outside the **Permanent Growth Boundary** except for as permitted by the 2040 OCP Future Land Use Designations in place as of initial adoption of the 2040 OCP Bylaw.

Policy 8.4.2. **Discourage Subdivision.** Discourage further subdivision of properties outside the **Permanent Growth Boundary**.

Policy 8.4.3. **Housing in Agricultural Areas.** Discourage additional residential development (both expansions and new developments) in areas surrounded by **ALR** and non-ALR **agricultural lands**. Secondary suites may be permitted in a permitted primary dwelling. Carriage houses may be considered on Rural Residential lands where the property is 1.0 hectares or greater and where proposal is consistent with the Farm Protection Guidelines outlined in *Chapter 16: Development Permit Areas.*

Policy 8.4.4. **Consideration of Serviced Areas.** Complete a comprehensive neighbourhood planning process before considering additional development potential in residential neighbourhoods in Rural Lands that are being considered for urban **utility servicing** due to public health issues or for the protection of natural assets (e.g. Hall Road).

Policy 8.4.5. **Public Uses on Agricultural Lands.** Discourage the use of **agricultural lands** for public or institutional uses such as schools, parks and churches except as identified in the 2040 OCP.

Policy 8.4.6. **Child Care Spaces.** Consider the development of small-scale child care spaces including accessible, affordable and inclusive spaces that meet the needs of citizens living in Rural Lands.

Objective 8.5. Ensure the long-term viable use of the Glenmore Landfill.

Policy 8.5.1. **Glenmore Landfill Nuisance Impacts.** Do not support additional **urban uses** and intensification in the landfill impact buffer area, as illustrated in Map 13.6.

Policy 8.5.2. **Landfill Operations and ALR.** Support the exclusion of **ALR** lands at the Glenmore Landfill only at the time of landfill operations expansion.

Transportation

In Rural Lands, transportation options will continue to be oriented around the automobile due to the long distances between these rural communities and major **employment areas** and the most basic services and amenities. As such, the City will not be prioritizing infrastructure investments in the Rural District as most sustainable transportation options are not cost-effective based on the low population density and distance to key destinations.

Instead, the 2040 OCP focuses on the importance of maintenance to support agricultural activity and enhance roadway safety. Also, the City will continue to increase active transportation connections in the Rural District through enhancements to the Mission Creek Greenway and Okanagan Rail Trail.

The City will work closely with the agricultural community and the **Agricultural Land Commission** to implement this approach.

Objective 8.6. Minimize impacts of transportation infrastructure on agricultural and Rural lands.

Policy 8.6.1. **Okanagan Rail Trail Connections.** Prioritize the development of walking and biking routes that provide safe, convenient and accessible access to the Okanagan Rail Trail and Mission Creek Greenway.

Policy 8.6.2. **Service Corridors.** Minimize the impact of road and utility corridors through **agricultural lands,** using only those lands necessary and to the maximum capacity prior to seeking new corridors. Ensure provisions are made for farm traffic to cross major roads.

Policy 8.6.3. **Trucking Routes.** Recognize major trucking routes that support larger processing and production uses in agricultural areas.

Culture

Artistic and cultural expression within Rural Lands contributes to the vitality and diversity of these areas, while strengthening the identity of Kelowna's rural and agricultural community. As such, while prioritized in **Urban Centres**, public art should be supported in strategic locations in this district as opportunities arise.

Objective 8.7. Support artistic and cultural expression in Rural Lands.

Policy 8.7.1. **Public Art Promotion.** Support public art installations at sites of historical significance, highly visible sites and/or are areas with high foot traffic. Seek opportunities to partner and collaborate with Westbank First Nation and Okanagan Indian Band on public art and placemaking initiatives that acknowledge and celebrate their traditional territory and cultural values.

Historically, many cities have taken the approach of providing equal services for all citizens, and not an equitable approach to allocating resources. This overlooks the fact that certain citizens need additional supports to access the same service or infrastructure.

Equity is defined as the fair distribution of opportunities, power, and resources to meet the needs of all people, regardless of age, ability, gender, sexual orientation, ancestry or background. In order to create an equitable community, it is important to first understand the inequities in our community and incorporate local needs, including the needs of people at risk such as Indigenous people, people experiencing homelessness, young people, women fleeing violence, racialized communities, LGBTQ2+ communities, veterans and persons with disabilities. By identifying inequities and targeting investment in prevention and intervention as a result, the well-being of the entire community will be enhanced. This will help build a community that puts people first.

The City is committed to establishing and maintaining a mutually respectful relationship with the **syilx/Okanagan** people. In order to build a fair and equitable community, the City will honour and learn from our rich heritage and follow the lead of our local indigenous communities towards a path of reconciliation. Policies relating to strengthening our Indigenous relationship and creating an equitable community are woven throughout the 2040 OCP.

Objective 9.1. Incorporate equity into planning decisions and resource allocation in our community.

Policy 9.1.1. Equity in Planning Decisions. Incorporate an **equity** lens into land-use planning decisions and resource allocation in our community.

Policy 9.1.2. Equity Analysis and Strategy. Undertake a city-wide **equity** analysis and develop a subsequent strategy to inform decision-making processes related to planning and resource allocation in the community.

Policy 9.1.3. Equitable Allocation of Resources. Incorporate an **equity** lens into allocation of City resources to build city-wide **equity** as well as neighbourhood resiliency and inclusivity.

Objective 9.2. Strengthen the relationship with the syilx/Okanagan people through initiatives and processes to advance and support reconciliation in Kelowna.

Policy 9.2.1. Truth and Reconciliation. Where possible, apply an indigenous lens when undertaking 2040 OCP implementation actions with knowledge of **syilx/Okanagan** history, and with

consideration of documents such as the Calls to Action from the Truth and Reconciliation Commission and the United Nations Declaration on the Rights of Indigenous Peoples.

Policy 9.2.2. **Sylix/Okanagan Approach to Social Challenges.** Collaborate with **sylix/Okanagan** people to support initiatives that address social issues rooted in the impacts of residential school system, such as housing, transportation and food security, in a way that recognizes the traditions, knowledge, wisdom and governance of syilx People.

Objective 9.3. Develop diverse partnerships to advance complex social planning issues and increase community wellbeing.

Policy 9.3.1. **Government Partnerships.** Pursue joint use agreements and partnerships with Indigenous Communities, other levels of government and educational institutions to advance complex social planning issues community health, and economic prosperity.

Policy 9.3.2. **Stakeholder Involvement.** Involve a broad range of interests identifying solutions for emerging issues, including citizens, businesses, non-profits, major institutions, and utility providers, with a particular effort given to involving those typically not engaged in community decisions.

Policy 9.3.3. **Seldom Heard Voices.** Engage the community regularly in municipal decision-making particularly voices that are seldom heard and those that are going to be impacted by the decision.

Policy 9.3.4. **Regional Approach to Social Issues.** Collaborate with local government and key stakeholders to support initiatives that address regional issues such as social, childcare, transportation, housing, and food security.

Policy 9.3.5. **Coordination of Services.** Collaborate with all levels of government and community organizations to support integrated planning and coordination of a **continuum of health** and wellness amenities, recreation programs and facilities, mental health, social and addiction services and care.

Policy 9.3.6. **Poverty Reduction and Community Wellbeing.** Form partnerships to engage in and support poverty reduction and community wellbeing efforts to address social issues including affordable housing, childcare costs and household food insecurity.

A great park system is key to a livable, vibrant and dynamic City and includes a wide variety of parks. These can range from sports fields, plazas and protected natural areas. Parks contribute positively to the physical and mental health of residents and are an attraction to visitors. They also contribute to environmental health, through mitigating the heat island effect, filtering pollutants, absorbing stormwater and protecting and providing habitat for rare ecosystems and **species at risk**.

Parks build community. They provide space for outdoor gatherings, sport events, shows and festivals. In so doing, they are foundational for social wellbeing. Above all, parks are a gift to future generations. As the city continues to grow, parks will play an increasingly important role, especially as this growth is directed to **Urban Centres** and the **Core Area**. The acquisition and development of parks in these districts in particular will be critical to providing Kelowna citizens with a high quality of life.

Objective 10.1. Acquire new parks to enhance livability throughout the city.

Policy 10.1.1. **Equitable Distribution of Parks and Amenities.** Provide an equitable distribution of neighbourhood and community parks throughout the city through new park acquisition and development in growing and underserved neighbourhoods.

Policy 10.1.2. **Equitable Amounts of Parkland.** Strive to provide an equitable amount of parkland for neighbourhood and community parks in urban and suburban areas

Policy 10.1.3. **Park Acquisition Priorities.** Prioritize the location of future parks in areas that:

- Serve growth, particularly in areas of multi-family residential development with a low ratio of private outdoor recreational space;
- Are proximate, adjacent or connected to existing parks creating efficiencies by building adjacent existing infrastructure, such as playgrounds, washrooms, parking and irrigation; and
- Provide lake or linear park access.

Policy 10.1.4. **Park Acquisition.** Provide a standard of 1.0 km linear parks and 2.2 hectares (Ha) of active parks per 1,000 new population to serve growth and to guide parks planning initiatives. As a general target for active parks this would be inclusive of:

- Local (Neighbourhood and Community) parks, ranging from 0.25 Ha to 0.35 Ha;
- City-wide parks, ranging from 0.6 Ha to 1.0 Ha; and
- Recreational parks, ranging from 0.6 Ha to 1.0 Ha.

Policy 10.1.5. **Proximity to Parks.** Within the **Urban Centres** and the Core, strive for a walking distance of 400 metres to neighbourhood and community parks. Outside the Core and **Urban**

Centres, strive for a walking distance to neighbourhood, community, linear parks or natural areas within 500m.

Policy 10.1.6. **Park Designation Phasing.** In phased developments, ensure that park needs are met by requiring that all future parks and open space networks are identified and confirmed through zoning prior to the residential development that relies on them.

Policy 10.1.7. **Voluntary Park Dedications.** When an owner of land offers voluntary park dedication beyond minimum requirements, consider allowing use of the original site area in computing density and floor area ratios and minimum area for development or subdivision purposes.

Policy 10.1.8. **Park Acquisition Timing.** Where possible, acquire park properties in advance of growth to incentivize future development, create more attractive neighbourhoods and to manage costs.

Policy 10.1.9. **Park Alternative Funding Strategies.** Investigate funding alternatives available through legislation dedication and gifting, including the option of receiving park land as gifts in exchange for a charitable tax receipt.

Policy 10.1.10. **School Sites.** Consider school sites that are to be disposed of for park acquisition.

Policy 10.1.11. **Equitable Charge.** Consider that an 'equitable charge' be required on title where developments choose to have landscaping over and above regular City standard.

Policy 10.1.12. **Maximize Resources**. Expand or build on existing parks to maximize existing infrastructure, flexibility and opportunity, as well as efficiencies during operation.

Policy 10.1.13. **Synergize Other Infrastructure Opportunities.** Integrate with other infrastructure to increase potential and usability of City assets.

Policy 10.1.14. **Hillside Parks.** Ensure that active park space is flat and suitable for neighbourhood and community park use. Natural Areas may be connected to active park space but is not a replacement for it. To accommodate the challenges of providing parks in hillside developments, creatively consider using multiple smaller flat sites connected through a network of trails and using topography for views and other points of interest.

Policy 10.1.15. **Natural Areas.** Preserve a diversity of Natural Areas for habitat and ecosystem conservation, including **ecosystem connectivity corridors**, with limited trails access and other low impact activities. The network should contain representative Okanagan ecosystems, contain areas of natural beauty and of high visual sensitivity, with opportunities for viewpoints, staging areas and linear trails. Aim for contiguous spaces that link to other regionally and provincially protected spaces. Ensure that acquired spaces have adequate access for maintenance and linear trails, and that hazards (e.g. wildfire or rock fall) are mitigated prior to acquisition. Disturbed and weedy areas are not suitable for natural park areas, unless restored to the satisfaction of the City prior to transfer. The cost / benefit of the land must result in an overall benefit to the City rather than a maintenance burden.

Policy 10.1.16. **Manage Public Access.** Manage the impacts of public access in Natural Area parks by defining and developing trails which maximize public safety while minimizing human impact on the most sensitive and vulnerable areas; and reducing the impact of trails for example by reducing width, modifying surfaces, and developing boardwalks.

Policy 10.1.17. **Parklets.** Support the temporary conversion of on-street parking spaces into a small public parks where they are privately funded and maintained but serve as public space that is accessible to all.

Policy 10.1.18. **Creative Shared Use Spaces.** Develop underutilized spaces for public shared use to supplement park spaces. Approaches may include, but are not limited to:

- Using spaces after regular hours, such as roof decks of parkades; and
- Public use of private open spaces, such as private recreation facilities, podiums and roof gardens, through partnership agreements and statutory rights-of-way.
- developing existing parks with higher intensity uses (e.g. sport fields, lighting, artificial turf fields).

Policy 10.1.19. **Servicing Suburban Parks.** Where surrounding infrastructure adjacent designated parks is provided through development, services and standards shall be in accordance with the City of Kelowna Park Acquisition Guidelines (2010).

Policy 10.1.20. **Utilities in Parks.** Avoid locating public or private utilities in parks and natural open spaces unless an overall public benefit and environmental management best practices can be demonstrated. Where these criteria can be met, locate and design the utility in such a way as to minimize impact to park users and to the surrounding neighbourhood.

Objective 10.2. Ensure parks and public spaces are connected to each other and accessible for all citizens.

Policy 10.2.1. **Green Corridors.** Maximize the value and accessibility of the parks network through landscaped and pedestrian-friendly connections. Link active parks, other pedestrian realm public spaces, Natural Areas, and the waterfront with green corridors including: linear parks, green streets, shared streets, pedestrian walkways, **Active Transportation Corridors**, and improved streetscapes and landscaping design.

Policy 10.2.2. **Green streets.** Utilize underused or redundant streets to provide additional public amenity space. Approaches could include:

- Conversion of unused rights-of-way and laneways
- Increased boulevards as park space
- Increased tree canopy
- Programs to facilitate neighbourhood activities and events

Policy 10.2.3. **Shared streets.** Utilize streets for park uses that are underused for vehicle traffic outside of peak hours, particularly those adjacent to parks and other public realm spaces, to provide additional public amenity space. Approaches could include:

- Temporary closures at weekends and/or evenings
- Pedestrian streets shared with transit only
- Different road materials and other traffic calming measures to give priority to pedestrians at all times
- Use of hardscape surfaces for sports courts, street markets and festivals, etc.
- Programs to facilitate neighbourhood activities and events

Policy 10.2.4. **Urban Linear Parks.** Reclaim underutilized land within street Right-of-Way to create urban linear parks, to achieve a greater balance between the pedestrian and vehicular realm for local streets with low vehicular demand. Animate Urban Linear Parks with

elements similar to traditional parks such as trees, ornamental plantings, community gardens, seating areas, small-scale play equipment and other amenities. Installations may be temporary or permanent (Map 10.1 Linear Parks).

Policy 10.2.5. **Linear Parks.** Continue to work towards implementing the Linear Park Master Plan and connecting with other trail systems and transportation networks with a minimum 10m public access through dedication as a titled lot or Statutory Right-of-Way at subdivision or rezoning for all development types (Map 10.1 Linear Parks).

Policy 10.2.6. **Dedication of Linear Parks.** At subdivision and rezoning for all development types secure a minimum 10-metre wide linear corridor for public access as included on Map 10.1 – Linear Parks. The 10-metre wide corridor may be in addition to, and outside, any riparian management area requirements of the OCP. On the private property side of the public access corridor, the City may, as necessary, consider stipulating additional "no disturb" zones. Lot line adjustments or other subdivision applications not resulting in the creation of new lots suitable for the construction of buildings permitted under the applicable zoning will be considered exempt from this policy. Linear trail corridors can have the following tenure which will be determined by staff at the time of subdivision or rezoning:

- Titled property in the name of the city as a park, protected area, or
- Statutory right of way.

Policy 10.2.7. **Applicant's Costs.** Require that all survey and legal costs incurred with establishing the linear park dedication, as a result of a development application, be the responsibility of the applicant. The City of Kelowna will accept responsibility for all survey and legal costs incurred due to the voluntary establishment of a linear park dedication.

Policy 10.2.8. **Acquisition of Linear Parks.** Where linear corridor dedication cannot be acquired through development, explore acquisition using other approaches that include, but are not limited to:

- Negotiating voluntary dedication using pre-dedication land are for density calculations, density transfer, land exchange or other incentives available to local governments; and
- Purchase of a portion or all of the property required for the linear park.
- Buy, sever the linear park portion and sell the remaining.

Policy 10.2.9. **Pedestrian Connectivity through Developments.** Plan street and development designs to maintain pedestrian connections through alternative routes. Plan for trails between lots, at ends of cul-de-sacs and in areas of challenging topography, to maintain pedestrian connections to all park types. Connections may be achieved through road dedication, lot dedication or statutory right of way.

Policy 10.2.10. **Trails for Multiple Objectives.** Optimize locations of linear trails adjacent developments for multiple objectives, including wildfire fuel breaks, fuel reduction and maintenance in natural areas.

Objective 10.3. Ensure parks reflect their unique natural and cultural context.

Policy 10.3.1. **Parks as Community Spaces.** Focus on developing spaces that foster health, social connections, and appreciation for the natural environment.

Policy 10.3.2. **Sense of Place.** Focus on the uniqueness of place to provide a variety of park experiences that reflect the neighbourhood or natural context, developing diversity within the park system with a variety in amenities, with a focus on quality design.

Policy 10.3.3. **Quality of Park Interfaces.** Encourage a variety of park interfaces with different land uses to activate and provide character to parks throughout the City, such as:

- front doors and windows towards parks;
- pedestrian walkway connections to parks;
- landscaping based on **CPTED** principles;
- adjacent local retail, restaurants, and other compatible commercial uses that generate a high level of activity; and
- mobile vendors, where appropriate.

Policy 10.3.4. **Urban Parks.** To accommodate the challenges of park provision in **Urban Centres** and the **Core Area**, provide smaller parks at walkable intervals and provide a greater density of durable amenities to serve a greater number of people.

Policy 10.3.5. **Reconciliation and Celebration of Indigenous Culture.** Include spaces in parks that provide opportunities for reconciliation with Indigenous peoples of Canada, and celebrate Indigenous culture, particularly **syilx/Okanagan** culture. Work collaboratively with the **syilx/Okanagan** people to pursue opportunities for sharing the Nsyilxcen traditional language in parks and public spaces.

Policy 10.3.6. **Parks for Arts and Culture.** Highlight unique and culturally significant spaces in parks and provide spaces to celebrate a diversity of heritage, arts, and culture. Consider the needs of diverse groups and cultures when designing public amenities and spaces.

Policy 10.3.7. **Year-Round Activity.** Promote year round use of parks through seasonally appropriate amenities and design.

Policy 10.3.8. **Parks for All.** Design for a variety of facilities and amenities that function for a diversity of ages and abilities in parks.

Objective 10.4. Increase Public Access to Water.

Policy 10.4.1. **Access to water.** Provide public access to water, including creeks, wetlands, ponds and lakes through a variety of implementation strategies, including acquisition, through dedication at subdivision and rezoning, partnership agreements and statutory rights of ways (Map 10.1 Linear Parks).

Policy 10.4.2. **Linear Park Priorities.** Linear park investment (Map 20.1 Linear Parks), should focus on providing public access in the following areas as opportunities arise:

- Bellevue Creek
- Gopher Creek
- Mill Creek
- Mission Creek – Lakeshore Road to Okanagan Lake
- Okanagan Lake – Mission Creek to Knox Mountain Park

Policy 10.4.3. **Linear Parks along Okanagan Lake.** With any land use changes (including OCP Amendments, rezoning and subdivision) along Okanagan Lake, require a waterfront linear park dedication to provide continuous public access, consistent with linear park policy and *Map 10.1: Linear Parks*.

Policy 10.4.4. **Public Access along Water for Strata Developments.** Through development, all strata lots created that border a water body shall provide a minimum of 7m width of linear park for public access along the water body for public access, in accordance with the Bare Land Strata Regulations of BC.

Policy 10.4.5. **Activate the Waterfront.** Provide a variety of experiences along the waterfront. Promote activity along the waterfront throughout the year, including a variety of amenities.

Policy 10.4.6. **Beach Access Dedications.** In new subdivisions acquire beach access points as sanctioned under the Land Titles Act, Chapter 250, RSBC 1996. The dedications obtained should be accessible to a broad range of users, be at environmentally appropriate locations and where terrain conditions do not require construction that would be detrimental to the environment, **steep slopes**, or other park uses.

Policy 10.4.7. **Waterfront Protection**. Proactively protect the waterfront from damage from climatic events.

Objective 10.5. Encourage partnerships to acquire and deliver parks and public spaces.

Policy 10.5.1. **Community Use of Schools**. Encourage that schools be designed so as to facilitate, during non-school hours, use for before/after school programs, recreation programs, youth/family activities, adult education or other community uses.

Policy 10.5.2. **Regional Parks.** Support the acquisition of regionally significant lands by the Regional District of Central Okanagan to provide wildlife habitat preservation, ecosystem connectivity and protect **sensitive ecosystems**.

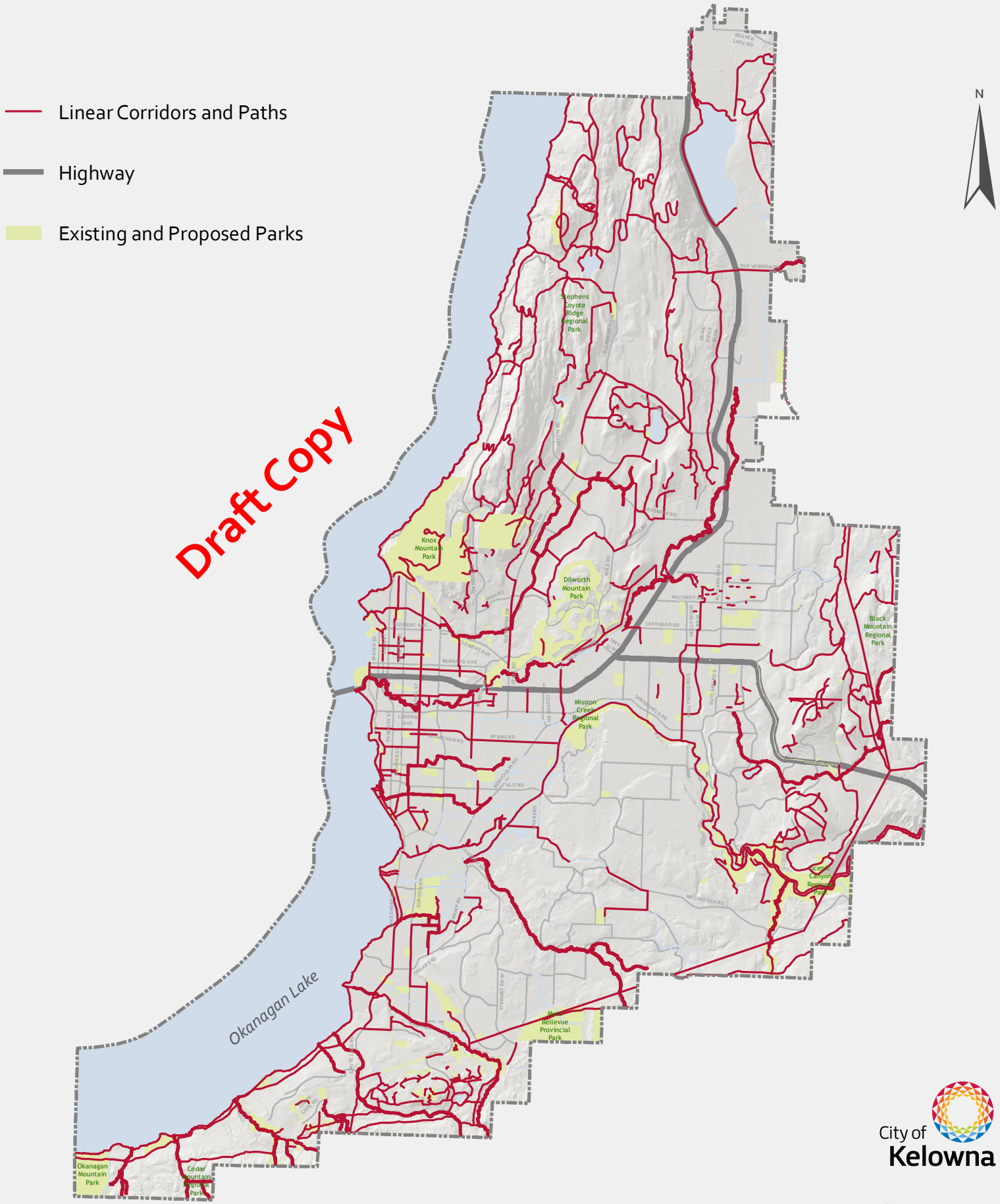
Policy 10.5.3. **Citizen Participation.** Foster resident driven solutions and involvement in park use and community involvement.

Policy 10.5.4. **Partner and collaborate with local Indigenous communities**. Foster partnerships and collaboration with local indigenous communities to build greater understanding, opportunities for education, and for celebrating culture.

Policy 10.5.5. **Community Partnerships**. Encourage partnerships with other agencies and community groups to deliver high quality public space and park amenities, as well as maintenance agreements.

Policy 10.5.6. **Public Spaces on Private Land.** Promote shared public space in private developments for a variety of land uses through partnerships.

Map 10.1 Linear Corridors



City of Kelowna

Rev. Sep 10, 2020

This draft map is for consultation purposes only. This is not a final version.

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Kelowna's heritage is a history tied to the land, the cultural environment and the people who have long understood the richness of this area. It is reflected in our historically and architecturally significant buildings, structures, natural landscapes, historic districts, archaeological sites and other places of heritage value.

The City will balance Kelowna's growth and the protection of our natural, cultural and built heritage assets through integrated and innovative approaches to heritage conservation. Using the City's *Heritage Strategy* and the *Heritage Procedures Bylaw*, the City will conserve the community's natural landscapes, local archaeological sites and built heritage for generations to come. While the City has a large stake in the preservation of heritage, it is the diverse partnerships with the **syilx/Okanagan** people and the local heritage organizations that are integral to the overall success of heritage conservation in Kelowna.

Objective 11.1. Lead and guide heritage resource management.

Policy 11.1.1. **City of Kelowna Heritage Assets.** The City of Kelowna will manage City-owned heritage sites in accordance with best practices in heritage management.

Policy 11.1.2. **Heritage Strategy.** Use the directions adopted in the Heritage Strategy, as amended, to make informed planning decisions on heritage conservation in the City, including, but not limited to, diverse partnerships, heritage incentives, and integrated and innovative approaches to heritage conservation, community development and public awareness.

Policy 11.1.3. **Financial Support**. Support the conservation, rehabilitation, interpretation, operation and maintenance of heritage assets through grants, incentives and other means.

Policy 11.1.4. **Community Engagement and Involvement.** Encourage resident and stakeholder input into heritage planning through the advice of the Heritage Advisory Committee and partnerships/communication with the Central Okanagan Heritage Society, the Okanagan Historical Society, the Kelowna Museums Society, Westbank First Nation, Okanagan Indian Band and relevant community or neighbourhood organizations.

Objective 11.2. Identify, conserve and protect historic places.

Policy 11.2.1. **Heritage Conservation.** Conserve historic places in a manner consistent with the Standards and Guidelines for the Conservation of Historic Places in Canada under the guidance of registered heritage professionals of the BC Association of Heritage Professionals (BCAHP). Work with consistent conservation documents and planning tools to make decisions about historic places and manage heritage projects including Heritage Reviews, Statements of Significance, Heritage Conservation Plans and Heritage

Alteration Permits.

Policy 11.2.2. **Kelowna Heritage Register.** Use the Kelowna Heritage Register as the primary tool to identify heritage buildings. Continue to maintain and update the Heritage Register in accordance with provisions of the Local Government Act and Heritage Conservation Act.

Policy 11.2.3. **Expand the Kelowna Heritage Register.** Expand the Kelowna Heritage Register to include archaeological sites, landscapes, structures and cemeteries.

Policy 11.2.4. **Historic Place Identification, Evaluation and Intervention.** Heritage reviews will be conducted by a professional member of the BC Association of Heritage Professionals and used to identify heritage resources, determine their relative heritage value, and guide appropriate conservation, protection and **mitigation** tools.

Policy 11.2.5. **Protection of Historic Places.** Prioritize the legal protection of historic places using the tools identified in the Local Government Act:

- Heritage Designation Bylaws;
- Heritage Revitalization Agreements; and
- Heritage Covenants.

Policy 11.2.6. **Prioritize the Retention of Historic Places.** Where legal protection is not possible or appropriate, encourage the retention of historic places in accordance with the Standards and Guidelines for the Conservation of Historic Places in Canada, in which adaptive re-use and rehabilitation allow for contemporary, creative and innovative interventions and uses.

Policy 11.2.7. **Heritage Retrofits.** Explore opportunities to incentivize retrofits to heritage buildings that improve energy efficiency and reduce greenhouse gas emissions that do not negatively impact their exterior Character Defining Elements.

Objective 11.3. Identify and protect archaeological sites.

Policy 11.3.1. **Syilx/Okanagan Significant Sites.** Collaborate and partner with local syilx People to identify, protect, maintain local archaeological sites and the **syilx/Okanagan** identity.

Policy 11.3.2. **Standards and Guidelines for the Conservation of Historic Places in Canada.** Follow the Standards and Guidelines for the Conservation of Historic Places for conservation of identified archaeological sites.

Policy 11.3.3. **Public Awareness.** Raise public awareness about the value of archaeological sites and their protection under the Heritage Conservation Act.

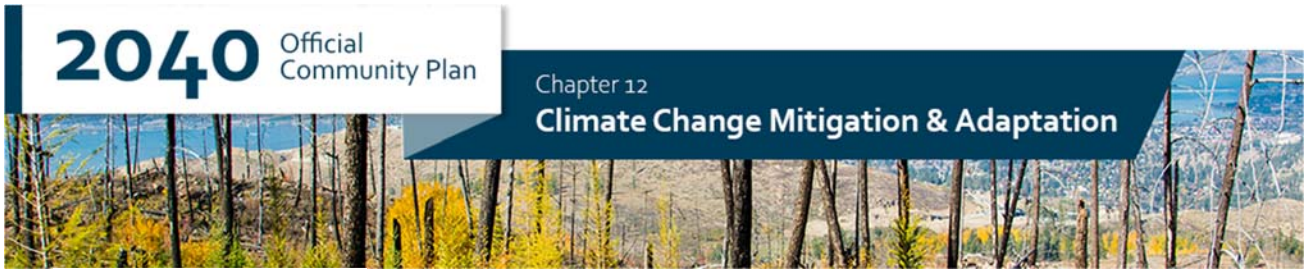
Policy 11.3.4. **Property Owner Responsibilities.** Ensure that property owners are aware of their responsibilities under the Heritage Conservation Act when conducting land-altering activities.

Policy 11.3.5. **Unauthorized Damage.** Avoid or reduce unauthorized damage to protected archaeological sites in accordance with the Heritage Conservation Act.

Objective 11.4. Celebrate Kelowna's historic neighbourhoods.

Policy 11.4.1. **Manage Development in Identified Heritage Conservation Area.** Guide redevelopment in the Abbott Street and Marshall Street Heritage Conservation Areas outlined on Map 23.1 using the Abbott Street and Marshall Street Heritage Conservation Areas Development Guidelines in Chapter 23

Policy 11.4.2. **Identify and Celebrate Historic Neighbourhoods.** Consider identifying additional historic Kelowna neighbourhoods, areas, districts, or clusters through the use of **Historic Context Statements** to raise public awareness, as possible additions to the Kelowna Heritage Register and to inform future area planning processes.



The scientific community warns that global warming needs to be halted within the next few decades to reduce the risks of extreme and irreversible climate change. Overstepping this global threshold could locally translate to, among other impacts, hotter, drier summers that would increase the risk of forest fires; warmer winters that could result in the increase of pests or introduction of new pests; and increased frequency and intensity of precipitation events that could lead to increased flooding or damage from intense storms. The City, senior levels of government, the business community, and individual households must work together to mitigate these impacts, while also adapting to climate changes already in the pipeline.

To mitigate climate impacts, our community needs to significantly reduce greenhouse gas emissions. In Kelowna, transportation is the biggest source of GHG emissions, so effective land use planning that minimizes or eliminates car-dependence, increasing the use of active transportation, and switching to alternative fuels (e.g., electric vehicles) will go a long way. Building and retrofitting energy efficient / low carbon buildings and prioritizing more efficient waste management systems will help our community do our part in fighting global climate change, while also reducing household energy costs, and creating a healthier, more livable city.

To support mitigation efforts, climate adaptation will be key to lessen the impacts of climate change and ensure our community continues to thrive. Incorporating green infrastructure, such as green roofs or rain gardens, helps reduce the vulnerabilities of natural and human systems to new climate realities and capitalize on new opportunities. In many cases, effective adaptation strategies can also have **mitigation** co-benefits, which reduces long term climate risk. Therefore, focusing on these synergies and creating climate 'resilience' is the priority.

Objective 12.1. Design the community to reduce greenhouse gas (GHG) emissions.

Policy 12.1.1. GHG emissions reduction targets. In partnership with senior governments; local citizens and businesses; non-profits; external agencies; and utility providers; work towards reducing absolute community greenhouse gas emissions below 2007 levels by:

- 4%by 2023;
- 25% by 2033; and
- 80% by 2050.

Policy 12.1.2. Land use planning. Design the community to mitigate community GHG emissions through:

- Focusing growth in connected, walkable, Urban Centers and **Core Area**;
- Providing diverse transportation options to shift away from car-centric culture; and
- Reducing energy consumption by constructing energy efficient buildings and neighbourhoods.

Policy 12.1.3. **Adapting infrastructure.** Look at community utilities through a GHG lens:

- Capture GHG generated through decomposition at the landfill;
- Capture GHG produced from biosolids generated from our sanitary treatment process. This includes a new digestion process in line with the current composting practice; and
- Promote energy efficient pumping and operations within City utilities.

Objective 12.2. Prioritize climate change mitigation and adaptation in City operations.

Policy 12.2.1. **Adaptive management.** Use **Adaptive Management** strategies in City operations to cope with uncertain climate conditions.

Policy 12.2.2. **Education and training.** Increase internal **Adaptive Capacity** through training and education of City staff.

Policy 12.2.3. **Climate leadership.** Demonstrate climate change leadership in civic operations by piloting emerging ideas, to increase adaptability and resiliency.

Policy 12.2.4. **GHG Emissions Reduction Criteria.** Incorporate greenhouse gas reduction criteria in infrastructure projects for evaluation/ modeling and procurement.

Policy 12.2.5. **Indigenous knowledge.** Collaborate with syilx/Okanagan People to incorporate Indigenous knowledge in climate change action.

Objective 12.3. Encourage the community to take action to mitigate and adapt to climate change.

Policy 12.3.1. **Climate projections.** Share climate change projections publicly to inform community climate action.

Policy 12.3.2. **Climate adaptation techniques in City operations.** Utilize opportunities to demonstrate effective adaptation techniques in City operations to encourage community led climate change action.

Policy 12.3.3. **Climate Action Incentives.** Encourage and incentivize citizens and local businesses to adopt **mitigation** and adaptation strategies to make our local economy resilient to a changing climate.

Objective 12.4. Improve energy efficiency and reduce greenhouse gas emissions of new buildings.

Policy 12.4.1. **Energy Step Code.** Incrementally increase the energy efficiency of new construction (Part 9 and Part 3) by accelerating **Energy Step Code** performance requirements towards **net-zero energy ready buildings** before 2032.

Policy 12.4.2. **Energy efficient design.** Ensure passive design solutions that reduce energy demand are considered through the approval process.

Policy 12.4.3. **Operational greenhouse gas emissions.** Explore tools to encourage new construction to achieve low or zero GHG emissions from operations.

Policy 12.4.4. **Lifecycle greenhouse gas emissions.** Encourage new construction to reduce life-cycle greenhouse gas emissions from procurement to demolition.

Objective 12.5. Improve energy efficiency and reduce operational greenhouse gas emissions of existing buildings.

Policy 12.5.1. **Energy efficiency for existing buildings.** Support the local implementation of a provincial alterations code (expected in 2024) for existing buildings.

Policy 12.5.2. **Energy assessments.** Expand awareness of energy efficiency opportunities by encouraging an energy assessment at time of residential renovation permit.

Policy 12.5.3. **Energy labelling.** Support provincial initiatives to require home **energy labelling** for all residential units at time of lease or sale to support increased disclosure and knowledge of home energy performance.

Policy 12.5.4. **Resources to address energy poverty.** Provide resources, such as incentives, capacity building and training, to assist households with a high home energy cost burden.

Policy 12.5.5. **Energy benchmarking and disclosure.** Encourage and support **industrial**, commercial, institutional, and large multi-unit residential buildings to track and record energy performance so they can better identify retrofit opportunities.

Objective 12.6. Transition toward 100 per cent renewable energy by 2050.

Policy 12.6.1. **Making renewable energy easier.** Develop strategies to address and remove barriers to participation in renewable energy programs (e.g. municipal codes, policies, and legislation).

Policy 12.6.2. **Renewable natural gas.** Support the identification and development of regional **renewable natural gas** resources, such as anaerobic digestion of food scraps, waste decomposition, etc.

Policy 12.6.3. **District energy.** Encourage the development and expansion of low-carbon district heating and cooling systems.

Policy 12.6.4. **Microgeneration.** Reduce reliance upon fossil fuels by encouraging small-scale and decentralized generation renewable energy, such as solar photovoltaics, wind, and geothermal.

Policy 12.6.5. **Combined heat and power.** Where opportunities exist to promote the inclusion of waste-heat generation or recovery, the City will consider the offer of necessary utility rights-of-way.

Objective 12.7. Support the transition to emerging low-emission transportation technologies.

Policy 12.7.1. **Electric mobility.** Provide infrastructure to support and expand electric vehicle (EV) and e-bike ownership through the following initiatives:

- *Residential charging infrastructure:* Provide access to appropriate EV and e-bike charging infrastructure (such as Level 2 conduits for EVs), in new construction;
- *Commercial charging infrastructure:* Require a percentage of parking spaces in commercial developments to have energized outlets for Level 2 EV charging and facilitate installing more charging stations in the future;
- *Public charging infrastructure:* Strategically expand the availability of Level 2 EV public charging infrastructure, prioritizing high-density neighbourhoods and high-traffic public areas; and
- *Direct current fast chargers:* Support the expansion of Level 3 DC Fast Charging infrastructure to bolster the public charging network and to facilitate low-carbon regional travel.

Policy 12.7.2. **Promote shared mobility.** Continue to support pilots and partnerships to improve access to on-demand shared mobility options (e.g. car sharing, bike/e-bike share, e-scooter share) that reduce GHG emissions and promote sustainable transportation options.

Policy 12.7.3. **Autonomous vehicle technology.** Work with other levels of government and industry to leverage the potential of new self-driving transportation technologies as one way to reduce congestion and GHG emissions and promote more shared trips.

Objective 12.8. Support the community to prepare for and become resilient to the impacts of climate change.

Policy 12.8.1. **Centralized warning system.** Create a centralized warning system and resource hub for all potential emergencies and extreme weather events.

Policy 12.8.2. **Community organizations.** Support community organizations in emergency planning and preparedness.

Policy 12.8.3. **Social vulnerabilities and inequities.** Identify and develop solutions with multiple co-benefits for socially vulnerable populations that may have disproportionate climate risks by:

- Reviewing language, income, age, health data in neighbourhoods; and
- Incorporating **equity** mapping into climate change preparedness and climate adaptation.

Policy 12.8.4. **Emergencies and disasters.** Increase the capacity for the community to respond and recover from an emergency or disaster by:

- Preparing the community to be self-reliant for up to 72 hours after an incident; and
- Creating strong neighbourhoods so that residents can support themselves and their neighbors in difficult times.

Objective 12.9. Adapt to a changing water supply.

Policy 12.9.1. **Civic water consumption.** Implement strategies to reduce civic water consumption by:

- Designing for water conservation;
- Redesigning park and civic landscaping to reduce the amount of irrigated turf where appropriate; and
- Using adequate levels of topsoil to reduce the need for water while ensuring health of vegetation.

Policy 12.9.2. **Water Conservation Tools.** Minimize water consumption and increase resilience to drought by following best practices for water conservation including:

- Water metering;
- Equitable rate structure;
- Implement strategies to optimize and improve irrigation practices; and
- Public education to encourage adoption of water saving techniques.

Policy 12.9.3. **Landscape design.** Encourage water smart landscaping to be included in all new developments to reduce outdoor residential water consumption.

Objective 12.10. Invest in ecosystem services and green infrastructure to mitigate and adapt to a changing climate.

Policy 12.10.1. **Tree canopy.** Expand the **tree canopy** as identified in the Urban Forest Strategy.

Policy 12.10.2. **Green infrastructure in Urban Centres.** Focus **green infrastructure** investment in **Urban Centres** and **Core Area** to mitigate the urban heat island effect.

Policy 12.10.3. **Green infrastructure in development.** Encourage the inclusion of **green infrastructure** in new developments.

Policy 12.10.4. **Ecosystem connectivity.** Where feasible, accommodate ecosystem connectivity in **green infrastructure** design.

Policy 12.10.5. **Multi-purpose design.** Design **green infrastructure** to serve multiple purposes, where feasible (for example stormwater management, urban heat island reduction, and providing shaded, walkable corridors).

Objective 12.11. Increase resilience to extreme weather events.

Policy 12.11.1. **Build back better.** Use recovery from disaster events as an opportunity to '**build back better**' and upgrade vulnerable infrastructure.

Objective 12.12. Reduce risk to public health, the local economy and the environment related to invasive species.

Policy 12.12.1. **Impact assessments.** Conduct **invasive species** and disease impact assessments to understand the risk to public health, the local economy and the environment.

Policy 12.12.2. **Sensitive ecosystems.** Prioritize **invasive species** intervention efforts in **sensitive ecosystems, riparian areas** and wetlands that are connected to larger systems.

Like other cities, Kelowna is facing growing infrastructure challenges, with an increasing population, demand for more and improved services, aging infrastructure, regulatory demands and a backlog of projects with limited options for raising capital to respond. These challenges have resulted in an infrastructure deficit at a critical time where new infrastructure improvements are necessary to respond to the impacts of climate change.

Keeping citizens safe and healthy is the paramount priority for infrastructure investment. Recognizing this, the City must find a financially sustainable path to deliver infrastructure services that balances the obligation to maintain existing infrastructure with the need for new investments that support growth and improved services.

Managing how and where we grow is the most significant tool we have to achieve financially sustainable service delivery. Strategically focussing investment in the Urban Centres and the Core Area will help to service more of the population while minimizing long-term maintenance and renewal costs. By shifting growth away from suburban greenfield development, we can maximize Kelowna's existing infrastructure systems and limit extension of these system to service areas on the outskirts of the community.

Objective 13.1. Prioritize infrastructure investment targeting high growth areas.

Policy 13.1.1. **Infrastructure Prioritization.** Prioritize infrastructure investment using a multiple bottom line decision-making approach based generally on the following parameters and priorities:

1. Public health and safety;
2. Regulatory need;
3. Growth Strategy District;
    a. Urban Centres
        i. Downtown
        ii. Capri-Landmark
        iii. Rutland and Pandosy
        iv. Midtown
    b. Core Area
    c. Gateway
    d. Suburban Neighbourhoods
    e. Rural Lands
4. Environmental responsibility;
5. Economic efficiencies and impact, such as partnerships, project coordination and economic spinoffs; and
6. Key local industries (i.e. agricultural in the case of irrigation water supply).

Policy 13.1.2. **Land Use Coordination.** Coordinate infrastructure upgrades and system extensions with land use and density requirements to ensure cost-effective urban development, to minimize infrastructure life cycle costs and to mitigate the financial impacts of lower density residential development.

Policy 13.1.3. **Transportation Infrastructure Investments.** Guide investments in transportation infrastructure as outlined in Maps. 13.1, 13.2 and 13.3.

Objective 13.2. Fiscally responsible management of existing and proposed infrastructure.

Policy 13.2.1. **Life Cycle Asset Management.** Make planning and capital investment decisions with a long-term life-cycle asset management perspective for the design, maintenance and renewal of infrastructure and facilities; including natural assets.

Policy 13.2.2. **Development Pays for Itself.** Regularly review development cost charges to ensure new development fairly funds growth related infrastructure.

Policy 13.2.3. **Operational and Maintenance Cost Recovery.** Continue to recover costs of utility operations and maintenance through user fees and charges.

Policy 13.2.4. **Integrated Design and Delivery Process.** Coordinate between City divisions, other levels of government and utility service providers to ensure all infrastructure projects consider multiple objectives.

Policy 13.2.5. **Quality and Long-Lasting Infrastructure.** Ensure the procurement of high quality long-lasting infrastructure that maximizes service life and minimizing life cycle costs.

Policy 13.2.6. **Coordination of Infrastructure Expansion and Renewal.** Coordinate new infrastructure projects with renewal projects to improve resiliency, reduce overall area costs and minimize disruptions.

Policy 13.2.7. **Utility and R.O.W. Corridors.** Seek opportunities for preserving rights of way formerly for utilities or other purposes, such as future linear paths as part of the pedestrian and bicycle networks.

Objective 13.3. Design stormwater infrastructure to mitigate flooding and pollution to our neighbourhoods, streams and Okanagan Lake.

Policy 13.3.1. **Stormwater Flow Management.** Design new stormwater infrastructure to manage flows to pre-development rates including future climate change projections.

Policy 13.3.2. **Surface Drainage / Detention Areas.** Support the integration of stormwater detention and conveyance systems with community or natural amenity space where possible. Promote park and streetscape designs that serve as temporary stormwater retention.

Policy 13.3.3. **Stormwater Capture.** Encourage the capturing of stormwater and discharging to ground where appropriate, while reducing impact to downslope properties.

Policy 13.3.4. **Mimic nature.** Mimic the natural ecosystem processes in stormwater system design and construction where possible.

Policy 13.3.5. **Impervious Surfaces.** Minimize impervious surfaces and maximize infiltration where appropriate to reduce runoff.

Policy 13.3.6. **Stormwater Quality.** Require that stormwater design accounts for maximizing water quality.

Policy 13.3.7. **Erosion & Sedimentation Control.** Apply best practices to land use management to prevent erosion and sedimentation during construction.

Objective 13.4. Provide a secure supply of water.

Policy 13.4.1. **A Sustainable Water Utility.** Continue to provide a cost-effective, resilient and sustainable supply of safe and high-quality water to all utility customers. Expand the water supply system as outlined in Map 13.4 – Water Supply System, in accordance with the *Kelowna Water Servicing Plan*, the *20 Year Servicing Plan*, the *Agricultural Plan* and phasing of new development.

Policy 13.4.2. **Kelowna Water Integration Plan.** Continue to promote the long-term integration of potable water systems to provide a cost-effective, resilient and sustainable supply of safe and high-quality water to all citizens and customers. The Plan includes the interconnection and long-term viability of non-potable and disinfected water for agriculture from upland watersheds.

Policy 13.4.3. **Water Servicing for Reserve Lands.** Continue to collaborate with the Okanagan Indian Band, Westbank First Nation, neighbouring municipalities and independent water purveyors to deliver a safe supply of drinking water to all customers within the City boundary.

Policy 13.4.4. **Water Availability for Agriculture.** Collaborate with stakeholders to ensure the continued delivery of sufficient quantities and the efficient use of water for continued agricultural productivity.

Policy 13.4.5. **Efficient Water Practices.** Incorporate water conservation, demand management and water shortage management into long term utility planning.

Policy 13.4.6. **syilx /Okanagan Water Declaration:** Collaborate with the **syilx/Okanagan** communities to incorporate elements of their Water Declaration into City management policies and practices.

Policy 13.4.7. **Environment Flow Needs.** Ensure that our creeks and lakes have adequate flow and temperature conditions to support a thriving and resilient aquatic habitat.

Objective 13.5. Protect the supply of high-quality drinking water.

Policy 13.5.1. **Water Infrastructure Expansion.** Expand the potable network so that all citizens and customers are provided high quality water that meets the Canadian Drinking Water guidelines and Interior Health Authority water quality objectives.

Policy 13.5.2. **Area Based Water Management.** Collaborate with external agencies, municipalities and senior government to apply best practices for watershed management to maintain and improve water quality from natural sources.

Policy 13.5.3. **Source Water Protection.** Practice a **multiple barrier approach** to ensure high quality drinking water from source to tap and minimize any risk to public health.

Policy 13.5.4. **Water Intake Zones.** Discourage new development, stormwater outfalls and recreational activities near source water intake zones, as identified on Map 13.4 – Water Supply System to protect the quality of lake water.

Policy 13.5.5. **Groundwater Protection.** Collaborate with the Province and stakeholders to protect the City's groundwater resource from inappropriate development as outlined in the Natural Environment Development Permit Guidelines in Chapter 16: Development Permit Areas.

Objective 13.6. Connect Urban development to the sanitary sewer system

Policy 13.6.1. **New Sewer Servicing.** Ensure that all new developments are connected to the City sanitary sewer system. New septic systems are not permitted for new development in the **permanent growth boundary**.

Policy 13.6.2. **Sewer Servicing Areas.** Collaborate with senior levels of government and community stakeholders to expand the sanitary sewer system to existing neighbourhoods currently on septic systems within the generalized sewer limits identified on Map 13.5- Sanitary Sewer System.

Policy 13.6.3. **Restrict expansion of sewer into Rural Lands.** Restrict community sewer service expansion into Rural Lands and **agricultural lands** except where infrastructure is needed to address public health issues and protection of natural assets as identified by the City or senior government.

Objective 13.7. Ensure the long-term viability of the landfill.

Policy 13.7.1. **Glenmore Landfill.** Continue to use the Glenmore Landfill facility for the disposal of waste in accordance with the Regional Solid Waste Management Plan and the *Design, Operation and Closure Plan*.

Policy 13.7.2. **Landfill Life Extension.** Extend the life of the Glenmore Landfill by supporting local and regional programs and strategies to reduce and divert waste.

Policy 13.7.3. **Landfill Nuisance Buffer.** Prohibit development of urban residential uses within the buffer area surrounding the Regional Landfill as per Map 13.6. and consistent with provincial regulation.

Policy 13.7.4. **Resource Recovery.** Encourage resource recovery, such as **renewable natural gas,** from reuse of waste transported for disposal in order to reduce the carbon footprint associated with waste.

Objective 13.8. Protect and enhance the Okanagan Rail Trail as a vital transportation corridor linking communities in the Okanagan Valley.

Policy 13.8.1. Okanagan Rail Trail Connections. Prioritize development of walking and biking routes that provide safe, convenient and accessible linkages to Okanagan Rail Trail access

points.

Policy 13.8.2. Okanagan Rail Trail Protection. Ensure the long-term protection of the Okanagan Rail Trail by not permitting encumbrances within the Okanagan Rail Trail corridor, including but not limited to driveways, crossings, and utilities.

Policy 13.8.3. Okanagan Rail Trail Partnership. Continue to partner and collaborate with the Okanagan Rail Trail Committee to manage and enhance the trail as well as protect the trail for the long-term opportunity to develop a multi-modal transportation corridor linking the communities along the corridor.

Objective 13.9. Support the cost effective and safe delivery of energy and communications utility infrastructure.

Policy 13.9.1. **Communications Infrastructure.** Support the creation of high quality and assured communication links, including dark fibre infrastructure.

Policy 13.9.2. **Energy Infrastructure.** Work closely with utility companies to coordinate planning and development of electricity, natural gas and other energy and utility infrastructure (e.g. solar, geothermal, etc.) to ensure project efficiencies, to minimize costs and to reduce public nuisance.

Policy 13.9.3. **Transmission Line Setbacks.** Require residential development to be set back from the edge of utility transmission lines.

Objective 13.10. Encourage the use and extraction of gravel resources and ensure appropriate redevelopment of gravel pits.

Policy 13.10.1. **Use of Gravel Prior to Development.** Encourage identified gravel resources to be extracted prior to development of sites outlined in Map 13.7 – Sand and Gravel Deposits for **urban uses** to avoid the necessity of seeking such resources in **agricultural lands**.

Policy 13.10.2. **Use of Depleted Areas.** Require depleted extraction area to be rehabilitated in accordance with provincial best management practices and used for purposes consistent with Map 3.1 – Future Land Use and *Official Community Plan* objectives and policies.

Policy 13.10.3. **Impacts of Extraction.** Discourage aggregate extraction that creates undue impact on neighbourhood residential uses or excessive truck traffic, safety and road condition issues.

2040 Official Community Plan

Map 13.1 Road Priority Projects

- Multimodal Corridors
- Road Connections
- Major Roads Network
- Highway

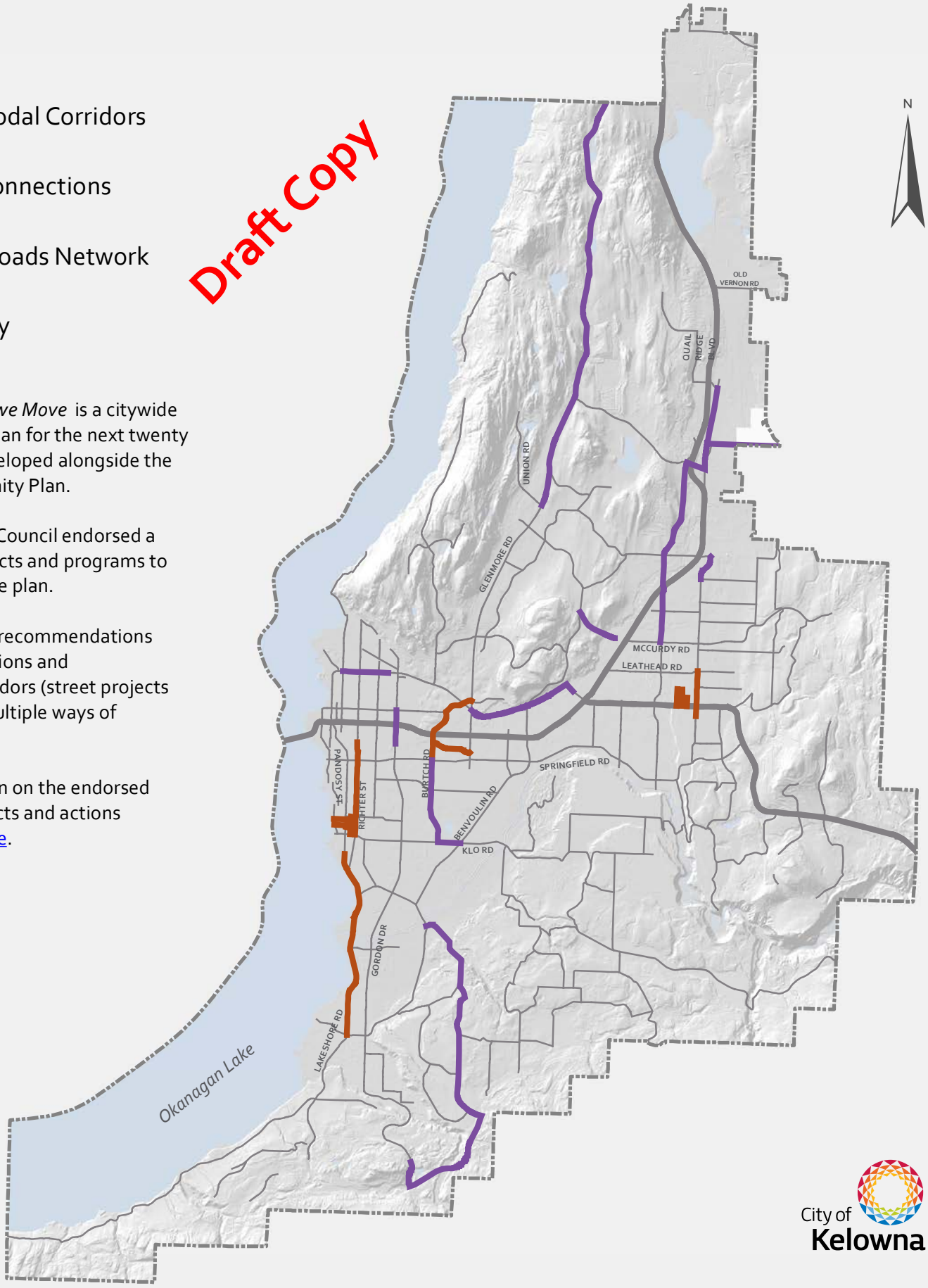
Draft Copy

Our *Kelowna as we Move* is a citywide transportation plan for the next twenty years, being developed alongside the Official Community Plan.

In August 2020, Council endorsed a draft list of projects and programs to be included in the plan.

This map shows recommendations for road connections and multimodal corridors (street projects which benefit multiple ways of getting around).

More information on the endorsed Scenario 2 projects and actions are available here.



City of Kelowna

Rev. Sep 30, 2020

This draft map is for consultation purposes only. This is not a final version.

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Map 13.2 Transit Improvement Priority Projects

Draft Copy

- Major Projects
- Service Hours
- Service Increases and Transit Infrastructure

  Infrastructure investments such as:
  - New exchanges
  - Transit lanes
  - New facilities
- Major Road Network
- Highway

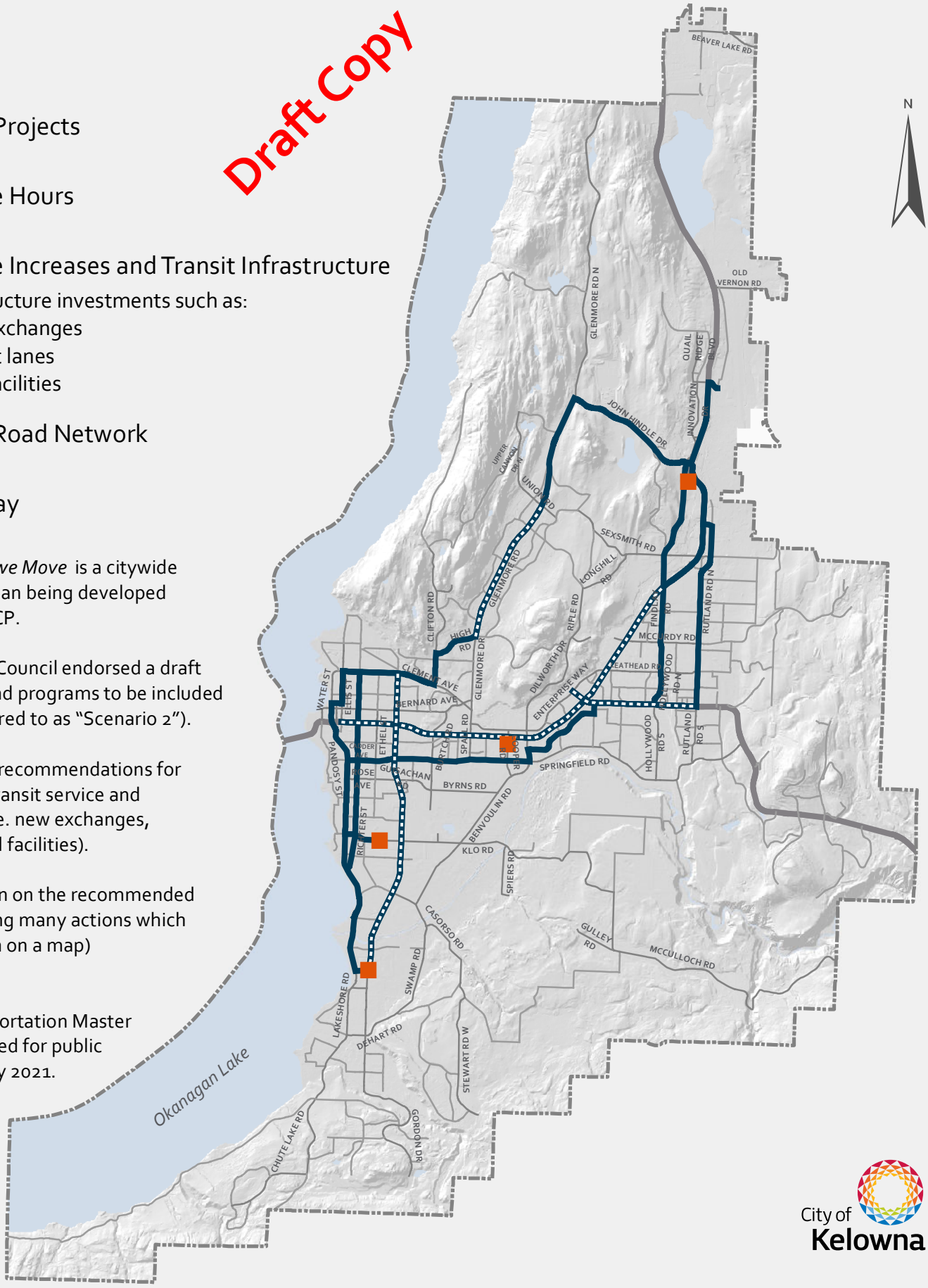
Our *Kelowna as we Move* is a citywide transportation plan being developed alongside the OCP.

In August 2020, Council endorsed a draft list of projects and programs to be included in the plan (referred to as "Scenario 2").

This map shows recommendations for investments in transit service and infrastructure (i.e. new exchanges, transit lanes, and facilities).

More information on the recommended projects (including many actions which cannot be shown on a map) is available here.

The draft Transportation Master Plan will presented for public comment in early 2021.



Rev. Nov. 16, 2020

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Map 13.3 Active Transportation Priority Projects

- Future Projects
- Existing Active Transportation Network
- Major Roads Network
- Highway

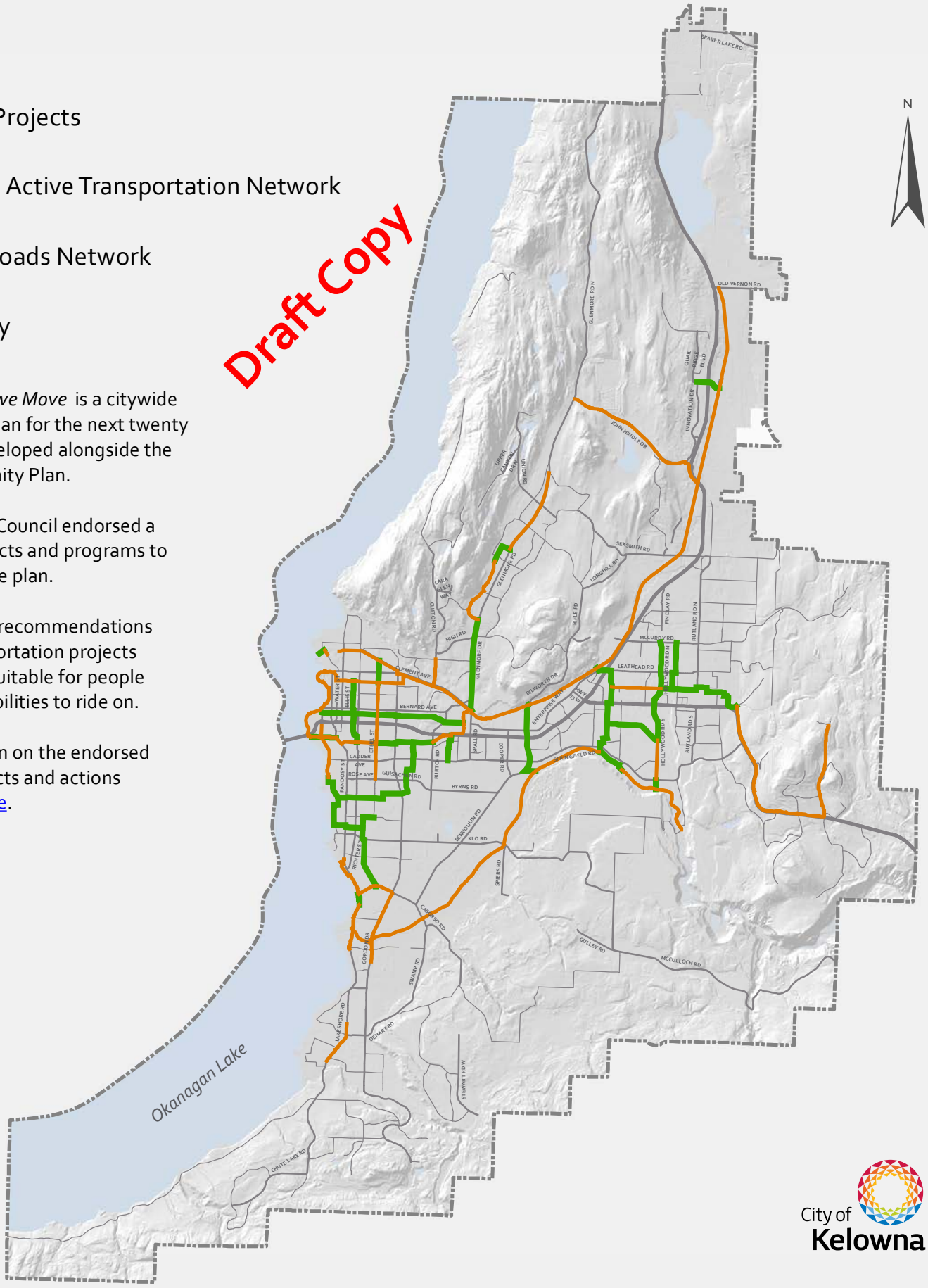
Draft Copy

Our *Kelowna as we Move* is a citywide transportation plan for the next twenty years, being developed alongside the Official Community Plan.

In August 2020, Council endorsed a draft list of projects and programs to be included in the plan.

This map shows recommendations for active transportation projects designed to be suitable for people of all ages and abilities to ride on.

More information on the endorsed Scenario 2 projects and actions are available here.



City of Kelowna

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This draft map is for consultation purposes only. This is not a final version.

Map 13.4 Potable Water System

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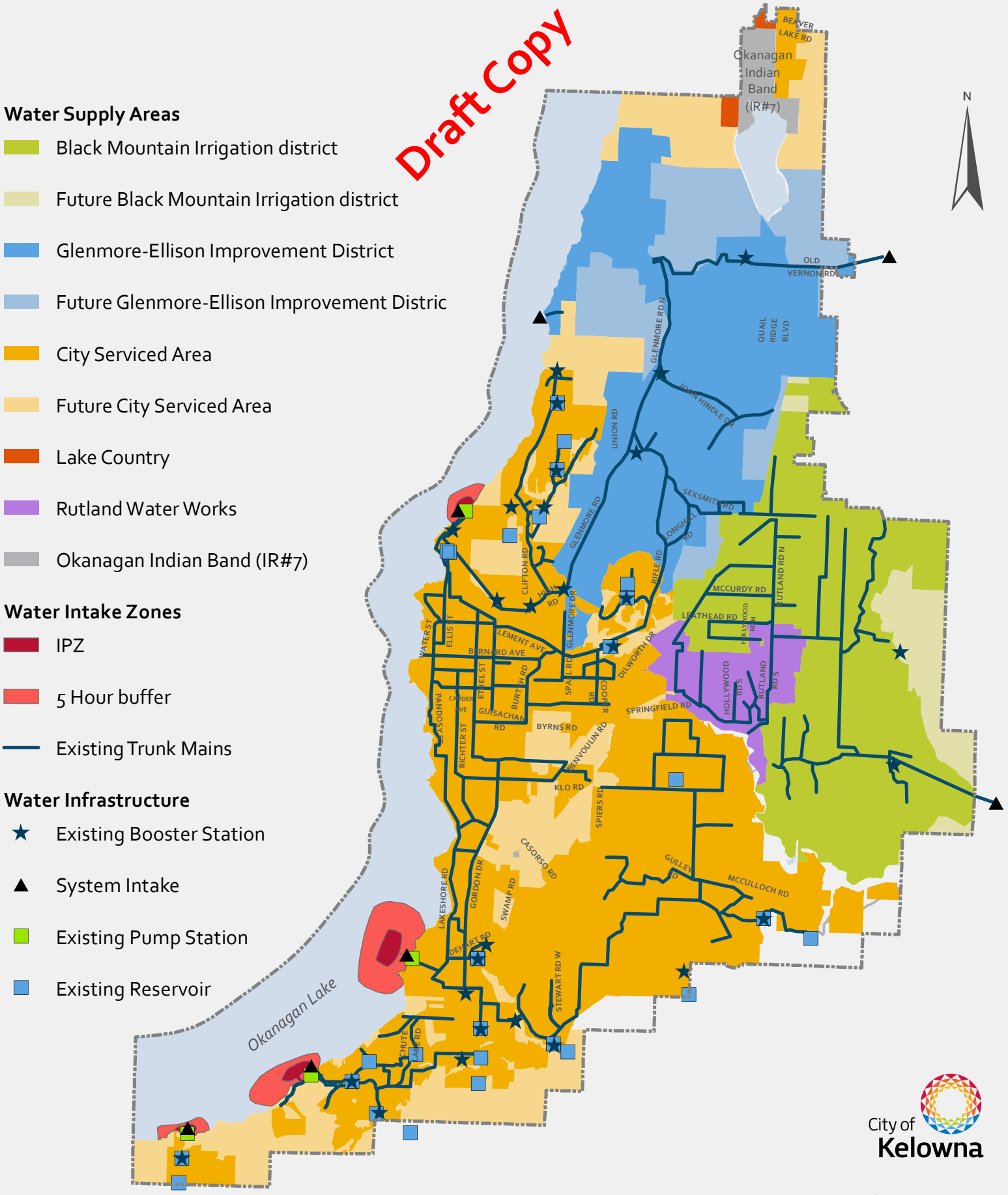

Water Supply Areas

- Black Mountain Irrigation district
- Future Black Mountain Irrigation district
- Glenmore-Ellison Improvement District
- Future Glenmore-Ellison Improvement Distric
- City Serviced Area
- Future City Serviced Area
- Lake Country
- Rutland Water Works
- Okanagan Indian Band (IR#7)

Water Intake Zones

- IPZ
- 5 Hour buffer
- Existing Trunk Mains

Water Infrastructure

- Existing Booster Station
- System Intake
- Existing Pump Station
- Existing Reservoir

City of Kelowna

Rev. Sep 10, 2020

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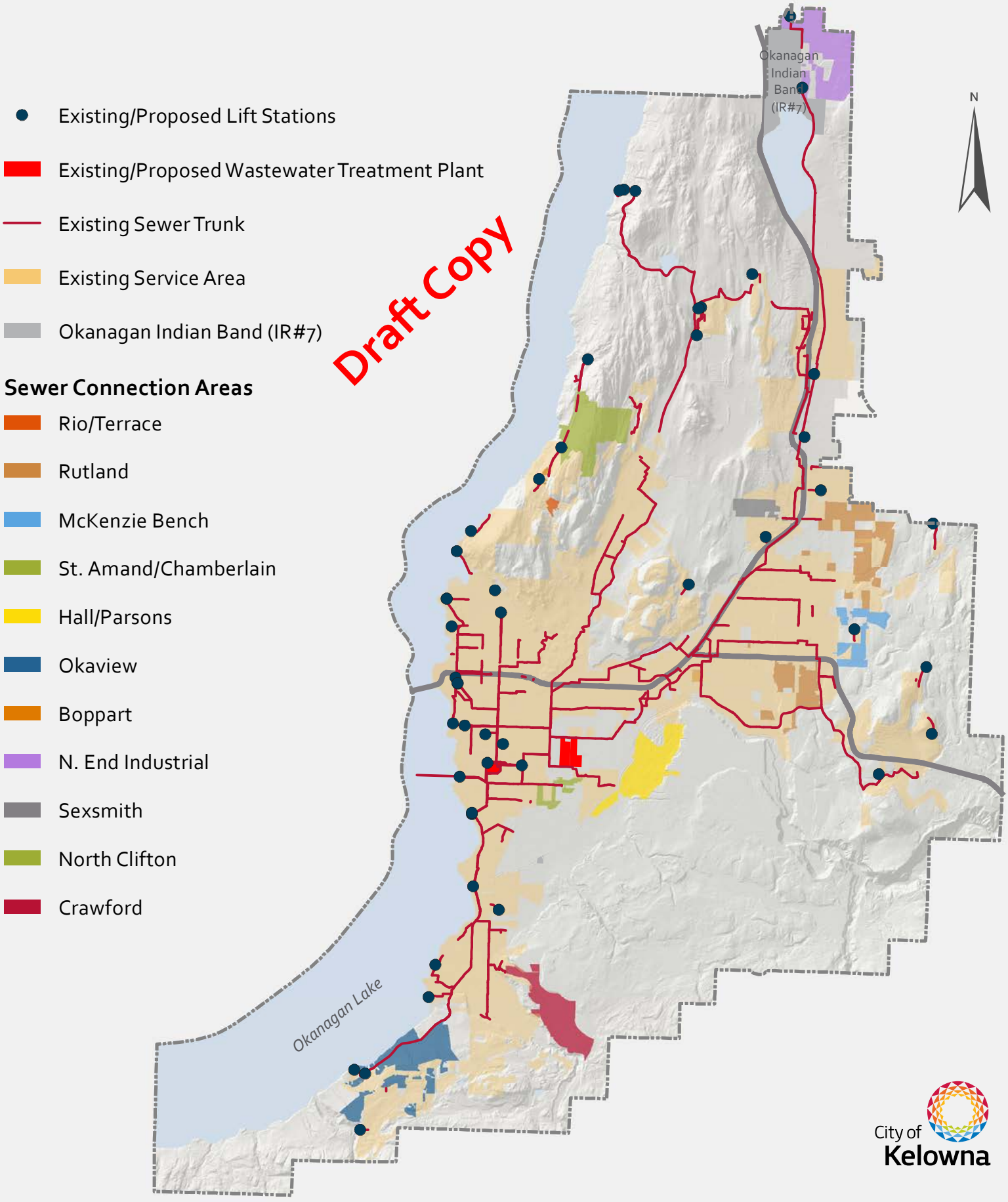
Map 13.5 Sanitary Sewer System



Rev. Sep 28, 2020

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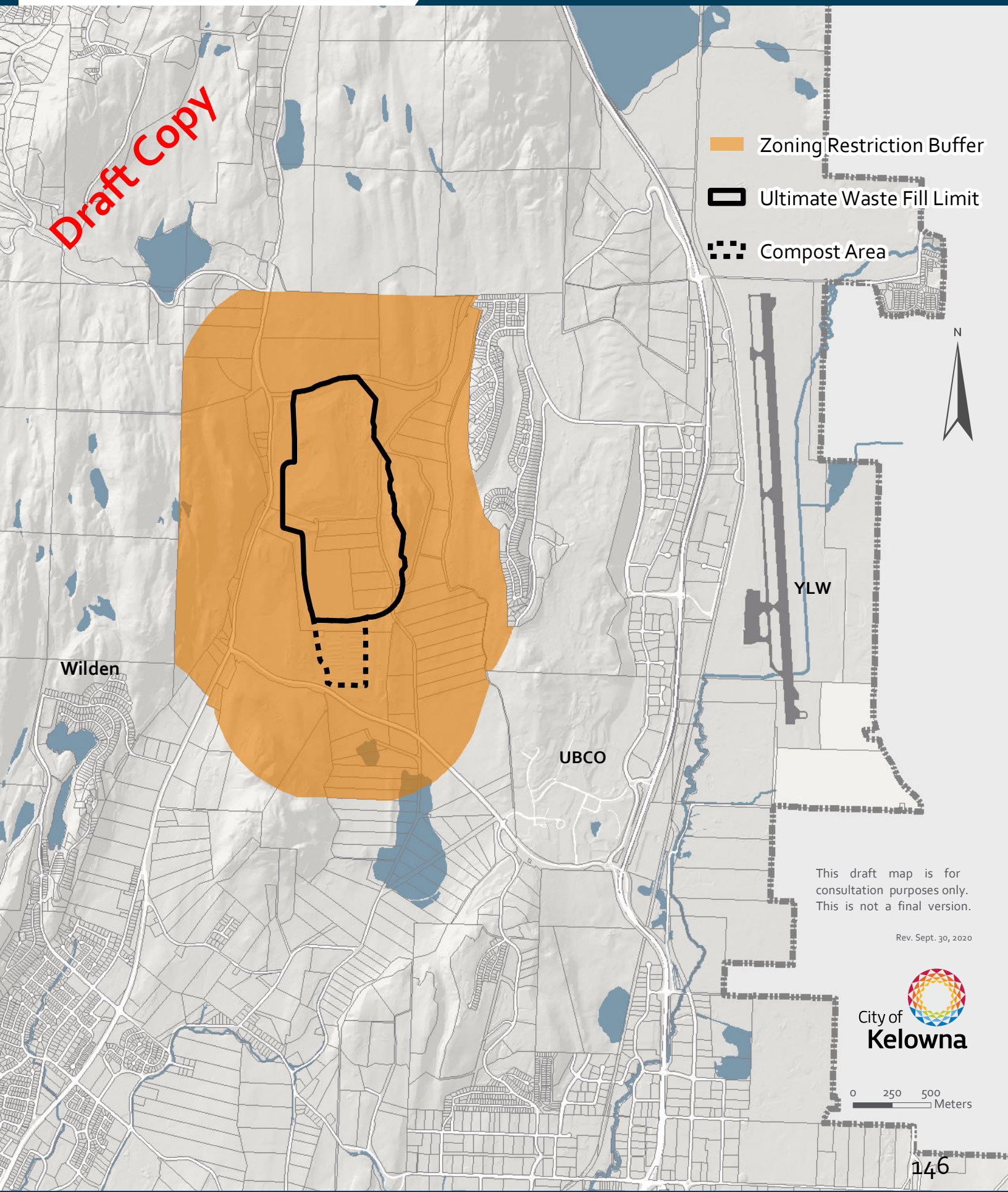
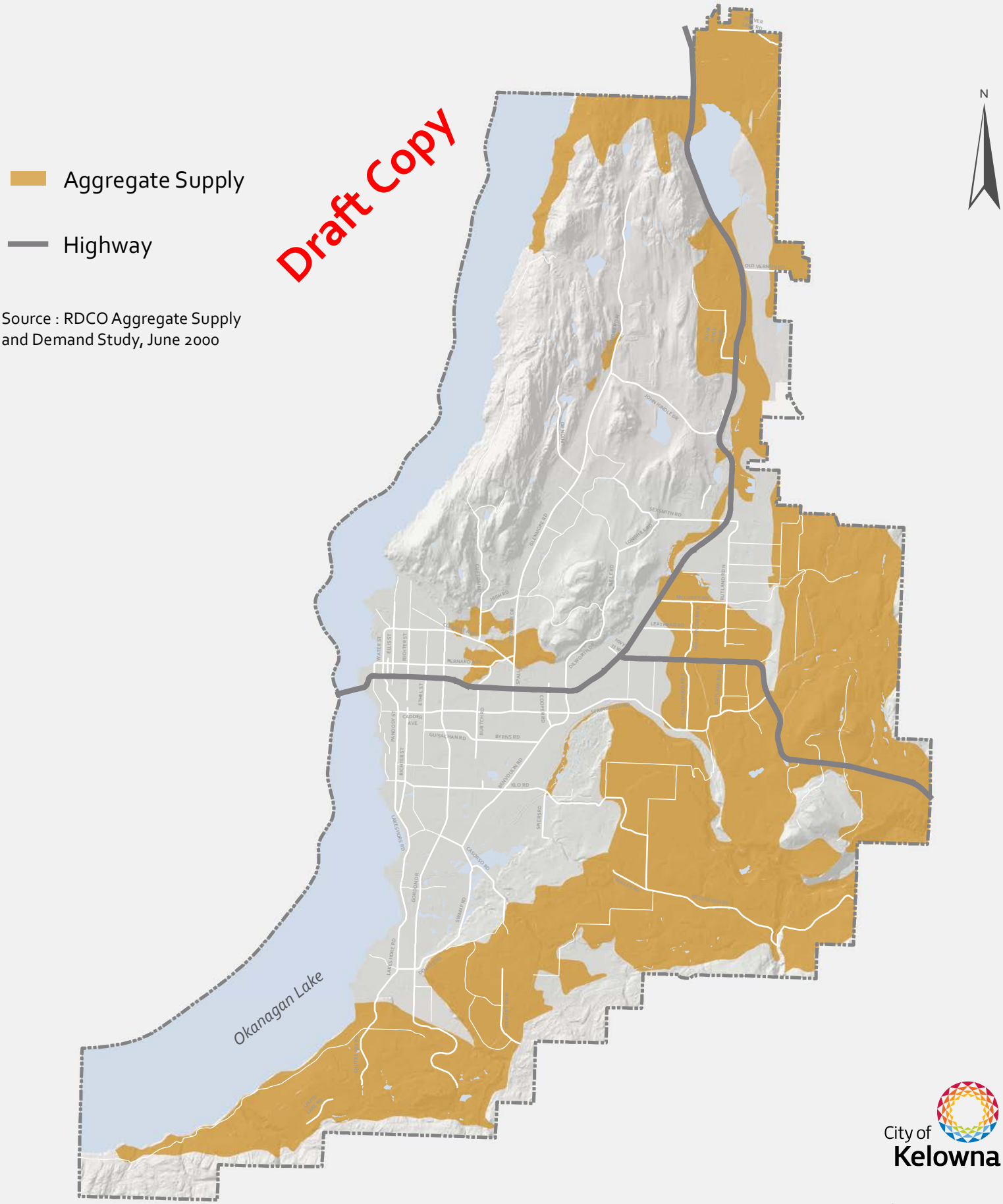
Map 13.6 Landfill Impact Buffer Area



Map 13.7 Sand and Gravel Deposits



Source : RDCO Aggregate Supply and Demand Study, June 2000

City of Kelowna

Rev. Sep 29, 2020

This draft map is for consultation purposes only. This is not a final version.

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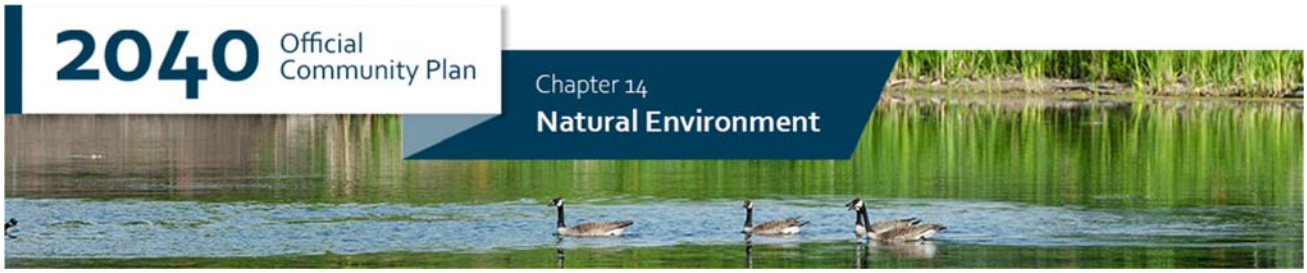


Kelowna's natural environment is a cornerstone of Kelowna's identity, supporting the community's health, economy, and livability. Okanagan Lake, 27 creeks, 200 wetlands, and our natural areas provide habitat for a wide variety of plants and animals, including several species at risk. These areas provide clean air and water, healthy soils, and a host of other ecosystem services including carbon sequestration, rainwater interception, soil stability and temperature regulation, as well as outstanding recreational opportunities.

Kelowna's natural environment has been significantly modified by human activity and urbanization over the past century. Protecting our remaining ecosystems is a priority as they are at risk for loss and further fragmentation due to development pressure and climate change.

To ensure our natural environment continues to provide benefits for future generations, the City must protect and enhance our natural habitats, water and air resources and local biodiversity. As our community grows, a comprehensive approach must be taken, integrating environmental considerations into planning and development decisions to avoid impacts on our **sensitive ecosystems**. Extraordinary vigilance is required to maintain the aesthetic, cultural, and functional value of our natural environment.

Objective 14.1. Promote strategies that reduce local air pollution and people's exposure to air pollutants.

Policy 14.1.1. **Reduce air pollution from motor vehicles.** Promote land uses that reduce reliance on motor vehicles. Restrict land uses and activities that require idling such as new drive through developments.

Policy 14.1.2. **Reduce vulnerable populations' exposure to air pollution.** Encourage land uses that accommodate vulnerable populations (e.g. seniors, children, health-challenged) to locate away from major point sources of air pollution (such as industry or congested corridors). If not feasible, consider building design features that will reduce exposure, such as placement of air intakes or additional air filtration.

Policy 14.1.3. **Reduce active transportation users' exposure to air pollution.** Design **Active Transportation Corridors** to reduce exposure to exhaust pollutants from motor vehicles or traffic related air pollution by considering routes, physical separation or vegetation to filter pollutants from congested roadways.

Objective 14.2. Protect and expand a healthy and viable urban forest.

Policy 14.2.1. **Manage the urban forest as green infrastructure.** Manage the **urban forest** as **green infrastructure** to enhance ecological services such as ecosystem connectivity, capture

carbon dioxide, reduce heat island effects, provide rainwater interception and infiltration, improve air quality, maintain biodiversity and support public health and quality of life.

Policy 14.2.2. **Expand and enhance the city's tree canopy.** Strengthen and expand a healthy and diverse **urban forest** with a tree canopy target of

- 12% within the **Urban Centres**;
- 20% within the **Core Area**; and
- 25% for the rest of the city (Gateway, Suburban Neighbourhoods and Rural Lands).

Policy 14.2.3. **Plant indigenous vegetation.** Encourage the use of species of plants well-adapted to Kelowna on public and private property to increase overall **tree canopy coverage**. With a preference for plants indigenous to the area, select plants that are drought-tolerant, pest-resistant, FireSmart, are compatible with urban development and are adapted to the specific site conditions today and for a changing climate.

Policy 14.2.4. **Use the right tree in the right location.** Emphasize "right tree in the right location" to help ensure that trees will not have to be removed due to future conflicts with utility wires, building foundations, etc.

Policy 14.2.5. **Protect significant trees.** Develop tree protection and planting measures to protect indigenous, heritage, **significant** and wildlife trees to:

- Maximize retention of existing trees on development sites; and
- Protect trees and roots during street and building work.

Policy 14.2.6. **Prioritize trees in development.** Maximize the retention of existing vegetation and prioritize the planting of new vegetation through development approval and major construction and infrastructure projects.

Policy 14.2.7. **Connect habitat through urban forest.** Connect different habitats using the **urban forest** along boulevards, backyards, parks and **riparian areas**.

Objective 14.3. Preserve Okanagan Lake for its environmental, traditional, cultural, spiritual, and recreational values.

Policy 14.3.1. **Preserve Okanagan Lake's ecosystem health.** Preserve the ecosystem health of Okanagan Lake, recognizing the ecosystem functions it provides to all local species, not just humans. Encourage stewardship of the lake for future generations.

Policy 14.3.2. **Conserve the remaining natural shoreline.** Conserve the natural **shoreline** of Okanagan Lake to preserve areas of archaeological and cultural significance, shore spawning fish habitat, wetlands, stream corridors, **steep slopes**, rock outcrops, cliffs, **species at risk**, and to maintain natural ecosystem processes that sustain local flora and fauna.

Policy 14.3.3. **Foreshore structures.** Ensure structures that obstruct public access along the foreshore are brought into compliance with current regulations prior to the approval of an upland development application.

Policy 14.3.4. **Avoid hard armoring of shoreline.** Where possible, use **green infrastructure** and natural asset management to protect the foreshore during flooding (e.g. expanded **riparian areas**, stabilize foreshore with natural materials, etc.). Avoid **hard armoring shoreline** with retaining walls.

Policy 14.3.5. **Reduce pollutants entering Okanagan Lake.** Protect the water quality of Okanagan Lake by managing activities in upland source water areas to reduce pollutants entering the Lake.

Objective 14.4. Preserve and enhance biodiversity and landscape diversity, integrating and connecting ecological networks through the city.

Policy 14.4.1. **Ecosystem level planning.** Use an **ecosystem level approach** to ecological planning and management to ensure the ongoing function of environmentally sensitive areas (ESA), establishment and/or retention of **ecosystem connectivity corridors** and the preservation of threatened and endangered species.

Policy 14.4.2. **Preserve ecosystem connectivity corridors.** Maintain and improve biodiversity through the establishment and preservation of **ecosystem connectivity corridors** for habitat connectivity, migration, and the continuation of viable populations by:

- Discouraging development or land uses that will have a negative impact on properties that intersect with the Okanagan Mountain to Kalamalka Lake Provincial Park Ecosystem Connectivity Corridor as identified on Map 14.1;
- Discouraging development or land uses that will have a negative impact on properties that intersect with the Knox Mountain Ridge Ecosystem Connectivity Corridor as identified on Map 14.1;
- Encouraging the provincial government to incorporate transportation corridors that allow for wildlife movement at key locations; and
- Conserving and enhancing ecosystem connectivity through parks, open spaces and **riparian areas**.

Policy 14.4.3. **Prioritize protection of Kelowna's environmentally sensitive areas.** Ensure the protection of **sensitive ecosystems** and unique environmental features, as identified in Natural Environment Development Permit Map 16.3, takes precedence over other uses during development and within the city's parks and open spaces.

Policy 14.4.4. **Consider environmentally sensitive areas for parkland.** Consider the acquisition of a variety **environmentally sensitive area** types (such as wetlands, **riparian areas**, woodlands, etc.) for addition to the park inventory. Where possible, obtain a variety of ecosystem types adjacent to each other to encourage use by a diversity of wildlife.

Policy 14.4.5. **Preserve riparian areas and watercourses.** Preserve **riparian areas** and watercourses in their natural state and link them with upland natural areas to develop a connected network of natural areas throughout Kelowna.

Policy 14.4.6. **Restore critical habitats.** On City owned properties, investigate opportunities to restore native ecosystems.

Policy 14.4.7. **Species and habitats at risk.** Manage, enhance and restore ecosystems for rare, endangered and vulnerable species and habitat as defined by the federal Species at Risk Act and/or provincially Red and Blue ranked species.

Policy 14.4.8. **Encourage preservation of culturally significant vegetation.** Look for opportunities to preserve areas with culturally significant **syilx/Okanagan** plants and ecology such as bitterroot, siya, and birch.

Policy 14.4.9. **Encourage stewardship of environmentally sensitive areas.** Encourage landowners to protect, preserve, and enhance environmentally sensitive areas on private property through conservation tools such as conservation covenants, land trusts, and eco-gifting.

Objective 14.5. Protect and restore environmentally sensitive areas from development impacts.

Policy 14.5.1. **Design development to avoid environmentally sensitive areas** Require new residential development to be designed to avoid environmentally sensitive areas as identified in Map 16.3 Natural Environment Development Permit area. Design the development to minimize site disturbance, preserve environmentally sensitive features, adapt to natural topography and to lessen overall environmental impact. For those developments also in a Wildfire Development Permit Area (Map 16.4), ensure the development is also designed to minimize wildfire risk.

Policy 14.5.2. **Retain existing vegetation.** Maximize the retention of existing **native vegetation** during site development in environmentally sensitive areas as identified in Map 16.3 Natural Environment Development Permit area to enhance ecological services, maintain biodiversity and minimize erosion and runoff. In Wildfire Development Permit Areas (Map 16.4) vegetation loss may be necessary as recommended by a qualified professional, to minimize risk.

Policy 14.5.3. **Protect environmentally sensitive areas from development.** Protect and preserve environmentally sensitive areas using one or more of the following measures at the time of development:

- Dedicating land as a City park or trail where the area complements the goals and objectives of sustainable development. ESAs acquired as parks or trails will be managed to protect their sensitive features in balance with public use;
- Returning to Crown Land;
- Placing a covenant for conservation purposes with the City, the Province and/or a nongovernmental organization (e.g. Central Okanagan Land Trust) eligible to hold Conservation Covenants;
- Incentivizing development within PGB (e.g. density transfer, cluster housing, etc.) that will facilitate the protection of all or significant portions of ESAs;
- Protecting of ESAs or portions of ESAs as amenity contributions when new development requires a change to zoning that increases density over present zoning within PGB; and
- Ensuring setbacks on adjacent developments are adequate to maintain the integrity of the ESA and to minimize hazards created at the interface between natural areas and development.

Policy 14.5.4. **Voluntary Environmentally Sensitive Area protection.** When an owner of land offers voluntary protection of an ESA, consider allowing increased density on the balance of the subject property by including the dedicated area in the density calculation; transferring density to another property; trading land; purchasing land; offering grants-in-aid; or granting tax exemptions.

Policy 14.5.5. **Site Density Calculations.** Allow the owner(s) of land affected by dedications for environmental protection to use the original site area in computing density and floor area ratios and minimum area for development or subdivisions purposes.

Policy 14.5.6. **Restore riparian areas**. Restore negatively impacted **riparian areas** prior to subdivision or rezoning approval.

Policy 14.5.7. **No net loss of terrestrial habitat.** Require land use and development projects to have "**no net loss**" in the productive capacity of important and/or critical terrestrial habitats as determined through environmental assessment for those properties identified on the Natural Environment Development Permit Map 16.3. In the long term the City will strive for a net gain in overall productivity of terrestrial habitats.

Policy 14.5.8. **No net loss of aquatic habitat productivity.** Require land use and development projects to have "**no net loss**" of aquatic habitat productivity, based on the principle of the Department of Fisheries and Oceans "**no net loss**" policy, as determined through environmental assessment for those properties identified on the Natural Environment Development Permit Map 16.3. In the long term the City will strive for a net gain in overall productivity of aquatic habitats.

Policy 14.5.9. **Habitat management hierarchy.** Ensure the following sequence of management actions for all public or private projects be adhered to, in areas identified in Natural Environmental Development Permit Map 16.3, to achieve the "**no net loss**/net gain" principle of ESA 's:

- AVOID impacts to habitat through appropriate project siting and design;
- MITIGATE minor or temporary impacts by minimizing impacts, and repairing and restoring damaged habitats to their former state or better;
- COMPENSATE only when residual, permanent loss of habitat is unavoidable, acceptable and compensable. Habitat compensation proposals will not be accepted as a trade-off for incomplete on-site **mitigation** where effective **mitigation** efforts are feasible. Development proponents are responsible for proving that all measures to avoid or mitigate potential habitat impacts have been exhausted prior to proposing habitat compensation measures on or off-site.

Policy 14.5.10. **Varying riparian management area requirements.** Retain the option to vary the width of Riparian Management Areas to accommodate the maximum retention of desirable natural vegetation and wildlife habitat, ground formations, and water features through a "**no net loss**" approach.

Policy 14.5.11. **Minimize habitat encroachment.** Ensure a proposed development footprint within an ESA is configured in such a way as to minimize the encroachment toward aquatic or terrestrial habitat. Consider zoning and/or subdivision variances where needed to prevent or minimize encroachment into the Riparian Management Area or to acquire greater Riparian Management Area width for environmental protection or hazard avoidance.

Policy 14.5.12. **Environmentally sensitive area linkages.** Ensure that development activity does not compromise the ecological function of environmentally sensitive areas and maintains the integrity of plant and wildlife corridors.

Policy 14.5.13. **Reduce environmental impacts from transportation infrastructure.** Reduce the impacts of transportation infrastructure on the natural environment by:

- Reduce runoff through infiltration and retention using **green infrastructure** practices as low impact development controls;
- Capturing pollutants and sediments from storm water runoff before they enter the natural environment;
- Planting trees along streets and pathways;

- Providing wildlife passages at key locations; and
- Modifying road layouts and alignments, where feasible, to protect environmentally sensitive areas.

Objective 14.6. Provide compensation for unavoidable habitat losses.

Policy 14.6.1. **Compensating for unavoidable habitat loss.** When compensation for loss of habitat is necessary and acceptable, implement the following guidelines in making habitat compensation decisions:

- On-site compensation (e.g. in or near the same location as the area being impacted) is preferred over off-site compensation, particularly when sufficient space is available and there is adequate biophysical capacity on the site to create or enhance similar habitat. In some instances, off-site compensation may result in greater ecological benefits to the overall watershed, habitat type, species or community;
- When it is deemed necessary or appropriate, off-site compensation should occur within the same watershed or ecological unit as the area being impacted; and
- 'Like-for-like' compensation is preferred over replacing lost habitat with a different type of habitat. However, replacing with unlike habitat may be preferable in cases when the replacement habitat will have higher productivity and/or will address a limiting factor within the natural system affected.

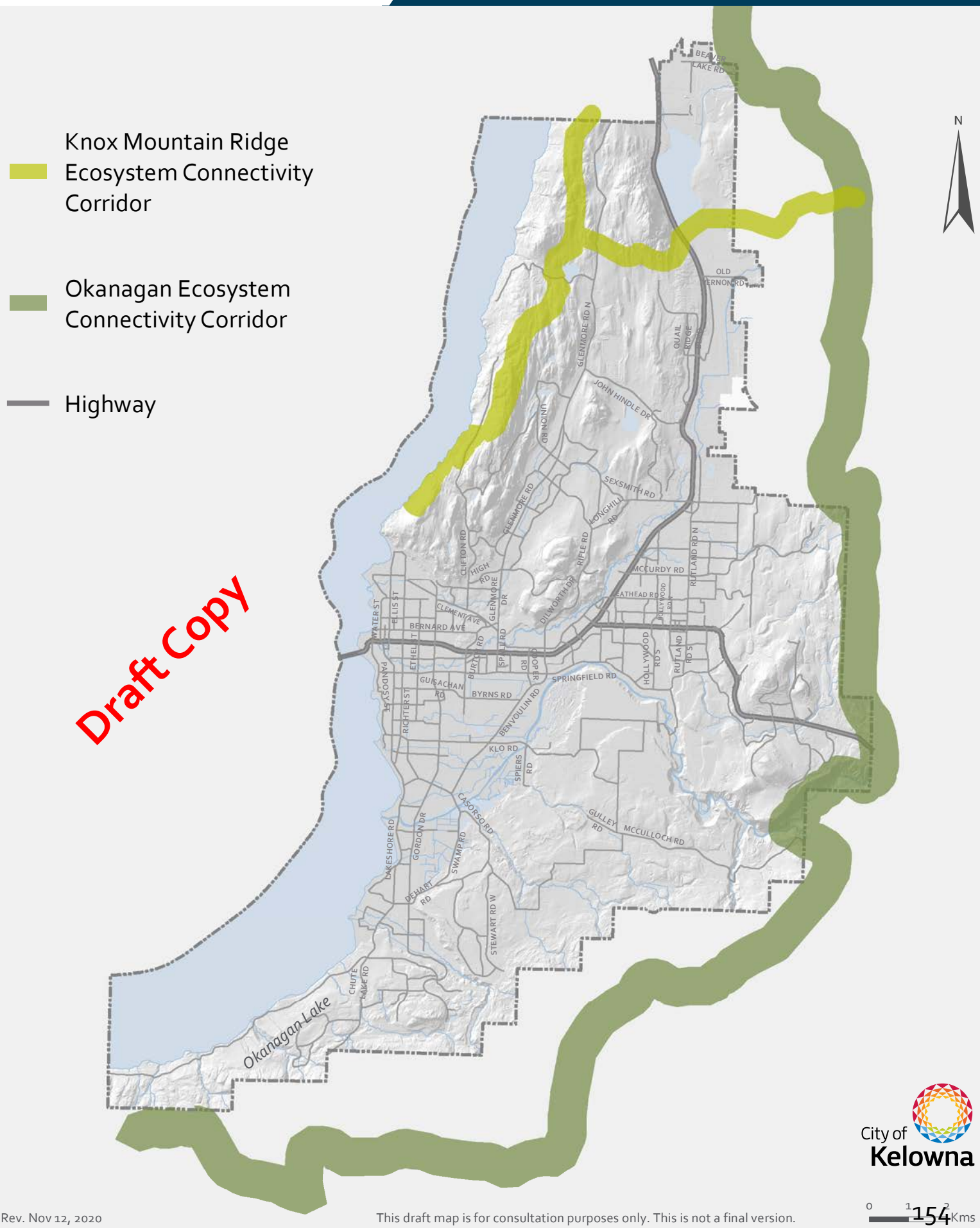
Policy 14.6.2. **Compensation Ratio.** When compensation for loss of habitat is necessary and acceptable, require a **compensation ratio** (area of replacement habitat to area of lost habitat) that accounts for factors such as:

- Time lags in achieving habitat replacement;
- Risk associated with the success of compensation measures;
- The relative significance of the impacted habitat (e.g. does it support threatened, endangered and / or economically important species?);
- Whether compensation is occurring on-site or off-site; and
- Whether the replacement habitat is of the same type as the lost habitat.

Policy 14.6.3. **Mission Creek Aquatic Habitat Compensation Bank.** The Mission Creek Aquatic Habitat Bank may only be used to compensate for unavoidable losses to aquatic habitat. Guidelines for use of the Bank address factors including application criteria, geographical area, project priorities and costs, and method of estimating compensation contributions.

Policy 14.6.4. **Use of Compensation Bank.** When compensation is required to address harmful alteration, disruption or destruction of fish habitat (HADD) under the federal Fisheries Act, the ability to contribute to the Mission Creek Compensation Bank as a compensation option will be at the discretion of senior government fisheries agencies. Contribution to the Bank for non-HADD related compensation proposals will be at the discretion of the City with input from senior agencies, as needed.

Map 14.1 Ecosystem Connective Corridor



Rev. Nov 12, 2020

This draft map is for consultation purposes only. This is not a final version.

Our lakes, streams, mountains, and valleys are some of the defining features of Kelowna. This unique natural landscape not only supports plant and animal species but is a major draw for people to live in our community. The natural features that contribute to Kelowna's beauty, however, can also pose significant risk from natural hazards. **Steep slopes** and ravines associated with our valleys and hillsides can be vulnerable to slope instability, landslides, and rock falls. Areas along our 27 creeks and the Okanagan Lake foreshore areas can be susceptible to flooding. Finally, wildfires are a natural part of Kelowna's wildland ecosystem, however, the proximity of developed lands and to forests and grassed slopes results in a wildfire interface hazard for many areas of the community.

Kelowna is already experiencing the impacts of climate change, and as global temperatures continue to rise, the risk associated with some hazards will be heightened. Increased precipitation and more intense storms will increase the risk of flooding and slope instability, particularly during the spring. Further, with the projected increasingly dry conditions and hotter days, the likelihood of being impacted by wildfire events is expected to increase.

Development in areas prone to natural hazards requires special consideration. Focusing on risk reduction at the interface between communities and the natural environment is necessary to minimize threats to personal safety and property while ensuring protection of our **sensitive ecosystems**.

Objective 15.1. Reduce wildfire risk to health and safety of the public, property and infrastructure.

Policy 15.1.1. **Design Subdivisions to Reduce Wildfire Risk.** Incorporate wildfire hazard reduction considerations in subdivision design.

Policy 15.1.2. **Access and Egress.** Improve access and egress to neighbourhoods at risk of wildfire as identified in Map 16.4: Wildfire Development Permit Area.

Policy 15.1.3. **Use FireSmart Principles.** Encourage property-owners to use FireSmart principles on their properties.

Policy 15.1.4. **Manage Forest Fuels** Use a combination of new and conventional technologies and traditional **syilx/Okanagan** knowledge to manage forest fuels in accordance with a changing climate to reduce wildfire risk.

Policy 15.1.5. **Require Wildfire Development Permits.** Require a development permit for the subdivision, rezoning or construction of multi-family, commercial, institutional and

industrial development in wildfire development permit areas as identified in Map 16.4: Wildfire Development Permit Area.

Policy 15.1.6. **Wildfire Fuel Modification.** For properties to be transferred to the City that are located within a Wildfire Hazard Area, as identified in Map 16.4., require wildfire fuel modification to be completed prior to the transfer to a level deemed acceptable by a qualified professional in a wildfire hazard assessment.

Objective 15.2. Design and locate development to reduce risks associated with steep slopes.

Policy 15.2.1. **Steep Slopes.** Restrict development on **steep slopes**. These areas should be retained as natural open space, either public or private.

Policy 15.2.2. **Access Through Steep Slopes.** Avoid roads (public or private) through +30 per cent slope areas. Consider allowing only when a qualified professional can demonstrate the road will be sensitively integrated with the natural environment (visual and aesthetic impacts minimized) and will present no hazards to persons or property, environmental threats or unreasonable servicing or maintenance challenges.

Policy 15.2.3. **Design Development to Avoid Areas of Steep Slopes.** For properties identified in Map 16.5: Hazardous Condition Development Permit Area, design the development to lessen site disturbance and avoid areas of steeper slopes. For those developments that are also in a Wildfire Development Permit Areas (Map 16.4), ensure the development is designed to minimize wildfire risk.

Policy 15.2.4. **Retain Existing Vegetation.** Maximize the retention of existing **native vegetation** during site development on **steep slopes** to enhance ecological services, minimize erosion and runoff, enhance ecological services and reduce visual and aesthetic impacts. In Wildfire Development Permit Areas (Map 16.4.) some vegetation may need to be removed to reduce fuel loads as recommended by a qualified professional.

Policy 15.2.5. **Locate Developments Away from Top of Slopes.** Set back development from the top of ridgelines, cliffs and ravines to minimize the impact on environment and risk to development as outlined in Chapter 16: Development Permit Areas (Natural Hazard Development Permit Guidelines).

Policy 15.2.6. **Retaining Walls in Steep Slope Areas.** In areas of **steep slopes**, when necessary, design and construct retaining walls to minimize visual and aesthetic impacts and to reduce the impacts on existing adjoining neighbourhoods and the environment.

Objective 15.3. Design and locate development to reduce risks associated with soil and rock substrate.

Policy 15.3.1. **Hydro-geologically Sensitive Areas.** Reduce or eliminate irrigation water use in areas where limited or no infiltration capacity exists based on hydro-geological assessments of sensitive areas. An assessment of potential ground and surface water seepage may be required as part of any subdivision on hillside lands in excess of 20 per cent slopes.

Policy 15.3.2. **Unstable Soils and Rock Fall Hazards.** In areas with potentially unstable soils or fractured rock, require a geotechnical assessment and **mitigation** of any potential hazard prior to development.

Policy 15.3.3. **Sediment Control.** Use erosion control mechanisms during construction of all developments to minimize the flow of sediment into the surrounding environment.

Objective 15.4. Reduce flood risk to health and safety, infrastructure, property and natural assets.

Policy 15.4.1. **Developing in Floodplains.** Where development is already located in a floodplain, or zoning permits new development in these areas, as identified in Map 16.5: Hazardous Condition Development Permit Area or along any watercourse, the future construction of, addition to, or alteration of a building or structure should be constructed to minimize impacts of future flooding as well as meet Natural Environment Development Permit Guidelines. Development where threat to life and property is low, such as agriculture, parks or greenspace is preferred.

Policy 15.4.2. **Maintain Flood Data.** Maintain up to date flood data to understand the risk to the community and where necessary consult local Indigenous organizations for expertise and oral historical data.

Policy 15.4.3. **Retrofit Critical Infrastructure.** Continue to retrofit critical infrastructure (airport, roads, bridges, sewer) within the floodplain to withstand increased frequency and intensity of flood events.

Policy 15.4.4. **Repurpose public infrastructure during disruptions.** Repurpose public infrastructure (e.g. roads, parks, trails) during seasonal flood events to minimize flood impacts that may disrupt city services.

Plan Administration

The Official Community Plan is a living document that provides direction on how Kelowna will evolve to 2040. While policies and decisions should be consistent with the Pillars, **Growth Strategy**, objectives and the policies of the Plan, it should be recognized as a flexible and adaptable document. Amendments to the plan from time to time are expected during its 20 year life to ensure that it adapts to a changing context. As such, guidance is required for the administration of the plan over its 20 year life, including how to respond to changing conditions.

Objective 16.1. Ensure that land use decisions are consistent with the direction of the Official Community Plan.

Policy 16.1.1. OCP Consistency. Ensure future City plans, policies and bylaws prepared following adoption of the Official Community Plan take direction from and are consistent with the Plan. In addition, plans, policies and bylaws adopted prior to the OCP should be updated and amended to be generally consistent with it over time.

Policy 16.1.2. Official Community Plan Amendments. When an Official Community Plan amendment is considered, the following should be factored in that decision:

- Consistency with the OCP Pillars;
- Consistency with the **Growth Strategy**;
- Opportunities for greater community benefit.

Policy 16.1.3. Zoning Bylaw Amendments. Rezonings should be generally consistent with the Future Land Use designations, the objectives and the policies of the Official Community Plan.

Supplementary Plans

Transportation and Infrastructure Planning
The Official Community Plan was developed in conjunction with the Transportation Master Plan and the 2040 Infrastructure Plan to ensure that the OCP's vision is able to become a reality. Together all three of these plans provide direction on how Kelowna will grow through to 2040, ultimately meeting Imagine Kelowna. As such, detailed direction for transportation network implementation should be guided by the Transportation Master Plan. The 2040 Infrastructure Plan should provide guidance for the delivery of utility infrastructure during the life of the plan.

Neighbourhood Plan Areas
Neighbourhood Plans provide the link between the Official Community Plan and a more detailed plan that guides development and redevelopment in an existing neighbourhood, most often, but not always in **Urban Centres** and the **Core Area**. Neighbourhood Plans include Urban Centre plans and other redevelopment plans. Neighbourhood Plan Areas either have a completed plan that guides development in that neighbourhood or will require a plan to be developed during the life of the 2040 OCP to provide such

guidance. Neighbourhood Plans are typically developed by the City, but could be developer-initiated where signaled by the City. Areas that will require a plan are identified in *Map 16.1: Special Planning Study Areas, and further supplemented by Implementation Table 16.1.*

Neighbourhood Plans establish a finer-grained vision for the area, provide an inventory of existing conditions, identify a series of objectives and policies for topics including, housing, transportation improvements, parks and environmental considerations, and other matters that are unique to the plan area under consideration.

Area Structure Plans

Area Structure Plans (ASPs) provide the link between the Official Community Plan and a more detailed plan for a new greenfield development, most often in the Suburban Neighbourhoods or Rural Lands. They are typically developed by the property owner or owners.

ASPs provide an inventory of existing conditions, a statement of development objectives and policies, information on the natural environment and associated influences on development, identification of major future land uses by type and density, general location of transportation networks, identification of need for major institutional facilities, information on the location and type of development permit areas and such other matters that are unique to the plan area under consideration.

Should Council endorse an **Area Structure Plan**, the future land uses will be incorporated into *Map 3.1: Future Land Use.* The land use maps of the following **Area Structure Plans** are incorporated into the 2040 Official Community Plan:

- Gallagher's Canyon Golf Resort Area Structure Plan, dated October 1995, as amended April 2001.
- Southwest Okanagan Mission Neighbourhood Area Structure Plan, Neighbourhood 1, dated January 1996.
- Southwest Okanagan Mission Neighbourhood Area Structure Plan, Neighbourhood 2, dated January 2000.
- University South Area Structure Plan, dated June 1997.
- Tower Ranch Area Structure Plan, dated November 1993.
- Quail Ridge Area Structure Plan, dated March 1994, as amended.
- Highway 33 East Area Structure Plan, dated April 1997.
- Glenmore Highlands Area Structure Plan, dated February 2000, as amended.
- Central Park Golf Course Area Structure Plan, dated May 2000, as amended.
- Canada Lands Area Structure Plan, dated December 2000, as amended.
- Kirschner Mountain Area Structure Plan, dated February 2002, as amended.
- Bell Mountain Area Structure Plan, dated October 14, 2003.
- Vintage Landing Area Structure Plan, dated July 2005.
- Southwest Okanagan Mission Neighbourhood Area Structure Plan, Neighbourhood 3, dated January 2007.
- North Clifton Area Structure Plan, dated April, 2014.

Objective 16.2. Coordinate Growth Strategy implementation with supplementary plans.

Policy 16.2.1. **Supplementary Plans.** Supplement the directions provided in the Official Community plan with those provided in the Transportation Master Plan, the 2040 Infrastructure Plan and other supplementary plans.

Implementation Actions

The Official Community Plan sets the direction for how Kelowna will grow and evolve to 2040. However, putting the plan into action will require significant efforts beyond its adoption by Council. Other City plans,

bylaws, policies and programs will need to be updated to reflect the direction of the 2040 OCP. At the same time, more detailed neighbourhood plans and studies will need to be undertaken to provide detailed policy direction in certain areas.

This section outlines the key implementation actions that are required during the life of the plan ensure that it meets the vision outlined in the **Growth Strategy**, the Pillars and ultimately, Imagine Kelowna.

Many of these implementation actions reflect Kelowna's shift towards a more urban future, one that is inherently more complex and interconnected. For instance, urban development and redevelopment – a central focus of this OCP – occurs in the context of existing neighbourhoods, emphasizing the need to balance the interests of existing residents with the broader need to accommodate sustainable growth. The City will need to adapt to managing growth in these contexts by developing new approaches, standards and systems, and by dedicating resources, both existing and new, to where they are most impactful.

Objective 16.3. Strategically deliver on implementation actions.

Policy 16.3.1. **OCP Implementation Actions.** Use Figure 16.1: Implementation Actions to guide the timing and resourcing of OCP implementation actions, with due recognition of available budget and other work planning considerations.

Policy 16.3.2. **Neighbourhood Planning Prioritization.** Consider prioritization of neighbourhood planning actions based on the following:

- Expected level of development activity;
- Need for community amenities;
- Need to define civic investment priorities;
- Age of existing neighbourhood plan (if any).

Policy 16.3.3. **Regional and Indigenous Partners.** Continue to foster relationships and partner with the Regional District of Central Okanagan, Westbank First Nation, Okanagan Indian Band, and neighbouring municipalities to effectively deliver on implementation actions.

Figure 16.1: Implementation Actions

#	Action	Associated Objective or Policy	Action Type	Timing
Environment, Energy & Climate				
1	Develop an Anti-Idling Bylaw	14.1.1. Reduce air pollution from motor vehicles.	Bylaw Update	ST
2	Implement and update the Air Quality Strategy	14.1.1. Reduce air pollution from motor vehicles.	Strategy / Program	LT
3	Implement the Community Climate Action Plan	12.1 Design the community to reduce greenhouse gas emissions	Implement existing plans	O
4	Develop a Climate Action and Resiliency Strategy	12.1 Design the community to reduce greenhouse gas emissions	Strategy / Program	ST
5	Partner with stakeholders to develop an Okanagan Lake Management Plan	14.3.1 Preserve Okanagan Lake's ecosystem health.	Plan development	ST

6	Idenitfy and implement tools to protect **ecosystem connectivity corridors**.	14.4.2. Preserve ecosystem connectivity corridors.	Strategy / Program	ST
7	Update and implement the Urban Forestry Strategy	14.2 Protect and expand a healthy and viable **urban forest**	Strategy / Program	ST
8	Implement and update the **Energy Step Code** Strategy for new construction	12.4.1. **Energy Step Code** 12.4.2. Energy efficient design	Strategy / Program	ST
9	Develop a Community **Energy Retrofit** Strategy	12.4.2. Energy efficient design	Strategy / Program	ST
10	Implement the Corporate Energy and GHG Emissions Plan	12.5. Improve Energy Efficiency and reduce operational greenhouse gas emissions	Implement existing plans	O
11	Implement the Community Low Carbon Mobility Strategy: Electric Vehicles and E-Bikes	12.7.1. Electric mobility.	Implement existing plans	O
Urban Centre & Local Area Planning				
12	Develop a Rutland Urban Centre Plan	4.6. Focus new development in Rutland strategically to create a new high-density hub to support improved services and amenities.	Plan development	ST
13	Develop a Pandosy Urban Centre Plan	4.5. Support infill and redevelopment to promote housing diversity and enhanced services and amenities in the Pandosy Urban Centre.	Plan development	ST
14	Develop a Midtown Urban Centre Plan	4.7. Support modest residential development to transition Midtown into a transit-supportive neighbourhood.	Plan development	LT
15	Develop a North End Industrial Area Redevelopment Plan	5.7.3. **Packing District**	Plan development	ST
16	Develop a Residential Infill Strategy	5.3 Design residential infill to be sensitive to neighbourhood context.	Strategy / Program	ST
17	Implement the Capri Landmark Urban Centre Plan	4.4.1. Capri Landmark Urban Centre Plan	Implement existing plans	O
18	Develop an Okanagan Rail Trail Land Use Plan	13.8 Protect and enhance the Okanagan Rail Trail as a vital transportation corridor linking communities in the Okanagan Valley.	Plan development	LT
19	Complete the Pandosy/Richter Corridor Study	5.2. Focus residential density along **Transit Supportive Corridors** to improve **Core Area** Neighbourhood livability.	Strategy / Program	ST
20	Develop a Terms of Reference to guide developer-initiated neighbourhood plans.	5.3.3. Strategic Density.	Process Change	LT
21	Undertake a North Glenmore Sector Development Study to inform future OCP update processes.	16.4.2. Plan Review and Refinement	Strategy / Program	LT
22	Develop a Hall Road Neighbourhood Plan	8.4.4. Consideration of Serviced Areas.	Plan development	LT
Parks & Placemaking				
23	Update the Landscape Standards regulations	4.15, 5.15. Protect and increase greenery.	Bylaw Update	ST

24	Develop a Tree Protection Bylaw	14.2. Protect and expand a healthy **urban forest.**	Bylaw Update	ST
25	Update the Heritage and **Significant Tree** Inventory	14.2. Protect and expand a healthy **urban forest.**	Inventory	LT
26	Identify additional tools for parkland acquisition	4.14.4, 5.13.4. Public Space for Land Development	Process Change	ST
27	Develop a Parks Master Plan	10.3. Ensure parks reflect their unique natural and cultural context.	Plan development	ST
Land Development & Management				
28	Update the Development Application Review Process	16.1.1. OCP Consistency.	Process Change	O
29	Update the Subdivision and Development Servicing Bylaw	16.1.1. OCP Consistency.	Bylaw Update	ST
30	Update the Zoning Bylaw	16.1.1. OCP Consistency.	Bylaw Update	ST
31	Update the Revitalization Tax Exemption Bylaw	4.3.5. Downtown Revitalization Tax Exemption 4.6.3. Rutland Revitalization Tax Exemption	Strategy / Program	ST
32	Implement the Wildfire Protection Plan	15.1. Reduce wildfire risk to health and safety of the public, property and infrastructure.	Implement existing plans	O
33	Update Council Policy No. 247 Hierarchy of Plans	17.1.1 OCP Consistency	Process Change	ST
Housing and Community Well-being				
34	Develop an **Equity** Strategy	9.1.2 **Equity** Analysis and Strategy	Strategy / Program	ST
35	Develop design guidelines for multi-unit development.	4.11.2, 5.10.3. Family Friendly Housing	Strategy / Program	ST
36	Develop a Tenant Assistance Policy	4.12.3, 5.11.3. Tenant Assistance.	Strategy / Program	ST
37	Develop Rental Housing Retention or Replacement Regulations	4.13.1, 5.12.1. Protection of Existing Rental Stock.	Strategy / Program	ST
38	Complete the Social Planning Framework	9.1. Incorporate **equity** into planning decisions and resource allocation in our community.	Strategy / Program	ST
39	Complete and implement the Healthy City Strategy	9.3. Develop diverse partnerships to advance complex social planning issues and increase community wellbeing.	Strategy / Program	O
40	Establish location criteria for shelters and safety net supports for people experiencing homelessness.	4.2.2, 5.4.2. **Safety Net Supports and Services**.	Strategy / Program	ST
Arts, Culture and Heritage				
41	Update the Heritage Strategy	11.1.2. Heritage Strategy	Strategy / Program	LT
42	Establish a Heritage Impact Assessment Terms of Reference	11.2. Identify, conserve and protect historic places.	Process Change	LT
43	Expand the Heritage Register to include archaeological sites, landscapes, structure and cemeteries.	11.2.3. Expand the Kelowna Heritage Register.	Strategy / Program	LT
44	Explore opportunities to encourage heritage building retrofits and energy efficiency upgrades	11.2.7. Heritage retrofits	Strategy / Program	ST

45	Implement the Cultural Plan	Various	Implement existing plans	O
Transportation				
46	Implement the Transportation Master Plan	16.2.1. Supplementary plans.	Implement existing plans	O
47	Develop an Okanagan Rail Trail Protection Policy	13.8.2 Okanagan Rail Trail Protection	Process Change	ST
48	Complete a Local / Neighbourhood Streets Pilot Program	5.17. Create neighbourhood streets that are safe and comfortable for people to walk, bike and play on.	Strategy / Program	ST
49	Develop a Transportation Safety Strategy	4.18. Create urban streets that are attractive to live, work and shop on. 5.17. 7.11. Create neighbourhood streets that are safe and comfortable for people to walk, bike and play on. 6.18. Maintain safe roads that support agricultural uses.	Plan development	ST
50	Update the Pedestrian and Bicycle Master Plan	16.2.1. Supplementary plans.	Plan development	ST
51	Develop an Accessibility Transition Plan	4.18. Create urban streets that are attractive to live, work and shop on. 5.17, 7.11. Create neighbourhood streets that are safe and comfortable for people to walk, bike and play on.	Plan development	ST
52	Develop a Curbside Management Plan	4.19, 5.20. Manage curb space to reflect a range of community benefit.	Plan development	ST
53	Update the Cash In Lieu of Parking Bylaw	4.20.3, 5.21.3. Leverage Cash-in-Lieu.	Strategy / Program	ST
Infrastructure and Servicing				
54	Develop 2040 Infrastructure Plan	16.2.1. Supplementary plans.	Implement existing plans	O
55	Develop a Water Conservation Plan	13.4. Provide a secure supply of water. 13.5. Protect the supply of high-quality drinking water.	Plan development	ST
56	Develop an Agricultural Water Demand Management Plan	13.4.4. Water Availability for Agriculture.	Plan development	LT
57	Develop a Water Shortage Management Plan	13.4. Provide a secure supply of water. 13.5. Protect the supply of high-quality drinking water.	Plan development	ST
58	Establish an annual capital plan prioritization matrix to ensure capital investments align with OCP	13.1.1. Infrastructure Prioritization.	Process Change	ST
59	Identify floodplain areas and develop policies to minimize flood risk	15.4. Reduce flood risk to health and safety, infrastructure, property and natural assets.	Plan development	ST

Monitoring and Evaluation

A robust monitoring and evaluation program are critical to the successful implementation of the 2040 OCP. Monitoring provides staff and elected officials with the information needed to respond to the evolving context of the community and to determine whether the community is taking steps forward to realize the 2040 OCP **Pillars**. The **Pillars** offer insight as to how both internal processes at City Hall as well as broader community efforts are aligning with the key directions of the 2040 OCP. The process of implementing the 2040 OCP Vision and **Pillars**

requires on-going commitment, action and course corrections to operationalize the Plan in the community and within the City's corporate processes.

Figure 16.2: 2040 OCP Pillars

Pillars
1. Focus investment in **Urban Centres**
2. Target growth along transit corridors
3. Promote more housing diversity
4. Incorporate **equity** into city building
5. Protect agriculture
6. Stop planning new suburban neighbourhoods
7. Strengthen Kelowna as the region's economic hub
8. Prioritize sustainable transportation and shared mobility
9. Take action on climate
10. Protect and restore our environment

The indicators for monitoring of the 2040 OCP should consider the following criteria:

- **Meaningful**: Does the indicator align well with the 2040 OCP **Pillars** and key objectives?
- **Outcome-oriented:** Does the indicator provide an understanding of results and offer insight as to what is happening on the ground in the community and within City Hall?
- **Available**: Does the City have access to the data sources on an annual basis, or in some cases is the data available through the Census?

The monitoring of the 2040 OCP is an important activity that will require on-going commitment with two different types of reports. The monitoring program will include annual reporting as well as more comprehensive five-year reports. The annual reporting will rely on data sources that are available annually such as development patterns, activity and City investment to provide a general understanding of performance on key indicators. The annual report will also include a short narrative around performance of the indicators.

The five-year report will be the more comprehensive monitoring report, relying on a mix of both annual data sources and census data. This report will provide a greater level of analysis and tell a larger story around the performance of the indicators and the degree to which the City is advancing the OCP Pillars. The five-year reports will provide more substantive analysis of trends that may be impacting the indicator and provide recommendations for how policy and regulations could be adapted to influence the performance of key indicators moving forward.

Objective 16.4. Continue to monitor and report on OCP indicators.

Policy 16.4.1. **OCP Indicators Report.** Develop a process to monitor the outcomes of the OCP, including the delivery of both an annual a five-year report to Council.

Policy 16.4.2. **Plan Review and Refinement.** Following regular reviews of the OCP indicators, explore actions that inform refinements to the Official Community Plan and/or inform future plan updates, such as Housing Needs Assessments and additional area planning initiatives, for example.

Map 16.1 Special Planning Study Areas

Okanagan Rail Trail Land Use Study

Rutland Urban Centre Plan

Midtown Urban Centre Plan

Pandosy Urban Centre Plan

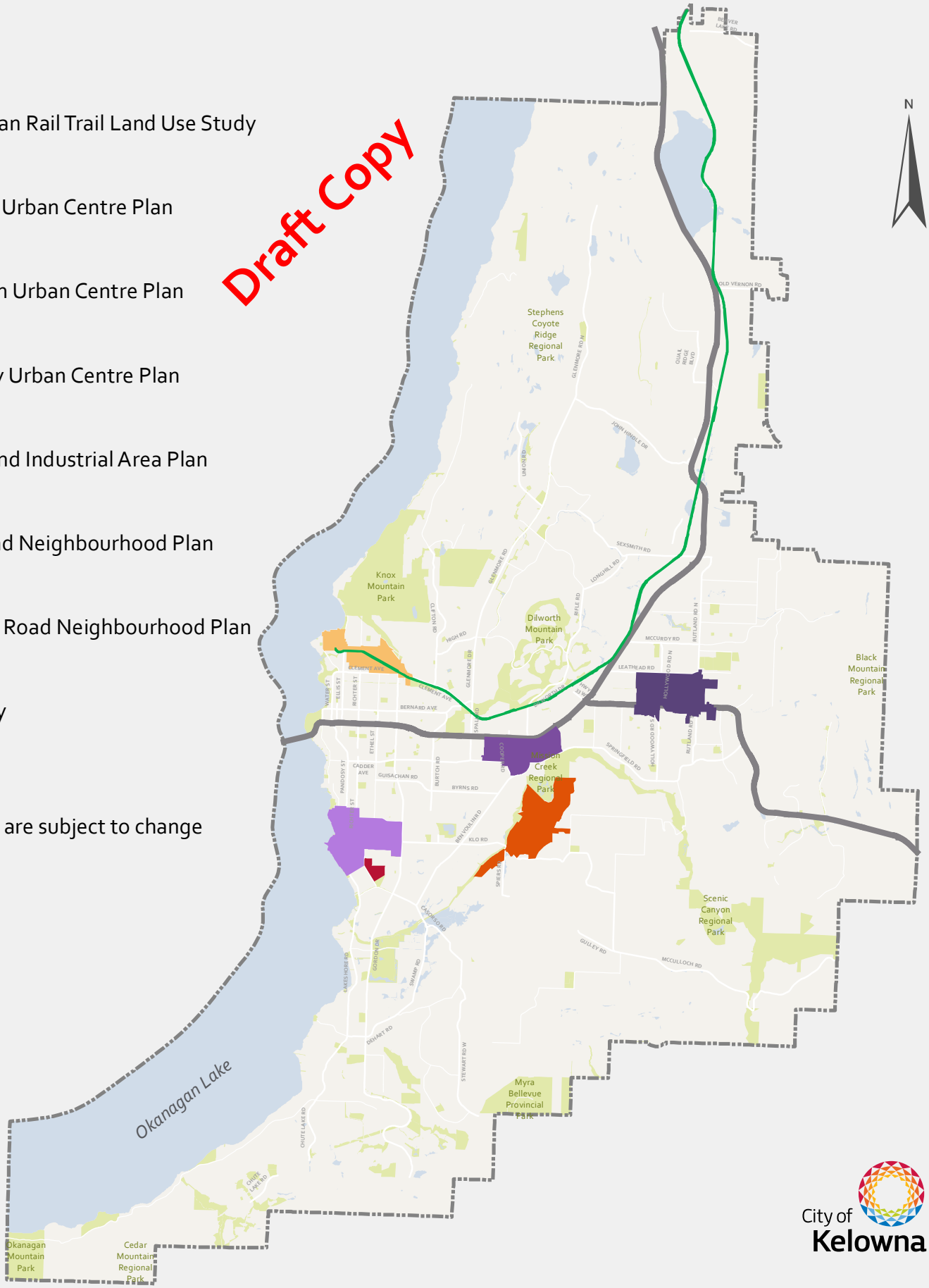
North End Industrial Area Plan

Hall Road Neighbourhood Plan

Casorso Road Neighbourhood Plan

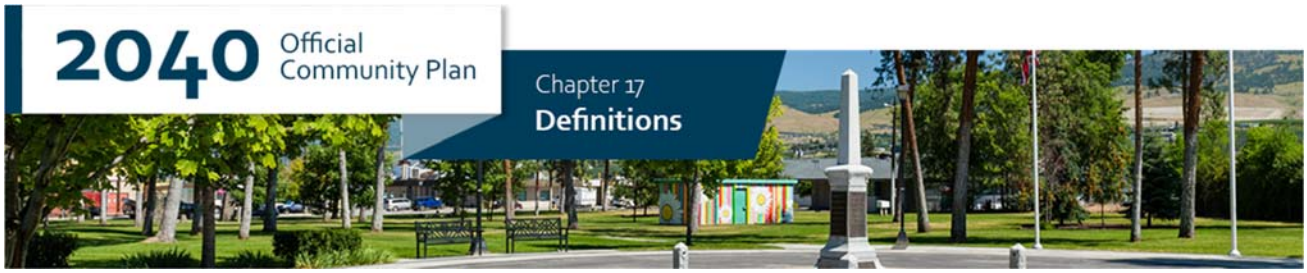
Highway

Area boundries are subject to change



Rev. Oct. 8, 2020

This draft map is for consultation purposes only. This is not a final version.



Term	Definition
Active Transportation Corridor	A corridor that is prioritized for safe and convenient use by human-powered (active) modes of transportation, such as walking and biking. Active Transportation Corridors can consist of independent pathways, or protected paths integrated into roads.
Adaptive Capacity	The ability of a system to adjust to change, moderate potential damage, take advantage of opportunities, and cope with the consequences .
Adaptive Management	A systemic process for continually improving management policies and practices by learning from the outcomes of previously employed policies and practices
Agricultural Land Commission (ALC)	An autonomous provincial agency, independent of the provincial government, that is responsible for administering policies and regulations related to the preservation of the **ALR** in British Columbia.
Agricultural Land Reserve (ALR)	Land, including Crown Land, that has been defined as being suitable for farm use and has been designated for protection under the provisions of the Agricultural Land Commission Act. The ALR is a provincial zone in which agriculture is recognized as the priority use. Farming is encouraged and non-agricultural uses are restricted.
Agricultural Lands	Lands considered "agriculture" shall include the following: -lands classified as farm by the BC Assessment Authority; or -lands less than 30% slope and designated Rural Agricultural and Resource in OCP Bylaw XXX and zoned A1 in the Zoning Bylaw; or -lands situated in the **ALR**.
Agriculture Structures	Those buildings or structures used for agriculture or intensive impact agriculture, but does not include buildings or structures for alcohol production facilities, home based business, kennels or farm retail sales stands.
Agri-Tourism	Activities that are defined as agri-tourism in the Agricultural Land Reserve Use Regulation.
Airport Zoning Regulations	Zoning Regulations for Kelowna International Airport enacted by the Government of Canada. These regulations apply to all the lands, lands under water including public road allowances, adjacent to or in the vicinity of the Airport. The extent of these lands is described in Part II of the Transport Canada Zoning Regulations and comprises the YLW Obstacle Limitation Surface Area.

Area Structure Plan	Designated within an Official Community Plan, an Area Structure Plan (ASP) is a form of intermediate plan that results in a clear plan for the development of identified lands in a manner consistent with City policies, bylaws and standards. ASPs deliver a greater level of technical detail than an OCP, but less detail than a Rezoning, Subdivision or Development Permit. ASPs are typically prepared by one or more landowners or their representatives.
Auto Dependent	Refers to transportation and land use patterns that necessitate the use of automobiles for most, if not all, daily trips and that provide relatively inferior access to alternative modes of transportation.
Auto Oriented Uses	Uses that typically require auto-oriented design and a significant amount of space dedicated for on-site parking and loading.
Build Back Better	A phrase popularized during the COVID-19 pandemic that refers to the opportunity to focus economic recovery efforts away from environmentally destructive investment patterns and towards triggering investments and societal changes that will both reduce the likelihood of future shocks and improve our **resilience** to those shocks when they do occur, whether from disease or environmental degradation. At the heart of this approach is the transition to more inclusive, more resilient societies with net-zero greenhouse gas (GHG) emissions and much reduced impacts on natural environment.
Bunkhouse Accommodation	A building, often with bunk beds, offering basic sleeping accommodations for workers.
Civic Street	A street located in an Urban Centre where civic uses in addition to commercial uses are required at grade.
Climate Mitigation	The process of reducing or sequestering greenhouse gas emissions to limit future climate change .
Compensation ratio	In the context of no net loss, the replacement area of natural habitat or increase in the productivity of existing habitat compared to the natural pre-developed area in order to maintain those habitats affected by human activity.
Continuum of Health	Integrated system of health care that follows a patient through time or through a range of services. The goal is to offer a more comprehensive patient care.
Core Area	The Core Area includes neighbourhoods that are adjacent to and connecting the 5 Urban Centres within the central part of the city. The Core Area will provide a wide variety of housing forms, focusing primarily on ground-oriented housing, such as smaller homes, house-plexes and row housing, along with low rise apartments along key corridors.
Crime Prevention through Environmental Design (CPTED) 1st Generation	The physical aspects of design to reduce crime (i.e. street lighting, building orientation).

Crime Prevention through Environmental Design (CPTED) 2nd Generation	A supplemental extension of CPTED 1st Generation. It augments the physical design through the addition of social connections and behaviour. Recognizes the most valuable aspects of safe community lie not in structures of the brick and mortar type, but rather in social behavior.
Culturally Appropriate Food	Foods that are a core part of culture and identity.
Displacement	The departure of people from their homes and / or neighbourhood due to social and economic changes to that neighbourhood, typically as a result of redevelopment.
Displacement Risks	Factors that increase the risk of marginalized populations being displaced
Ecosystem Connectivity Corridor	A linked network of natural areas through which wildlife and ecosystem processes can move, flow, and interact. Maintaining ecosystem connectivity is crucial for supporting ecological processes that sustain our wildlife and human populations.
Ecosystem Level Approach	An integrated approach that recognizes the full array of interactions within an ecosystem, including humans, rather than considering single issues, species or ecosystem services in isolation.
Ecosystem Services	The benefits arising from the ecological functions of healthy ecosystems. Such benefits accrue to all living organisms, including animals and plants, rather than to humans alone. Examples of ecosystem services include purification of air and water, maintenance of biodiversity, decomposition of wastes, soil and vegetation generation and renewal, pollination of crops and natural vegetation, groundwater recharge, seed dispersal, greenhouse gas mitigation, and aesthetically pleasing landscape
Employment Areas	Areas of significant employment density. These areas include **Urban Centres**, Kelowna General Hospital, the University of British Columbia (Okanagan Campus) and Kelowna International Airport.
End-of-Trip Facilities	Typically consisting of provisions such as secure bike storage, showers and change rooms, end of trip facilities are dedicated facilities that support people using active modes of transportation to travel to their destination rather than driving or taking public transportation.
Energy Benchmarking	A way to measure energy performance of a building over time, relative to other similar buildings, or to modeled simulations of a reference building built to a specific standard (such as an energy code). The overall goal is to inform and motivate performance to encourage improvement.
Energy Labelling	The energy performance of a building that allows comparison of a building's performance to a benchmark and other buildings.

Energy Retrofit	An improvement to an existing building's energy system with the objective of reducing energy usage and/or GHG emissions. They can range from quick modifications like sealing windows to complete replacements of the major systems that heat and cool a building.
Energy Step Code	A provincial policy that aims to create healthier, more efficient and more comfortable buildings through increasingly stringent performance "steps", with the overarching goal of having all new construction be net-zero energy ready by 2032. A building's performance must be proven through whole building energy modelling and on-site airtightness testing. Local governments have the authority to implement whichever step(s) suitable to their respective community.
Environmentally Sensitive Area (ESA)	Those parcels of land that already have, or with restoration or enhancement could become natural features. These features contribute to the retention and/or creation of wildlife habitat, soil stability, water retention or recharge, vegetative cover and similar vital ecological functions. Environmentally sensitive areas range in size from small patches to extensive landscape features. They can include rare or common habitats, plants and animals. Environmentally sensitive areas may overlap hazardous condition areas.
Equity	Equity is the fair distribution of opportunities, power, and resources to meet the needs of all people, regardless of age, ability, gender, culture or background. To foster equity, local governments should redistribute the resources to those who need it most in order to reduce inequities.
Equity-seeking Neighbourhoods	Equity-seeking groups are communities that face significant collective challenges in participating in society. This marginalization could be created by attitudinal, historic, social and environmental barriers based on age, ethnicity, disability, economic status, gender, nationality, race, sexual orientation and transgender status, etc. Equity-seeking groups are those that identify barriers to equal access, opportunities and resources due to disadvantage and discrimination and actively seek social justice and reparation.
Farm Help Housing	Dwellings, both temporary and permanent, used to accommodate farm worker(s) who support the farm operation.
Farm Unit	One or more contiguous, or non-contiguous parcels, that may be owned, rented or leased, within City limits, which forms and is managed as a single farm.
Frequent Transit Network	A network of transit corridors where transit service runs at least every 15 minutes in both directions throughout the day and into the evening.
Gentrification	A process of changing the characteristic of a neighbourhood that contributes to the displacement of the current residents through the influx of more affluent residents and businesses.
Green Infrastructure	Enhanced and engineered ecological assets designed to mimic and maintain connectivity with natural systems. By integrating ecological principles,

	green infrastructure techniques aim to deviate from natural processes as little as possible, delivering social and economic benefits, and building resiliency to the pressures of climate change.
Growth Strategy District	One of the five districts within the City that frames the OCP's Growth Strategy: **Urban Centres**, **Core Area**, Gateway, Suburban Neighbourhoods and Rural Lands. Each district includes a distinct set of objectives and policies that applies only to that district.
Ground-Oriented	Buildings typically three storeys or lower that offer individual entrances to residential units without the use of shared corridors, lobbies or hallways. Examples, include four-plexes and rowhousing.
Growth Scenario	The allocation of future residential units by areas, including a split between units in the Urban Centres/**Core Area** and the Gateway/Suburban/Rural districts, and the split by single/two housing and multi-unit housing.
Growth Strategy	The map and descriptions of each of the five Growth Strategy Districts, corridors and employment hubs.
Hard Armouring	Hard protective structures such as vertical rock or concrete walls used to reduce erosion. Soft armouring, on the other hand involves the use of nature-based management techniques to control erosion, but can also improve water quality and enhance habitat.
Healthy Food System	A food system in which food production, processing, distribution, consumption and waste management are integrated to enhance the environmental, economic, social and nutritional well-being of citizens.
Heat Wave/Extreme Heat	A period with more than three consecutive day of maximum temperatures at or above 32 degrees Celsius .
Height Cliffs	Situations where the height of one building is significantly taller than an adjacent building.
High Density	Residential and/or commercial development that advances the development of neighbourhoods that achieve between 150-250 combined residents and jobs per hectare.
High Street	A street located in an Urban Centre where retail commercial uses are required at grade and where the City would target the greatest emphasis on creating a high quality, pedestrian oriented public realm.
High-Rise Buildings	Buildings higher than 12 storeys.
Historic Context Statement	An analytical framework for identifying and evaluating resources by providing focusing on and concisely explaining what aspects of geography, history and culture significantly shaped the physical development of a community or region's land use patterns and built environment over time, what important property types were associated with those developments, why they are important, and what characteristics they need to have to be considered an important representation of their type and context.

House-plex	A term used to refer to various configurations of attached housing units configured to resemble the scale and massing of a single detached dwelling. Typical examples include duplexes, tri-plexes and four-plexes.
Inclusive Community	A community that is welcoming and accepting of people of all backgrounds, cultures, lifestyles, ages and abilities that supports the pursuit of individual well-being
Industrial	Lands used primarily for the manufacturing, processing and transportation/warehousing of goods, also including wholesale trade, retail trade and professional/technical services.
Innovation Precinct	A transition area between the core of the UBC Okanagan campus and the adjacent industrial area to the north, running alongside Innovation Drive. The intention of the area is to foster innovative partnerships and collaborations between industrial businesses and ongoing research at the university.
Invasive Species	Any non-native species which has the potential to pose negative or detrimental impacts on humans, animals, or ecosystems.
Land Linking	A support for new farmers looking for land to connect with landowners interested in finding someone to farm their land.
Large Format Retail	Retail or wholesale commercial uses that include, but is not limited to supermarkets, home improvement stores or retail warehouses, that serve a regional catchment area and are greater than 3,000 m2 in size.
Large Office	Buildings that typically contain more than 1,000 m2 of office space.
Level 2 EV Chargers	Electric vehicle chargers that generally possess between 208-240 charging volts and a 12-80 amp circuit (like what an electric dryer or oven uses). Level 2 chargers can fully charge a batter electric vehicle in 4-8 hours, depending on the battery capacity.
Level 3 Direct Current Fast Chargers (DCFC)	Electric vehicle chargers that generally possesses between 208-600 charging volts and up to a 400 amp circuit using direct current (DC). Most Level 3 chargers provide a full charge in under an hour but are significantly more expensive than level 1 or level 2 chargers.
Lot Trees	Trees planted on private property.
Low Density	Residential and/or commercial development that advances the development of neighbourhoods that achieve up to 30 combined residents and jobs per hectare.
Low Rise Building	Buildings lower than six storeys in height.
Mass Transit Corridor	A designated corridor that provides high frequency limited stop transit service, as identified in the Regional Transportation Plan and the Transportation Master Plan.

Mass Transit Station	A designated stop or station that serves high frequency limited stop transit service.
Medium Density	Residential and/or commercial development that advances the development of neighbourhoods that achieve between 30-60 combined residents and jobs per hectare.
Mid-Rise Buildings	Buildings of between six and 12 storeys in height.
Missing Middle	A range of house-scale buildings with multiple units—compatible in scale and form with single-detached dwellings—located in a walkable neighborhood. Typical examples include house-plexes, bungalow courts, and courtyard apartments.
Mitigation	Actions taken during planning, design, construction and operation to alleviate potential adverse effects on natural habitats, and includes redesign or relocation of project components, timing of works, and methods of construction or operation which avoid or minimize changes to habitat attributes that affect its productive capacity.
Mobile Uses	The delivery and sale of food and other products using a fleet of vehicles.
Multiple Barrier Approach	Taking into account potential threats to drinking water supply from the source to the consumer's tap and ensuring there are barriers in place to either eliminate the threats or minimize their impact.
Native Vegetation	Any plant indigenous to the Southern Interior British Columbia forests, grasslands, or wetlands, as recognized by the Province of BC.
Net-zero Energy Building	Buildings that produce as much clean energy as they consume. They are up to 80 percent more energy efficient than a typical new building and use on-site (or near-site) renewable energy systems to produce the remaining energy they need.
Net-zero Energy Ready Building	A building that has been designed and built to a level of performance such that it could, with the addition of solar panels or other renewable energy technologies, achieve net-zero energy performance.
No net loss	A principle that strives to balance unavoidable habitat, environment and resource losses with replacement of those items on a project by project basis so that further reductions may be prevented. Every effort must be made to avoid, minimize and restore the negative impacts on biodiversity, so that the damages resulting from human activities are balanced by equivalent or greater gains in habitat and biodiversity.
Non-Farm Use	Activities that may not be linked directly to agriculture and may or may not be permitted by the **Agricultural Land Commission** as outlined in the Agricultural Land Reserve Use Regulation.
Packing District	The North End Industrial lands as outlined in Map 16.1: Special Planning Study Areas.

Parkettes	Lands converted for active park use that are too small or unusually shaped to meet traditional active park dimensions. Parkettes are typically found in urban areas where space is at a premium.
Parklet	A small seating area or green space created as a public amenity on or alongside a sidewalk, often in a former on street parking space.
Passive Recreational	Recreational activities that do not require prepared facilities like sports fields or equipment and have minimal impacts on the site, such as trails in natural areas.
Permanent Growth Boundary	The boundary identified in Official Community Plan Bylaw No. _____, as amended or replaced from time to time, that delineates the boundary outside of which urban development is not supported. Lands within the Permanent Growth Boundary (PGB) are expected to develop and redevelop to higher intensity uses to accommodate the anticipated growth of the community to 2040, where lands outside of the PGB are not expected to see redevelopment pressure.
Permeable Surface	A variety of types of pavement, pavers and natural surfaces that allow for infiltration.
Rare natural plant communities	Rare natural plant communities are defined to include: 1. Plant communities listed in the Identified Wildlife Guidebook (includes red-listed species affected by forest or range activities) 2. Plant communities listed as red or blue with the BC Conservation Data Centre; 3. Ecosystems identified by the regional agrologist or regional rare and endangered species specialist as being rare or significant; and 4. An ecosystem (site series or surrogate) that comprises less than 2% of the landscape unit and is not common in adjacent landscape units.
Renewable Natural Gas	Natural gas that is derived from biogas, which is produced from decomposing organic waste from landfills, agricultural waste and wastewater from treatment facilities. The biogas is captured and cleaned to create carbon neutral Renewable Natural Gas (also called biomethane).
Rental Only Zoning	Zoning that requires new housing in designated areas to have rental tenure exclusively. The intent of the rental only zoning or rental tenure zoning is to protect existing rental housing stock from redevelopment into ownership housing, and to promote the development of new rental tenure housing.
Rental Replacement Obligations	Obligations established by a municipality that require a developer seeking to demolish or otherwise redevelop an existing rental building(s) to replace the demolished rental tenure units, typically within a larger redevelopment of the site. Obligations may also extend to the relocation of the tenants residing in the building(s) being demolished.

Residential Infill	The addition of new housing units into existing residential neighbourhoods. Residential infill can take a wide variety of forms and intensities, from the modest intensification of an existing lot to larger redevelopments. Examples range from carriage homes and secondary suites, to duplexes, house-plexes, courtyard housing, row housing and low-rise apartments.
Residential Street	A street located in an Urban Centre where residential uses are required at grade with opportunities for limited commercial uses.
Resilience	The ability of a system and its component parts to anticipate, absorb, accommodate, or recover from sudden or unexpected changes .
Retail Street	Streets identified in Urban Centres that will require retail commercial uses at grade.
Riparian Area	The area adjacent to watercourses that supports the features, functions and conditions vital to the health and integrity of the watercourse, and which is to remain free of development. Riparian Management Areas should be of sufficient width to include any significant natural attribute and adjacent ecosystem (e.g. vegetation, water features, fish and wildlife habitat, escarpments, terraces, steep valley sides and cliffs). An RMA is: • Adjacent to a stream, links aquatic to terrestrial ecosystems and includes both existing and potential riparian vegetation and existing and potential adjacent upland vegetation that exerts an influence on the stream; and • The size of which is determined in accordance with Table x-x, previously established under the Streamside Protection Regulation, B.C. Reg. 10/2001 Regulation (SPR).
Safety Net Supports and Services	Supports and services that provide temporary, short-term accommodation, food and supports for those living without homes. This includes emergency shelters and short-term supportive housing.
Sensitive ecosystem	One of the seven ecosystem types that are ecologically fragile or are rare in the provincial landscape and are relatively unmodified by human influences. They are generalized groupings of ecosystems that share many characteristics, particularly ecological sensitivities, ecological processes, rarity, and wildlife habitat values. They include wetlands, riparian areas, old forests, grasslands, broadleaf woodlands, coniferous woodlands, and sparsely vegetated areas.
Service Commercial	Commercial uses that typically require significant onsite storage space and are often auto-oriented.

Shoreline	The part of the shore between the high and low water marks.
Significant tree	Any tree, on private or public property, that meets one or more of the following criteria and is not identified as an invasive species: • Large trees with a trunk diameter of 45cm or greater measured 1 meter from the base; • A tree listed as having heritage or cultural significance on a list approved by Council; • Any tree that contributes significantly to the location due to few adjacent trees and/or limitations posed by surroundings; and/or • A tree of locally rare species or unique character that enhances the diversity of the urban forest.
Social Innovation	New social practices that aim to meet social needs in a better way than the existing solutions. Examples include community development, health, education.
Social Isolation	State of complete or near-complete lack of contact between an individual and society.
Specialty Retail	A retail store that focuses on specific product categories, as opposed to a large number of different consumer goods categories.
Species at risk	An extirpated, endangered, threatened species, or a species of special concern as identified by the provincial or federal government.
Steep Slopes	Lands in their natural state that have a slope angle of 30 per cent or greater for a minimum horizontal distance of 10 meters.
Street Canyon	A place where the street is flanked by buildings on both sides creating a canyon-like environment.
Street Trees	Trees located along a public street.
Street Wall	The front façade of a series of buildings that are built on or close to the street boundary. Street wall heights are usually established based on the width of the street and other factors in the local context to provide a comfortable feel to the streetscape.
syilx/Okanagan	The distinct and sovereign indigenous inhabitants of Kelowna and surrounding region, today comprised of seven member communities: Westbank First Nation, the Okanagan Indian Band, the Osoyoos Indian Band, the Penticton Indian Band, the Upper Nicola Band, and the Upper and Lower Similkameen Indian Bands. The Colville Tribe in the United States is also part of the syilx/Okanagan nation.
Temporary Farm Working Housing	Dwellings to temporarily accommodate temporary farm worker(s), and is used to provide space for cooking, sanitary, living and sleeping.
Transit Oriented	Development that is carefully designed to maximize its proximity to nearby or adjacent transit service.

Transit Supportive Corridor	Streets that are identified to support a higher density and greater mix of uses in the Core Area that can be accommodated with and support increased transit service
Underdevelopment	Development that does not meet residential and/or employment density thresholds to support key goals and objectives for aspects of the OCP.
Urban Agriculture	The cultivation of a portion of a non-agricultural property for the production of food including fruits, vegetables, nuts and herbs for human consumption only.
Urban Centre	One of the five Urban Centres: Downtown, Pandosy, Capri Landmark, Rutland and Midtown.
Urban Forest	The total collection of trees and their growing environments found within our communities and their surrounding areas. This can include treed environments in both public and privately owned lands and can be both cultivated and managed landscapes or completely natural areas. The urban forest refers to any tree within the City's boundary.
Urban Forest Canopy	The coverage of the canopy created by the Urban Forest, either across the entire City boundary or within a specific district or neighbourhood.
Urban Uses	Land uses that traditionally rely on the provision of urban services, ranging from urban utilities to parks and transportation systems. Typical uses include urban and suburban residential, commercial, industrial and institutional. Non-urban uses are typically rural residential, agriculture and resource uses.
Urban Utility Servicing	Refers to the provision of sanitary sewer, water and, where applicable, storm drainage services.

2040 Official Community Plan
Chapter 18
Form & Character
Development Permit Area

FORM & CHARACTER

DEVELOPMENT PERMIT GUIDELINES

NOVEMBER 2020 DRAFT

City of Kelowna

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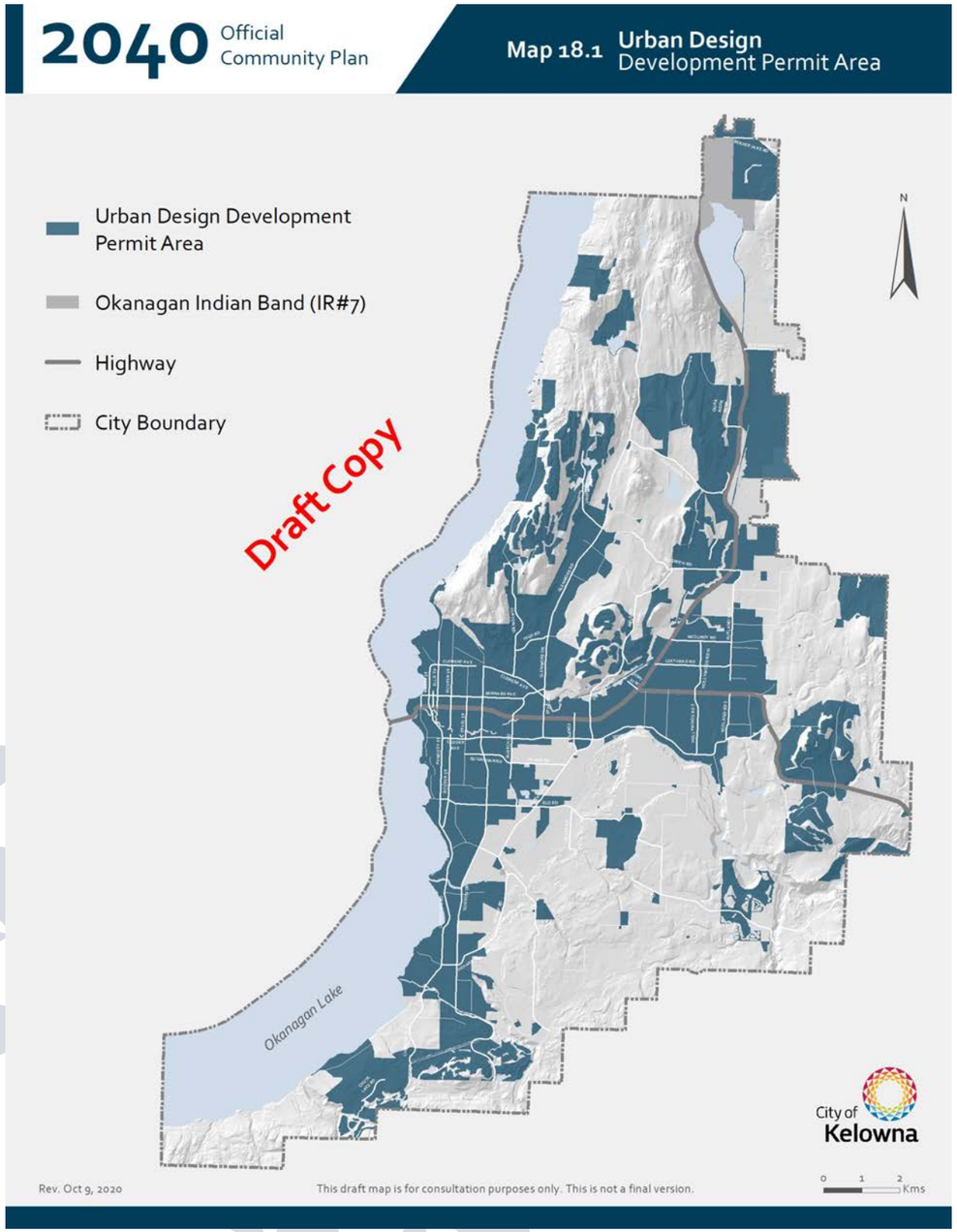
HOW AND WHERE GUIDELINES APPLY

Development Permit Areas (DPAs) are identified in the OCP (see map X for affected properties), and specific development guidelines, such as this chapter, apply to development within DPAs. The goal of DPAs is to ensure that development occurs in a way that supports the OCP.

Exemptions

Request to get this information from the City



ORGANIZATION OF THE CHAPTER

The chapter is organized in the following way:

a. The **Design Foundations** (Page 7) apply to all projects and provide the overarching principles for supporting creativity, innovation and design excellence in Kelowna.

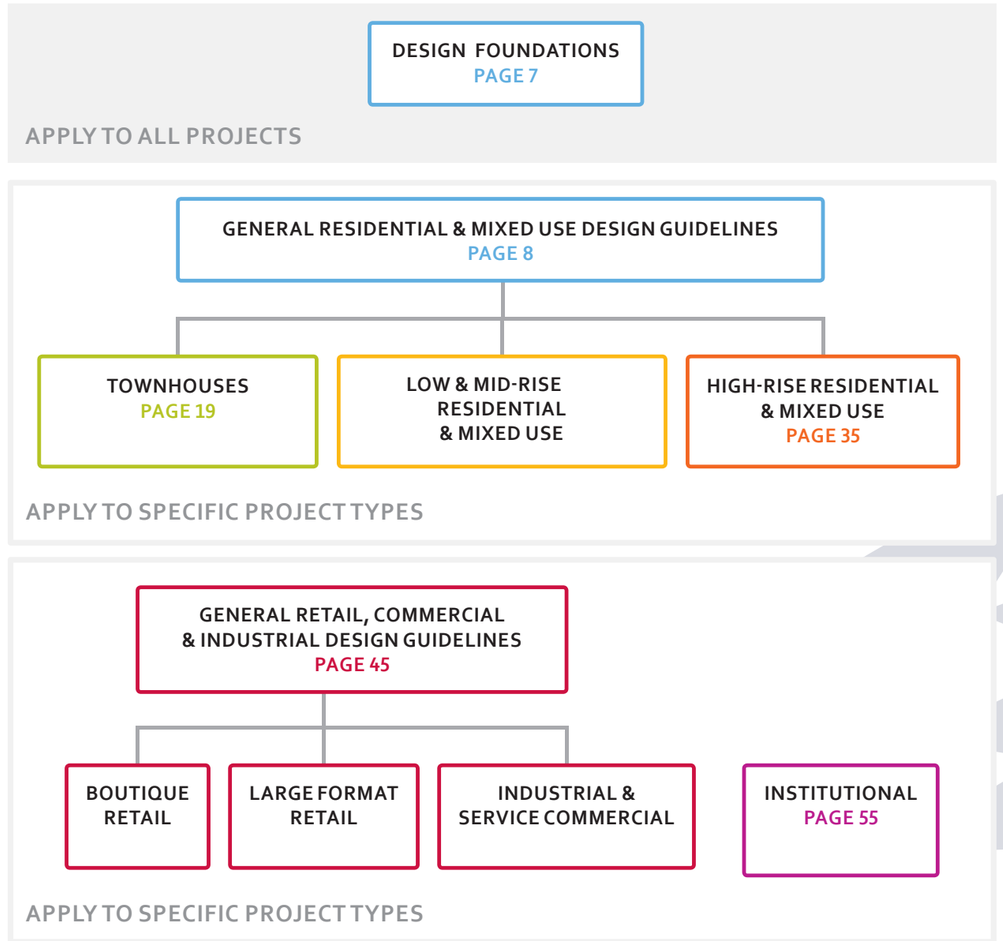
b. The **General Residential and Mixed Use Guidelines** (Page 8) provide the key guidelines that all residential and mixed use projects should strive to achieve to support the Design Foundations.

   » The General Guidelines are supplement by **typology-specific guidelines** (e.g., Townhouse on page 19, High-Rise Residential and Mixed-Use on page 35), which provide additional guidance with regard to form and character.

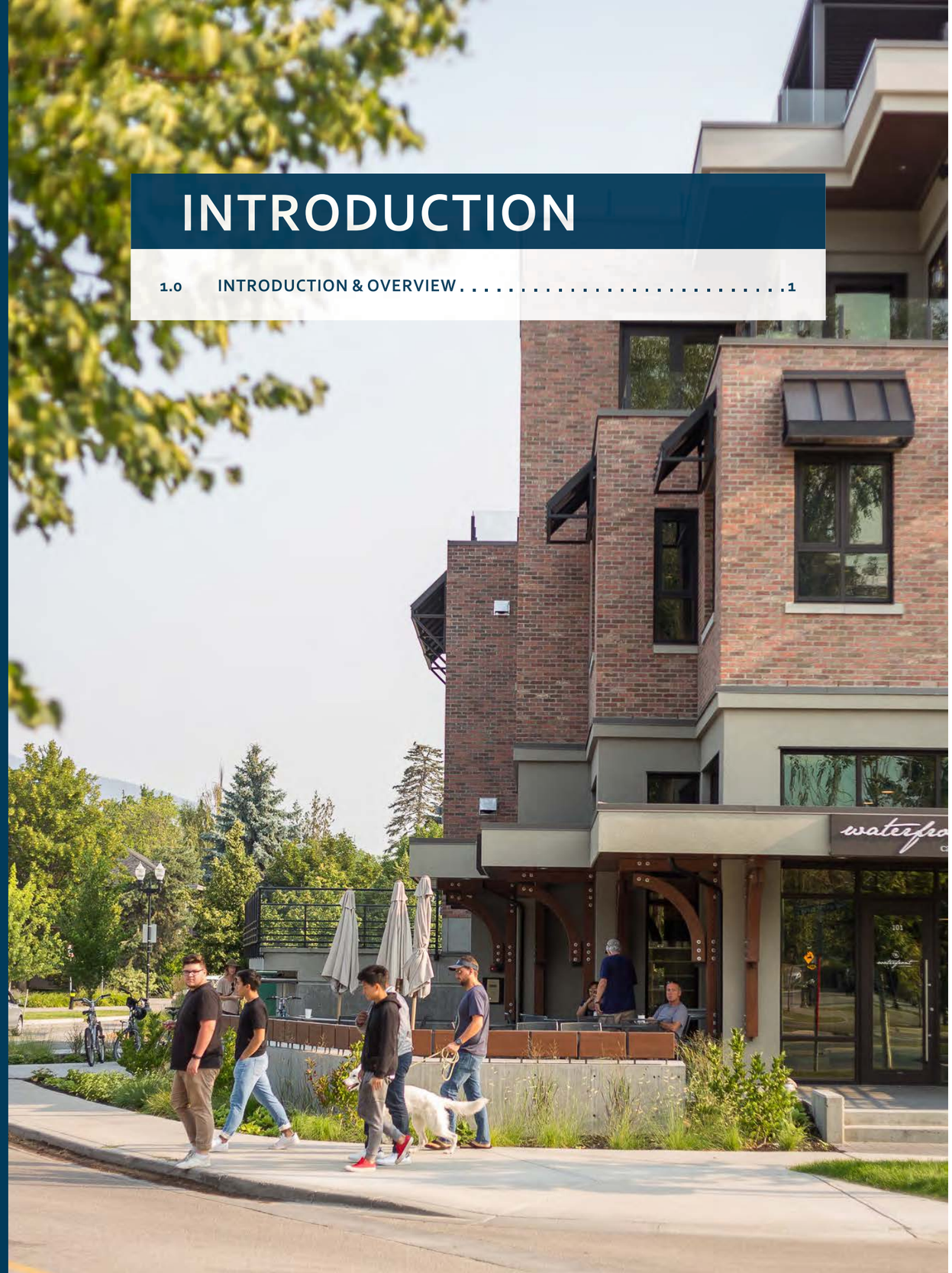
c. Due to their unique design requirements, **Boutique and Large Format Retail** (pages 49 and 50), **Industrial & Service Commercial** (page 51), and **Institutional** (page 55) projects have their own standalone Guideline sections.

Applicants should read both the Design Foundations and the Guidelines associated with their specific building typology.

The structure of the document is summarized in the diagram below.



KELOWNA DP GUIDELINES | NOV 2020 | INTRODUCTION & OVERVIEW



INTRODUCTION

1.0 INTRODUCTION & OVERVIEW 1

1.0 INTRODUCTION & OVERVIEW

INTENT OF GUIDELINES

Background and Purpose

The Development Permit Design Guidelines establish the City's expectations and aspirations for the form and character of development in Kelowna.

Incorporating these Guidelines into a project's design will encourage the creation of contextual and compatible architecture, high quality pedestrian realms, context-sensitive design, and will contribute to placemaking and design excellence in Kelowna.

The Guidelines apply to all new developments and substantial building alterations that require approval by staff and Council. The Guidelines are intended to be used by City staff, developers, architects, engineers, community members, and others when evaluating development applications.

Intent

The Guidelines are intended to stimulate creative design responses, rather than to limit development flexibility or to dictate design solutions.

Moreover, the intent of the Guidelines is to:

a. Communicate the design expectations for residential, commercial, industrial, and mixed use projects;

b. Facilitate the fair and consistent application of design objectives;

c. Foster design excellence and enhance investment throughout the City by encouraging consistently high-quality, safe, functional, and attractive development; and

d. Encourage projects to be appropriate to the City's context and climate.

Designation and Justification

The *Local Government Act* Section 919.1 (1) (f) states that an OCP may designate development permit areas for the establishment of objectives for the form and character of commercial, industrial, and multi-family residential development.

The City is experiencing rapid growth and is anticipated to accommodate an additional 50,000 residents over the next 20 years. This, along with the introduction of new infill typologies to address redevelopment pressures, as well as increased focus on design excellence in the City and community, justify the application of Design Guidelines for building form and character.

KELOWNA DP GUIDELINES | NOV 2020 | INTRODUCTION & OVERVIEW

ORGANIZATION OF THE CHAPTER (CONTINUED)

Guideline Hierarchy

The Guidelines are structured to clearly communicate the design goals of the City, with Key Guidelines identified at the beginning of each section that must be followed in all projects, followed by supplemental guidelines to support design excellence in Kelowna.

More specifically:

a. The feature images at the start of each section illustrate the core design outcomes that projects should achieve;

b. The Key Guidelines below the feature images describe core strategies for achieving the City's desired design outcomes that projects must achieve; and

c. The remaining Guidelines provide further detail on strategies for achieving well-designed buildings in Kelowna.

SAMPLE KEY GUIDELINE FEATURE IMAGE

Section Title / Building Typology

Feature Image

Demonstrating the Key Guidelines.

Key Guidelines

The key design outcomes that projects need to achieve.

4.1.0 KEY GUIDELINES

In order to achieve the design goals of the City, all low and mid-rise residential and mixed use projects must:

A **4.1.0 a –** Provide attractive and active human-scale amenities oriented towards public spaces at grade such as a frequent entries, weather protection, and outdoor seating areas (see 4.1.1 and 4.1.5).

B **4.1.0 b –** Break up building mass by providing simple vertical and horizontal articulation of facades; e.g., step-backs, insets, projections, color and texture (see 4.1.6).

C **4.1.0 c –** Ensure buildings have a front-to-back orientation to streets and open spaces with back-of-house uses located to the rear of buildings to minimize impacts on public open spaces (see 4.1.3).

D **4.1.0 d –** Orient entries, windows, patios and balconies to face the fronting street. Ensure primary building entries are architecturally emphasized and directly accessible from the fronting public sidewalk (see 4.1.1).

E **4.1.0 e –** Maximize 'eyes on the street' by providing direct lines of sight from windows and balconies to the sidewalk and avoiding blank walls (see 4.1.1 and 4.1.5).

F **4.1.0 f –** Provide access to underground or above ground on-site parking from secondary streets or lanes (see 4.1.4).

G **4.1.0 g –** When structured above grade parking is required due to the high water table, use store fronts or screening to mitigate visual impacts (see 4.1.4).

H **4.1.0 h –** Integrate semi-private open space with the surrounding streetscape (see 4.1.5).

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ORGANIZATION OF THE CHAPTER (CONTINUED)

Guideline Structure

The Guidelines are structured similarly in all sections to enhance usability. Key design objectives are presented as intent statements at the beginning of each section. Each intent statement is followed by a series of Guidelines which can be used to achieve the intent.

Each section includes:

a. A **Guideline Topic** subheading;

b. A **Design Intent** statement that states the goal of the Guidelines;

c. The **Guidelines,** which outline strategies for achieving the design intent; and

d. Supportive **illustrations and photos** that demonstrate Guideline concepts.

SAMPLE GUIDELINE STRUCTURE

Guideline Topic

Design Intent

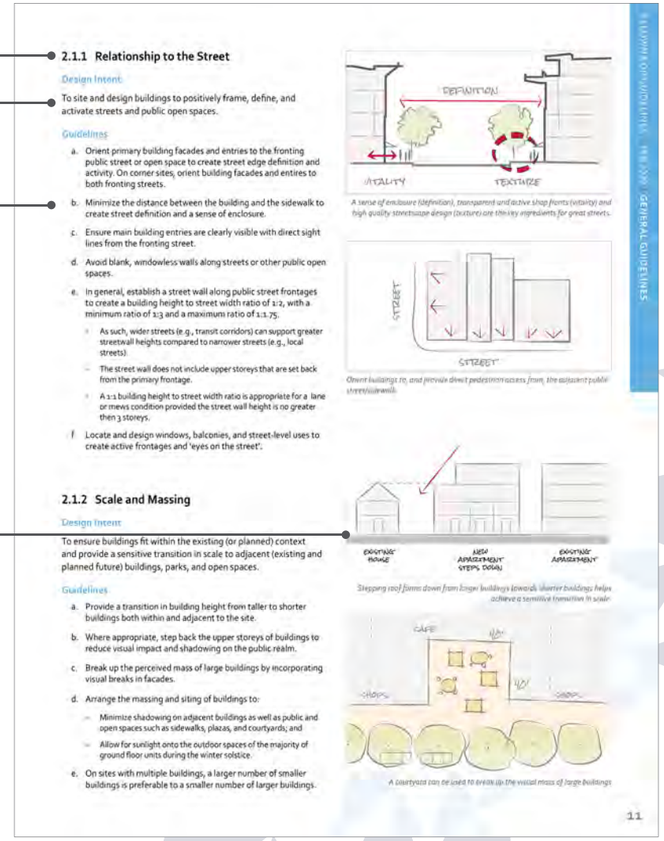
What is to be achieved.

Guidelines

Strategies for achieving the design intent.

Illustrations and Precedent Photos

To illustrate strategies for achieving the design intent.



2.1.1 Relationship to the Street

Design Intent

To site and design buildings to positively frame, define, and activate streets and public open spaces.

Guidelines

a. Orient primary building facades and entries to the fronting public street or open space to create street edge definition and activity. On corner sites, orient building facades and entries to both fronting streets.

b. Minimize the distance between the building and the sidewalk to create street definition and a sense of enclosure.

c. Ensure main building entries are clearly visible with direct sight lines from the fronting street.

d. Avoid blank, windowless walls along streets or other public open spaces.

e. In general, establish a street wall along public street frontages to create a building height to street width ratio of 1:2, with a minimum ratio of 1:3 and a maximum ratio of 1:1.75.

- As such, wider streets (e.g., transit corridors) can support greater streetwall heights compared to narrower streets (e.g., local streets).
- The street wall does not include upper storeys that are set back from the primary frontage.
- A 1:1 building height to street width ratio is appropriate for a lane or mews condition provided the street wall height is no greater then 3 storeys.

f. Locate and design windows, balconies, and street-level uses to create active frontages and 'eyes on the street'.

2.1.2 Scale and Massing

Design Intent

To ensure buildings fit within the existing (or planned) context and provide a sensitive transition in scale to adjacent (existing and planned future) buildings, parks, and open spaces.

Guidelines

a. Provide a transition in building height from taller to shorter buildings both within and adjacent to the site.

b. Where appropriate, step back the upper storeys of buildings to reduce visual impact and shadowing on the public realm.

c. Break up the perceived mass of large buildings by incorporating visual breaks in facades.

d. Arrange the massing and siting of buildings to:

- Minimize shadowing on adjacent buildings as well as public and open spaces such as sidewalks, plazas, and courtyards; and
- Allow for sunlight onto the outdoor spaces of the majority of ground floor units during the winter solstice.

e. On sites with multiple buildings, a larger number of smaller buildings is preferable to a smaller number of larger buildings.

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DESIGN FOUNDATIONS & GENERAL RESIDENTIAL AND MIXED USE DESIGN GUIDELINES

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2.0 DESIGN FOUNDATIONS

Urban design is the comprehensive and cohesive combination of buildings, streets, and open spaces. Good urban design is primarily determined by the relationship between the public and private realm at the street level. Pedestrian-oriented and human-scaled streets, squares, and plazas are essential elements to the making of a functional, aesthetic, and vibrant place.

The Design Foundations below are applicable to all development projects and are the foundation for supporting creativity, innovation and design excellence in Kelowna.

FACILITATE ACTIVE MOBILITY

Site and building design should ensure connectivity, safety and comfort for people walking and cycling, both within the site and to/from the surrounding neighbourhood.

USE PLACEMAKING TO STRENGTHEN NEIGHBOURHOOD IDENTITY

Development should contribute to a local sense of place by considering neighbourhood context, linkages, and future land uses at each scale of design – from site layout to landscaping to building details.

CREATE LIVELY AND ATTRACTIVE STREETS & PUBLIC SPACES

Development should define and activate streets and public spaces to support their intended use and encourage human interaction.

DESIGN BUILDINGS TO THE HUMAN SCALE

Buildings and site features should be designed to the human scale – optimized to be used by people and oriented towards pedestrian activity.

STRIVE FOR DESIGN EXCELLENCE

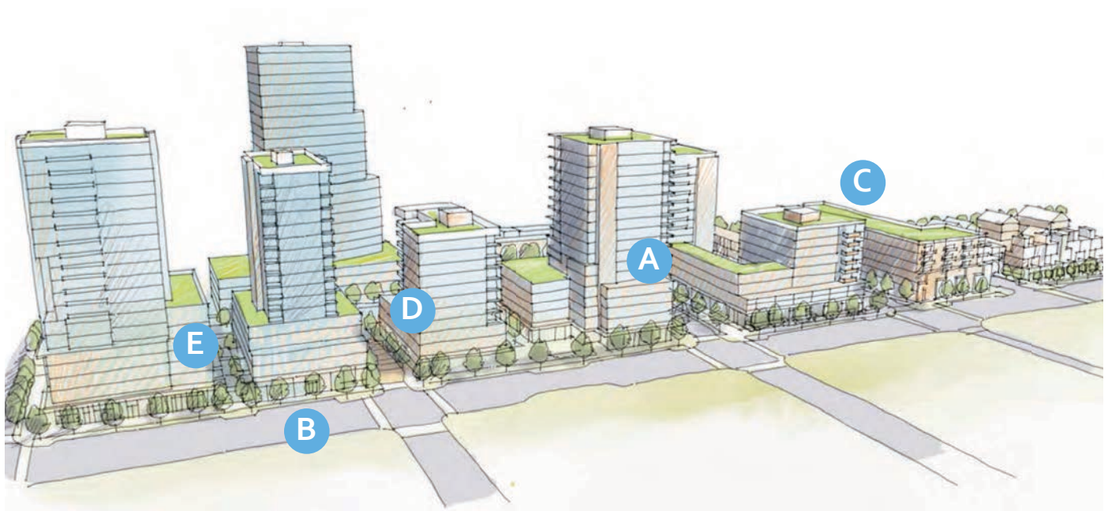
Development projects should look beyond current trends and consider best practices and innovation for issues such as parking, energy efficiency, and building design to create a positive and lasting legacy.

KELOWNA DP GUIDELINES | NOV 2020 | GENERAL GUIDELINES

2.1 GENERAL RESIDENTIAL AND MIXED USE GUIDELINES

OVERVIEW

The General Residential and Mixed Use Design Guidelines capture the key design strategies and elements that should be addressed in all new residential and mixed use projects in the City. They are premised on achieving the Design Foundations in section 2.0 and establish the basis for the more detailed typology-specific Guidelines in Sections 3 through 5. Both the General Design Guidelines and the specific Guidelines for residential and mixed use building projects apply to each project.



2.1.0 KEY GUIDELINES

In order to achieve the design goals of the City, all residential and mixed use projects must:

A **2.1.0 a** – Design buildings to frame and activate streets and other open spaces to support walking and cycling, pedestrian comfort, and social interaction (see also 2.1.1 and 2.1.6).

B **2.1.0 b** – Incorporate high quality building, landscape, and streetscape design to support liveability, sustainability, and sense of place (see also 2.1.5).

C **2.1.0 c** – Ensure new buildings contribute positively to the envisioned future built form, while being responsive to positive aspects of the existing built environment and sensitive to the natural environment (see also 2.1.2 and 2.1.3).

D **2.1.0 d** – Provide usable open spaces on site that balance privacy and access and that increase pedestrian connectivity throughout the city (see also 2.1.3 and 2.1.5).

E **2.1.0 e** – Ensure the provision of adequate servicing, vehicle access, and parking while minimizing negative impacts on the safety and attractiveness of the public realm (see also 2.1.4).

2.1.1 Relationship to the Street

Design Intent

To site and design buildings to positively frame and activate streets and public open spaces.

Guidelines

a. Orient primary building facades and entries to the fronting street or open space to create street edge definition and activity *(See Figure 1)*.

b. On corner sites, orient building facades and entries to both fronting streets.

c. Minimize the distance between the building and the sidewalk to create street definition and a sense of enclosure *(See Figure 1)*.

d. Locate and design windows, balconies, and street-level uses to create active frontages and 'eyes on the street', with additional glazing and articulation on primary building facades.

e. Ensure main building entries are clearly visible with direct sight lines from the fronting street.

f. Avoid blank, windowless walls along streets or other public open spaces.

g. In general, establish a street wall along public street frontages to create a building height to street width ratio of 1:2, with a minimum ratio of 1:3 and a maximum ratio of 1:1.75 (See *Figure 2*).

   - Wider streets (e.g., transit corridors) can support greater streetwall heights compared to narrower streets (e.g., local streets);
   - The street wall does not include upper storeys that are set back from the primary frontage; and
   - A 1:1 building height to street width ratio is appropriate for a lane or mid-block connection condition provided the street wall height is no greater then 3 storeys.

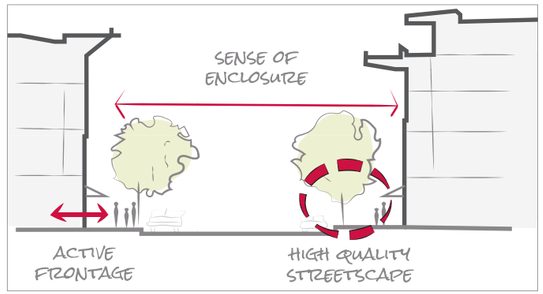


Figure 1: A sense of enclosure, transparent and active shop fronts, and high quality streetscape design are the key ingredients for great streets (2.1.1 a).

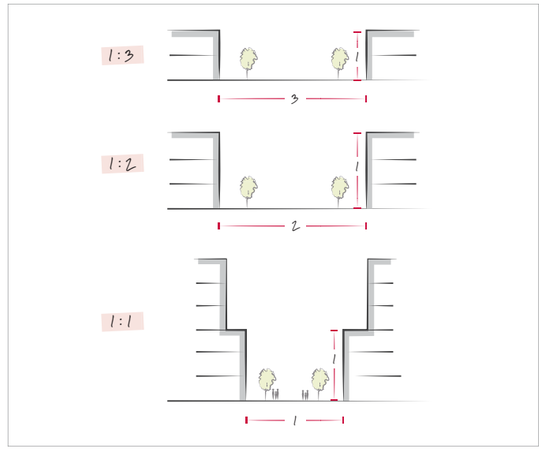


Figure 2: Illustrating different building height to street width ratios (2.1.1 g).

2.1.2 Scale and Massing

Design Intent

To ensure buildings contribute positively to the neighbourhood context and provide a sensitive transition in scale to existing and future buildings, parks, and open spaces.

Guidelines

a. Provide a transition in building height from taller to shorter buildings both within and adjacent to the site with consideration for future land use direction *(See Figure 3)*.

b. Break up the perceived mass of large buildings by incorporating visual breaks in facades *(See Figure 4)*.

c. Step back the upper storeys of buildings and arrange the massing and siting of buildings to:

   - Minimize shadowing on adjacent buildings as well as public and open spaces such as sidewalks, plazas, and courtyards (*See Figure 4*); and
   - Allow for sunlight onto the outdoor spaces of the majority of ground floor units during the winter solstice.

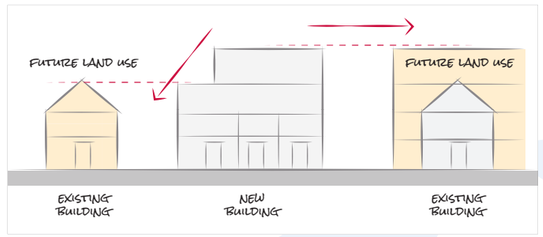


Figure 3: While considering future land use, stepping down building height can provide a sensitive transition in scale to adjacent buildings (2.1.2 a).

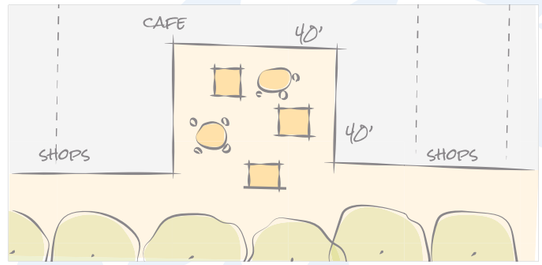


Figure 4: A courtyard can be used to break up the visual mass of large buildings (2.1.2 b)

2.1.3 Site Planning

Design Intent

To site buildings to respond sensitively to topography and environmental features; to enhance privacy, liveability, safety and accessibility; and to increase connectivity to the surrounding open space network.

Guidelines

a. Site and design buildings to respond to unique site conditions and opportunities, such as oddly shaped lots, location at prominent intersections, framing of important open spaces, corner lots, sites with buildings that terminate a street end view, and views of natural features.

b. Use Crime Prevention through Environmental Design (CPTED) principles to better ensure public safety through the use of appropriate lighting, visible entrances, opportunities for natural surveillance, and clear sight lines for pedestrians.

Relationship to Grade

c. Limit the maximum grades on development sites to 30% (3:1).

d. Design buildings for 'up-slope' and 'down-slope' conditions relative to the street by using strategies such as:

- Stepping buildings along the slope, and locating building entrances at each step and away from parking access where possible;
- Incorporating terracing to create usable open spaces around the building;
- Using the slope for under-building parking and to screen service and utility areas *(See Figure 5)*;
- Designing buildings to access key views; and
- Minimizing large retaining walls (retaining walls higher than 1m should be stepped and landscaped).

Connectivity

e. Design internal circulation patterns (streets, sidewalks, pathways) to be integrated with and connected to the existing and planned future public street, bicycle and/or pedestrian network *(See Figure 6)*.

f. Incorporate easy-to-maintain traffic calming features, such as on-street parking bays and curb extensions, textured materials, and crosswalks.

g. Apply universal accessibility principles to primary building entries, sidewalks, plazas, mid-block connections, lanes, and courtyards through the appropriate selection of materials, stairs, and ramps as necessary, and the provision of wayfinding and lighting elements.

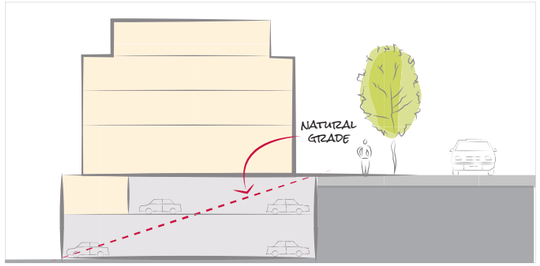


Figure 5: Use natural slope for under-building parking wherever possible (2.1.3 a).

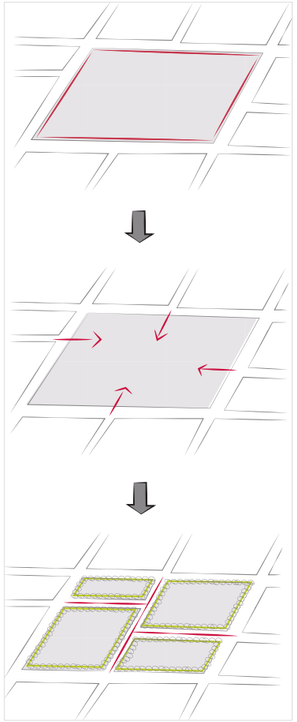


Figure 6: Design internal circulation patterns (streets, sidewalks, pathways) to be integrated with and connected to the existing and planned future public street, bicycle and/or pedestrian network (2.1.3 e).

2.1.4 Site Servicing, Access, and Parking

Design Intent

To ensure the provision of adequate servicing, vehicle access, and parking while minimizing adverse impacts on the comfort, safety and attractiveness of the public realm.

Guidelines

Site Servicing

a. Locate off-street parking and other 'back-of-house' uses (such as loading, garbage collection, utilities, and parking access) away from public view.

b. Ensure utility areas are clearly identified at the development permit stage and are located to not unnecessarily impact public or common open spaces.

Parking

c. Avoid locating off-street parking between the front facade of a building and the fronting public street *(See Figure 7)*.

d. In general, accommodate off-street parking in one of the following ways, in order of preference:

- Underground (where the high water table allows);
- Parking in half-storey (where it is able to be accommodated to not negatively impact the street frontage);
- Garages or at-grade parking integrated into the building (located at the rear of the building); and
- Surface parking at in the rear, with access from the lane or secondary street wherever possible.

e. Design parking areas to maximize rainwater infiltration through the use of permeable materials such as paving blocks, permeable concrete, or driveway planting strips.

f. In cases where publicly visible parking is unavoidable, screen using strategies such as *(See Figure 8)*:

- Landscaping;
- Trellises;
- Grillwork with climbing vines; or
- Other attractive screening with some visual permeability.

g. Provide bicycle parking at accessible locations on site, including:

- Covered short-term parking in highly visible locations, such as near primary building entrances; and
- Secure long-term parking within the building or vehicular parking area.

Access

h. Provide clear lines of site at access points to parking, site servicing, and utility areas to enable casual surveillance and safety.

i. Consolidate driveway and laneway access points to minimize curb cuts and impacts on the pedestrian realm or common open spaces.

j. Minimize negative impacts of parking ramps and entrances through treatments such as enclosure, screening, high quality finishes, sensitive lighting, and landscaping.

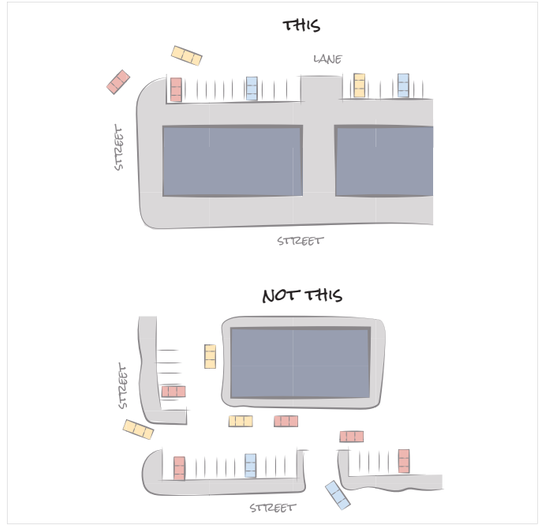


Figure 7: Locate off-street parking to the rear of the building wherever possible (2.1.4 c).

Figure 8: When provided at grade, screen or enclose parking to minimize view and impact on the public realm. (2.1.4 f).

2.1.5 Streetscapes, Landscapes, and Public Realm Design

Design Intent

To ensure the design of streets and open spaces creates visual interest, comfort, and safety for pedestrians and positively contributes to urban ecology and stormwater management.

Guidelines

Landscape Planning

a. Site buildings to protect mature trees, significant vegetation, and ecological features.

b. Locate underground parkades, infrastructure, and other services to maximize soil volumes for in-ground plantings.

c. Site trees, shrubs, and other landscaping appropriately to maintain sight lines and circulation *(See Figure 9)*.

d. Design attractive, engaging, and functional on-site open spaces with high quality, durable, and contemporary materials, colors, lighting, furniture, and signage.

e. Ensure site planning and design achieves favourable microclimate outcomes through strategies such as:

- Locating outdoor spaces where they will receive ample sunlight throughout the year;
- Using materials and colors that minimize heat absorption;
- Planting both evergreen and deciduous trees to provide a balance of shading in the summer and solar access in the winter; and
- Using building mass, trees, and planting to buffer wind.

Landscape Materials

f. Use landscaping materials that soften development and enhance the public realm *(See Figure 10)*.

g. Plant native and/or drought tolerant trees and plants suitable for the local climate.

h. Select trees for long-term durability, climate and soil suitability, and compatibility with the site's specific urban conditions.

Figure 9: Site trees and other landscaping to maintain sight lines and circulation (2.1.5 c)

Figure 10: Use landscaping materials that soften development and enhance the public realm (2.1.5 f).

Stormwater Management and Water Usage

i. Design sites and landscapes to maintain pre-development flows through capture, infiltration, and filtration strategies, such as the use of rain gardens and permeable surfacing *(See Figure 11)*.

j. Design sites to minimize water use for irrigation by using strategies such as:

- Designing planting areas and tree pits to passively capture rainwater and stormwater run-off; and
- Using recycled water irrigation systems.

Sustainable Materials and Furniture

k. Create multi-functional landscape elements wherever possible, such as planting areas that also capture and filter stormwater or landscape features that users can interact with.

l. Select materials and furnishings that reduce maintenance requirements and use materials and site furnishings that are sustainably sourced, re-purposed, or 100% recycled.

Lighting and Wayfinding

m. Use exterior lighting to complement the building and landscape design, while *(See Figure 12)*:

- Minimizing light trespass onto adjacent properties;
- Using full cut-off lighting fixtures to minimize light pollution; and
- Maintaining lighting levels necessary for safety and visibility.

n. Employ on-site wayfinding strategies that create attractive and appropriate signage for pedestrians, cyclists, and motorists using a 'family' of similar elements.

Figure 11: Design sites and landscapes to maintain pre-development flows using strategies such as rain gardens and permeable surfacing (2.1.5 i).

Figure 12: Use full cut-off exterior lighting to complement building and landscape design (2.1.5 m).

2.1.6 Building Articulation, Features, and Materials

Design Intent

To enhance liveability, visual interest, identity, and sense of place through building form, architectural composition and materials.

Guidelines

a. Express a unified architectural concept that incorporates variation in facade treatments. Strategies for achieving this include:

- Articulating facades by stepping back or extending forward a portion of the facade to create a series of intervals or breaks;
- Repeating window patterns on each step-back and extension interval;
- Providing a porch, patio, deck, covered entry, balcony and/or bay window for each interval; and
- Changing the roof line by alternating dormers, stepped roofs, gables, or other roof elements to reinforce each interval.

b. Incorporate a range of architectural features and details into building facades to create visual interest, especially when approached by pedestrians.

Include architectural features such as:

- Bay windows and balconies;
- Corner feature accents, such as turrets or cupolas;
- Variations in roof height, shape and detailing;
- Building entries; and
- Canopies and overhangs.

A low-rise building demonstrating a unified architectural concept with clear building intervals with balconies and repeating window patterns.

Include architectural details such as:

- Masonry such as tiles, brick, and stone;
- Siding including score lines and varied materials to distinguish between floors;
- Articulation of columns and pilasters;
- Ornamental features and art work;
- Architectural lighting;
- Grills and railings;
- Substantial trim details and moldings / cornices; and
- Trellises, pergolas and arbors.

c. Design buildings to ensure that adjacent residential properties have sufficient visual privacy (e.g. by locating windows to minimize overlook and direct sight lines into adjacent units), as well as protection from light trespass and noise.

d. Design buildings such that their form and architectural character reflect the buildings internal function and use.

Materials

e. Incorporate substantial, natural building materials such as masonry, stone, and wood into building facades *(See Figure 13)*.

Weather protection

f. Provide weather protection such as awnings and canopies at primary building entries

g. Place weather protection to reflect the building's architecture.

Signage

h. Limit signage in number, location, and size to reduce visual clutter and make individual signs easier to see.

i. Provide visible signage identifying building addresses at all entrances.

Figure 13: Incorporate substantial, natural building materials such as masonry, stone, and wood into building facades (2.1.6 d).

BUILDING ARTICULATION

This building demonstrates several guidelines related to building articulation and features (see 2.1.6 a - b), including:

1. Stepping back or extending forward a portion of the facade to create a series of intervals;
2. Repeating window patterns on each extension interval;
3. Providing a balcony at each interval; and
4. Providing a stepped roof to reinforce each interval.
5. Providing cornice details.

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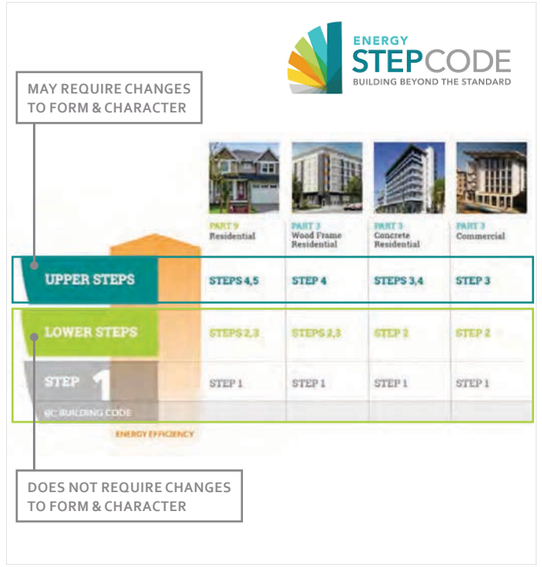
2.2 ACHIEVING HIGH PERFORMANCE

Background

The BC Energy Step Code establishes measurable energy efficiency requirements for new construction, up to net-zero energy ready performance by the year 2032. Over time, and supported by ongoing industry engagement, the City of Kelowna intends to incrementally raise minimum energy performance to the highest levels of the Step Code in advance of 2032. Changes to form and character are not required to meet the performance requirements of the Lower Steps of the Step Code, but will be required to meet the requirements of the Upper Steps of the Step Code.

This section provides form and character design strategies for meeting high performance building requirements. For more details on designing buildings to meet Step Code performance requirements, including mechanical design, air tightness strategies, envelope details and other strategies that do not impact form and character, please see BC Housing's *BC Energy Step Code Design Guide*.



2.2.1 High Performance Buildings

Design Intent

To design buildings to reduce energy demand and maximize occupant health and comfort, while ensuring visual interest.

Guidelines

Simplified Massing

a. Design buildings with a pure form with simplified massing and fewer complex junctions to minimize building envelope heat loss.

Articulation

b. Use simple shifts in massing and changes in exterior colors and textures to articulate facades.

c. For larger buildings, target an overall window-to-wall ratio (WWR) of 40% to reduce heat gain and loss through the building envelope by increasing the area of insulated wall *(See Figure 14)*. Additional considerations include:

- WWR ratios should be higher at grade to promote at-grade transparency while accommodating the 40% WWR in the building overall; and
- WWR ratios should be lower on north facing facades than on south facing facades to account for lower solar gain potential.

Site Planning and Orientation

d. Incorporate passive heating, cooling, and lighting design principles in landscape and building design, including:

- Orienting for maximum solar-gain potential from the south to reduce heating demand in colder months; and
- Using trees to provide natural shading to reduce overheating in warmer months.

Figure 14: While retaining at-grade transparency, targeting lower window-to-wall ratios on building elevations can significantly reduce energy demand. As general guidance, designers targeting the Lower Steps of the Step Code should target no more than a 50% WWR and designers targeting the Upper Steps should target a WWR of less than 40% (2.2.1 c).

Figure 15: Example of a building with active frontage and low WWR above.

e. Use appropriately designed exterior shading devices to block unwanted solar gains in warmer months while welcoming solar gains from lower winter sunlight. Additional considerations include *(See Figure 16)*:

- Their use should be prioritized on southern elevations;
- Shading is not necessary on north-facing facades; and
- Vertical fins are a good strategy to use for blocking incoming summer sun on western elevations.

High Performance Building Envelope

f. Use insulating materials and/or thermally broken building products to reduce building heat loss from thermal bridges such as concrete balconies and beams that run from the building's interior to exterior.

g. Include operable windows to provide natural ventilation and help reduce mechanical heating and cooling requirements.

Figure 16: Exterior shading devices can be integrated into a building's southern elevation to block unwanted solar gains and keep indoor temperatures comfortable in warmer months (2.2.1 e).

WELL DESIGNED HIGH PERFORMANCE BUILDINGS

These precedent photos demonstrate best practices in high performance building design in common building typologies. All projects shown are designed to meet or exceed the equivalent performance requirements of the highest Step of the BC Energy Step Code.

Design professionals can use a wide variety of strategies – such as exterior colors, textures, and simple shifts in massing – to create aesthetically pleasing high performance buildings. Design principles such as achieving a strong relationship to the street and a unified architectural expression need not be sacrificed.

HIGH PERFORMANCE DESIGN STRATEGY
ALIGNMENT WITH DESIGN PRINCIPLES

TOWNHOUSE

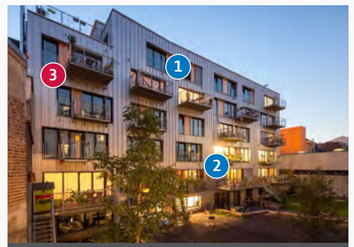
1. Simplified massing (see 2.2.1 a).
2. Low overall WWR (see 2.2.1 c).
3. Articulated individual units with semi-private outdoor space see 2.2.1 b).

MID-RISE RESIDENTIAL

1. Simplified massing (see 2.2.1 a).
2. Low overall WWR (see 2.2.1 c).
3. Use of color/materiality to enhance visual interest (see 2.2.1 b).

MID-RISE MIXED USE

1. Simplified massing (see 2.2.1 a).
2. Shading devices on south elevation (see 2.2.1 e).
3. Active frontage (>75% WWR) (see 2.2.1 c).



MID-RISE RESIDENTIAL

1. Simplified massing (see 2.2.1 a).
2. Low overall WWR (see 2.2.1 c).
3. Outdoor space on (thermally broken) balconies (see 2.2.1 f).

COMMERCIAL MIXED USE

1. Simplified massing (see 2.2.1 a).
2. Low overall WWR (see 2.2.1 c).
3. Active frontage (>75% WWR) (see 2.2.1 c).

TOWNHOUSES & INFILL

3.0 TOWNHOUSES 19
3.1 TOWNHOUSE GUIDELINES 20
3.2 INFILL 26
3.3 INFILL GUIDELINES 27

TOWNHOUSE OVERVIEW

- Townhouse development in Kelowna typically occurs in one of two scenarios: infill development within an existing neighbourhood or large-scaled developments with an internal circulation network.
- Common design challenges include integrating well with the existing and planned future context and positively contributing to the streetscape.
- As a result, projects should create a strong relationship to the street and extend or connect with the existing and planned street and open space networks.

TOWNHOUSE GENERAL CHARACTERISTICS

TOWNHOUSES

- 2 to 3 storeys
- Shares side walls with neighbouring units
- Individual unit entrance with ground-oriented access

INFILL OVERVIEW

- Ground-oriented infill typically consists of development on a single existing parcel that consists of 2 or more units and includes forms from single detached, duplex housing, semi-detached housing, triplex, and four plex housing.
- Common design challenges include integrating well with the existing and planned future context, protecting mature trees, and positively contributing to the streetscape.
- Projects should create a strong relationship to the street and should be designed in general context with the scale and massing of buildings in the neighbourhood.

INFILL GENERAL CHARACTERISTICS

TOWNHOUSES

- 2 to 2 ½ storeys
- Varied building forms, sometimes with two forms on a single site
- May share 1 or 2 walls with neighbouring units
- Individual unit entrance with ground-oriented access

3.0 TOWNHOUSES

3.0 KEY GUIDELINES

In order to achieve the design goals of the City, all townhouse projects must:

A **3.0.1 a** Orient building entries, windows , patios, and balconies to face the fronting street, with the primary entry clearly visible and directly accessible from the sidewalk (see 3.1.1).

B **3.0.1 b** Provide usable outdoor amenity spaces and generous and well-designed landscaped areas that offer privacy, screening, and attractive interfaces with streets and open spaces (see 3.1.4).

C **3.0.1 c** Use building articulation, scaling, and setbacks to define individual units or intervals and to contribute to a consistent frontage pattern, pedestrian scale and rhythm along the fronting street (see 3.1.2 and 3.1.6).

D **3.0.1 d** Locate and design buildings to maximize access to sunlight, increase privacy, and reinforce neighbourhood character (see 3.1.4 and 3.1.6).

E **3.0.1 e** Provide access to parking from a secondary street or lane, wherever possible (see 3.1.5).

3.1 TOWNHOUSE GUIDELINES

3.1.1 Relationship to the Street

Design Intent

To site and design buildings to positively frame and activate streets and public open spaces, while providing a clearly-defined public-private transition zone.

TOWNHOUSE

Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

a. Design primary unit entrances to provide:
   - » A clearly visible front door directly accessible from a public street or publicly accessible pathway via a walkway, porch and/or stoop *(See Figure 17)*;
   - » Architectural entrance features such as stoops, porches, shared landings, patios, recessed entries, and canopies;
   - » A sense of transition from the public to private realm by utilizing strategies such as changes in grade, decorative railings, and planters; and
   - » Punctuation, articulation and rhythm along the street.

b. A maximum 1.2m height (e.g., 5-6 steps) is desired for front entryways or stoops. Exceptions can be made in cases where the water table requires this to be higher.

c. In the case of shared landings that provide access to multiple units, avoid having more than two doors in a row facing outward.

d. For buildings oriented perpendicularly to the street (e.g., 'shotgun' townhomes), ensure that the end unit facing the street is a custom street-oriented unit with primary entry directly accessible from the fronting street and primary living space at grade *(See Figure 18)*.

e. For large townhouse projects (e.g., master planned communities with internal circulation pattern), guidelines 3.1.1 a-d apply for units facing strata roads as well as those units fronting onto public streets.

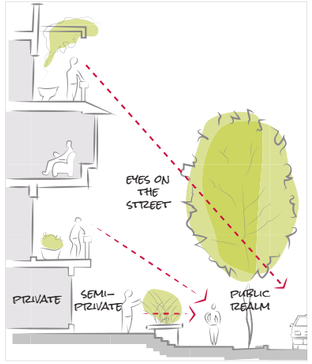


Figure 17: Provide clear front entries, patios and stoops to ensure eyes on the street and provide opportunities for surveillance (3.1.1 a).

Figure 18: In 'shotgun' townhouse projects, ensure that the end unit facing the street is a true street-oriented unit (3.1.1. d) .

3.1.2 Scale and Massing

Design Intent

To ensure buildings contribute positively to the neighbourhood context and provide a sensitive transition in scale to existing and future buildings, parks, and open spaces.

Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

a. Wherever possible, reflect the positive attributes of adjacent housing while integrating new higher density forms of housing as envisioned in the OCP.

b. Scale and site buildings to establish consistent rhythm along the street by, for example, articulating individual units through integration of recessed entries, balconies, a change in materials and slight projection/recess in the facade.

c. Limit the number of connected townhouse units to a maximum of 6 units before splitting into multiple buildings.
   - » In larger townhouse developments (e.g., master planned communities with internal circulation pattern), integrate a large proportion of 4 unit townhouse buildings to create a finer grain of development and limit visual impacts.

Figure 19: An example of townhouses with clearly visible front doors fronting onto a publicly-accessible pedestrian pathway (3.1.3 d) .

3.1.3 Site Planning

Design Intent

To site buildings to respond sensitively to topography and environmental features; to enhance privacy, liveability, safety and accessibility; and to increase connectivity to the surrounding open space network.

Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

a. Gated or walled communities are not supported.

b. For large townhouse projects, consider including communal amenity buildings.

Connectivity

c. Provide pedestrian pathways on site to connect:
   - » Main building entrances to public sidewalks and open spaces;
   - » Visitor parking areas to building entrances; and
   - » From the site to adjacent pedestrian/trail/cycling networks (where applicable).

d. When pedestrian connections are provided on site, frame them with an active edge – with entrances and windows facing the path or lane *(See Figure 19 & 20)*.

e. For large townhouse projects (e.g., master planned communities with internal circulation pattern):

   - Design the internal circulation pattern to be integrated with and connected to the existing and planned public street network.

Facing Distances and Setbacks

f. Locate and design buildings to maintain access to sunlight, and reduce overlook between buildings and neighbouring properties.

g. Separate facing buildings on site a minimum of 10-12m to provide ample spatial separation and access to sunlight.

h. Limit building element projections, such as balconies, into setback areas, streets, and amenity areas to protect solar access.

i. Front yard setbacks on internal roads should respond to the height of townhouses, with taller townhouses (e.g., 3 storeys) having greater setbacks to improve liveability and solar access.

Figure 20: Example of a mid-block connection through a townhouse site, with building entries facing onto the path (3.1.3 d).

3.1.4 Open Spaces

Design Intent

To design landscapes and open spaces that provide integrated, flexible, and accessible open space.

Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

a. Design all units to have easy access to useable private or semi-private outdoor amenity space *(See Figure 20 & 21)*.

b. Design front yards to include a path from the fronting street to the primary entry, landscaping, and semi-private outdoor amenity space.

c. Avoid a 'rear yard' condition with undeveloped frontages along streets and open spaces.

d. Design private outdoor amenity spaces to:

   - Have access to sunlight;
   - Have railing and/or fencing to help increase privacy; and
   - Have landscaped areas to soften the interface with the street or open spaces.

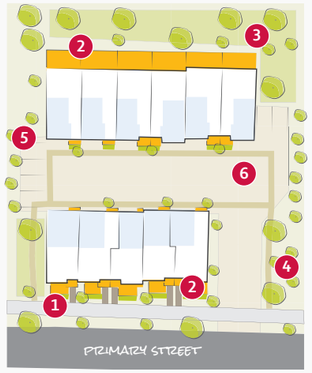
Figure 21: All units should have easy access to useable private or semi-private outdoor amenity space (3.1.4 a).

DEMONSTRATION PLANS – INFILL LOTS

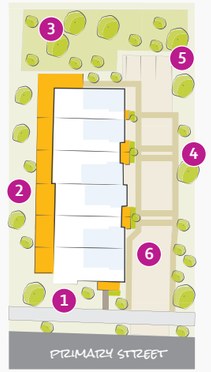
The conceptual site plans on this page and the next demonstrate four common townhouse scenarios with a selection of guidelines to describe key areas for consideration. These plans are not intended to be a 'how to' for developing sites with similar characteristics, but rather to demonstrate how the guidelines accommodate townhouse developments on different types of sites.

CORNER LOT

FRONT-BACK (MID-BLOCK LOT)



SHOTGUN (MID-BLOCK LOT)



1. Units with entries oriented to the street (see 3.1.1).
2. Private / semi-private outdoor amenity spaces (see 3.1.4).
3. Large shared outdoor amenity spaces (see 3.1.4).
4. Pedestrian access to site from street, with internal circulation (see 3.1.3).
5. Visitor parking in accessible locations throughout the site; servicing areas provided and screened from view (see 3.1.5).
6. Internal road with high quality pavement materials and landscaping (see 3.1.5)

DEMONSTRATION PLAN – LARGE TOWNHOUSE DEVELOPMENT

This demonstration plan is not intended to be a 'how to' for developing sites with similar characteristics, but rather to demonstrate how the guidelines accommodate townhouse developments on large sites. A master planning process is encouraged for townhouse development projects on large sites to ensure a comprehensive and cohesive design that connects and expands the existing and/or planned future context; responds sensitively to natural and ecological features; and achieves building and site design, features and amenities to support liveability and sustainability as per the DP design guidelines.

LARGE TOWNHOUSE DEVELOPMENT

1. Units with individual entries oriented to publicly accessible pathway or street (see 3.1.1).
2. Private / semi-private outdoor amenity spaces (see 3.1.4).
3. Large shared outdoor amenity spaces (see 3.1.4).
4. Pedestrian access to site from street, with internal circulation (see 3.1.3).
5. Visitor parking in accessible locations throughout the site; servicing areas provided and screened from view (see 3.1.5).
6. Internal street and openspace network that expands and connects to the existing and/or planned future street and open space network (see 3.1.3).
7. Internal road with high quality pavement materials and landscaping (see 3.1.5)

e. Design front patios to:
   - » Provide an entrance to the unit; and
   - » Be raised a minimum of 0.6m and a maximum of 1.2m to create a semi-private transition zone.

f. Design rooftop patios to *(See Figure 22)*:
   - » Have parapets with railings;
   - » Minimize direct sight lines into nearby units; and
   - » Have access away from primary facades.

g. Design balconies to be inset or partially inset to offer privacy and shelter, reduce building bulk, and minimize shadowing.

h. Provide a minimum of 10% of the total site area to common outdoor amenity spaces that:
   - » Incorporate landscaping, seating, play space, and other elements that encourage gathering or recreation; and
   - » Avoid isolated, irregularly shaped areas or areas impacted by parking, mechanical equipment, or servicing areas.

i. For large townhouse projects, provide generous shared outdoor amenity spaces integrating play spaces, gardening, storm water and other ecological features, pedestrian circulation, communal amenity buildings, and other communal uses.

j. Design internal roadways to serve as additional shared space (e.g., vehicle access, pedestrian access, open space) using strategies such as:
   - » High-quality pavement materials (e.g., permeable pavers); and
   - » Providing useable spaces for sitting, gathering and playing.

Figure 22: Rooftop patios provide a unique private outdoor space, and should include parapets with railings (3.1.4 f).

Figure 23: Example of internal roadway designed with high quality pavement materials and strategic landscaping placement (3.1.5 a).

3.1.5 Site Servicing, Access, and Parking

Design Intent

To ensure the provision of adequate servicing, vehicle access, and parking while minimizing adverse impacts on the comfort, safety, and attractiveness of streets, sidewalks, and open spaces.

Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

a. Provide landscaping in strategic locations throughout to frame building entrances, soften edges, screen parking garages, and break up long facades *(See Figure 23)*.

Site Servicing

b. Exceptions for locating waste collection out of public view can be made for well-designed waste collection systems such as Molok bins.

Parking

c. Rear-access garage or integrated tuck under parking is preferred in townhouses, in general, and is required for townhouses facing public streets (*See Figure 23*).

d. Centralized parking areas that eliminate the need to integrate parking into individual units are supported.

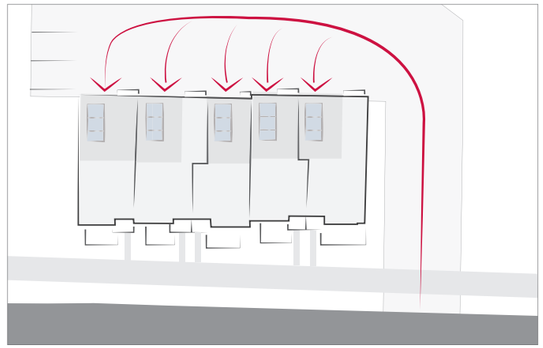


Figure 24: Rear-access parking is preferred in townhouses, in general, and is required for those facing public streets (3.1.5 c).

e. Front garages and driveway parking are acceptable in townhouses facing internal strata roads, with the following considerations:
   - » Architecturally integrate the parking into the building and provide weather protection to building entries; and
   - » Design garage doors to limit visual impact, using strategies such as recessing the garage from the rest of the facade.

f. Provide visitor parking in accessible locations throughout the site and provide pedestrian connections from visitor parking to townhouse units. Acceptable locations include:
   - » Distributed through the site adjacent to townhouse blocks; and
   - » Centralized parking, including integration with shared outdoor amenity space.

Access

g. Ensure that internal circulation for vehicles is designed to accommodate necessary turning radii and provides for logical and safe access and egress.

h. For large townhouse projects (e.g., master planned communities with internal circulation pattern), a minimum of two access/egress points to the site is desired.

i. Locate access points to minimize impact of headlights on building interiors.

j. Design the internal circulation pattern and pedestrian and open space network to be integrated with and connected to the existing and planned public street and open space network.

3.1.6 Building Articulation, Features, and Materials

Design Intent

To enhance liveability, visual interest, and sense of place through building form, architectural composition, and materials.

Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

a. Design facades to articulate the individual units while reflecting positive attributes of neighbourhood character. Strategies for achieving this include *(See Figure 25 & 26)*:
   - » Recessing or projecting facades to highlight the identity of individual units; and
   - » Using entrance features, roofline features, or other architectural elements.

b. To maximize integration with the existing neighbourhood, design infill townhouses to:
   - » Incorporate design elements, proportions, and other characteristics found within the neighbourhood; and
   - » Use durable, quality materials similar or complementary to those found within the neighbourhood.

c. Maintain privacy of units on site and on adjacent properties by minimizing overlook and direct sight lines from the building using strategies such as:
   - » Off-setting the location of windows in facing walls and locating doors and patios to minimize privacy concerns from direct sight lines;
   - » Use of clerestory windows;
   - » Use of landscaping or screening; and
   - » Use of setbacks and articulation of the building.

d. In larger townhouse developments (e.g., master planned communities with internal circulation pattern), provide modest variation between different blocks of townhouse units, such as change in color, materiality, building and roof form.

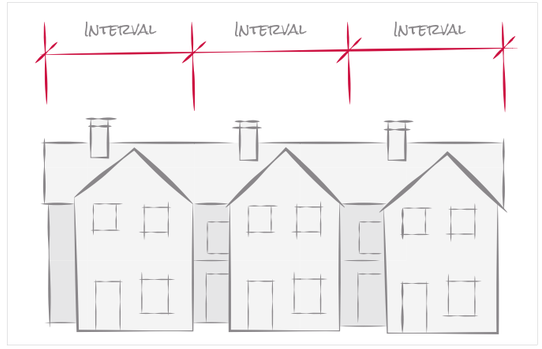


Figure 25: Breaking up a building's facade into a series of intervals creates a more pleasing human scale expression (3.1.6 a).

Figure 26: Example of facades and entrance features designed to articulate individual units (3.1.6 a).

3.2 INFILL

3.2 KEY GUIDELINES

In order to achieve the design goals of the City, all townhouse projects must:

A **3.2.1 a** Configure building massing to reflect the general scale of buildings in the surrounding area (see 3.3.2).

B **3.2.1 b** For each unit, provide well-designed, generous outdoor amenity spaces at grade that offer privacy and screening, as well as attractive interfaces with the street and open spaces (see 3.3.1).

C **3.2.1 c** Locate and design buildings to protect existing mature trees on-site (see 3.3.4).

D **3.2.1 d** Limit impermeable surfaces in landscaped areas and open spaces to maximize stormwater infiltration.

E **3.2.1 e** Use building articulation, scaling, and setbacks to define individual units in a way that is clearly oriented to pedestrians rather than to vehicles and that emphasizes connection to the street (see 3.3.1).

F **3.2.1 f** Orient building entries, windows, patios and balconies to face the fronting and flanking streets, with primary entries clearly visible and directly accessible from the sidewalk see (3.3.1).

G **3.2.1 g** Building design elements, details and materials should create a well-proportioned and cohesive building design and exhibit an overall architectural concept (see 3.3.6).

H **3.2.1 h** Provide access to parking from a flanking street or lane, where available.

3.3 INFILL GUIDELINES

3.3.1 Relationship to the Street

Design Intent

To site and design buildings to support a positive relationship to the street and public open spaces, while providing a clearly-defined public-private transition zone.

INFILL HOUSING

Guidelines

In addition to the strategies outlined in the General Residential Guidelines:

a. Orient the primary façade of buildings to face the fronting street. In the case of lots with multiple frontages, buildings must also be oriented and designed to address flanking streets through architectural and landscape treatments including, but not limited to, front doors and windows (*See Figure 27*).

b. Configure buildings so that a minimum of 50% of units facing streets. All units facing streets should have entries oriented towards, and be clearly accessible and visible from the street.

c. Design primary unit entrances to provide:

   - A clearly visible front door directly accessible from a public street or publicly accessible pathway via a walkway, porch and/or stoop *(See Figure 28)*;
   - Architectural entrance features such as stoops, porches, shared landings, patios, recessed entries, and canopies; and
   - Punctuation, articulation and rhythm along the street.

d. Use low fencing, landscaping and modest (max. of 0.6m) changes in grade to define a sense of transition from the public to the private realm *(See Figure 28)*.

e. Improve the "lanescape" by orienting units located towards the rear of the property to face laneways, and use building entrances, lighting, landscaping and materials to reinforce a safe and attractive public realm.

Figure 27: In the case of lots with multiple frontages, buildings must also be oriented and designed to address flanking streets (3.3.1 a).

Figure 28: Front doors should be directly accessible via a walkway, porch and/or stoop, and front yards should incorporate complementary landscaping and modest fencing (3.3.1. c, d).

3.3.2 Scale and Massing

Design Intent

To ensure that buildings contribute positively to the neighbourhood context while providing opportunity for greater housing choice and diverse building forms.

Guidelines

In addition to the strategies outlined in the General Residential:

a. Wherever possible, reflect the positive attributes of adjacent housing (e.g.: rooflines, front porches, entrance features) while integrating new, higher density housing forms.

b. Use building height, scale and setbacks to reinforce a generally consistent street rhythm. Limit significant real or perceived height difference (i.e.: more that 1.5 storey difference) between new and existing development in the surrounding area (*See Figure 29*).

c. Ensure that larger buildings break down their massing to reflect the scale of surrounding buildings by using sub-forms and façade articulation (*See Figure 20*).

d. In buildings with more than one unit, articulate individual units through integration of recessed entries, balconies, materials and projection/recess in the façade. Avoid symmetrical units (*See Figure 30*).

e. On sites with more than one building, ensure that buildings are distinct, but designed to achieve cohesive scale, massing and proportion

3.3.3 Site Planning

Design Intent

To site buildings to enhance liveability, privacy, safety, and accessibility; to increase connectivity to surrounding public spaces; and to contribute towards a healthy urban forest.

Guidelines

a. Locate buildings on a site to:

- Protect mature trees, where possible;
- Maintain general consistency with established setbacks on primary and secondary streets, where possible;
- Maximize sunlight access to interior spaces and to outdoor amenity areas; and
- Avoid any required storm drainage infrastructure, such as rock pits.

b. Provide pedestrian pathways on site to connect:

- Main unit entrances to public sidewalks and open spaces (minimum width of 1.2m, lit);
- Parking areas to unit entrances;
- From the site to adjacent pedestrian/trail/cycling networks, where applicable; and
- The common utility and water servicing location (*See Figure 31*).

Figure 29: Use building height, scale and setbacks to limit height differences between new and existing development in the surrounding area (3.3.2 b).

Figure 30: Break down the massing of large buildings through articulation of individual units and avoid symmetry (3.3.2 c, d).

Figure 31: Provide pedestrian pathways on site to connect sidewalks, open spaces, unit entrances, and parking areas (3.3.3 b).

c. Where multiple buildings are located on a site, ensure that outdoor amenity space provided at grade between the buildings is generous and comfortable.

d. Maintain privacy of units on site and on adjacent properties by minimizing overlook and direct sight lines from the building using strategies such as:

- Off-setting the location of windows in facing walls and locating doors and patios to minimize privacy concerns from direct sight lines;
- Use of clerestory windows;
- Use of landscaping or screening; and
- Use of setbacks and articulation of the building.

3.3.4 Open Spaces

Design Intent

To design landscapes and open spaces that enhance neighbourhood character, that provide high-quality outdoor living spaces that are useable year-round, and that provide a clear transition between the private and public realm.

Guidelines

In addition to the strategies outlined in the General Residential:

a. Design all units to have easy and direct access to high-quality, private outdoor amenity space located at grade that are useable year-round.

b. Provide landscaping in strategic locations throughout to frame building entrances, soften edges, screen parking garages/areas, and break up long facades (*See Figure 32*).

c. Design open spaces and landscaped areas to protect and to feature mature trees on site, where possible. Where mature trees cannot be protected or where there were no mature trees on site, ensure that adequate open spaces are provided that will allow shade trees to reach mature sizes.

d. Design private outdoor amenity spaces to:

- Have access to sunlight;
- Offer privacy; and
- Have landscaped areas to soften the interface with the street or open spaces (*See Figure 33*).

e. Design front patios to:

- Provide an entrance to the unit; and
- Create a semi-private transition zone using landscape plantings or material changes, or modest (max. 0.6m) grade changes (*See Figure 33*).

f. Design rooftop patios to:

- Minimize direct sight lines into nearby units;
- Have access away from primary facades;
- Have parapets with railings; and
- Minimize the impact of rooftop accesses on the overall height and massing of a building.

g. Maximize the use of permeable surfaces in all landscaped and

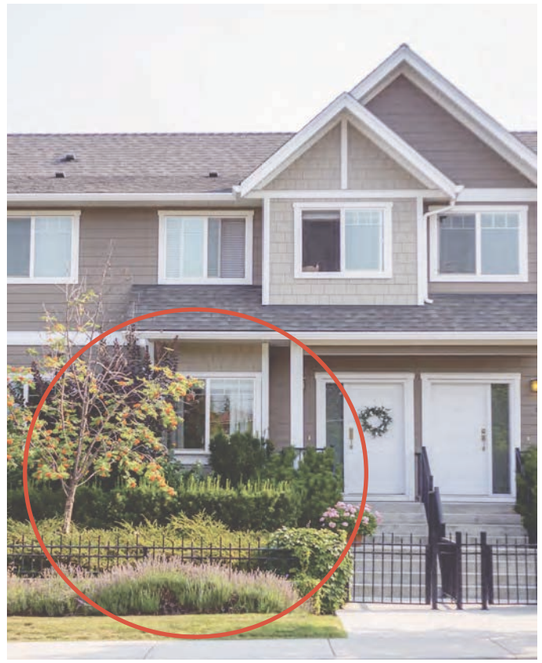


Figure 32: Provide landscaping that frames building entrances, softens edges, screens parking, and breaks up long facades (3.3.4 b).

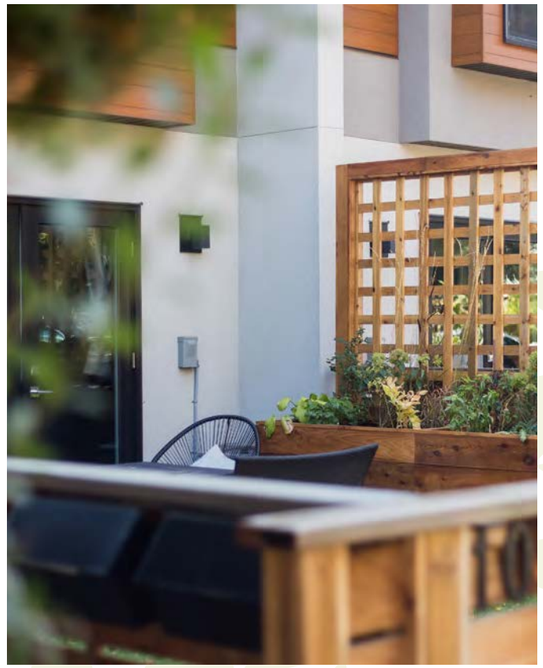


Figure 33: Provide usable outdoor, landscaped amenity spaces that create a transition zone from the street to private residential units (3.3.4 d, e).

open spaces. Discourage the use of impermeable surfaces, such as poured-in-place concrete.

h. Design outdoor amenity areas so that they are not impacted by parking, mechanical equipment or servicing areas.

i. Design balconies to be inset or partially inset to offer privacy and shelter, reduce building bulk, and minimize shadowing.

j. Design internal driveways to serve as additional shared space using strategies such as:

   - High-quality, permeable pavement materials (e.g.: interlocking, permeable pavers);
   - Providing useable spaces for sitting, gathering and playing; and
   - Providing landscaping that frames and defines pedestrian entrances and soften edges between buildings and hardscapes (*See Figure 36*).

k. Encourage low (1.06m maximum), semi-transparent fencing or railings in the front yard to define the transition between public and private realms. Discourage tall hedges, opaque or tall fencing in the front yard which would limit public interface.

3.3.5 Site Servicing, Access, and Parking

Design Intent

To ensure the provision of adequate servicing, vehicle access, and parking while minimizing adverse impacts on the comfort, safety and attractiveness of streets, sidewalks, and open spaces.

Guidelines

In addition to the strategies outlined in the General Residential Guidelines:

a. Ensure that site layouts include provision for solid waste pick-up and bin storage that is enclosed or otherwise screened from view (*See Figure 35*).

b. Locate mechanical equipment and site services, such as transformers and mailboxes, to minimize impacts on outdoor amenity areas through appropriate siting and screening.

c. Ensure that all vehicle parking access is taken from the lane or secondary street, where available.

d. Locate parking directly adjacent to street/lane access points to reduce or eliminate driveways, where possible.

e. Support common parking areas or garages that eliminate the need to integrate parking into individual units. Where parking is not contained within a garage, ensure it is appropriately screened.

f. Where vehicle access is only available via the primary street, ensure that vehicle parking is enclosed and integrated into one or more principal buildings on the site. Limit the visual impact of enclosed parking by using strategies such as recessing the garage from the rest of the façade.

g. Ensure that internal circulation for vehicles is designed to accommodate necessary turning radii and provides for logical and safe access and egress.

Figure 34: Use permeable paving techniques for driveway areas, and soften paved areas by providing landscaping (3.3.4 j).

Figure 35: Ensure that site layouts include provision for solid waste pick-up and bin storage that is enclosed or otherwise screened from view (3.3.5. b).

Figure 36: Incorporate design elements, propotions, and materials found in the existing neighbourhood (3.3.6 b).

Figure 37: Design facades to articulate individual units using entrance features, roofline features, and other architectural elements (3.3.6a).

h. Locate access points and windows to minimize impact of headlights on building interiors.

3.3.6 Building Articulation, Features, and Materials

Design Intent

To enhance liveability, neighbourhood character, visual interest and sense of place through building form, architectural composition, and materials.

Guidelines

In addition to the strategies outlined in the General Residential Guidelines:

a. Design facades to articulate and differentiate the individual units (*See Figure 37*). Strategies for achieving this include:

   - Recessing or projecting facades to highlight the identity of individual units; and
   - Using entrance features, roofline features, or other architectural elements.

b. To maximize integration with the existing neighbourhood, design infill houses to:

   - Incorporate design elements, proportions, and other characteristics found within the neighbourhood; and
   - Use durable, quality materials similar or complementary to those found within the neighbourhood (*See Figure 26*).

c. Avoid blank walls by incorporating windows, and articulating the façade with recesses or projections, reinforced by building material changes and landscaping.

d. Use increased ground floor height, entryway features, generous glazing, front porches and other architectural features to emphasize the ground floor as the highest design priority.

e. On sites with multiple buildings, ensure that each building is unique, but tied together with the same architectural style and material palette.

f. Use durable, low-maintenance materials that withstand the local climate (e.g.: wood, natural stone, masonry, metal panels, fibre cement siding, or approved alternatives). Vinyl siding, large areas of stucco, and imitation stone/rock are discouraged and should generally be avoided.

g. Use warm, textured materials (e.g.: wood, masonry, stone) to provide contrast and to emphasize focal points (e.g.: entryways), particularly at grade (*See Figure 28*).

h. A maximum of two cladding materials are recommended (*See Figure 38*).

i. Changes in materials should incorporate appropriate trim and detailing and occur at significant changes in plane, including floor level changes and step backs.

Figure 38: Use up to two warm, textured cladding materials to provide contrast and emphasize focal points (3.3.6 g, h).

3.3.7 Subdivision Design

Design Intent

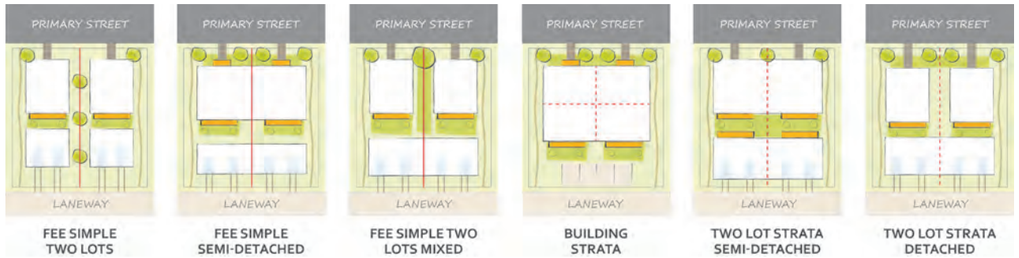
To provide a flexible approach to unit mix and tenure forms in small-scale infill development.

Guidelines

In addition to the strategies outlined in the General Residential Guidelines:

a. Development Permits must be considered in conjunction with the architecture and design of future buildings on the site

b. Permissible subdivision configurations include, but are not limited to, those shown in the diagram below.



LOW & MID-RISE RESIDENTIAL & MIXED USE

4.0 LOW & MID-RISE RESIDENTIAL & MIXED USE 34
4.1 GUIDELINES 35

OVERVIEW

- Low- and mid-rise residential and mixed use buildings are a common typology in Kelowna.
- Common design challenges include addressing the street with active uses and ground-oriented units and reducing the bulk and massing of larger buildings.
- As a result, projects should have a strong relationship to the street with a clear front-to-back orientation and provide vertical and horizontal articulation.

GENERAL CHARACTERISTICS

- 3-4 storeys for low-rise buildings
- 5-12 storeys for mid-rise buildings
- A shared main entrance and secondary accesses to units within the building
- Ground-oriented residential units and/or commercial retail at-grade

4.0 LOW & MID-RISE RESIDENTIAL & MIXED USE

4.1.0 KEY GUIDELINES

In order to achieve the design goals of the City, all low and mid-rise residential and mixed use projects must:

A **4.1.0 a –** Provide attractive and active human-scale amenities oriented towards public spaces at grade such as a frequent entries, weather protection, and outdoor seating areas (see 4.1.1 and 4.1.5).

B **4.1.0 b –** Break up building mass by providing simple vertical and horizontal articulation of facades; e.g., step-backs, insets, projections, color and texture (see 4.1.6).

C **4.1.0 c –** Ensure buildings have a front-to-back orientation to streets and open spaces with back-of-house uses located to the rear of buildings to minimize impacts on public open spaces (see 4.1.3).

D **4.1.0 d –** Orient entries, windows, patios and balconies to face the fronting street. Ensure primary building entries are architecturally emphasized and directly accessible from the fronting public sidewalk (see 4.1.1).

E **4.1.0 e –** Maximize 'eyes on the street' by providing direct lines of sight from windows and balconies to the sidewalk and avoiding blank walls (see 4.1.1 and 4.1.5).

F **4.1.0 f –** Provide access to underground or above ground on-site parking from secondary streets or lanes (see 4.1.4).

G **4.1.0 g –** When structured above grade parking is required due to the high water table, use store fronts or screening to mitigate visual impacts (see 4.1.4).

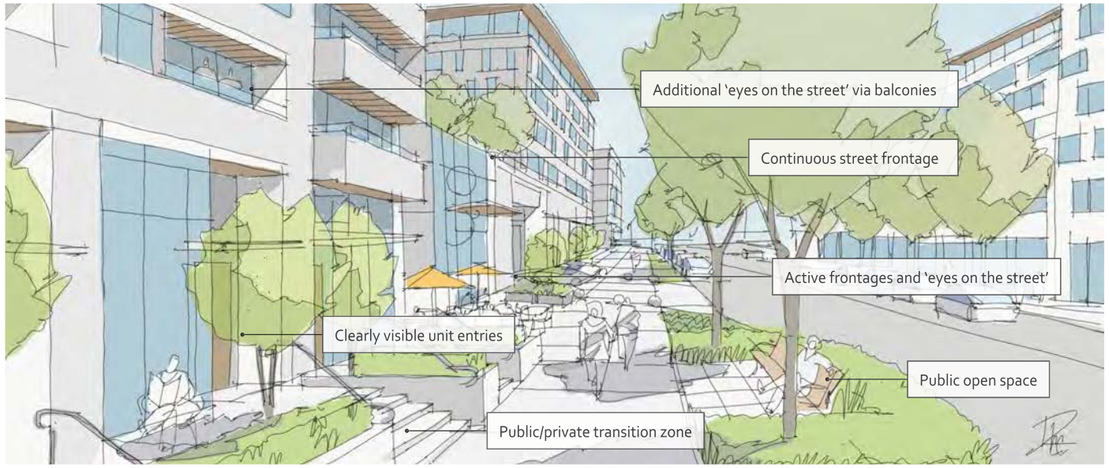
H **4.1.0 h –** Integrate semi-private open space with the surrounding streetscape (see 4.1.5).

4.1 GUIDELINES

4.1.1 Relationship to the Street

Design Intent

To site and design buildings to positively frame and activate streets and public open spaces.



Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

a. Ensure lobbies and main building entries are clearly visible from the fronting street.

b. Avoid blank walls at grade wherever possible by:

- Locating enclosed parking garages away from street frontages or public open spaces;
- Using ground-oriented units and entries or glazing to avoid creating dead frontages; and
- When unavoidable, screen blank walls with landscaping or incorporate a patio cafe or special materials to make them more visually interesting.

Commercial and Mixed Use Buildings

c. Ensure buildings have a continuous active and transparent retail frontage at grade to provide a visual connection between the public and private realm.

d. Site buildings using a common 'build to' line at or near the front property line so that a continuous street frontage is maintained. Some variation (1-3m maximum) can be accommodated in ground level set backs to support pedestrian and retail activity by, for example, incorporating a recessed entryway, small entry plaza, or sidewalk cafe *(See Figure 39)*.

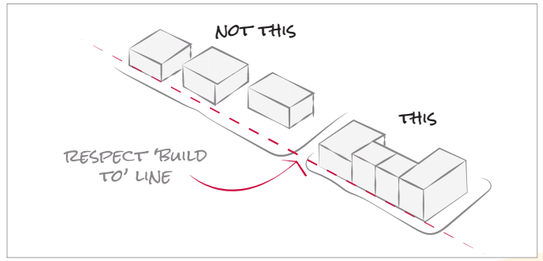


Figure 39: Site buildings with commercial frontages continuously using a common 'build to' line (4.1.1 d).

Figure 40: In mixed-use projects, incorporate frequent entrances into commercial street frontages (4.1.1 e).

STREET INTERFACE

These conceptual elevation diagrams illustrate three common street interface scenarios for low and mid-rise mixed use and residential buildings.

MIXED USE WITH GROUND LEVEL RETAIL

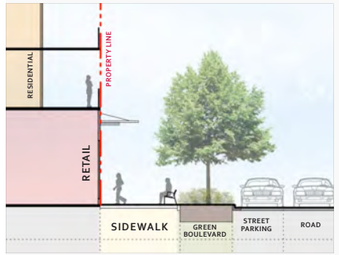


Figure :41

RESIDENTIAL WITH UNDERGROUND PARKING

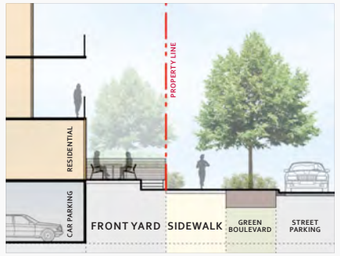


Figure 42

RESIDENTIAL WITH HALF-UNDERGROUND PARKING

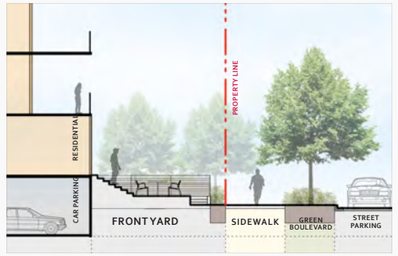


Figure 43

e. Incorporate frequent entrances (every 15 m maximum) into commercial street frontages to create punctuation and rhythm along the street, visual interest, and support pedestrian activity *(See Figure 40)*.

Residential and Mixed use Buildings

f. Set back residential buildings on the ground floor between 3-5m from the property line to create a semi-private entry or transition zone to individual units and to allow for an elevated front entryway or raised patio.

   » A maximum 1.2m height (e.g., 5-6 steps) is desired for front entryways.

   » Exceptions can be made in cases where the water table requires this to be higher. In these cases, provide a larger patio and screen parking with ramps, stairs and landscaping.

g. Incorporate individual entrances to ground floor units accessible from the fronting street or public open spaces.

h. Site and orient buildings so that windows and balconies overlook public streets, parks, walkways, and shared amenity spaces while minimizing views into private residences.

Figure 44: Example of a raised residential frontage with semi private patios over half underground parking (see also Figure 31).

4.1.2 Scale and Massing

Design Intent

To ensure buildings contribute positively to the neighbourhood context and provide a sensitive transition in scale to existing and future buildings, parks, and open spaces.

Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

a. Residential building facades should have a maximum length of 60m. A length of 40m is preferred.

b. Residential buildings should have a maximum width of 24m.

c. Buildings over 40m in length should incorporate a significant horizontal and vertical break in the facade *(See Figure 45)*.

   » For commercial facades, incorporate a significant break at intervals of approximately 35m.

Seven to twelve storey buildings

d. Buildings between seven and twelve storeys should:

   » Incorporate a 2-3 storey podium at the base of the building (see 4.1.1 c-e for commercial interface guidelines and 4.1.1 f-i for residential interface guidelines);

   » Incorporate a minimum 2m stepback in upper storeys, and more generous upper storey terraces facing south and west *(See Figure 44)*; and,

   » Have a minimum 30m building separation between primary building facades.

e. Courtyards and mid-block connections within building sideyards should be a minimum of 6m wide.

f. To support and promote the use of mass timber construction, exceptions to setbacks and podium design guidelines will be considered to accommodate unique design challenges and technical requirements.

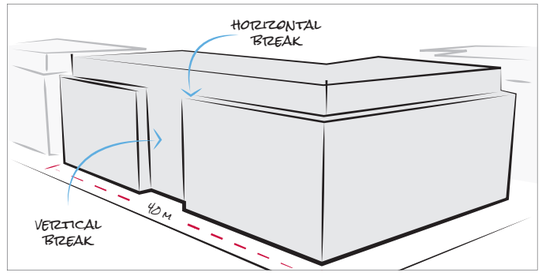


Figure 45: Buildings over 40m in length should incorporate a significant horizontal and vertical break in the facade (4.1.2 c).

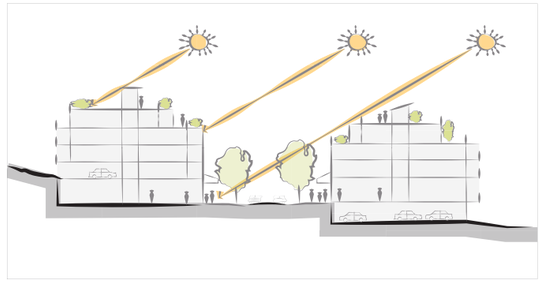


Figure 46: Upper storeys of buildings should step back to reduce visual impact and shadows on the public realm (4.1.2. d).

4.1.3 Site Planning

Design Intent

To site buildings to respond sensitively to topography and environmental features; to enhance privacy, liveability, safety and accessibility; and to increase connectivity to the surrounding open space network.

Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

a. On sloping sites, floor levels should step to follow natural grade and avoid the creation of blank walls.

b. Site buildings to be parallel to the street and to have a distinct front-to-back orientation to public street and open spaces and to rear yards, parking, and/or interior court yards:

   » Building sides that interface with streets, mid-block connections, and other open spaces (building fronts) should positively frame and activate streets and open spaces and support pedestrian activity (*See Figure 47*); and

   » Building sides that are located away from open spaces (building backs) should be designed for private/shared outdoor spaces and vehicle access.

Connectivity

c. Break up large buildings with mid-block connections which should be publicly-accessible wherever possible.

d. Ground floors adjacent to mid-block connections should have entrances and windows facing the mid-block connection *(See Figure 47)*.

Figure 47: Example of a mid-block connection with seating, landscaping, and active frontages (4.1.3 b & d).

4.1.4 Site Servicing, Access, and Parking

Design Intent

To ensure the provision of adequate servicing, vehicle access, and parking while minimizing adverse impacts on the comfort, safety and attractiveness of the public realm.

Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

a. Vehicular access should be from the lane *(See Figure 48)*. Where there is no lane, and where the re-introduction of a lane is difficult or not possible, access may be provided from the street, provided:

- Access is from a secondary street, where possible, or from the long face of the block;
- Impacts on pedestrians and the streetscape is minimized; and,
- There is no more than one curb cut per property.

b. Above grade structure parking should only be provided in instances where the site or high water table does not allow for other parking forms and should be designed in accordance with 5.1.4 b.

c. Buildings with ground floor residential may integrate half-storey underground parking to a maximum of 1.2m above grade, with the following considerations:

- Semi-private spaces should be located above to soften the edge and be at a comfortable distance from street activity; and.
- Where conditions such as the high water table do not allow for this condition, up to 2m is permitted, provided that entryways, stairs, landscaped terraces, and patios are integrated and that blank walls and barriers to accessibility are minimized (*See Figure 43 on page 36*).

4.1.5 Publicly-Accessible and Private Open Spaces

Design Intent

To design landscapes and open spaces to respond to an open space program that relates to its users and provides flexible, accessible open space.

Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

a. Integrate publicly accessible private spaces (e.g,. private courtyards accessible and available to the public) with public open areas to create seamless, contiguous spaces *(See Figure 49)*.

b. Locate semi-private open spaces to maximize sunlight penetration, minimize noise disruptions, and minimize 'overlook' from adjacent units.

Figure 48: Provide access to parking from the lane or secondary street, and integrate vehicular entrances into the building (4.1.4 a).

Figure 49: Example of active uses at grade with public realm elements integrated in a front courtyard (4.1.5 a).

Outdoor amenity areas

c. Design plazas and urban parks to:

- Contain 'three edges' (e.g., building frontage on three sides) where possible and be sized to accommodate a variety of activities;
- Be animated with active uses at the ground level; and,
- Be located in sunny, south facing areas.

d. Design internal courtyards to:

- Provide amenities such as play areas, barbecues, and outdoor seating where appropriate.
- Provide a balance of hardscape and softscape areas to meet the specific needs of surrounding residents and/or users.

e. Design mid-block connections to include active frontages, seating and landscaping.

Rooftop Amenity Spaces

f. Design shared rooftop amenity spaces (such as outdoor recreation space and rooftop gardens on the top of a parkade; see *Figure 50*) to be accessible to residents and to ensure a balance of amenity and privacy by:

- Limiting sight lines from overlooking residential units to outdoor amenity space areas through the use of pergolas or covered areas where privacy is desired; and
- Controlling sight lines from the outdoor amenity space into adjacent or nearby residential units by using fencing, landscaping, or architectural screening.

g. Reduce the heat island effect by including plants or designing a green roof, with the following considerations:

- Secure trees and tall shrubs to the roof deck; and
- Ensure soil depths and types are appropriate for proposed plants and ensure drainage is accommodated.

Figure 50: Examples of outdoor amenity space in a mid-rise building (4.1.5 f).

Figure 51: An example of breaking down a long building facade, using recesses to articulate the facade and allow shadows to add detail and variety (4.1.6 a).

4.1.6 Building Articulation, Features & Materials

Design Intent

To enhance liveability, visual interest, identity, and sense of place through building form, architectural composition, and materials.

Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

a. Articulate building facades into intervals that are a maximum of 15m wide for mixed-use buildings and 20m wide for residential buildings. Strategies for articulating buildings include *(See Figure 51)*:

- Façade Modulation – stepping back or extending forward a portion of the façade to create a series of intervals in the facade;
- Repeating window patterns at intervals that correspond to extensions and step backs (articulation) in the building facade;
- Providing a porch, patio, deck, or covered entry for each interval;

- Providing a balcony or bay window for each interval;
- Changing the roof line by alternating dormers, stepped roofs, gables, or other roof elements to reinforce the modulation or articulation interval;
- Changing the materials with the change in building plane; and
- Provide a lighting fixture, trellis, tree, or other landscape feature within each interval.

b. Break up the building mass by incorporating elements that define a building's base, middle and top.

c. Use an integrated, consistent range of materials and colors and provide variety by, for example, using accent colors *(See Figure 52)*.

d. Articulate the facade using design elements that are inherent to the building as opposed to being decorative. For example, create depth in building facades by recessing window frames or partially recessing balconies to allow shadows to add detail and variety as a byproduct of massing.

e. Incorporate distinct architectural treatments for corner sites and highly visible buildings such as varying the roofline *(See Figure 53)*, articulating the facade, adding pedestrian space, increasing the number and size of windows, and adding awnings and canopies.

Weather protection

f. Provide weather protection (e.g. awnings, canopies, overhangs, etc.) along all commercial streets and plazas (*See Figure 54*), with particular attention to the following locations:

- Primary building entrances,
- Adjacent to bus zones and street corners where people wait for traffic lights;
- Over store fronts and display windows; and
- Any other areas where significant waiting or browsing by people occurs.

g. Architecturally-integrate awnings, canopies, and overhangs to the building and incorporate architectural design features of buildings from which they are supported.

h. Place and locate awnings and canopies to reflect the building's architecture and fenestration pattern.

i. Place awnings and canopies to balance weather protection with daylight penetration. Avoid continuous opaque canopies that run the full length of facades.

Signage

j. Provide attractive signage on commercial buildings that identifies uses and shops clearly but which is scaled to the pedestrian rather than the motorist. Some exceptions can be made for buildings located on highways and/or major arterials in alignment with the City's Sign Bylaw *(See Figure 54)*.

k. Avoid the following types of signage:

- Signs as awnings/awnings as signs;
- Internally lit plastic box signs;
- Pylon (stand alone) signs; and
- Rooftop signs.

l. Uniquely branded or colored signs are encouraged to help establish a special character to different neighbourhoods.

Figure 52: Example of the use of accent color to augment a simple and consistent material palette (4.1.6 c).

Figure 53: A residential building's roof form is stepped to break up the overall form (4.1.6 e).

Figure 54: Weather protection and clear signage should be provided along all commercial streets and plazas, and be architecturally-integrated to reflect the pattern of shop fronts and upper storey fenestration/articulation (4.1.6 f-j).

HIGH RISE RESIDENTIAL & MIXED USE

5.0 HIGH RISE RESIDENTIAL & MIXED USE 42
5.1 GUIDELINES 43

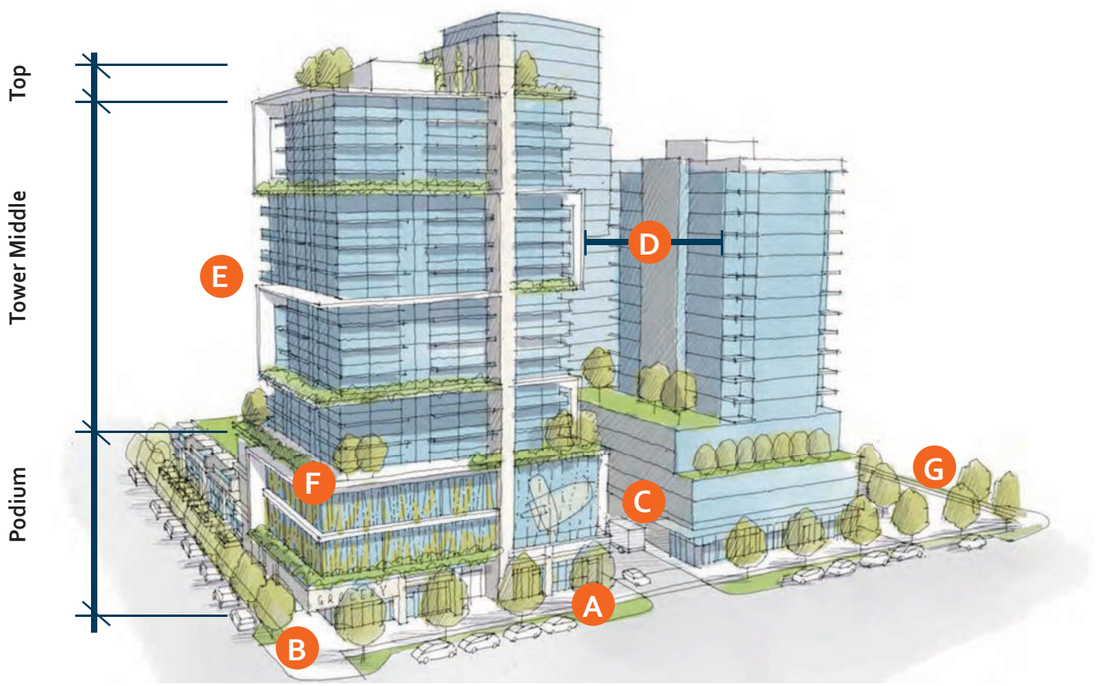
OVERVIEW

- High-rise buildings are increasingly common in Kelowna, including wholly residential, mixed use, and wholly commercial buildings.
- Common design challenges include reducing the mass of podiums and bulk of towers, reducing the visual and use impacts of above-grade structured parking, and having active frontages on the primary and secondary streets.
- As a result, these projects should have a strong relationship to the street with active frontages, break up the mass of podiums by providing vertical and horizontal articulation, and having slender towers with reduced floorplates.

GENERAL CHARACTERISTICS

- 13+ storeys
- A shared main entrance and secondary accesses to units within the building
- Ground oriented residential units and/or commercial retail accessed at-grade

5.0 HIGH RISE RESIDENTIAL & MIXED USE



5.1.0 KEY GUIDELINES

In order to achieve the design goals of the City, all high-rise residential and mixed use projects must:

A **5.1.0 a –** Provide a minimum first floor height of 4.5 m, and limit podium heights to 4 storeys (see 5.1.2).

B **5.1.0 b –** Design buildings to activate the street with transparent frontages and commercial, retail, and residential units accessible from the street (see 5.1.1).

C **5.1.0 c –** Provide access to parking and loading areas via laneways or secondary streets. Locate structured parking away from street frontages and use store fronts or screening to mitigate visual impacts of upper-storey parking (see 5.1.4).

D **5.1.0 d –** Site podiums to frame and activate the street. Site and design towers with appropriate separation (25m) and with slender and simple forms to limit privacy impacts and maximize sunlight access to streets and open spaces (see 5.1.3).

E **5.1.0 e –** Design buildings to balance a cohesive architectural look with a distinctly articulated podium, tower, and top (see 5.1.6).

F **5.1.0 f –** Break up podium mass by providing simple vertical and horizontal articulation of facades; e.g., stepping back or projecting forward a portion of the facade, using color and texture (see 5.1.6).

G **5.1.0 g –** Provide opportunities for mid-block connections, corner plazas, and other open spaces to increase pedestrian connectivity throughout the city (see 5.1.5).

5.1 GUIDELINES

5.1.1 Relationship to the Street

Design Intent

To site and design buildings to positively frame and activate streets and public open spaces.

HIGH RISE RESIDENTIAL & MIXED USE

Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

a. Design podiums to have transparent frontages to promote 'eyes on the street', using strategies such as *(See Figure 55)*:
   - » Having continuous commercial and retail uses with windows and primary entrances facing the street; and
   - » Having ground-oriented residential units with windows and primary entrances facing the street.

b. For buildings on corner sites with retail frontages, ensure there are active frontages on both facades by wrapping the primary retail facade to the secondary frontage. The primary facade can be emphasized by using higher quality materials and detailing and creating a more prominent entrance *(See Figure 56)*.

c. For residential podiums with townhouse frontages, refer to Section 3.1 for Guidelines for that portion of the building.

d. Locate private, indoor amenity facilities such as bicycle storage along secondary street frontages as opposed to primary street frontages.

e. Blank walls over 5 m in length along a commercial frontage are strongly discouraged and should be avoided.

Building Address and Access

f. Use architectural and landscape features to create well-defined, clearly visible, and universally accessible primary building entrances *(See Figure 58 on page 44)*. Additionally:

Figure 55: Frequent and transparent entrances into commercial frontages along the street creates visual interest, provides 'eyes on the street' and improves the pedestrian experience (5.1.1 a).

Figure 56: Example of active podium frontage with retail wrapping from primary (left) to secondary (right) frontages (5.1.1 b).

- Differentiate between residential and commercial entrances;
- Design lobby entryways to ensure they are well-defined and visually emphasized in the facade;
- For retail frontages, provide small format retail storefronts with frequent entrances and a minimum depth of 10 m; and
- Locate main building entries close to transit stops.

Sidewalk Interface

g. Design the streetscape fronting buildings to have defined zones as follows *(See Figure 57)*:

- Frontage zone next to the building that may include patios, seating, or space for pedestrians to access building entrances;
- Pedestrian zone that accommodates pedestrians walking along the sidewalk;
- Furnishing / planting zone that provides space for street trees, landscaping, seating and lighting; and
- Edge zone that provides a buffer from moving bicycles and vehicles.

h. Provide a generous sidewalk width and space for streetscape amenities such as street trees, benches & patios *(See Figure 59)*.

Figure 57: The sidewalk interface can be broken down into four zones, all of which have a role in supporting walkability, social interaction, and strong retail accessibility and visibility (5.1.1. g).

ACHIEVING AN ACTIVE STREETSCAPE AND STRONG RELATIONSHIP TO THE STREET

These conceptual diagrams demonstrate a selection of guidelines to describe key areas for consideration for achieving a strong relationship to the street and active streetscapes in high-rise buildings.

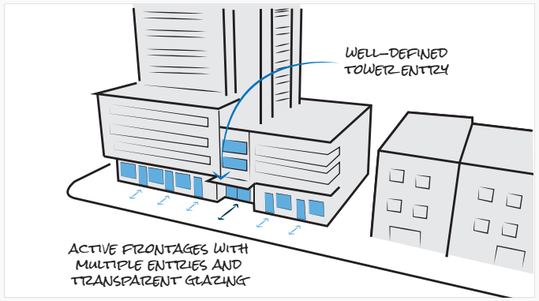


Figure 58: Create well-defined, clearly visible, and universally accessible primary building entrances (5.1.1 f).

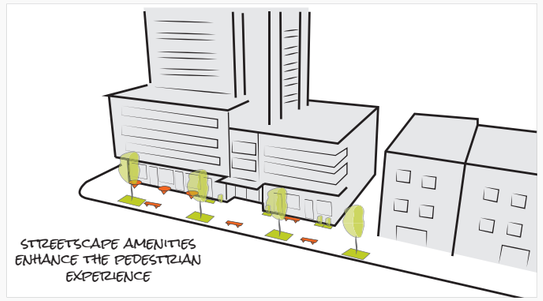


Figure 59: Provide streetscape amenities such as street trees, landscaping, seating and lighting to enhance the pedestrian experience (5.1.1 h).

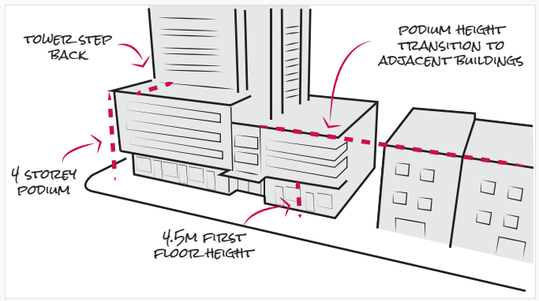


Figure 60: Vary the height and form of the podium to respect and respond to the height of the existing and envisioned future context on neighbouring sites as well as the adjacent street width. (see 5.1.2 a,b & d).

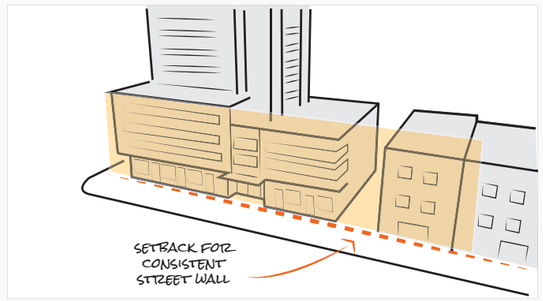


Figure 61: Site podiums parallel to the street and create a consistent streetwall (see 5.1.3 a).

5.1.2 Scale and Massing

Design Intent

To ensure buildings contribute positively to the neighbourhood context and provide a sensitive transition in scale to existing and future buildings, parks, and open spaces.

Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

Podium

a. Provide a minimum first floor height of 4.5 metres, measured from grade *(See Figure 60 on page 44)*.

b. Provide a minimum podium height of 2 storeys and a maximum podium height of 4 storeys, and ensure that the total podium height does not exceed 80% of the adjacent street right-of-way width *(See Figure 60 on page 44)*.

c. On corner sites, vary the height and form of the podium to respect and respond to the height and scale of the existing context on adjacent streets.

d. When adjacent sites are lower in height and are not anticipated to change, provide a transition in the podium height down to the lower-scale neighbours *(See Figure 60 on page 44)*.

- When adjacent sites include heritage buildings, design the scale and height of the podium to align with the heritage building height.

Tower Middle

e. Orient towers in a north/south direction.

f. A maximum of four towers should be located within an individual block, with a staggered tower spacing.

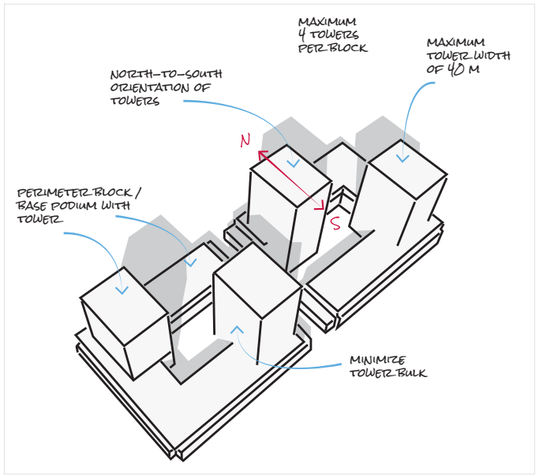


Figure 62. Summary of scale and massing guidelines for podium and tower typologies.

5.1.3 Site Planning

Design Intent

To site podiums and towers to create a consistent streetwall and minimize visual and shadow impacts on the public realm.

Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

Building Placement

a. Site podiums parallel to the street and extend the podium along the edges of streets, parks, and open space to establish a consistent street wall *(See Figure 61 on page 44)*.

b. Additional considerations for building placement include:

- Site towers to be setback from the street wall and closer to the lane.
- Greater setbacks can be provided at strategic points or along the entire frontage for increased architectural interest and improved pedestrian experience, for example to provide space for tree planting, wider sidewalks, plazas, and other open spaces.
- Greater setbacks can be provided along retail streets in order to accommodate street cafes and patios (3-4m).
- On corner sites with retail frontage, provide a triangular setback 4.5m in length abutting along the property lines that meet at each corner of the intersection *(See Figure 63)*.
- Wherever possible, retain existing landscaped streetscapes by providing generous setbacks for trees and plantings.

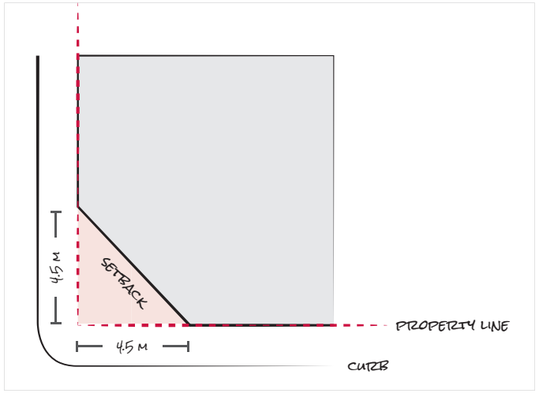


Figure 63: Provide a triangular setback on corner sites with retail frontage (5.1.3 b).

Building Separation

c. Maintain a minimum spacing distance of 25m between towers, measured from the exterior wall of the buildings, excluding balconies *(See Figure 64)*.

d. Place towers away from streets, parks, open space, and neighbouring properties to reduce visual and physical impacts of the tower.

Fit and Transition

e. Promote fit and transition in scale between tall buildings and lower-scaled buildings, parks, and open spaces by applying angular planes, minimum horizontal separation distances, and other strategies such as building setbacks and stepbacks to limit shadow and visual impacts.

Solar Access

f. Use a sun/shadow study to demonstrate how the proposed building impacts solar access on adjacent buildings and open spaces during the equinox and winter solstice, and to ensure that a minimum of 5 hours of daily sunlight is maintained on adjacent north-south street sidewalks. Strategies for minimizing impact on solar access include:

- Limiting the scale and height of the podium;
- Designing slender towers with generous separation distances;
- Varying the height of towers on sites with multiple towers; and
- Locating towers on site to minimize shadowing adjacent buildings and open spaces.

Views from the Public Realm

g. Site buildings to create, frame, or extend views from the public realm to important natural and human-made features (e.g., to Okanagan Lake) by using strategies such as varying setbacks to protect important views.

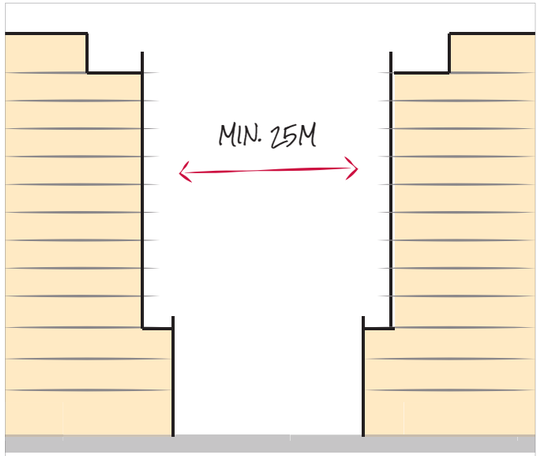


Figure 64: Provide separation distance between towers on the same site of 25m or greater (5.1.3 c).

5.1.4 Site Servicing, Access, and Parking

Design Intent

To ensure the provision of adequate servicing, vehicle access, and parking while minimizing adverse impacts on the comfort, safety, and attractiveness of the public realm.

Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

a. Wherever possible, provide access to site servicing and parking at the rear of the building or along a secondary street. Through-lanes are encouraged to minimize the need for vehicle turnarounds on site.

b. When parking cannot be located underground due to the high water table and is to be provided above ground, screen the parking structure from public view as follows (*See Figure 65*):

- On portions of the building that front a retail or main street, line the above ground parking with active retail frontage;
- On portions of the building that front onto non-retail streets, line the above ground parking with an active residential frontage, such as ground oriented townhouse units;
- When active frontages are not able to be accommodated, screen parking structures by using architectural or landscaped screening elements;
- On corner sites, screen the parking structure from public view on both fronting streets using the appropriate strategy listed above.

c. An additional acceptable strategy for mitigating visual impacts from above ground parking is to create a setback between the ground floor and upper storeys of the podium that can accommodate significant soil volumes for planting trees and other landscaping to screen the parking structure (see *Figure 65*).

- Public art can also be used to mitigate visual impacts from blanks walls on upper storey podium levels.

d. Minimize the visual impact of garage doors, parking entrances and service openings on the public realm by using strategies such as recessing, screening, and size minimization.

- Avoid split level, raised or sunken parkade entrances.

e. Locate drop-off areas into the side or rear of the site and provide pedestrian access to the street frontage.

f. Provide clearly visible pedestrian access to and from parking areas.

g. Integrate service connections, vents, mechanical rooms and equipment with the architectural treatment of the building, and/or locate to minimize visual impact and screen from view with materials and finishes compatible with the building.

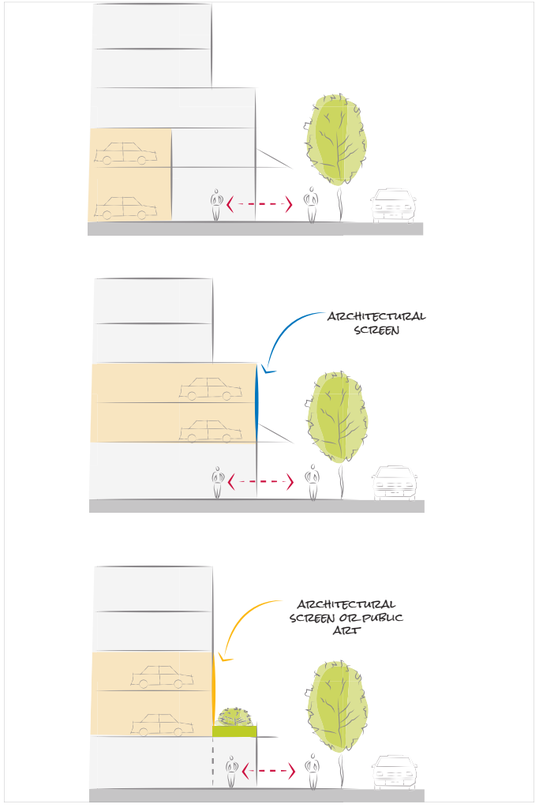


Figure 65: Minimize impacts on the public realm by screening above-grade parking structures with active uses (top image) in the podium or with the use of architectural screens (middle image) or through the use of a landscaped setback (bottom image) (5.1.4 b-c).

Figure 66: Example of incorporating publicly accessible open space animated by active podium frontages (5.1.5 a-e).

5.1.5 Publicly-Accessible and Private Open Spaces

Design Intent

To design landscapes and open spaces to respond to an open space program that relates to its users and provides flexible, accessible open space.

Publicly Accessible Open Spaces

a. Wherever possible, include publicly accessible open space on-site, such as hard or soft landscaped setbacks, plazas, mid-block connections and courtyards *(See Figure 66 and 67)*.

b. Define and animate the edges of open spaces with well-proportioned podiums and active uses at-grade.

c. Locate and design publicly accessible open space to:

- Be directly accessible from the fronting public sidewalk;
- Maximize access to sunlight and encourage year-round use through the use of landscaping, seating, and weather protection;
- Where possible, complement and connect with publicly accessible open space on neighbouring properties; and
- Maximize safety, comfort, amenity, and accessibility.

d. On larger sites, use publicly accessible open space to provide through-block pedestrian connections.

e. Where provided, tailor furniture elements as appropriate to encourage a range of seating and gathering opportunities, including both fixed and unfixed seating to allow for flexibility of use.

Private Open Spaces

f. Provide private outdoor amenity spaces on site, such as balconies, private courtyards, private gardens, and accessible green roofs *(See Figure 67 & 68)*.

g. Locate and design shared private outdoor amenity space to:

- Maximize access to sunlight;
- Minimize noise, smell and/or visual impacts from site servicing or mechanical equipment; and
- Provide seating, lighting, trees, shade structures, and weather protection.

h. Locate private patios and gardens to minimize overlook from neighbours.

i. For shared rooftop amenity spaces (e.g., on the top of the podium parkade), ensure a balance of amenity and privacy by:

- Limiting sight lines from overlooking residential units to outdoor amenity space areas through the use of pergolas or covered areas where privacy is desired; and
- Controlling sight lines from the outdoor amenity space into adjacent or nearby residential units by using fencing, landscaping, or architectural screening.

j. Design private balconies to be large enough to provide usable outdoor space.

k. Locate indoor amenity areas adjacent to shared outdoor amenity areas and allow access between the two areas.

Figure 67: Illustrating a variety of private outdoor amenity spaces as well as publicly accessible open spaces on a high-rise building site (5.1.5 a-k).

Figure 68: Example of roof garden and private open space (5.1.4 f).

Public Art

l. Where applicable, integrate public art on-site to generate interest and activity and reflect the unique natural, Indigenous, or human history of Kelowna *(See Figure 69)*.

m. Provide adequate building setbacks and space to accommodate the pedestrian view and experience of public art installations.

n. Site artwork at key pedestrian spaces such as courtyards, mid-block connections, lanes, and plazas.

5.1.6 Building Articulation, Features & Materials

Design Intent

To enhance liveability, visual interest, identity, and sense of place through building form, architectural composition and materials.

Guidelines

In addition to the strategies outlined in the General Residential and Mixed Use Guidelines:

a. Design tall buildings to have a cohesive architectural look with a distinct podium, tower, and top. Strategies for achieving this include changes in articulation, materials, and the use of step backs.

Podium

b. Provide architectural expression in a pattern, scale and proportion that is in relation to neighbouring buildings and that differentiates it from the tower. Examples of such design elements include the use of:

- Cornice lines
- Window bays;
- Entrances;
- Canopies;
- Durable building materials; and
- Fenestration.

c. Highlight primary retail facades with high quality materials and detailing, with particular attention to building entrances.

d. Avoid blank walls, but if necessary, articulate them with the same materials and design as the other active frontages.

e. Along mixed-use and commercial street frontages, avoid locating balconies (projecting or inset) within the first 2 storeys of the podium. Between 3 and 6 storeys, inset balconies behind the streetwall.

f. Provide weather protection and signage in accordance with Guidelines found in section 4.1.6 (*See Figure 70*).

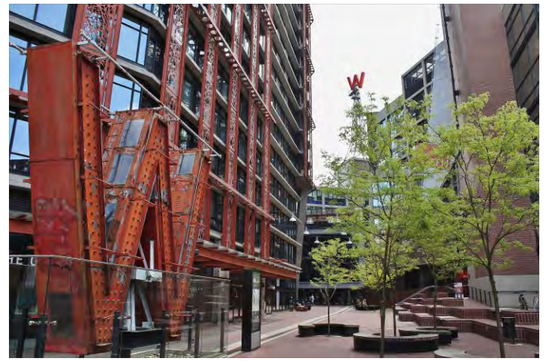


Figure 69: Public art to reflect cultural history of the site and be memorable (5.1.3. l).

Figure 70: Example of a podium with integrated weather protection and signage at grade (5.1.6. f) .

Tower middle

g. On sites with multiple towers, provide variation in the design and articulation of each tower facade to provide visual interest while maintaining a cohesive architecture overall.

h. Design balconies to limit increases in the visual mass of the building and to become an extension of interior living space, and consider that inset or partially inset balcony arrangements may offer greater privacy and comfort, particularly on higher floors.

Tower Top

i. Design the top of tall buildings to terminate and be distinguishable from the middle building and to make a positive contribution to the skyline (*See Figure 72*).

   » Design and screening of mechanical rooms, and incorporation of roof top amenity spaces and architectural lighting, can be used to distinguish the tower top.

j. Setback the upper floors of the tower and incorporate a projecting cornice or other feature to terminate the building and contribute to a varied skyline.

Figure 71: Example of a high rise building with active frontages, high quality materials, and clearly articulated and differentiated podium and tower.

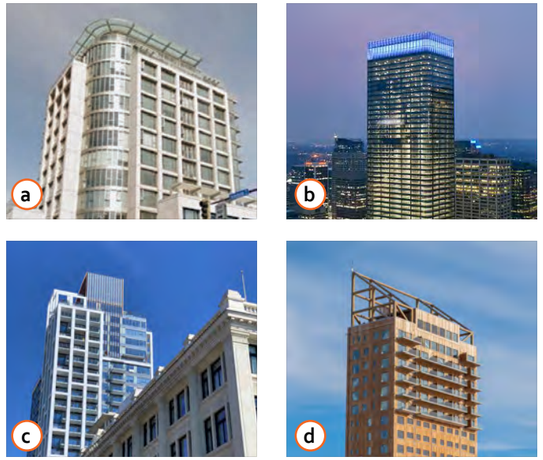


Figure 72: Examples of different approaches to terminating the top of towers: [a] setback on upper floors with architectural feature; [b] architectural lighting; [c] rooftop amenity space with change in materials; [d] screening of mechanical equipment with integrated architectural feature (5.1.6.6 i-j).

RETAIL, COMMERCIAL & INDUSTRIAL

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6.1 GENERAL GUIDELINES 53
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OVERVIEW

- See Overview subsections in 6.2, 6.3, and 6.4.

6.0 RETAIL, COMMERCIAL & INDUSTRIAL

6.1.0 KEY GUIDELINES

In order to achieve the design goals of the City, all retail, commercial & industrial projects must:

A **6.1.0 a –** Avoid blank walls facing the public street and design buildings such that their form and architectural character reflect the buildings internal function and use (see 6.1.4).

B **6.1.0 b –** Distribute trees and landscaping throughout the site to soften public/private boundaries, define internal circulation routes, create pleasant pedestrian conditions, and maximize shade and stormwater management (see 6.1.2).

C **6.1.0 c –** Provide direct, safe, continuous and clearly defined pedestrian access from public sidewalks, parking areas, and transit stops to building entrances (see 6.1.2).

D **6.1.0 d –** Provide separation between vehicular routes (especially truck access/loading) and pedestrian routes on-site to avoid conflict and distinguish pedestrian routes from driving surfaces (see 6.1.2).

E **6.1.0 e –** Utilize stormwater management best practices to and provide on-site bio-retention facilities (e.g., bioswales, rain gardens) to collect, store and filter stormwater from parking and vehicle circulation areas (see 6.1.2).

6.1 GENERAL GUIDELINES

6.1.1 Relationship to the Street

Design Intent

To site and design buildings to positively frame and, where possible, activate streets and public open spaces.

Guidelines

a. Orient the long side of each building to be parallel to the public street.

b. Locate entries to be visible and directly accessible from the public street.

   » For buildings fronting highways, entries can be located away from the street, as long as there is a direct pedestrian connection to the site.

c. Avoid blank walls adjacent to the highway, streets, walkways, parks, or other amenity spaces.

Figure 73: Landscaping along internal pedestrian walkways helps to define a safe and attractive pedestrian realm (6.1.2 d).

Figure 74: Landscaped areas with rain gardens break up large parking spaces, and provide opportunities for on-site stormwater management (6.1.2 d)

6.1.2 Site Planning and Landscaping

Design Intent

To site buildings and utilize landscaping to respond sensitively to topography; to enhance environmental performance; to enhance safety and accessibility; and to increase connectivity to surrounding public sidewalks and paths.

Guidelines

a. Locate buildings to ensure good sight lines for vehicular and pedestrian traffic.

b. Provide direct, safe, continuous, and clearly defined pedestrian access from public sidewalks, parking areas, and transit stops to building entrances.

Landscape and Open Space Planning

c. Use large canopy trees to define the public realm (e.g., at the sidewalk and property edge facing the street)

d. Distribute trees and landscaping throughout the site (*See Figure 73, 74, and 75*) in order to:

   » Soften property edges facing the street;

   » Define internal roads, pedestrian routes, and open spaces;

   » Create pleasant pedestrian conditions;

   » Screen parking, loading, service, and utility areas;

   » Maximize shade, especially in parking areas;

   » Manage stormwater on-site; and

   » Break up large rows of parking by substituting a parking stall with a canopy tree in planter every 8-10 parking stalls.

Figure 75: Distribute trees and landscaping throughout the site to soften public/private boundaries, reinforce circulation routes, create pleasant pedestrian conditions, and maximize shade and stormwater management.

Stormwater Management

e. Provide on-site bio-retention facilities (e.g., bioswales, rain gardens) to collect, store and filter stormwater from parking areas *(See Figure 74)*.

f. Use permeable materials such as paving blocks or permeable concrete in parking areas to maximize rainwater infiltration.

Circulation

g. Pedestrian pathways should provide clear sight lines and connect the following:

- Parking areas to building entrances (*See Figure 76*);
- Main building entrances to public sidewalks (where applicable);
- Main building entrances to transit stops (where applicable); and
- Between buildings on adjacent lots.

h. Provide separation between vehicular routes (especially truck access/loading) and pedestrian routes on-site to avoid conflict and distinguish pedestrian routes from driving surfaces by using varied paving treatments and/or raising walkways to curb level.

i. Base new development on an internal circulation pattern that allows logical movement throughout the site and that will accommodate, and not preclude, intensification over time (See Figure 77).

6.1.3 Site Servicing, Access, and Parking

Design Intent

To ensure the provision of adequate servicing, vehicle access, and parking while minimizing adverse impacts on pedestrians and neighbouring properties.

Guidelines

Access

a. Design site accesses to provide the potential for future shared access with neighbours and to minimize curb cuts.

b. Where practical, link access drives and parking lots of adjacent properties in order to allow for the circulation of vehicles between sites.

Parking

c. The preferred location for main parking areas is at the rear and/or side of the building. Avoid locating large parking areas between the building and street.

d. Where parking areas are visible from the street, screen them using strategies such as tree planting, berming, low walls, decorative fencing and/or hedging.

e. Break parking areas into smaller blocks defined by landscaping in order to minimize the amount of paved areas.

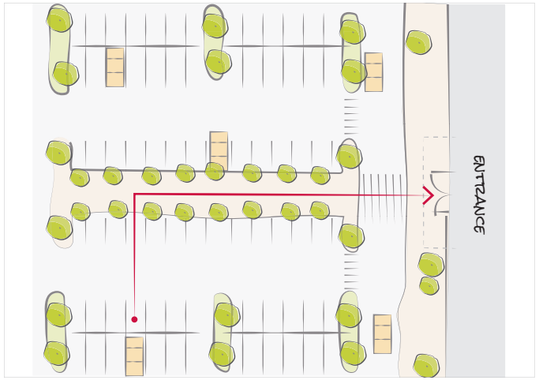

Figure 76: Example of parking modules defined by landscaped islands and pedestrian paths oriented toward building entrances (6.1.2 g).

Figure 77: Base new retail, commercial and industrial development on an internal circulation pattern that can easily accommodate redevelopment and future intensification (6.1.2 i).

Storage, Servicing, Utilities, Loading and Garbage

f. Locate loading, utilities, mechanical equipment and garbage collection areas away from public view by:

- integrating these facilities into the footprint of the building; or
- screening using fencing, walls and/or landscaping.

g. Provide areas for temporary snow storage that do not conflict with site circulation, landscaping and access to utility boxes. For example, by providing access via a lane away from public view.

6.1.4 Building Articulation, Features, and Materials

Design Intent

To enhance visual interest, identity, and sense of place through building form, architectural composition, and materials.

Guidelines

a. Avoid facing unarticulated facades to the street and use projections, recesses, arcades, awnings, color, and texture to improve the pedestrian experience.

b. Design primary entrances to face the street, exhibit design emphasis, and provide weather protection by means of canopy or recessed entry.

c. Design buildings such that their form and architectural character reflect the building's internal function and use (e.g., an industrial building, a large format retail mall).

Signage

d. Design signage as an integral element of the building's facade, and to be compatible in scale and design with the design, color, and material of the building.

e. Allow for brand identification where there are multiple buildings and uses on a site, but avoid individual corporate image, color, and signage back-lit signs from dominating the site.

f. Locate, size, and design ground-mounted and wall-mounted signs to be oriented to pedestrians as opposed to vehicles.

Lighting

g. Provide shielded, down lighting to provide security and ambient lighting while minimizing light pollution and spill over lighting into adjacent properties.

Weather Protection

h. Provide weather protection at building entrances, close to transit stops, and in areas with pedestrian amenities.

Materials

i. Incorporate substantial, natural building materials such as masonry, stone, and wood into building facades.

j. Use an integrated, consistent range of materials and colors and provide variety by, for example, using accent colors.

Figure 78: Example of a retail building with a transparent frontage, integrated weather protection and use of natural building materials (6.2.4 b and i).

Figure 79: Example of an industrial building with a transparent frontage and use of color accent (6.2.4 a and j).

6.2 BOUTIQUE **RETAIL**

Overview

Boutique retail developments are often designed for convenient access by motorists with large areas of surface parking separating building entries from public sidewalks. They present many opportunities for improving design and functionality to become more pedestrian oriented.

In addition to the General Retail, Commercial and Industrial Guidelines:

Figure 80: Boutique retail building with corner unit oriented to both frontages (6.2.1 a).

6.2.1 Relationship to the Street

a. Buildings on a corner parcel should orient frontages towards both streets if possible and include distinct architectural features (*See Figure 80*), such as:
   - » Special or decorative canopies;
   - » Bay windows, balconies, turrets, or articulated roof line features; or
   - » A corner entrance.

b. Avoid blank walls adjacent to the highway, streets, lanes, walkways, parks, or other amenity spaces.

6.2.2 Site Planning and Landscaping

a. Provide site furnishings, such as seating, bike racks and shelters at building entrances and amenity areas.

6.2.3 Site Servicing, Access, and Parking

a. Provide sheltered bicycle parking in visible and well-lit locations near building entrances and pedestrian walkways.

6.2.4 Building Articulation, Features, and Materials

a. Design the façade of buildings with multiple storefronts so that each is defined through individual signage, entrances, canopies and/or materiality.

b. Create transparent retail frontages with visual access to the interior of retail stores, and avoid the use of:
   - » Materials such as black out advertising panels;
   - » Dark and/or reflective glass

6.3 LARGE FORMAT **RETAIL**

Overview

Large format retail developments are a product of the automotive age, and are designed for convenient access by motorists with large areas of surface parking separating building entries from public sidewalks. As such,they present many opportunities for improving design and functionality, including enhancing the architectural design of box-style buildings; enhancing the pedestrian environment; improving landscaping in order to mitigate environmental and visual impact of parking areas; and designing to improve the character of the street and surrounding neighbourhoods. In recent years many underutilized mall sites across BC have redeveloped, and so it is also important to design with consideration for future adaptability and intensification of the site.

In addition to the General Retail, Commercial & Industrial Guidelines:

Figure 81: Locate active uses at grade to create a transparent facade (6.3.1 a)

Figure 82: Publicly accessible open space on-site provides a place for visitors to linger (6.3.2 c).

6.3.1 Relationship to the Street

a. Locate active uses at grade, such as restaurants, boutique shops, food concessions and waiting areas and use clear windows and doors to make the pedestrian level façade highly transparent *(See Figure 81)*.

6.3.2 Site Planning and Landscaping

Parking

a. Break parking areas into smaller blocks defined by landscaped islands and pedestrian paths (min. 1.5m wide) in order to minimize the amount of paved areas.

Circulation

b. Design the internal circulation pattern to have direct connections to surrounding streets.

Landscape and Open Space Planning

c. Provide publicly-accessible open space on-site to provide places to linger *(See Figure 82)*.

d. Provide site furnishings, such as seating, bike racks, and shelters at building entrances and amenity areas.

6.3.3 Site Servicing, Access, and Parking

a. Provide sheltered bicycle parking in visible and well-lit locations near building entrances and pedestrian walkways.

6.3.4 Building Articulation, Features & Materials

a. Design the façade of buildings with multiple storefronts so that each is defined through individual signage, entrances, canopies and/or materiality.

b. Wrap large format retail uses with smaller retail units around the periphery with individual entries accessed from the fronting sidewalk or open space.

6.4 INDUSTRIAL & SERVICE COMMERCIAL

Overview and Context

Industrial and service commercial buildings play an important role in the function and economy of Kelowna and are oriented primarily towards providing convenient and safe access for commercial vehicles. They also present many opportunities to improve design and functionality, including enhancing the pedestrian environment once motorists get out of their vehicles, and are oriented primarily towards providing convenient and safe access for commercial vehicles; improving landscaping in order to mitigate environmental and visual impact of parking areas and buildings; and designing to mitigate negative impacts on neighbouring uses.

6.4.1 Relationship to the Street

Guidelines

a. Design primary entries to be clearly visible and accessible from the street *(See Figure 83)*.

b. Site the building's primary facade parallel to the street and close to the minimum setback to establish a defined street edge.

c. Include glazing as a major component of street facing facades.

d. Maintain and enhance street edge definition by preserving or incorporating street trees.

e. Locate the office, reception, or sales component of the building closer to the street than the plant or warehouse component.

f. Do not locate service doors (e.g., an overhead loading door) facing the street.

North End Industrial

g. Design buildings to have frontages with multiple, smaller storefronts and an elevated level of materials *(See Figure 84)*.

h. Design multi-storey buildings (for example, those which mix industrial and commercial uses) to maintain and accommodate industrial uses on the ground floor by providing a first floor height of 5.5m.

INDUSTRIAL & SERVICE COMMERCIAL

Figure 83: Primary entry clearly visible and accessible from the street via a pedestrian pathway (6.4.1 a).

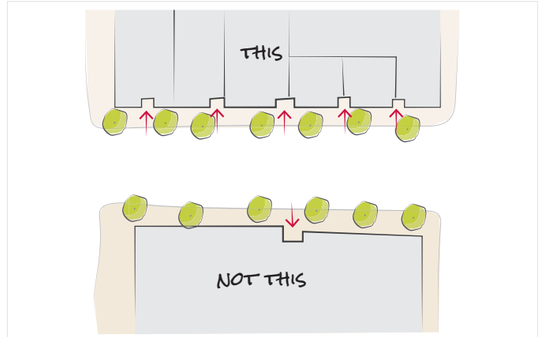

Figure 84: In the North End Industrial area, design buildings to have frontages with multiple storefronts (6.4.1 g).

6.4.2 Site Planning and Landscaping

Circulation

a. Pedestrian pathways should provide clear sight lines and connect the building to outdoor amenity spaces.

Stormwater management

b. Consider providing landscaped green roofs to manage runoff, add visual appeal, improve energy efficiency, reduce heat island effect, and provide amenity value.

6.4.3 Site Servicing, Access, and Parking

Guidelines

Parking

a. The preferred location for main parking areas is at the rear and/or side of the building *(See Figure 86)*.

b. Avoid locating large parking areas between the building and street. A single loaded row of visitor parking and passenger drop-off areas may be located between the building and the street.

c. Where parking areas are visible from the street, screen it using strategies such as tree planting, berming, low walls, decorative fencing and/or hedging.

d. Break parking areas into smaller blocks defined by landscaping in order to minimize the amount of paved areas.

Storage, Loading and Garbage

e. Locate outdoor storage areas within rear yards and/or interior side yards and screened from street view.

Figure 85: Landscape strip with rain garden adjacent to front visitor parking to provide stormwater management and soften the property edge .

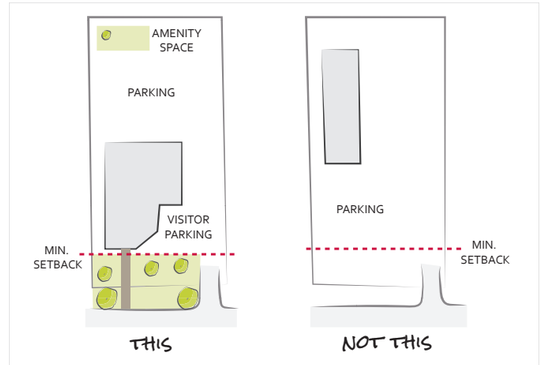

Figure 86: The preferred location for main parking areas is at the side and/or rear of the building (6.4.3 a). Provide landscaped amenity space and landscaping to soften the street edge.

6.4.4 Building Articulation, Features, and Materials

Design Intent

To enhance liveability, visual interest, identity, and sense of place through building form, architectural composition, and materials.

Guidelines

a. Avoid facing unarticulated facades to the street and use projections, recesses, plantings, awnings, color and texture to reduce the visual size of any unglazed walls *(See Figure 87)*.

b. Use different exterior materials to distinguish between the plant/warehouse component of a building from the office/sales component (*See Figure 88*).

Figure 87: An example of using planting to screen loading and mechanical equipment (left) and enliven facades (right) (6.4.4 a)

Figure 88: Use of different exterior materials to distinguish between the plant/ warehouse component of a building from the office/sales component (6.4.4 b).

INSTITUTIONAL

7.0 INSTITUTIONAL GUIDELINES 62

OVERVIEW

In many jurisdictions, wholly institutional developments are exempt from DP Guidelines or, at the very least, not given specific guidelines. In many cases, the City will not have jurisdiction over Institutional development (e.g., hospitals, schools) but desires to have an influence and provide direction to ensure these developments help the City to achieve its design goals and community objectives.

7.0 INSTITUTIONAL GUIDELINES

Overview

A master planning process is encouraged for institutional development projects to ensure a comprehensive and cohesive design that contributes, connects well to, and expands on the existing and/or planned future context; responds sensitively to natural and ecological features; and supports liveability and sustainability, informed by the Design Foundations and General Guidelines of this document (see 2.0 and 2.1).

Figure 89: Kelowna Downtown Library provides a welcoming public realm, as well as high quality architectural design.

Figure 90: Example of an institutional building with high quality architecture.

7.1.1 General Guidelines

a. Design institutional buildings to respond to the Design Foundations (2.0) and General Guidelines (2.1), while respecting the need for functional (e.g., access or parking) or site-specific design solutions.

b. Key Institutional buildings may incorporate landmark or emblematic design features, such as prominent vertical elements, significant corner treatments, and entry plazas or large extensions of the public realm.

c. In large-scale projects, demonstrate variety in massing and materiality.

d. Design buildings such that their form and architectural character reflect the buildings internal function and use (e.g., a school, a hospital, a museum).

APPENDIX

8.0 GLOSSARY 64
8.1 PHOTO CREDITS 65

8.0 GLOSSARY

Active Uses - Uses that generate many visits, in particular pedestrian visits, over an extended period of the day. Active uses may be shops, cafes, and other social uses.

Active Transportation - Describes all human-powered forms of travel, such as walking, cycling, in-line skating, skateboarding, skiing, canoeing, and more

Building Envelope (Enclosure) - The elements that make up the outer shell of a building that separate indoor from outdoor spaces. A building's envelope prevents or controls the entry of heat, water, air, noise, and light from entering or leaving.

Cornice / Cornice Lines - Horizontal decorative moldings that provides a definitive limit to a building element, for example over a door or window, or around the top edge of a pedestal.

CPTED (Crime Prevention Through Environmental Design) - Refers to a group of strategies and concepts (including the design of buildings and landscaping) intended to reduce the fear of crime and opportunities to commit crimes.

Cupola - A relatively small, often dome-like, protruding structure on top of a building's roof.

Eyes on the Street - Casual observation, from the street or from adjacent buildings, provided by people as they go about their daily activities.

Facade Articulation - Design elements, both horizontal and vertical, that help create an interesting and welcoming building elevation. These include building materials, special ground-floor design treatments, facade modulation, corner treatments, building setbacks for upper stories, and facade elements such as window treatments, building entries, and other architectural details.

Façade - The exterior of a building face

Fenestration - The arrangement of windows and doors on the elevations of a building

Ground-oriented - Buildings that have direct access to the street or ground level

Human Scale - Human Scale refers to the use of architectural features, details, and site design elements that are human proportioned and clearly oriented towards pedestrian activity to allow people to feel comfortable using and approaching it.

Natural Ventilation - The process of exchanging air in a building to replace stale air with fresh air from the building exterior, using non-mechanical means such as stack effect, cross ventilation, design elements, and operable windows.

Private Open Space / Amenity Space - An open area or place that is privately owned and exclusively occupied, usually attached to a private dwelling or unit. Some privately owned open space can be made available for the public to access and use (privately owned public space).

Private Realm - Spaces owned by a private person or group and kept for their exclusive use.

Public Realm - Spaces that are open and freely accessible to everyone, regardless of their economic or social conditions. These spaces can include streets, laneways and roads, parks, public plazas, waterways and foreshores.

Street frontage - Refers to where there is an active visual engagement between those in the street and those on the ground and upper floors of buildings.

Street Wall - The vertical elements of buildings that define the edges of public streets

Streetscape - The visual elements of a street, including the road, adjoining buildings, sidewalks, street furniture, trees and open spaces, etc, that combine to form the street's character.

Thermal Bridging - The transfer of heat through materials and structures that interrupt the building's continuous insulation layer, causing heat to escape the interior of the building to the outside air. Thermal bridges lower overall building energy efficiency.

Turret - A small tower that projects vertically from the wall of a building

Universal Accessibility - The ability of all users to safely negotiate spaces and is a key factor in ensuring the usability buildings and the public realm.

WWR (Window to Wall Ratio) - The percentage of a building's facade that is made up of glazing.

8.1 PHOTO CREDITS

Figure 15: IBI Group

Figure 18: Zakhem Real Estate Group

Figure 19: Mosaic Homes

Figure 28: Weinstein A+U Architects

Figure 32: PWL

Figure 35: Holst Architecture

Figure 37: Hapa Collaborative

Figure 39: GBL Architects

Figure 40: Shift Architects

Figure 61: Westbrook Consulting

Figure 62: Westbrook Consulting

Figure 63: PWL

Figure 66: Holst Architecture

Figure 69: Chandler Associates Architecture

Figure 70: Tourism Victoria

Figure 71: Office McFarlane Biggar

Figure 73: Westbrook Consulting

Figure 75: MMA Architectural Systems

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CATEGORY

Section 488(1)(b) of the Local Government Act allows for the protection of development from hazardous conditions.

PROPERTIES AFFECTED

Unless exempted (see Exemptions Section below) a development permit addressing design guidelines (see Guidelines Section below) must be approved for all properties with a portion of the lot having slopes greater than 20% and thus located within a Hillside Development Permit Area.

• Construction of, addition to, or alteration of a building or structure; and
• Subdivision of land.

JUSTIFICATION

Many of the remaining undeveloped residential lands in Kelowna are on steep slopes and hillsides. Conventional single family residential developments located on hillsides are typically very disruptive on steep slopes. For this reason, intensive residential development leaving a significant portion of the land in a relatively undisturbed state is endorsed. All development in hillside areas with slopes 20% and greater will be reviewed for form and character to ensure preservation of significant natural features, consideration of visual impacts, and good urban design.

OBJECTIVES

- Promote development that respects the terrain, vegetation, drainage courses and constraints related to the hillside environment of the site;
- Promote the siting of buildings and designs that are compatible with the steep slope context;
- Minimize visual impact on the hillside through appropriate siting, finishes, materials and colours;
- Preserve the natural, hillside character and avoid scarring;
- Ensure compatibility with existing neighbourhood or streetscape; and
- Promote a high standard of design, construction and landscaping.
- Ensure road design and anticipated use (e.g. parking) provides for a safe environment and ease of on-going maintenance.

EXEMPTIONS

A Development Permit will not be required if the development consists of the following:

- Construction of a new building that does not substantially alter the approved lot grading plan endorsed at the time of subdivision or Hazardous Condition Development Permit (DP) issuance; or
- Development on a property with slopes of 20% or greater occupying less than 50% of the lot area and where the proposed building envelope is outside of this steep sloped area; or
- Where the only activity being proposed is construction of retaining wall(s), and where such would not have a negative visual impact on the public realm and meets the 'Landscaping and Retaining Walls Design Guidelines' as referenced in this chapter; or

- Construction which is limited to the addition, replacement or alteration of doors, windows, building trim, or roofs, and which would have no impact on form and character of the building and would not impact the existing landscaping or access provisions; or
- Interior/exterior building alterations that do not expand the existing building foundation; or
- An alteration to a building that doesn't require the issuance of a building permit; or
- Construction, addition or alteration not to exceed 30 sq. m (323 sq. ft) for a single storey accessory structure (4.5 m in height) is proposed and where no variance(s) of the Zoning Bylaw are required; or
- Construction, addition or alteration not to exceed 45 sq. m (484 sq. ft) for a single storey building (4.5 m in height) where the building is non-habitable space and where no variance(s) of the Zoning Bylaw are required; or
- The addition of a second dwelling attached to a principal dwelling, provided construction of the new addition does not exceed 30 sq. m (323 sq. ft); or
- Replacement of a building that has been destroyed by natural causes, in cases where the replacement building is identical to the original in both form and location; or
- A technical subdivision for lot consolidation or road widening. Note: The advice of a coordinating professional will be considered in determining qualification for an exemption.

The following guidelines may be applied when setting Development Permit conditions:

GUIDELINES

1.0 Context Considerations

1.1 Orient buildings on the site to complement the natural topography (i.e., the greatest horizontal dimension is parallel with, not perpendicular to, the natural contour of the land);
1.2 Incorporate alternative development opportunities (i.e., cluster housing, unique building envelope arrangements, and multiple lots with shared access), where appropriate, to minimize visual impact and preserve natural character of the hillside;
1.3 Set buildings into the hillside and step up or down the slope to mimic the natural topography;
1.4 Avoid placing tall buildings at high points on the site or in highly visible areas;
1.5 Design and locate buildings so the hillside landscape rather than the sky serves as a backdrop;
1.6 Retain or enhance significant natural features and landforms, including ridgelines;
1.7 Create or optimize view corridors with staggered lots, the strategic placement of roads, sensitive lot grading, appropriate landscaping, etc.;
1.8 Position buildings to preserve and enhance sightlines to and from significant view points;
1.9 Ensure any structures, building faces, street or building lighting do not dominate the landscape.

2.0 Site Design

2.1 Preserve any slopes greater than 30% as undisturbed unless roads are required to access developments;
2.2 Restrict on-street parking where alternative road standards allow for narrow roads. Parking pads off the travel surface may be supported.
2.3 Minimize cut and fill excavation to preserve the natural topography
of the hillside. Necessary cuts and fills should be balanced to reduce trucking costs;
2.4 Minimize the visual impact of grading by incorporating the majority of cut and fill within the building envelope to avoid visual scarring;
2.5 Design ground floor elevations and heights to be sensitive to adjacent properties and neighbouring sightlines;
2.6 Locate house and design driveway to minimize length and/or visual dominance of the driveway and associated grading;
2.7 Ensure that altered slopes appear natural with varied contours and vegetation, avoiding sharp angles.

3.0 Landscaping and Retaining Walls

3.1 Incorporate landscaping that is natural and blends in with any existing vegetation minimizing large areas of formal landscaping;
3.2 Preserve existing plant materials of significant size or relocate within the site;
3.3 Incorporate landscaping that enhances building design and architectural elements;
3.4 Revegetate any unavoidable cut and fill along ridgelines with natural landscaping;
3.5 Minimize the impact of development by screening structures through effective use of landscaping materials;
3.6 Incorporate retaining walls utilizing native building materials (i.e., earth berms, rock forms, or stone) to minimize the visual impact of cuts;
3.7 Minimize fence and retaining wall height and length. Stepped or terraced walls with landscaping are encouraged for areas where steep cuts are required.

4.0 Building Aesthetics

4.1 Incorporate building masses that reinforce the sensitivity of the natural topography;
4.2 Design buildings that are compatible with the neighbourhood in terms of proportion, size, mass and height.

5.0 Commercial or Multiple Unit Hillside Residential Development

5.1 Incorporate required parking into the natural landscape minimizing the requirement for lot grading (i.e., avoid large, flat parking areas);
5.2 Design buildings with variable floor and roofline elevations and architectural treatment to achieve height variation;
5.3 Stagger siting of buildings and screen with mature vegetation to minimize the "wall effect";
5.4 The slope of the roof should be oriented in the same direction as the natural slope of the lot.

A. Hazardous Condition DP
   - Category
   - Properties affected
   - Justification
   - Objectives
   - Exemptions
   - Guidelines

B. Wildfire DP
   - Category
   - Properties affected
   - Justification
   - Objectives
   - Exemptions
   - Guidelines .

A. Hazardous Condition DP

CATEGORY

Part 14, Division 7, Sec. 488 (1) (b) of the Local Government Act for the protection of development from hazardous conditions.

PROPERTIES AFFECTED

Unless exempted (see Exemptions Section below) a Development Permit addressing hazardous condition guidelines (see Guidelines Section below) must be approved for those properties as shown as Hazardous Condition Development Permit Areas (DPA) on Map 20.1 before:

- Subdivision of land;
- Alteration of land, including but not limited to clearing, grading, blasting, preparation for or construction of services, roads and trails; and/or,
- Construction of, addition to, or alteration of a building or structure

(Note that areas shown on Map 20.1 are approximate depictions of these DPAs; the exact boundaries of a DPA may need to be determined on a site-specific basis prior to development occurring in these locations.)

JUSTIFICATION

Hazardous conditions including, but not limited to, flooding, mud flows, debris torrents, bank instability, erosion, groundwater seepage, land slip, rock falls, subsidence, or avalanche may in some cases be abated by using appropriate precautionary measures as part of site and building design, construction, and long-term maintenance. Flood hazard is currently limited to the Mill Creek floodplain, until detailed work identifying floodplain limits on other watercourses is completed.

OBJECTIVES

The objectives of requiring Hazardous Condition Development Permits are to:

- Minimize the risk to people and property from natural hazards;
- Manage development and construction practices in natural hazard areas to protect structures from damage; and
- Provide stable and accessible building sites.

EXEMPTIONS

A Hazardous Condition Development Permit will not be required when:

- The proposed development will not be impacted by the identified hazardous condition, the determination of which may need to be by a qualified professional, registered in British Columbia, who has submitted a report, accepted by the City of Kelowna, which concludes that the land is not subject to hazardous conditions; or
- The proposed development has been assessed by a qualified professional who has provided a report which concludes that the land is subject to hazardous conditions and a restrictive covenant is in place which effectively mitigates the hazardous condition(s) and saves harmless the City of Kelowna; or
- The only activity being proposed onsite relates to the removal of hazardous trees and a report prepared by a certified forestry professional registered in British Columbia and qualified as a Wildlife/Danger Tree Assessor has been submitted that concludes the tree(s) is (are) hazardous; or
- The trigger for a Development Permit is a building permit and where the only hazard on the site is flooding and where the minimum floor elevation meets the requirements of the Mill Creek Floodplain Bylaw; or
- The actions and activities are necessary in order to prevent immediate threats to life or property; or
- The activity proposed on the site relates solely to normal farm practices in accordance with the Farm Practices Protection Act and the landowner follows other regulations listed in the Act; or

- Construction which is limited to the addition, replacement or alteration of doors, windows, building trim, or roofs, and would have no impact on the form and character of the building and would not impact the existing landscaping or access provisions; or
- Interior/exterior building alterations that do not expand the existing building foundation; or
- Construction, addition or alteration not exceeding 30m² (323 ft²) where no variance(s) of the Zoning Bylaw is (are) required and that are not within the setback of the hazard; exclusive of properties within the Mill Creek Floodplain; or
- Replacement of a building that has been destroyed by natural causes, in cases where the replacement building is identical to the original in both form and location; exclusive of properties within the Mill Creek Floodplain; or
- A technical subdivision for lot consolidation.

GUIDELINES

In setting Development Permit conditions, the City may cite municipal, provincial or federal government policies, regulations, guidelines and best management practices.

The general guidelines for issuing Development Permits in a Hazardous Condition Development Permit Areas are set forth below; however, not all guidelines will be applicable to all developments. Typically, an assessment report which has been prepared by a professional qualified in the relevant discipline and licensed to practice in British Columbia will be required. Where a report has been accepted by the City of Kelowna, recommendations will be used to establish conditions for the Development Permit. Care will need to be taken that guidelines intended to mitigate hazardous conditions are implemented in a manner sensitive to the environmental protection and preservation guidelines as outlined in Chapter 21 Natural Environment Development Permit Guidelines.

1. General
   1.1. Do not excavate, fill, place, erect or construct any building or permanent structure in areas subject to hazardous conditions.

   1.2. Site buildings and structures in accordance with setbacks determined by the City or a geotechnical report by a qualified professional.

   1.3. Register Section 219 restrictive covenants for areas that have been identified as hazardous, when required.

   1.4. Prohibit habitable buildings on hazardous condition lands where future danger cannot or should not be mitigated.

   1.5. Require that the long term factor of safety exceeds 1.5 for modified slopes.

   1.6. Vegetation
   - Maintain existing vegetation to absorb water, minimize erosion and protect the slope. Protect environmentally significant features, such as wildlife trees or rare habitats, in accordance with Chapter 21 Natural Environment Development Permit Guidelines.
   - Avoid encroaching into the critical root zones of those trees being retained.
   - Revegetate disturbed slopes where gullied or bare soil is exposed as per a qualified professional's report. Use species that are:
     - Indigenous to Kelowna;
     - Pest-resistant;
     - Drought-tolerant;
     - FireSmart;
     - Compatible with urban development; and

- Adapted to the specific site conditions today (soil type, sun, shade, moisture) and for a changing climate.

1.7. Retaining walls
- Where possible, design the site to avoid the need for retaining walls.
- When necessary, design retaining walls by a qualified professional to meet Engineering and Geoscientists of British Columbia guidelines, and respect the natural character of the site.
- Prohibit building loading on the retaining wall profile that includes the visible vertical wall, horizontal bracing into the slope, soils and drainage profile.
- Maintain retaining walls regularly to assure proper drainage and alignment.

2. Steep Slope Hazards

2.1. Design the development to minimize any alterations to the steep slope and to reflect the site rather than altering the site to reflect the development

2.2. For those applicable properties, design and build in accordance with the City of Kelowna Hillside Development Design Guidelines (outlined in Chapter 19) to avoid disturbance of steep slopes and hazardous condition areas.

2.3. Preserve areas with natural slopes of 30 per cent or more as natural open space.

2.4. Construct accesses such as footpaths and stairways to minimize slope disturbance.

2.5. Avoid/minimize terracing of land.

2.6. Avoid placing fill, excavated material, sand or soil near the top of slope.

2.7. Design any structural mitigation measures by a qualified professional and submit to the City for approval.

2.8. All stormwater management must adhere to the requirements of Bylaw 7900: Subdivision, Development & Servicing Bylaw.

3. Rock fall, debris flow and landslide hazards

3.1. Site development to avoid rock fall, debris flow and landslide hazards.

3.2. Require mitigation recommendations by a qualified professional for rock fall, debris flow and landslide hazards on the subject, adjacent and any other potentially affected properties.

4. Ridgelines, cliffs or ravines hazards

4.1. Set back development a minimum of 10 metres from the top of ridgelines, cliffs or ravines. Variation of the setback may be considered if a geotechnical review by a qualified professional can justify a reduced setback.

5. Flood hazards

5.1. Require that all new construction or renewal within the Mill Creek Flood Plain, meet the minimum flood elevation and conditions specified in the Mill Creek Flood Plain Bylaw.

5.2. Where possible, reduce the flood hazard to existing permanent structures on the property by raising the habitable space to flood construction levels.

5.3. Maintain and/or restore vegetation within the required riparian management area setback to minimize erosion in accordance with the applicable guidelines for Watercourses and Riparian Areas as outlined in Chapter 21: Natural Environment Development Permit Guidelines.

B. Wildfire DP

CATEGORY

Sec. 488(1)(b), Division 7 – Development Permits, Part 14 – Planning and Land Use Management of the *Local Government Act* for the protection of development from hazardous conditions.

PROPERTIES AFFECTED

Unless exempted (see Exemptions Section below) a development permit addressing wildfire guidelines (see Guidelines Section below) must be approved for those properties shown as Wildfire DP areas on Map 20.2 before:

- Subdivision of land; or
- Re-zoning of land; or
- Multi-family, commercial, institutional and industrial development

(Note that areas shown on Map 20.2 are approximate depictions of these DPAs; the exact boundaries of a DPA may need to be determined on a site-specific basis prior to development occurring in these locations.)

JUSTIFICATION

Wildfires are a natural part of Kelowna's wildland ecosystems. Development in Wildfire DP Areas is a risk as wildfire can spread quickly from forests and grassed slopes to homes. The intent of the Wildfire DP Guidelines is to ensure that all new development is resilient to catastrophic wildfire hazardous fuel conditions through abatement. Using appropriate precautionary measures as part of site and building design, construction, landscaping and long-term maintenance can help minimize risk to property and people from wildfire hazards.

OBJECTIVES

The objectives of requiring Hazardous Condition Development Permits for Wildfire are to:

- Mitigate the risk to property and people from wildfire hazards;
- Minimize the risk of fire to the City's wildland areas; and
- Promote activities to reduce wildfire hazards while addressing environmental issues.

EXEMPTIONS

A Hazardous Condition Development Permit addressing Wildfire will not be required if the development consists of the following:

a. Construction of a single family dwelling on an existing lot; or
b. Addition or alteration to an existing single family dwelling; or
c. Rezoning from current zone to current zone with carriage house 'c' designation; or
d. For multi-family, commercial, institutional, industrial
    - Construction which is limited to the addition, replacement or alteration of doors, windows, building trim, or roofs, and which would have no impact on form and character of the building and would not impact the existing landscaping or access provisions; or
    - Interior/exterior building alterations that do not expand the existing building foundation; or
    - Construction, addition or alteration not exceeding 30m2 (323 ft2) where no variance(s) of the Zoning Bylaw is (are) required; or
    - Replacement of a building that has been destroyed by natural causes, in cases where the replacement building is identical to the original in both form and location.
e. The proposed development will not be impacted by the identified hazardous condition, the determination of which needs to be evaluated by a qualified professional, registered in British Columbia, who has submitted a report, accepted by the City of Kelowna, which concludes that the land is not subject to hazardous conditions, as having been assessed as moderate or lower wildfire hazard risk; or

f. The proposed development has been assessed by a qualified professional who has provided a report which concludes that the land is subject to hazardous conditions and a restrictive covenant is in place which effectively mitigates the hazardous condition(s) and saves harmless the City of Kelowna; or
g. The only activity being proposed onsite relates to the removal of hazardous trees and a report prepared and submitted by a: forest professional registered in British Columbia holding either: a) Wildlife/Danger Tree Assessor qualifications; or 2) Tree Risk Assessment Qualifications (TRAQ) concludes the tree(s) is (are) hazardous; or
h. Actions and activities are necessary in order to prevent immediate threats to life or property; or
i. The activity proposed on the site relates solely to normal farm practices in accordance with the Farm Practices Protection Act and the landowner follows other regulations listed in the Act; or
j. A technical subdivision for lot consolidation or road widening.

GUIDELINES

1. Alternatives

The guidelines in section 2.0 – 4.0 are based on the guidelines outlined in the BC FireSmart Begins at Home Manual, most recent edition. However, relaxations and alternatives may be considered as follows:

1.1. Where a Registered Professional Forester, Registered Forest Technician or Registered Professional Engineer qualified by training or experience in fire protection, has undertaken an assessment and determined the fire hazard to be low provided specific conditions are met, the requirements noted in sections 2.0 through 4.0 may be relaxed. Any relaxation of guidelines requires that provisions are in place to ensure that development is carried out in accordance with the conditions noted in the professional's assessment.

1.2. Proposed deviations from the guidelines outlined in sections 2.0 through 4.0 can be submitted to the City as an alternative solution and will be considered if the applicant can verify that the expected level of performance meets or exceeds the level of fire safety conferred by the below measures

2. General

Design and construct subdivisions, multi-family residential, commercial, industrial and institutional developments located within the boundaries of the Wildfire DP area in accordance with the following key objectives and guidelines.

2.1. Provide access in areas of the community that are considered isolated and that have inadequate developed access for evacuation and fire control.

2.2. Where wildland areas abut new subdivisions, consider placing roadways and/or trails adjacent to the wildland areas. These roads and or trails improve access to the interface for emergency vehicles and provide a fuel break between the wildland and the subdivision;

2.3. Design subdivisions so building sites are located on the flattest areas of the property. Avoid gullies or draws that accumulate fuel and funnel winds.

2.4. For wildland areas to be transferred to the City, mitigate fire hazards, through wildfire fuel modification, to a level deemed acceptable by a qualified professional in a wildfire hazard assessment prior to the transfer.

2.5. If deemed necessary by the qualified professional for the purpose of reducing wildfire risk, create a defensible space of at least 10 metres between development and the top of ridgelines, cliffs, ravines or slopes, with the goal of reducing risks from approaching wildfire.

2.6. Reduce wildfire hazards in a way that restores the natural environment. Typical methods include thinning and spacing trees and vegetation, removal of debris and dead material from the ground, and removal of lower tree branches to a minimum height of 2.5 meters.

2.7. Register a restrictive covenant for areas that have been identified as hazardous when required.

3. Buildings

For subdivisions, register the following provisions either as part of a registered building scheme or a restrictive covenant. For multi-family, commercial, industrial, institutional developments and associated accessory buildings grater than 30 m^2, design and construct the building to meet the following provisions.

3.1. Roofing Materials

- Use a fire resistant or fire-retardant roofing materials as referenced in the current BC Building Code, as amended. Wood shakes are not permitted.
- Screen or close gutters to prevent the accumulation of leaves or needles.

3.2. Exterior Cladding

- Use fire resistant materials for cladding of exterior surfaces. Untreated wood and vinyl siding are not permitted. Wood trim and architectural features are exempt from this requirement..
- Skirt manufactured homes with a fire-resistant material.

3.3. Overhanging Projections

- Use heavy timber construction as defined in the BC Building Code for structural components (post & beam) of decks, balconies and porches. Alternatively, clad the structural components with fire resistant material.
- Sheath balconies, decks and porches (no exposed joists) with fire-resistant materials.

3.4. Exterior Doors and Windows

- Use double paned or tempered exterior windows and glazing.
- Use exterior doors and garage doors constructed of non-combustible materials.

3.5. Eaves, Soffits, and Vents

- Close eaves and soffits so no joists are exposed.
- Cover ventilation openings in exterior walls, roofs, eaves, and soffits with non-combustible corrosion-resistant panels with openings no larger than 3 mm. Wall-mounted exterior vents are exempt from having wire mesh with 3 mm openings if vents with mobile flaps are used (subject to venting requirements in the BC Building Code).

3.6. Chimneys

- Construct chimneys for wood burning fire appliances with spark arrestors made of 12 gauge (or better) welded or woven wire mesh, with openings not exceeding 12 mm.

4. Landscaping

4.1. Address the following landscaping modifications prior to issuance of the development permit to a distance of 30 metres (Priority Zones 1 and 2) from anticipated building sites as illustrated in Figure 1. Where hazard levels are assessed as being high or greater, fuel management should also be undertaken to a distance of 100 metres (Priority Zone 3) from the anticipated building site or to the edge of the property.

- Thin the canopy and understory and prune lower branches to create an environment that reduces the risk of a crown fire as per a fuel management prescription developed by a registered forest professional;

- Space and maintain trees so that canopy spacing is a minimum of 3 metres;
- Remove dead and dying trees unless suitable specimens have been converted into wildlife trees as assessed by a forest professional with Wildlife Danger Tree qualifications; and
- Use alternatives to burning or an approved burning method such as pit, trench or air curtain burning to remove hazardous woody debris from wildfire fuel treatments.

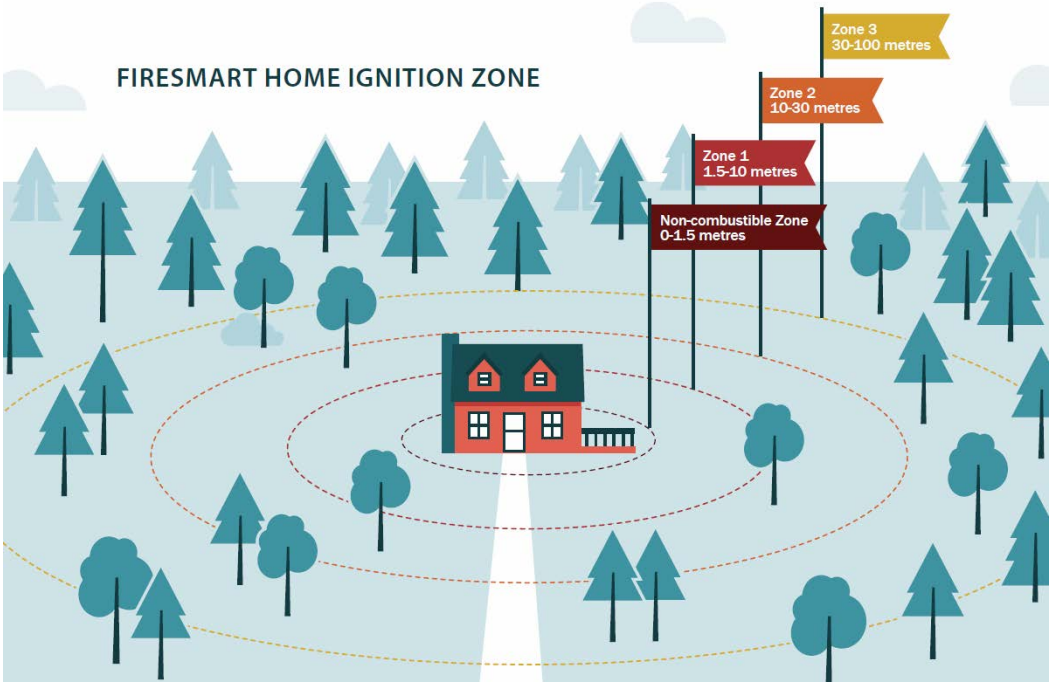


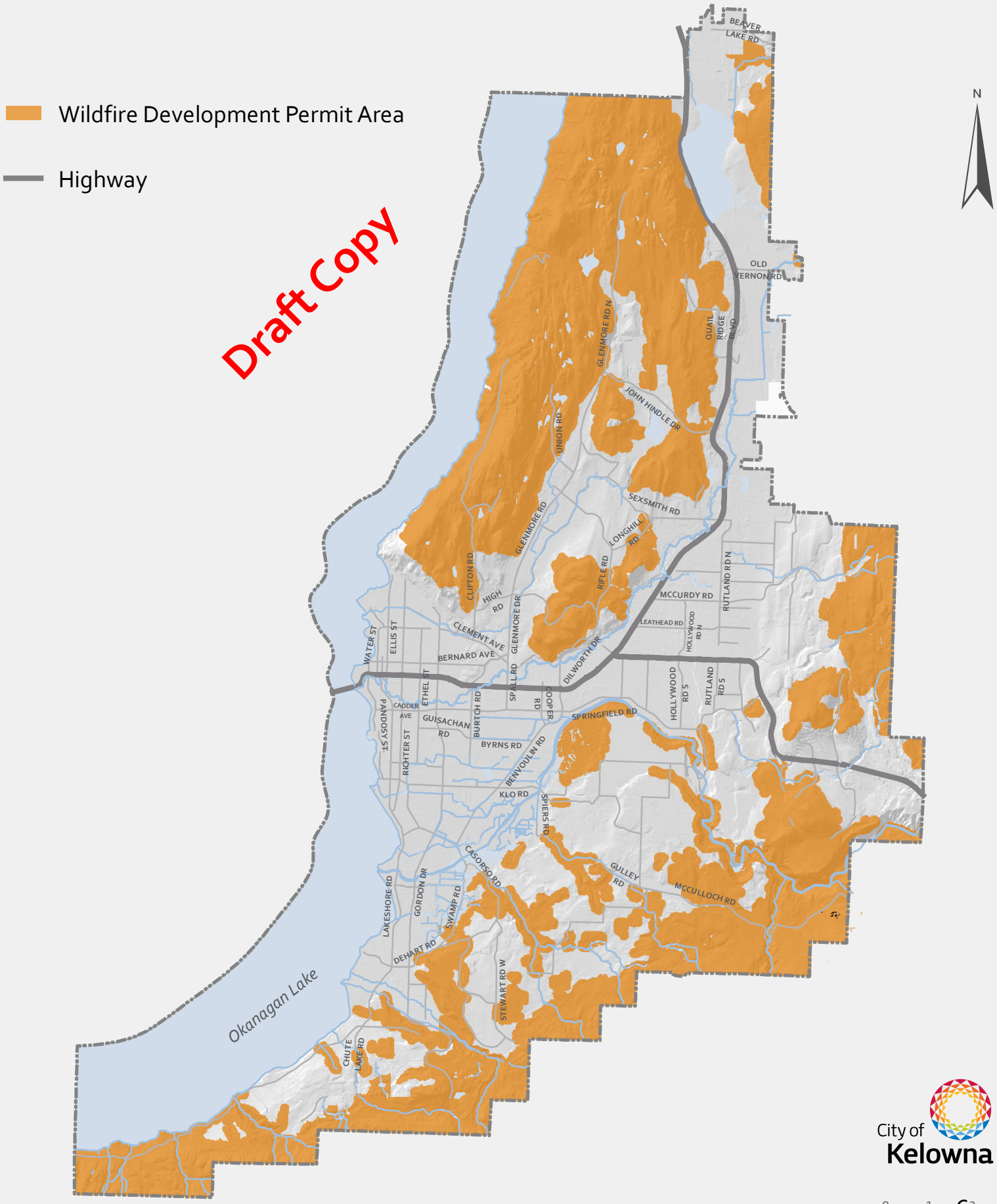
Figure 1: Diagram illustrating the fire priority zones around building sites
Source: Province of BC, FireSmart Begins at Home Manual

4.2. For subdivisions, register the following landscaping provisions either as part of a registered building scheme or a restrictive covenant in order to support ongoing mitigation of risks. For multi-family, commercial, industrial, institutional developments and associated accessory buildings grater than 30 m2 ensure the following are considered as part of landscape design and maintenance. These provisions apply to the area on a property within 10 metres (Priority Zone 1) of the dwelling units located on the property as illustrated in Figure 1.

- Landscape using the City of Kelowna's FireSmart Landscaping Guidelines.
- Ensure there are no trees, limbs or shrubs overhanging roofs or growing under the eaves of buildings.
- Space and maintain trees so that canopy spacing is a minimum of 3 metres.
- Remove ladder fuels by pruning coniferous trees so that there are no branches to a height of 2.5 metres (up to three whorls of live branches may be left on smaller trees); and
- Maintain hedges below a height of 2.0 m (juniper and cedar hedges are prohibited).
- Construct fences with non-combustible fencing materials.
- Keep piled debris (firewood, building materials, and other combustible material) out of Fire Priority Zone 1; and
- Remove (at least annually) surface litter, downed trees and dead and dying trees.

2040 Official Community Plan

Map 20.2 Wildfire Development Permit Area



Rev. Sep 25, 2020

This draft map is for consultation purposes only. This is not a final version.

CATEGORY

Part 14, Division 7, Sec. 488 (1) (a) of the Local Government Act for the protection of the natural environment, its ecosystems and biological diversity.

PROPERTIES AFFECTED

Unless exempted (See Exemptions Section below) a development permit addressing natural environment guidelines (see Guidelines Section below) must be approved for those properties shown as Natural Environment Development Permit Areas (DPA) on Map 21.1 before:

- Subdivision of land;
- Alternation of land, including but not limited to clearing, grading, blasting, preparation or construction of services, roads and trails;
- Drilling a well for consumptive or geothermal purposes; and/or
- Construction of, addition to, or alteration of a building or structure.

JUSTIFICATION

There are many environmentally sensitive and groundwater resources within the City of Kelowna that have high intrinsic value and are therefore important to the City and its citizens. These areas have been designated as Natural Environment DPAs. The City of Kelowna uses this authority to require development permits for proposals that may impact the environment, ground and surface water, or other natural conditions. The DPA designation for protection of the natural environment is intended to complement federal and/or provincial acts and regulations.

Aquatic ecosystems encompass watercourses of all types including creeks, streams, rivers, ponds, lakes, wetlands and springs, as well as associated riparian management areas, which are areas of land and vegetation adjacent to watercourses that help maintain healthy aquatic environments. These ecosystems have been identified through inventories commissioned by the City and through partnerships with provincial and federal initiatives. Sensitive aquatic ecosystems are designated as Natural Environment DPA's because of their environmental significance as habitat for fish and wildlife, there ecosystem connectivity, their vital functions in natural water storage and flood protection, their role in reducing climate change impacts by acting as sinks for CO_2 and attenuating water flows, their ability to protect water quality, and their sensitivity to disturbance by development.

Terrestrial sensitive ecosystems encompass areas such as old coniferous forests, coniferous woodlands, grasslands and sparsely vegetated ecosystems including rock outcrops, talus and cliffs. These ecosystems have been identified through inventories commissioned by the City and through partnerships with provincial and federal initiatives. These areas are designated as Natural Environment DPAs due to their environmental significance as habitat and connectivity for wildlife, their contribution to local and regional biodiversity, and their sensitivity to disturbance by development.

The Okanagan Ecosystem Connectivity Corridor (the Corridor), as illustrated in Map X.X., along the southern and eastern edge of the City is part of a larger regional ecosystem extending from Okanagan Mountain Provincial Park to Kalamalka Lake Provincial Park. It connects sensitive terrestrial ecosystems, watercourses

and sensitive drainage areas as one natural functioning low elevation ecosystem which is appropriate for our dry interior species. The Corridor is sensitive to development disturbance and is designated as a Natural Environment DPA due to its significance as unique natural ecosystems, the importance of protecting connectivity for biodiversity, climate regulation, species movement, resiliency to environmental disturbance such as climate change, and ecosystem services that contribute to human well-being.

As part of the City's Sensitive Ecosystem Inventory, sensitive drainage areas were identified based on soil drainage, slope position, slope morphology and geomorphic processes. These areas have evolved over thousands of years creating a sensitive equilibrium with water discharge, and as such have been identified as Natural Environment DPA.

The City of Kelowna also protects sensitive groundwater resources through the Natural Environment Development Permit Process. With the exception of the City of Kelowna, the other major water suppliers in the City rely partially on groundwater to provide drinking water to citizens in their respective service areas. As groundwater is used for domestic use and consumption, protecting Kelowna's aquifers should be given priority through quality and quantity protection measures. Groundwater can also sustain important habitat as base flow or discharge to surface water sources. As a result, care must be taken to ensure that existing land uses and future developments do not contaminate underlying aquifers and promote their sustainable use. Mitigation is promoted and enhanced through the issuance of Natural Environment Development Permits for relevant properties.

Overall, the Natural Environment Development Permit process is used to determine how adverse environmental impacts can or cannot be decreased using appropriate precautionary measures as part of site and building design, construction, and long-term maintenance.

OBJECTIVES

The objectives of Natural Environment DPAs are to ensure that negative impacts on environmental sensitive areas are minimized by:

- Protecting, restoring and enhancing environmentally sensitive areas as functioning ecosystems;
- Protecting and enhancing water quality;
- Protecting drinking water sources and subsurface aquifers against possible contamination from land use and development activities;
- Managing the introduction and spread of invasive species;
- Minimizing soil disturbance;
- Protecting hydrological functions;
- Protecting biodiversity, as well as wildlife habitats, features and functions; and
- Promoting the efficient use of water to ensure a sustainable hydrologic system.

EXEMPTIONS

A Natural Environment Development Permit will not be required when:

- A property has a covenant registered under the Land Title Act, which effectively protects the entire environmentally sensitive area, and all of the conditions in the covenant have been met, and the proposed development will not affect any portion of the environmentally sensitive area; or
- A report, prepared by a Qualified Professional (QP) registered in British Columbia, has been submitted and accepted by the City of Kelowna that concludes that the land is not environmentally sensitive and the natural feature is no longer present due to previously approved development, and cannot be restored; or
- The proposed development will have no significant negative impacts on the environmentally sensitive areas identified on the property and/or the environmentally sensitive area is permanently protected. A report prepared by a Qualified Professional registered in British Columbia may be required; or

- The only activity being proposed onsite relates to the removal of hazardous and beetle kill trees and a report prepared by a certified forestry professional, registered in British Columbia and qualified as a Wildlife/Danger Tree Assessor, has been submitted which concludes the tree(s) is (are) hazardous; or
- The development activity is on Crown Land and involves timber harvesting, forest road construction, open livestock range, grazing enhancement, forest recreation or other forest management activity that is conducted under the auspices of the province; or
- The actions and activities are necessary in order to prevent immediate threats to life or property; or
- The activity proposed on the site will not impact the environmentally sensitive area and the activity relates solely to normal farm practices in accordance with the Farm Practices Protection Act and the landowner follows other requirements or regulations listed in the Act; or
- The activity proposed is on a property that is less than 0.2 ha and is subject to a Natural Environment DP for an ecosystem connectivity corridor only and no other reason, provided the activity allows for movement of wildlife.

GUIDELINES

In setting Development Permit conditions, the City may cite municipal, provincial or federal government policies, regulations, guidelines and best management practices.

The general guidelines for issuing development permits in Natural Environment Development Permit Areas are listed below; however, not all guidelines will apply to all developments. Typically an assessment report which has been prepared by a professional qualified in the relevant discipline and licensed to practice in British Columbia will be required. Report recommendations may be used by the Development Planning Department Manager, or designate, to determine conditions for the Development Permit.

Many properties will be affected by more than one environmentally sensitive attribute, and as such the all applicable development permit guidelines should be followed. For example a property may be designated a Natural Environment DPA because of a terrestrial sensitive ecosystem and it may also have sensitive drainage areas so both sections 2.0 and 3.0 would apply.

1.0 Watercourses and Riparian Areas

Table 1: Minimum Riparian Management Areas (RMA)

	Watercourse[1]	Watercourse Reach	RMA (meters)[2,3]
1	Bauer Brook	All	15
2	Belleve Creek	All	15
3	Bellvue Creek (North Arm)	downstream of 4544 Gordon Drive	10
4	Bertram Creek	All	15
5	Brandt Creek	All	15
6	Bruce Creek	All	15
7	Campbell Brook	All	15
8	Cedar Creek	All	15
9	Dewdney Creek	All	15
10	Duggan Brook	All	15
11	Fascieux Creek (North and South Arm)	All	15
12	Francis Brook	All	15
13	Gopher Creek	All	15
14	Hachey Creek	All	15
15	Hydraulic Creek	All	15
16	Industry Brook	All	15
17	K.L.O. Creek	All	15

	Watercourse[1]	Watercourse Reach	RMA (meters)[2,3]
18	Okanagan Lake	All	15
19	Lebanon Creek	All	15
20	Leon Creek (aka Thompson Creek)	All	15
21	Michael Brook	All	15
22	Mill Creek	Downstream of Hardy Street	15
23	Mill Creek	Upstream of Hardy Street	30
24	Mission Creek	Downstream of Gordon Drive	15
25	Mission Creek	Upstream of Gordon Drive	50
26	Priest Creek	All	15
27	Rembler Creek	All	15
28	Rumohr Creek	All	15
29	Scotty Creek	All	15
30	Simpson Spring	All	15
31	Thompson Brook	All	15
32	Varty Creek	All	15
33	Upper Vernon Creek	All	15
34	Whelan Creek	All	15
35	Wilson Creek	All	15
36	Wetlands (no association with fish habitat)	All	15
37	Wetlands (associated with fish habitat)	All	30
38	Escarpments or ravines	All	10
39	Springs	All	15

Notes for Table 1

1. Any watercourse not in this list is subject to the provincial acts and regulations.
2. Measured perpendicularly inland from the top of the bank, top of ravine or natural boundary, as applicable. RMA's apply to both sides of the stream.
3. Minimum RMA widths are intended to achieve "no net loss" when considering individual site conditions.

1.1 Meet or exceed the requirements of the provincial Riparian Areas Protection Regulation under the Riparian Areas Protection Act. At minimum, projects must comply with Riparian Management Area Setbacks in Table 1, unless conditions of Section 1.3 apply.

1.2 Measure the riparian management area setback width perpendicular from the watercourse according to the following (see Table 1):

- Streams – measured from the top-of-bank, or where the top-of-bank is poorly defined, measured from the natural boundary;
- Ravines and other stream corridors with steeply pitched banks – measured from the top of ravine bank;
- Wetlands and lakes with gradually sloping shores – measured perpendicularly from the natural boundary; and
- Okanagan Lake – measured from the high water mark of 343.0 m, as determined by the Province based on the highest target lake level plus 0.5m to account for wave action. The high water mark for some sites may be higher or lower where natural indicators on the shoreline show that wave action or other hydrological processes affect the shoreline to such an extent that the recommended high water mark is not applicable at that site. In these instances a site-specific high water mark can be used where a QP has provided a signed technical rational for why the high water mark is not applicable, and this is accepted by both the City and the Province. The minimum acceptable high water mark is the highest target lake level (342.48 m) plus 0.1 m.

1.3 Riparian Management Area Variances

- Applicants may apply to vary the width of the Riparian Management Areas listed in Table 1 should they be able to demonstrate hardship on the property and/or if the land was previously disturbed.
- Support of RMA variance applications will only be considered by the City to achieve "no net loss" and where an assessment, completed by a Qualified Professional (QP), provides recommendations to protect the integrity of the riparian area.
- Refer proposed relaxation of riparian management areas, storm water requirements, erosion and sediment control requirements to the City for review prior to filing the QP assessment report with the appropriate provincial ministry or agency.
- Restore the riparian management area as directed by the report of the QP when required by the Development Permit.

1.4 Biodiversity and Habitat Protection

- Ensure riparian areas act as ecological connectivity corridors to allow for the movement of species by retaining intact ecosystems and their connectivity and reconnecting fragmented ecosystems. .
- Maintain intact ecosystems. An intact ecosystem is considered to be a community or ecosystem that is maintaining proper function and has not lost significant species (for communities) or significant communities (for ecosystems).
- Improve the viability of threatened and endangered species through the protection, enhancement, and restoration of habitat, as well as the development of contingency plans for major disruptions and transplanting wild or captive bred individuals.
- Undertake recovery efforts to enhance or re-introduce species, subspecies and populations where species are threatened, endangered or extirpated.
- Retain connectivity of ecosystems and avoid the creation of isolated islands of natural habitat.
- Locate artificial snags to improve habitat.
- Encourage the "eco-gifting" of privately-held riparian management areas through a conservation easement, covenant, or other mechanism as a means of protecting biodiversity.

1.5 Buffers and Vegetation

- Establish buffers as outlined in Table 1, to protect the ecological integrity of the riparian management area.
- Protect buffers on private land with a Section 219 covenant, when required.
- Install fencing along the buffer, where appropriate.
- Maintain ecosystems in an undisturbed state during and after the development process (e.g. avoid disturbance to sites where rare plants are growing and where **rare natural plant communities** occur).
- Conserve trees and protect their root systems from disturbance.
- Conserve trees in communities (groups of trees along with their associated understory) rather than isolating individual specimen.
- Restore ecosystems by planting species that are:
  - Indigenous to the Okanagan Valley;
  - Pest-resistant;
  - Adapted to the specific site conditions today (soil type, sun, shade, and moisture) and for a changing climate.
- Remove invasive weeds (manually where feasible) and take measures to prevent the spread of invasive plant species.
- Protect moderate and high value wildlife trees, as assessed by a qualified professional, from removal where the hazard risk to humans is low.
- Retain snags, leaf litter, fallen debris and natural grasslands in a manner that balances FireSmart principles with ecosystem retention.

1.6 Urban Development (roads, housing, services and utilities)

- Require development take place outside the riparian management area.
- Avoid locating infrastructure corridors along, parallel to, or across riparian ecosystems. Where it can be demonstrated by a qualified professional that alternatives are not possible, design crossings that are narrow and perpendicular to sensitive areas and elevated to maintain ecosystem connections.
- Design infrastructure to maintain the hydrology of aquatic ecosystems.
- Design infrastructure corridors and trails to be as narrow as possible, creating the minimum disturbance and configure them to accommodate wildlife crossings.
- Construct accesses such as footpaths and stairways to minimize slope disturbance and changes to natural drainage patterns.
- Consider removing existing structures and other obstructions from the riparian management area to allow for movement of wildlife.
- Site all service lines outside of the riparian management area to:
  - Minimize slope disturbance;
  - Discourage invasive weed growth; and
  - Require minimal maintenance by heavy equipment.
- Restore disturbed areas quickly (with consideration given to hydrologic and climatic variables) to minimize erosion, ensure sediment control and prevent the spread of invasive weeds.

1.7 Fill

- Require the toe of any fill be located outside the riparian management area.
- Require the face of the fill be no steeper than a 3:1 slope unless retained by an approved structure.
- Require the fill be adequately protected against erosion from potential flooding, wave action, ice or other debris.

1.8 Soil Disturbance

- Where appropriate, require that sediment and erosion control plans be developed and/or reviewed by a QP.
- Implement measures to minimize soil disturbance and removal of gravel, sand, soils and peat.

1.9 Erosion Control

- Take temporary and permanent measures to control contamination from sediment and pollutants and to control erosion as outlined in Bylaw 7900: Subdivision, Development and Servicing Bylaw.

1.10 Minimize the negative impacts of livestock (e.g. grazing, water access, crossings) in riparian areas.

1.11 Water and Drainage

- Ensure development activities do not negatively impact the quality of surface water.
- Ensure land development and associated activities do not impact base flows, natural drainage patterns or natural stream channel geometry.
- Preserve natural watercourses and manage them as open streams.
- Maintain normal riparian processes such as flooding, seasonal drawdown, and groundwater recharge.

1.12 Lakeshore stabilization

- Complete an assessment and design of lakeshore stabilization works by a Qualified Professional.
- Do not reclaim eroded land below the lake high water mark.
- Use vegetative stabilization (bioengineering) techniques to prevent erosion, control sediment and provide fish and wildlife habitat in low to moderate wave action areas. For moderate to high wave action areas use a combination of vegetation and natural hard structures such as large woody debris and/or rip rap. Where engineer designed hard structures are required due to high wave action, a

technical rationale and design proposal must be provided to the City by a qualified professional. Avoid using broken concrete, tires and other anthropogenic materials for stabilization.
- Ensure lakeshore stabilization works maintain existing wildlife access to the lake foreshore.

2.0 Terrestrial Sensitive Ecosystems

2.1 Biodiversity and Habitat protection
- Retain intact ecosystems and their connectivity. Where practical and necessary, reconnect fragmented ecosystems by restoring habitat. Avoid the creation of isolated islands of natural habitat.
- Ensure ecosystem connectivity corridors are large enough to sustain species populations and prevent isolated habitat patches. Determine the location and extent of corridors using contemporary best management practices.
- Improve the viability of threatened and endangered species through the protection, enhancement, and rehabilitation of habitat, as well as the development of contingency plans for major disruptions and transplanting wild or captive bred individuals.
- Undertake recovery efforts to enhance or re-introduce species, subspecies and populations where species are threatened, endangered or extirpated.
- Plan, design and implement development to protect environmentally sensitive areas. Habitats that provide for at risk species, at-risk ecological communities and keystone species will be given priority for protection over development.
- Maintain intact ecosystems. An intact ecosystem is considered to be a community or ecosystem that is maintaining proper function and has not lost significant species (for communities) or significant communities (for ecosystems).
- Protect nesting, denning and breeding sites.
- Protect rock outcrops, cliffs, and talus slopes from disturbance.
- Locate artificial snags to improve habitat.
- Encourage the "eco-gifting" of privately-held riparian management areas through a conservation easement, covenant, or other mechanism as a means of protecting biodiversity.

2.2 Buffers and Vegetation
- Establish buffers that are large enough to protect the ecological integrity of the environmentally sensitive area. The exact location and extent of buffer areas will be determined by best management practices.
- Protect buffers on private land with a Section 219 covenant, when required.
- Install fencing along the buffer, where appropriate.
- Maintain ecosystems in an undisturbed state during and after the development process (e.g. avoid disturbance to sites where rare plants are growing and where **rare natural plant communities** occur).
- Retain trees and vegetation in a manner that balances BC Fire Smart principles with ecosystem sensitivity.
- Conserve trees and protect their root systems from disturbance.
- Conserve trees in communities (groups of trees along with their associated understory) rather than isolating individual specimen.
- Restore grasslands and shrub communities.
- Restore ecosystems by planting species that are
  - Indigenous to the Okanagan Valley;
  - Drought-tolerant;
  - Pest-resistant;
  - BC Fire Smart;
  - Compatible with urban development;

    - Adapted to the specific site conditions today (soil type, sun, shade, moisture) and for a changing climate.
- Remove invasive weeds (manually where feasible) and take measures to prevent the spread of invasive plant species.
- Protect moderate and high value wildlife trees, as assessed by a qualified professional, from removal where the hazard risk to humans is low.
- Retain snags, leaf litter, fallen debris and natural grasslands in a manner that balances BC Fire Smart principles with ecosystem retention.

2.3 Urban Development (roads, housing, services and utilities)

- Site all service lines outside of environmentally sensitive areas and to:
    - Minimize slope disturbance;
    - Discourage invasive weed growth; and
    - Require minimal maintenance by heavy equipment.
- Restore disturbed areas quickly (with consideration given to hydrologic and climatic variables) to minimize erosion, ensure sediment control and prevent the spread of invasive weeds.
- Avoid the location of infrastructure corridors along, parallel to, or across sensitive ecosystems. Where it can be demonstrated by a qualified professional that alternatives are not possible, design crossings that are narrow and perpendicular to sensitive areas and elevated in order to maintain connections.
- Construct accesses such as footpaths and stairways to minimize slope disturbance and changes to natural drainage patterns.

2.4 Soil Disturbance

- Where appropriate, require that sediment and erosion control plans be developed and/or reviewed by a QP.
- Implement measures to minimize soil disturbance and removal of gravel, sand, soils and peat.

2.5 Erosion Control

- Take temporary and permanent measures to control contamination from sediment and pollutants and to control erosion as outlined in Bylaw 7900: Subdivision, Development and Servicing Bylaw.

2.6 Fill

- Require the face of the fill be no steeper than a 3:1 slope unless retained by an approved structure.
- Require the fill be adequately protected against erosion from potential flooding, wave action, ice or other debris.

3.0 Sensitive Drainage Areas

3.1 Ensure that development activities do not negatively impact the quality of surface water.

3.2 Ensure that land development and associated activities does not impact base flows, natural drainage patterns and the natural stream channel geometry.

3.3 Preserve natural watercourses and manage as open streams.

3.4 Maintain normal riparian processes such as flooding, seasonal drawdown, and groundwater recharge.

3.5 Implement measures to prevent spills of oil, grease and other contaminants into adjacent watercourses (e.g. oil/grit separators and siltation ponds).

3.6 Minimize impervious surfaces through use of permeable materials and techniques to improve absorption (e.g. gravel, pavers, grasscrete, grass field for overflow parking, "country lanes").

3.7 Prohibit unnatural obstructions and impediments to the flow of a watercourse, ditch, drain or sewer.

3.8 Manage and minimize opportunities for livestock crossings and access to water.

3.9 Require drainage plans address the effective and environmentally sensitive handling of peak flows.

3.10 Buffers and Vegetation

- Retain as much existing vegetation as possible and plant native trees and shrubs to restore the vegetative where clearing has occurred. Plant species that are:
  - Indigenous to the Okanagan Valley;
  - Drought-tolerant;
  - Pest-resistant;
  - FireSmart;
  - Compatible with urban development;
  - Adapted to the specific site conditions today (soil type, sun, shade, moisture and for a changing climate.
- Protect buffers on private land with a Section 219 covenant, when required.
- Retain trees and vegetation in a manner that balances FireSmart principles with ecosystem sensitivity.
- Conserve trees and protect their root systems from disturbance.
- Conserve trees in communities (groups of trees along with their associated understory) rather than isolating individual specimen.
- Remove invasive weeds (manually where feasible) and take measures to prevent the spread of invasive plant species.
- Protect moderate and high value wildlife trees, as assessed by a qualified professional,from removal where the hazard risk to humans is low.
- Retain snags, leaf litter, fallen debris and natural grasslands in a manner that balances FireSmart principles with ecosystem retention.

3.11 Soil Disturbance

- Where appropriate, require that sediment and erosion control plans be developed and/or reviewed by a QP.
- Implement measures to minimize soil disturbance and removal of gravel, sand, soils and peat.

3.12 Erosion Control

- Take temporary and permanent measures to control contamination from sediment and pollutants and to control erosion as outlined in Bylaw 7900: Subdivision, Development and Servicing Bylaw.

3.13 Fill

- Require the face of the fill be no steeper than a 3:1 slope unless retained by an approved structure.
- Require the fill be adequately protected against erosion from potential flooding, wave action, ice or other debris.

4.0 Vulnerable Groundwater Aquifers

4.1 Prohibit land disturbance that would have a negative impact on groundwater recharge and wellhead protection areas.

4.2 Avoid the use of chemical fertilizers, pesticides and herbicides to protect highly vulnerable aquifers.

4.3 Disconnect and close private wells when a property connects to the City Water Utility as per Bylaw 11770: Well Regulation Bylaw. Encourage the disconnection and closure of private wells for those properties connecting to a other local water providers.

4.4 Underground storage tanks

- Require a hydrogeological report, from a qualified professional, assessing the appropriateness of the proposed property and location for underground fuel storage tanks, chemical storage, and/or use/storage of other potential sources of groundwater contamination.
- If the subject property is considered appropriate, provide and follow recommendations of the qualified professional with respect to the installation and maintenance of tanks/storage containers and other associated infrastructure.

4.5 Minimize the frequency with which the landscape and aquifers are disturbed (e.g. boreholes) to access groundwater flow. As an example, district energy systems are preferred over a series of individual wells for geothermal purposes.

4.6 Earth Energy Systems (Geothermal)

- Conduct a hydrogeological assessment, by a qualified hydrogeological professional prior to the installation of earth energy systems, if required. The assessment must conclude that the system will result in no significant impacts to existing ground and surface water conditions (e.g. temperature and quality).
- Design and install earth energy systems (geothermal) to conform to best management practices including those set by the Canadian Standards Association (CSA) and other municipal, provincial, or federal regulatory requirements.
- Require designers, installers and drillers of earth energy systems to be accredited by Canadian Geoexchange Coalition (CGC).
- Certify earth energy system installations by the Canadian Geoexchange Coalition.

5.0 Okanagan Ecosystem Connectivity Corridor

5.1 Biodiversity and Habitat Protection

- Retain connectivity to ecosystems and avoid the creation of isolated islands of natural habitat.
- Where practical and necessary, reconnect fragmented ecosystems by restoring habitat.
- Retain the width of un-fragmented natural habitat for the Okanagan Ecosystem Connectivity Corridor (the Corridor) as 1,000 meters wide, to allow for long-term ecosystem retention and wildlife movement. In rare exceptions, the width may be reduced to a minimum of 50 meters for short distances (e.g. less than 100 meters over the entire Corridor).

5.2 Buffers and Vegetation

- Maintain native vegetation in the Corridor in an undisturbed state during and after the development process (e.g. avoid disturbance to sites where rare plants are growing and where **rare natural plant communities** occur). Ensure to balance FireSmart principles with natural ecosystem retention.
- Use indigenous vegetation to buffer the Corridor from the built environment wherever possible.
- Where necessary, restore sections of the Corridor by planting species that are:
  - Indigenous to the Okanagan Valley;
  - Drought-tolerant;
  - Pest-resistant;
  - FireSmart; and/or
  - Adapted to the specific site conditions today (soil type, sun, shade, moisture) and for a changing climate.

- Remove invasive weeds (manually where feasible) and take measures to prevent the spread of invasive plant species.
- Protect moderate and high value wildlife trees, as assessed by a qualified professional, from removal where the safety risk to humans is low.
- Retain snags, leaf litter, fallen debris and natural grasslands in a manner that balances FireSmart principles with ecosystem retention.
- Ensure to maintain enough vegetative hiding cover as prescribed by a QP when managing areas within the Corridor for fire, disease or weed control.

5.3 Urban Development

- Work with a Qualified Professional (QP) to ensure species movement is maintained through the Corridor and that habitat fragmentation does not occur.
- Design new subdivision within or bordering the Corridor to allow for movement of wildlife and to avoid wildlife entrapment. Consider parcel orientation, minimizing fragmentation, positioning of future structures and other sensitive ecosystems on the property in the design.
- Minimize development (i.e. buildings, structures, etc) within the Corridor to ensure long-term retention of natural ecosystems and unimpeded movement of wildlife.
- In instances where structures are unavoidable, choose locations that minimize habitat fragmentation, such as along the perimeter, while also considering and avoiding other sensitive areas on the property.
- Design the site and structures to minimize impacts on the Corridor. Design considerations should include:
  - Placement of structures and infrastructure to minimize corridor fragmentation; including reduced road lengths;
  - Minimize the impacts of lighting; and
  - Landscaping and fencing (see sections 5.2 and 5.4).
- Avoid locating infrastructure corridors (e.g. roads and utilities) through the Corridor. Where necessary ensure infrastructure corridors are narrow, perpendicular to the Corridor where feasible, minimize disturbance and accommodate wildlife crossings.
- Design trails to be as narrow as possible, creating minimum disturbance to the Corridor.
- Include wildlife crossing structures (e.g. snake or amphibian crossing culverts, or box culverts to connect wetlands and necessary drift fencing[19]) and associated warning signage when a road bisects the Corridor when there is potential to impede wildlife movement.
- Restore disturbed areas quickly, with consideration given to hydrologic and climatic variables, to minimize erosion, ensure sediment control and the spread of invasive weeds.
- Encourage the "eco-gifting" of privately held land in the Corridor, through a conservation easement, covenant, or other mechanism as a means of protecting biodiversity.

5.4 Fencing

- Ensure fencing does not pose any hazards to wildlife or movement within the Corridor. Where wildlife-proof fencing (e.g. for ungulates or snakes) may be required, work with a QP to ensure critical wildlife travel routes are not completely blocked.
- Consider updating or eliminating existing fences that may be hazardous to wildlife (e.g. broken wires and rails).
- On agricultural land, follow fencing recommendations of the Ministry of Agriculture's BC Agricultural Fencing Handbook, most recent edition. In instances where tall fences are required around orchards, provide alternate wildlife movement paths where possible and include wildlife escape gates in the fence design.

[19] Drift fencing, typically constructed of cloth or plastic, is used to direct turtles, snakes and small mammals to underground road crossings

5.5 Soil disturbance

- Where appropriate, require sediment and erosion control plans developed and/or reviewed by a QP.
- Implement measures to minimize soil disturbance.

5.6 Erosion Control

- Meet erosion and sediment control requirements as outlined in Bylaw 7900: Subdivision, Development & Servicing Bylaw.

6.0 General

6.1 Mitigation

- In exceptional circumstances where it is determined by a qualified professional that the disturbance cannot be mitigated onsite, ensure offsite environmental improvements occur with the intention of achieving no net loss of critical habitat.

6.2 Ongoing Maintenance

- Require ongoing maintenance of areas that have been rehabilitated or restored as directed by report prepared by a QP.
- Register a Section 219 no build or no disturb covenant for areas that have been rehabilitated or restored.

6.3 Monitoring

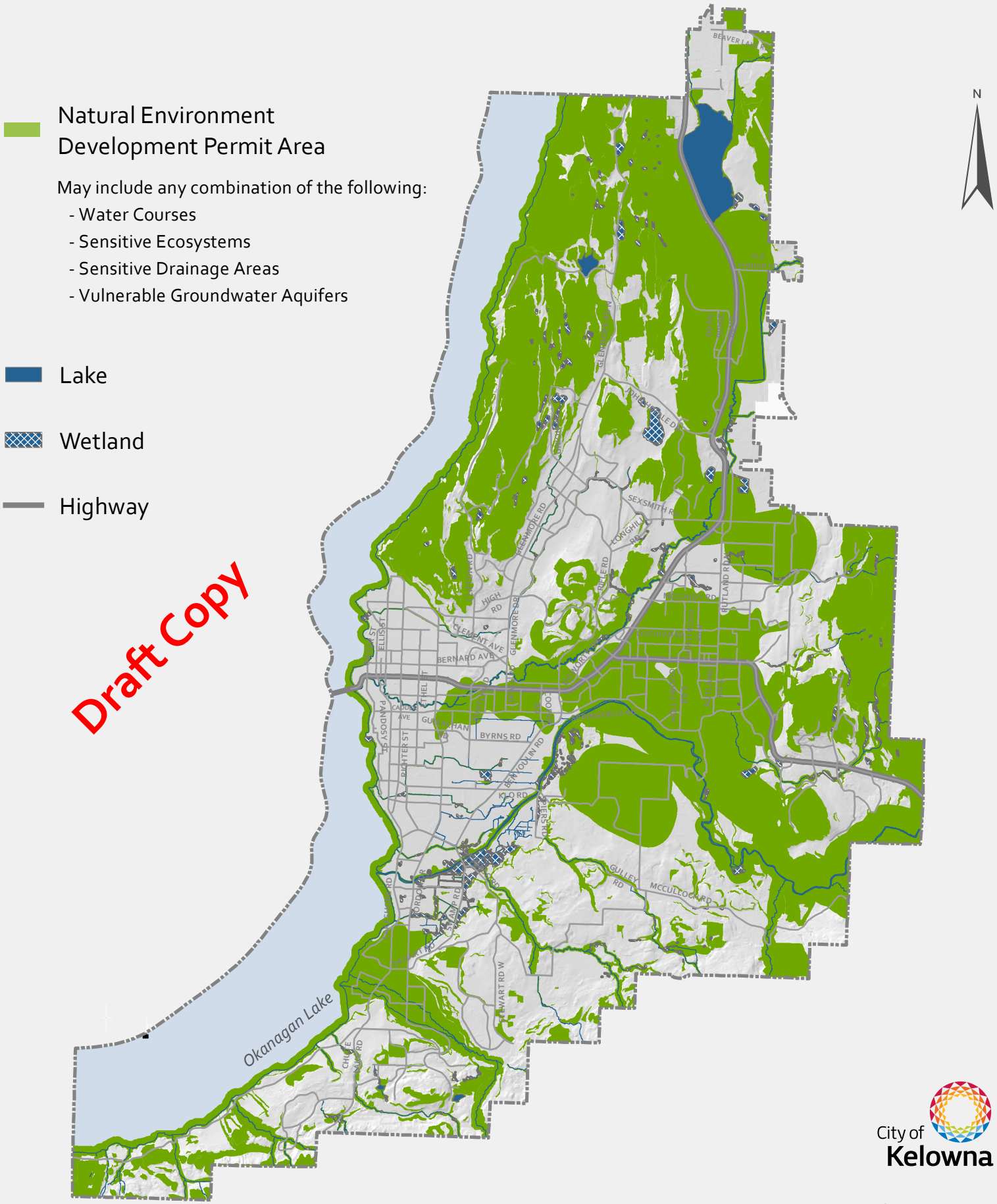
- Provide ongoing monitoring of Development Permit conditions by a qualified professional.

6.4 Performance bonding

- Submit to the City, when required, a cost estimate, prepared by a qualified professional and accepted by the City, of the total cost of rehabilitating and/or restoring the environmentally sensitive area.
- Provide adequate financial security, as determined by the City, prior to the issuance of approvals of any building or site disturbance. The value of the financial security will be based upon the estimated cost of:
  - rehabilitating and/or restoring an environmentally sensitive area;
  - rehabilitating and/or restoring an environmentally sensitive area, in the event that an environmentally sensitive area is damaged as a consequence of a contravention of a condition contained in the development permit;
  - restoring fish habitat; and
  - repairing damage caused by construction or site disturbance.

2040 Official Community Plan

Map 21.1 Natural Area Development Permit Area



City of Kelowna

Rev. Sep 25, 2020

This draft map is for consultation purposes only. This is not a final version.

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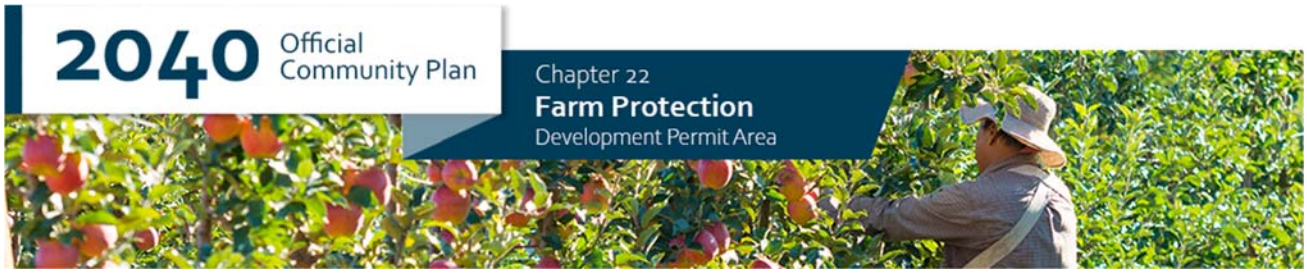


A. Farm Protection DP for development on lands adjacent to **Agricultural Land Reserve** (**ALR**)
   - Category
   - Properties affected
   - Justification
   - Objectives
   - Exemptions
   - Guidelines

B. Farm Protection DP for development on agricultural lands
   - Category
   - Properties affected
   - Justification
   - Objectives
   - Exemptions
   - Guidelines

C. Farm Help Housing
   - Category
   - Properties affected
   - Justification
   - Objectives
   - Exemptions
   - Guidelines

A. FARM PROTECTION DP FOR DEVELOPMENT ON LANDS ADJACENT TO AGRICULTURAL LAND RESERVE

CATEGORY

Sec. 488 (1) (c) of the Local Government Act for the protection of farming.

PROPERTIES AFFECTED

Unless exempted (See Exemptions section below) a development permit addressing protection of farming guidelines (See Guidelines section below) must be approved for:

1) Any development located adjacent to the **Agricultural Land Reserve (ALR)**, including properties that abut and are contiguous to agricultural lands as well as properties that would be contiguous if not for a street, lane, walkway, stream, utility lot, underground pipeline, power line, drainage ditch, watercourse, or similar feature, before
    a. Subdivision of land; or
    b. Rezoning of land; or
    c. A Building Permit

JUSTIFICATION

Agriculture is a prominent land use in Kelowna and a vital component of the local economy. The BC **Agricultural Land Commission** and the BC Ministry of Agriculture have acknowledged that the development of lands adjoining or reasonably adjacent to farmlands may compromise their agricultural use. As growth continues in the City, the potential for land use conflicts adjacent to agricultural areas increases, necessitating the application of guidelines with respect to subdivision design, buildings, site layout, landscaping and buffering. The guidelines are expected to promote greater compatibility between the uses while protecting the agricultural uses from urban impacts and minimizing complaints for the benefit of both farm and urban residents.

OBJECTIVES

- Minimize the impact of urban encroachment on **ALR** land;
- Mitigate conflict between **ALR** land and adjacent residential, commercial, industrial or institutional uses;
- Develop effective vegetated buffers along the **ALR** boundary;
- Plan new development in a manner that protects the long-term agricultural potential of adjacent **ALR** land; and
- Provide a natural barrier to block noise, sight, and trespassers; and
- Reduce odour, dust, and pesticide drift.

EXEMPTIONS

A Farm Protection Development Permit, for properties adjacent to the **ALR**, will not be required for:

- The subdivision of land already provides the prescribed agricultural buffer (see Guidelines) for all impacted property lines and is protected through a covenant; or
- A lot is separated from agricultural uses due to a slope greater than 30%; or
- A lot that is adjacent to an **ALR** property that is zoned for public and institutional uses (such as parks, schools, utilities, or institutional); or
- A lot that has existing vegetation that meets the vegetated buffer requirements outlined in these development permit guidelines, as long as the intent of the guidelines for all other requirements have been met; or
- A lot separated by an arterial or major collector street, as identified in Map 13.1 20 Year Major Road Network and Road Classification Plan.

- Construction, addition or alteration not exceeding 50 m² (538 ft²) gross floor area where no variance(s) of the Zoning Bylaw is (are) required; or
- Interior / exterior building alterations that do not expand the existing building foundation; or
- Repair, maintenance, alteration or reconstruction of existing legal buildings, structures or utilities, providing there is no expansion of the footprint; or
- Replacement of a building that has been destroyed by natural causes, in cases where the replacement building is identical to the original in location, floor area and height.

GUIDELINES

A. GUIDELINES FOR NEW SUBDIVISONS

2.0 Subdivision Design and Layout

2.1 Design subdivisions to reduce densities and the intensity of uses gradually towards the boundary of the **ALR** as illustrated in Figure 1.

2.2 Design the subdivision to minimize the impacts that may occur between farm and non-farm uses on adjacent **ALR** land through the following:

- Create a 30 m separation between future buildable areas and the **ALR**. A modified separation distance may be considered based on the recommendations of a professional agrologist report;
- Include a vegetated buffer (as described in section 2.0) within the separation between the future buildable area and the **ALR**;
- Cluster the lots, buildings, or structures away from **ALR** land;
- Avoid road endings or stubs which point directly into **ALR** land as illustrated in Figure 2;
- Avoid half roads along the **ALR** boundary as illustrated in Figure 2, except where required for access by farm vehicles;
- Plan the road pattern in such a way to direct urban traffic away from routes used by farmers to move equipment; and
- Avoid utility extensions into **ALR** land.

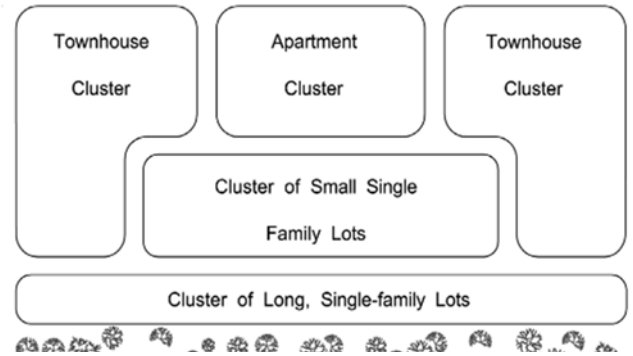


Figure 2: Example of residential clustering adjacent to agricultural land (source: BC Ministry of Agriculture Edge Planning Guide)

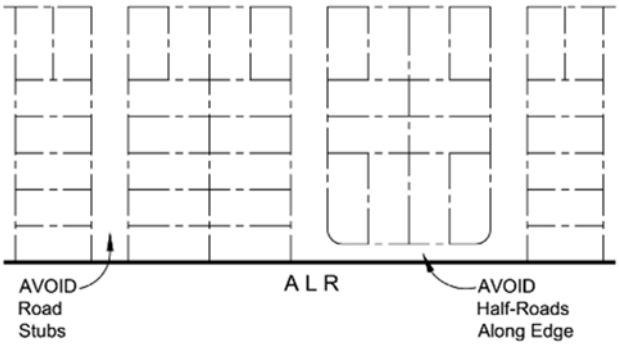


Figure 3: Avoid road stubs and half-roads along the boundary of agricultural land (source: BC Ministry of Agriculture Edge Planning Guide)

3.0 Vegetated buffer

3.1 Vegetated buffer width

- Strive to achieve the vegetated buffer widths outlined in the Ministry of Agriculture's "Guide to Edge Planning," most recent edition, ensuring that at minimum an 8 meter continuous vegetated buffer is established along the urban side of the **ALR**.

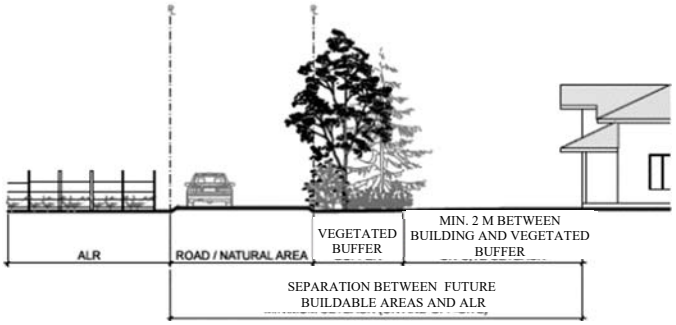


*Figure 4: Example of ground level view of vegetated buffer along the **ALR** boundary*

3.2 Vegetated buffer design

- Design, establish and maintain the vegetated buffer to: filter noise, dust, airborne particulates and chemical spray drift from activities on adjacent **ALR** land.
- Design and construct the vegetated buffer in accordance with Figure 4, or equivalent.
- Design and construct the vegetated buffer to the standards of the BC Society of Landscape Architects / BC Nursery Trades Association publication "*BC Landscape Standards*," most recent edition.
- Avoid paths and/or passive recreational activities within the vegetated buffer.

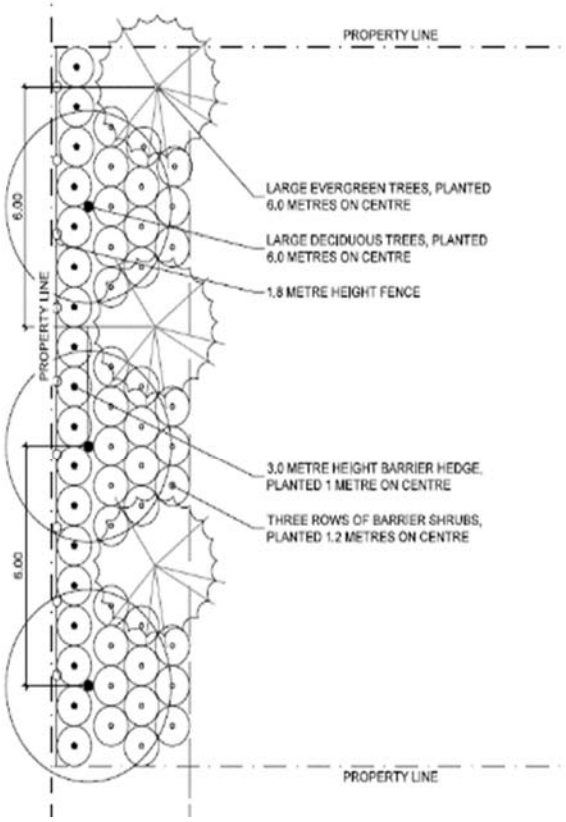


Figure 5: Example of vegetated buffer landscape plan for 4 m width, adjust plantings to accommodate 6 m or 8 m vegetated buffer width.

3.3 Planting the vegetated buffer

- Retain appropriate existing tree and shrub cover in a natural state.
- Select planting material from the Ministry of Agriculture's "Guide to Edge Planning", most recent edition, for Kelowna's climate zone. Choose species that are:
  - Non-invasive;
  - Drought tolerant or require minimal irrigation;
  - Low maintenance and require little or no fertilizer;
  - Native to the area where possible;
  - Not harmful to nearby crops and do not harbor insects or diseases; and
  - A deterrent to prevent trespass onto farms.
- Existing vegetation may serve as the entire buffer, provided it meets the objectives of these development permit guidelines.

4.0 Fencing

4.1 Install a fence along the **ALR** boundary and/or property line. Construct fencing:

- Up to the maximum height permitted by the Zoning Bylaw;
- With solid wood, chain link, or wire mesh fabric (deer fencing).
- According to the fencing specifications found in the Ministry of Agriculture's "Guide to Edge Planning", most recent edition.

5.0 During development and construction phases, ensure any required fill does not impact the buffer.

6.0 Restrictive covenant

6.1 A statutory restrictive covenant under section 219 of the Land Title Act, on non-agricultural land may be required during the subdivision process. The covenant shall:

- Require vegetated buffers to be maintained to the specified width and planting diversity;
- Require no habitable structures shall be built within setback or buffer area;
- Restrict the planting of species that may potentially host diseases or pests; and
- Specify the lot is located near an agricultural area, that the following impacts from normal farm practices can be expected, such as:
  - Noise from farm operations at various times of the day, including devices used to deter wildlife;

- Farm odours;
- Chemical spray (e.g. fertilizers, pesticides, herbicides).

B. GUIDELINES FOR DEVELOPMENT ON AN EXISTING LOT
(Residential, Commercial, Industrial, Institutional, or Public)

1.0 Site and Building Design and Layout

1.1 Design the site to strive to achieve the separation between the structure and **ALR** boundary outlined in the Ministry of Agriculture's "Guide to Edge Planning," most recent edition, ensuring that at minimum the following separations are achieved:

- 15 meters for single family residential buildings;
- 20 meters for multi-unit residential buildings;
- 15 meters for commercial and industrial buildings. This separation may be reduced if the commercial or industrial building has no openings facing the adjacent **ALR** land, meets the minimum required vegetative buffer, the 2.0 m separation between the vegetated buffer and building, and meets minimum setback requirements in the Zoning Bylaw; and
- 20 meters for institutional buildings (such as schools and seniors' housing).

When multiple uses occur on the lot, design the site using the most stringent separation between the structure and the agricultural land boundary.

1.2 Include a vegetated buffer (as described in section 3.0) within the separation between the future buildable area and the **ALR** boundary.

1.3 Locate structures a minimum of 2.0m from the vegetated buffer area (see section 3.0) to ensure that the buffer is not impacted by building maintenance or pathways required to enter or exit a building.

1.4 Design the development to protect the required vegetated buffer (see section 3.0) from potential negative impacts related to on-site activities (i.e. drainage, recreational pathways, driveways).

1.5 Consider designing buildings to reduce the number of doors and windows facing agricultural land.

1.6 Provide mechanical ventilation so occupants can choose to keep windows closed.

1.7 On institutional sites, locate active uses away from adjacent **ALR** land to reduce the potential impact from agricultural activities on seniors, children and health challenged populations as illustrated in Figure 5. Instead locate passive uses such as parking or gardens near the **ALR** edge.

1.8 On park sites, locate active recreation facilities, such as playing fields, away from the **ALR** boundary as illustrated in Figure 5.

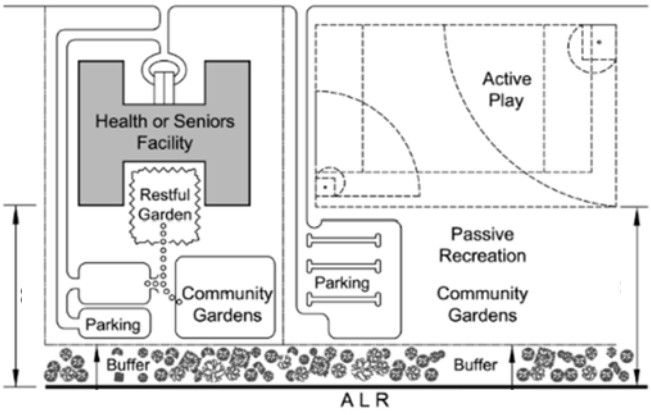


Figure 6: Example of institutional and park designs to limit impact on vulnerable populations.(Source: Ministry of Agriculture Guide to Edge Planning)

2.0 Parking and access

2.1 Consider locating access routes and parking in the yard area between the vegetated buffer and the building to maximize the separation between the use and **ALR** boundary as illustrated in the example in Figure 6.

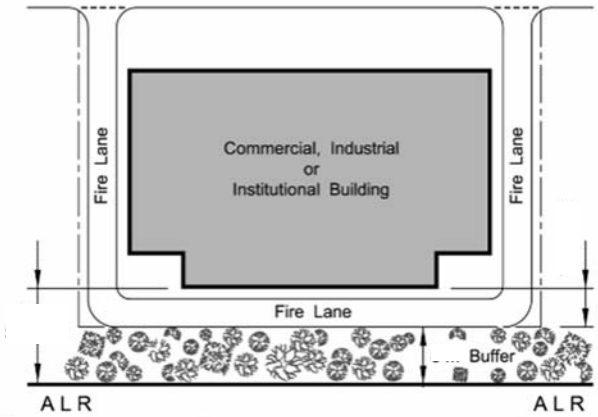


Figure 7: Example of fire lane adjacent to vegetated buffer. (Source: Ministry of Agriculture Guide to Edge Planning)

3.0 Vegetated buffers

3.1 Vegetated buffer width

- Strive to achieve the vegetated buffer widths outlined in the Ministry of Agriculture's "Guide to Edge Planning," most recent edition, ensuring a continuous vegetated buffer is established along the urban side of the **ALR** boundary that is at minimum:
  - 4.0 meters for residential development on existing lots;
  - 6.0 meters for, multi-family, commercial or industrial developments. If there is a street separating the multi-family, commercial or industrial development from the **ALR** edge, the vegetated buffer may be reduced to 4.0 meters.

When multiple uses occur on the lot, the most stringent buffer width prevails.

3.2 Vegetated buffer design

- Design, establish and maintain the vegetated buffer to: filter noise, dust, airborne particulates and chemical spray drift from adjacent **ALR** land.
- Design and construct the vegetated buffer in accordance with Figure 7 and 8, or equivalent.
- Design and construct the vegetated buffer to the standards of the BC Society of Landscape Architects / BC Nursery Trades Association publication "*BC Landscape Standards*," most recent edition.

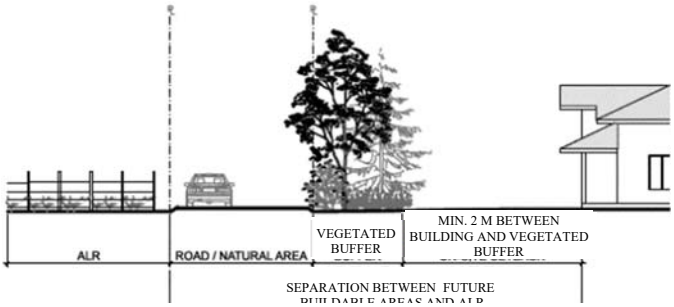


*Figure 8: Example of ground level view of vegetated buffer along the **ALR** boundary*

- Ensure the vegetated buffer is a 'no build zone.' This area should be free of buildings, pools, tennis courts, or other similar structures. Exceptions will be made for accessory structures that do not contain a dwelling unit and have no openings on the wall facing the agricultural lands and will protect the integrity and intent of the remaining vegetated buffer.
- Avoid paths and/or passive recreational within the vegetated buffer.

3.3 Planting the vegetated buffer

- Retain appropriate existing tree and shrub cover in a natural state.
- Select planting material from the Ministry of Agriculture's "Guide to Edge Planning", most recent edition, for Kelowna's climate zone. Choose species that are:
  - Non-invasive;
  - Drought tolerant or require minimal irrigation;
  - Low maintenance and require little or no fertilizer;
  - Native to the area where possible;
  - Not harmful to nearby crops and do not harbor insects or diseases; and
  - A deterrent to prevent trespass onto farms.
- Existing vegetation may serve as the entire buffer, provided it meets the objectives of these development permit guidelines.

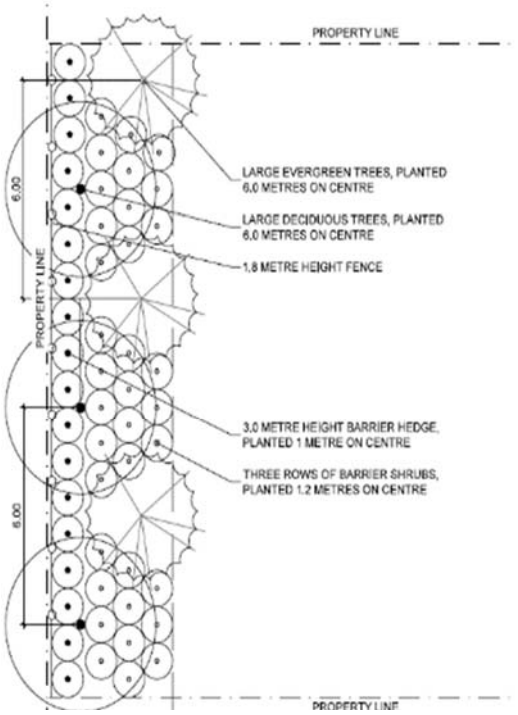


Figure 9: Example of vegetated buffer landscape plan for 4 m width, adjust plantings to accommodate 6 m or 8 m vegetated buffer width.

4.0 Fencing

4.1 Install a fence along the **ALR** boundary and/or property line. Construct fencing:

- Up to the maximum height permitted by the Zoning Bylaw;
- With solid wood, chain link, or wire mesh fabric (deer fencing).
- According to the fencing specifications found in the Ministry of Agriculture's "Guide to Edge Planning", most recent edition.

5.0 During development and construction phases, ensure any required fill deposition is handled sensitively with respect to the buffer and natural soil regimes on and off site are retained.

B. FARM PROTECTION DP FOR DEVELOPMENT ON AGRICULTURAL LANDS

CATEGORY

Sec. 488 (1) (c) of the Local Government Act for the protection of farming.

PROPERTIES AFFECTED

As defined in Chapter 18, lands considered agriculture include:

- lands classified as farm by the BC Assessment Authority; or
- lands less than 30% slope and designated Rural Agricultural and Resource in OCP Bylaw XXXX and zoned A1 in the Zoning Bylaw; or
- lands situated in the **Agricultural Land Reserve** (**ALR**)."

Unless exempted (See Exemptions section below) a development permit addressing protection of farming guidelines (See Guidelines section below) must be approved for:

1) Any development located on Agricultural Lands before:
    a. Subdivision of land;
    b. A Building Permit, Soil Permit, or alteration of land unless listed in exemptions below.

JUSTIFICATION

To protect the agricultural land resource for present and future production of food and other agricultural products. Guidelines for setbacks and buffering on agricultural lands may assist in minimizing impacts on agricultural neighbours. Impacts may include trespass, crop damage, livestock harassment, and other conflicts.

OBJECTIVES

- Protect farm land and farm operations;
- Minimize the impact of residential uses on farm practice and farming potential in farming areas;
- Minimize conflicts created by activities designated as farm use by ALC regulation and non-farm uses within agricultural areas; and
- Ensure that the primary use of agricultural land is for agricultural purposes.

EXEMPTIONS

A Farm Protection Development Permit will not be required for agricultural lands for:

- **Agricultural Structures** used exclusively for agriculture but excluding alcohol production facilities, farm retail sales, intensive impact agriculture, and facilities for storing, packing, preparing and processing farm products; or
- The issuance of a building permit for single family dwelling housing or accessory structure if a Farm Residential Footprint covenant has been registered with the BC Land Title and Survey Authority and meets the prescribed residential footprint guidelines (see Guidelines); or
- Construction, addition or alteration not exceeding 50 m^2 (538 ft^2) where no variance(s) of the Zoning Bylaw is (are) required.

GUIDELINES

1.0 Site and Building Design

1.1 Locate all residential buildings (e.g. houses, garages) and associated structures (e.g. driveways, parking areas, pools, septic fields), including **farm help housing**, within a contiguous area (i.e. farm residential footprint or homeplate).

1.2 Design the residential footprint such that:

a. The residential footprint is located within 60 meters of the road and/or located to maximize agricultural potential and limit negative impacts on the farm, whether or not the parcel is currently farmed;
b. All underground residential services are located within the residential footprint;
c. Only structures exclusively used for agriculture, including greenhouses, farm retail sales stands, and those structures associated with crop storage, on-farm processing, stables, alcohol production facilities, and tasting facility or lounge, and temporary farm working housing may be located outside the residential footprint.

1.3 Locate farm retail sales, alcohol production facilities, and any other structures and services related to the public that are defined as farm uses under the *ALC Act* near the road entrance or in a location that minimizes road construction to reduce the footprint and extent of services through the lot with the goal of reducing impact on the agriculture potential.

1.4 Locate new manure and compost storage and operations at least 60 m from the urban boundary. This distance may be reduced by half if a farm-side vegetative buffer is installed.

1.5 Ensure fans and other exhaust systems in agricultural structures are directed away from the urban boundary to minimize conflict.

2.0 Parking

2.1 Parking pads should be constructed using permeable materials, such as gravel. Avoid pavement and concrete.

2.2 Parking should be contiguous with the use and located to maximize agricultural potential.

3.0 Vegetated Buffers

3.1 Establish landscape buffers consistent with farmside guidelines outlined in the Ministry of Agriculture "Guide to Edge Planning," most recent edition, around
a. Residential uses to protect from sprays and dust; and/or
b. Intensive or offensive agricultural activities to provide a shield/screen to reduce conflicts with urban side properties.

C. FARM HELP HOUSING

CATEGORY

Sec. 15 (1) of the *Community Charter* to provide for permits or approvals.

PROPERTIES AFFECTED

Unless exempted (see Exemptions section below) Farm Worker Housing Permits that align with the guidelines (see Guidelines section below) must be approved for:

1) A building permit for **farm help housing**.

JUSTIFICATION

To protect the agricultural land resource for present and future production of food and other agricultural products. Guidelines for setbacks and buffering of **farm help housing** on agricultural lands may assist in minimizing development impacts on agricultural neighbours.

OBJECTIVES

- Protect farm land and farm operations;
- Minimize the impact of residential uses on farm practice and farming potential in farming areas;
- Minimize conflicts created by activities designated as farm use by ALC regulation and non-farm uses within agricultural areas; and
- Ensure that the primary use of agricultural land is for agricultural purposes.

EXEMPTIONS

- Exemptions are not applicable to this section

GUIDELINES

1. **Temporary Farm Worker Housing**

1.1 All existing dwellings within the **farm unit** should be utilized prior to building new **temporary farm worker housing,** unless the existing dwellings are for a use consistent with the *Agriculture Land Commission Act*. Alternatively, the existing dwellings on the **farm unit** must be removed, decommissioned to an approved use or demolished including decommissioning the existing septic system, prior to the authorization of a new temporary farm worker housing structure.

1.2 The **temporary farm worker housing** footprint should be contiguous with the residential footprint (i.e. homeplate) and / or within 60 metres of the road and/or located to maximize agricultural potential and limit negative impacts on the farm parcel.

1.3 Establish a minimum 3 metre wide vegetated buffer for screening to adjacent property lines and between the temporary farm worker housing and active farming areas.

2.0 Farm help dwelling (permanent)

2.1 Through the development process, a statutory restrictive covenant under section 219 of the *Land Title Act* is required indicating that the dwelling is for full time farm help and must be removed should the level of operation change such that the operation does not qualify for full time farm help.

2.2 The farm help dwelling (permanent) must be on the same lot as the principal dwelling.

2.3 Design the farm help dwelling (permanent) residential footprint such that:

a. It is contiguous with the farm residential footprint (i.e. homeplate).
b. The size is up to 1,000 m^2 and must be registered on title for farm help dwelling (permanent).
c. All underground residential services are located within the farm help dwelling (permanent) residential footprint;

2.4 Establish a minimum 3 metre wide vegetated buffer for screening to adjacent property lines and between the farm help dwelling (permanent) and active farming areas.

Category

Section 614 of the Local Government Act allows local governments to, for the purposes of heritage conservation, designate Heritage Conservation Areas.

Properties Affected

A Heritage Alteration Permit must be obtained prior to or in conjunction with issuance of a building permit for demolition or removal of a building, construction of a new building, or structural changes to the exterior of an existing building located in a Heritage Conservation Area (see Map 23.1).

Justification

The purpose of the Heritage Conservation Area is to sustain the historical legacy of the neighbourhoods shown on Map 23.1. The special qualities of these neighbourhoods will be preserved by ensuring changes complement the established streetscape and maintain the integrity of traditional architectural forms.

Objectives

- Maintain the residential and historical character of the Marshall Street and the Abbott Street Heritage Conservation Areas;
- Encourage new development, additions and renovations to existing development which are compatible with the form and character of the existing context;
- Ensure that change to buildings and streetscapes will be undertaken in ways which offer continuity of the 'sense-of-place' for neighbours, the broader community; and
- Provide historical interest for visitors through context sensitive development.

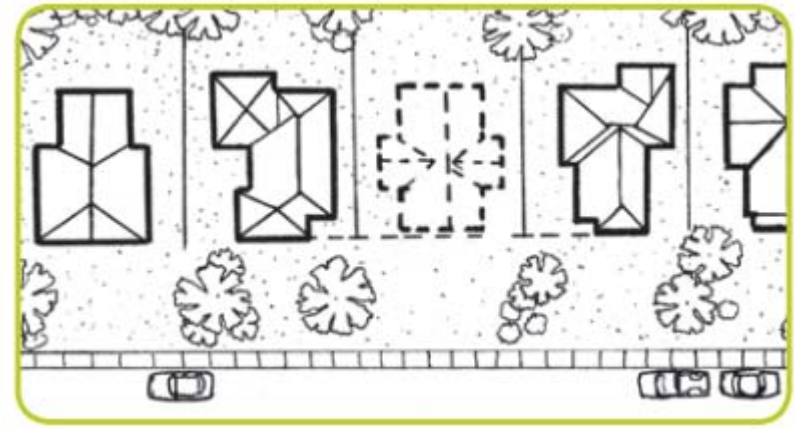
Exemptions

Building maintenance, interior renovations or exterior alterations not requiring a building permit do not require a Heritage Alteration Permit.

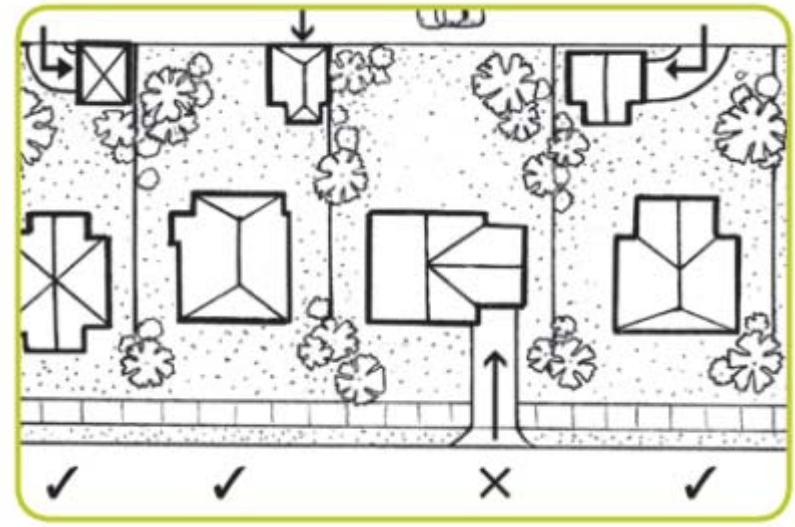
Guidelines

Although design freedom is encouraged, it is vital to the integrity of the Heritage Conservation Areas to have the established context serve as inspiration for new development. The dominant architectural style for the streetscape should prescribe the style of new buildings while the established patterns prescribe scale, massing and streetscape relationships. Dominant patterns and key elements occurring on the streetscape of the subject site should be noted and used as the general basis for the design of a new house. The following are the landscape and architectural guidelines to be applied to all additions or new constructions within the Abbott Street and Marshall Street Heritage Conservation Areas. Applicants are encouraged to relate the guidelines to the architectural style of their property and the adjacent context. In the case of new homes, applicants are encouraged to consider the architectural style consistent with the dominant style identified for their block. However, it is not required that the architectural style of new buildings be consistent with the dominant style of the block.

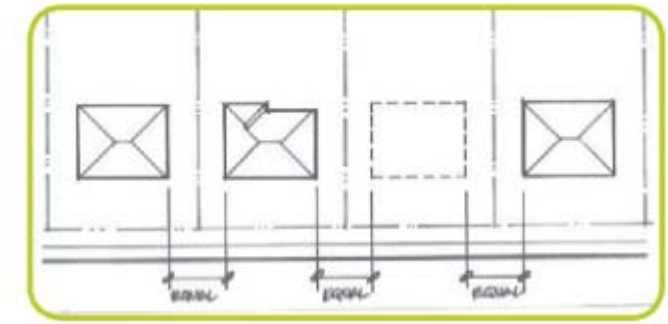
Site Layout & Parking



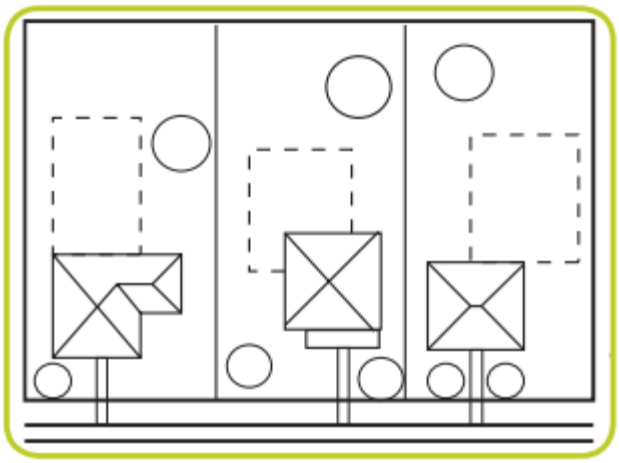
Maintain the established front yard setback by placing additions and new constructions within 10% of the adjacent or average building setback.



New front drives and garage doors facing the street are discouraged in areas where they are not common and particularly where rear lane access is available. Where no lane is available, front drives with rear garages are encouraged.



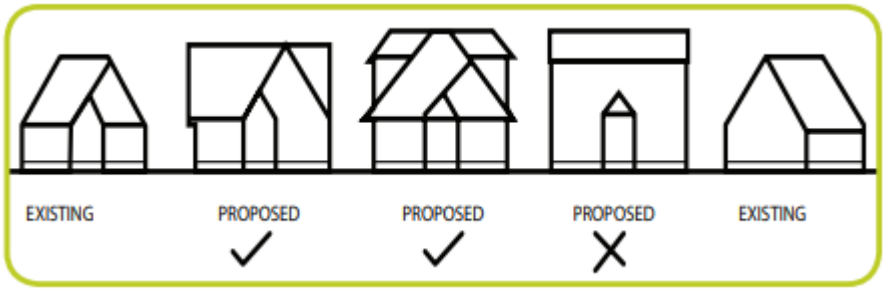
Spacing between buildings should retain the established pattern.



Rear setbacks may vary from the established pattern, within the limits of the Zoning Bylaw, to accommodate additions to the residential building footprint.

Secondary suites over garages, when permitted, are encouraged to draw architectural design inspiration from the principle residence. The massing of auxiliary buildings should be subordinate to the massing of the principal structure.

Building Massing (Envelope)



New construction or additions to existing structures are encouraged to maintain the established massing of the streetscape.

Larger buildings should use architectural design techniques to reduce the apparent massing and emulate the established neighbouring building massing.

Architectural Pattern

Established block face building spacing, foundation height, proportion, wall to window/door ratio and setbacks of adjacent development are to be considered with new development or additions to existing buildings.

Roof Forms, Dormers & Chimneys

The dominant neighbourhood roof pattern is encouraged, particularly for buildings of the same architectural style, by new or renovated development.

Roof form complexity, roof line silhouette, and the use of secondary elements (dormers, gables, chimneys, etc.) should be consistent with the building style. Skylights which are visible from the public street or walkway are discouraged.

High quality, low maintenance roofing materials, of similar design to traditional materials, may be used for buildings not being restored to period authenticity.

Soffit overhang, rafter shape, bracket detail and rain water drainage are encouraged to be similar to the original building design or be consistent with the established methods characteristic of the architectural style of the building.

Secondary roof elements, such as dormers, copulas and gables, are encouraged to have similar a roof slope as the principle roof.

Chimneys are encouraged to be consistent with those found on buildings of similar architectural style.

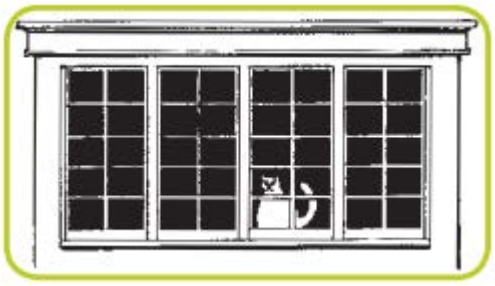
Cladding Materials

Low maintenance materials, of similar design to traditional materials, may be used for buildings not being restored to period authenticity. Exterior paint or prefinished exterior material colours which are similar to the traditional tones for the building's architectural style are encouraged.

Doors & Windows

Window and door-to-wall area ratio, placement and style are encouraged to adhere to the pattern of the established architectural style.

Main entrances should be prominent from the street and are encouraged to adhere to the pattern of the established architectural style.

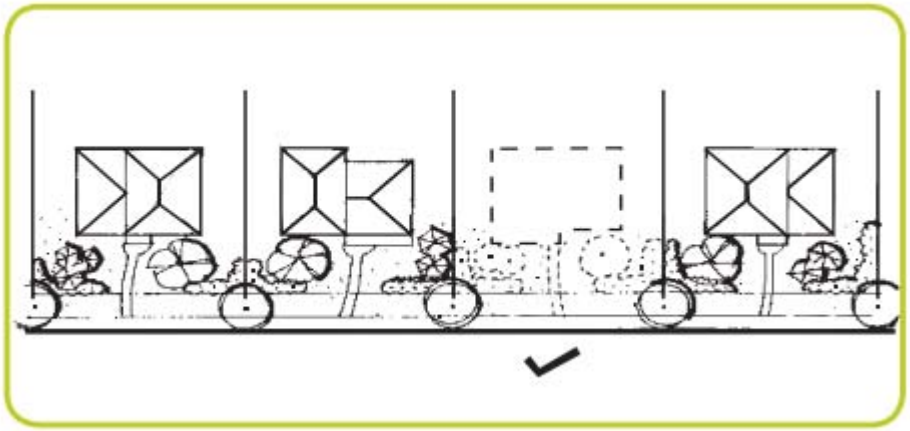


Door and window shape, sash design, trim, casements and sills are encouraged to be of similar finish as the established architectural style.

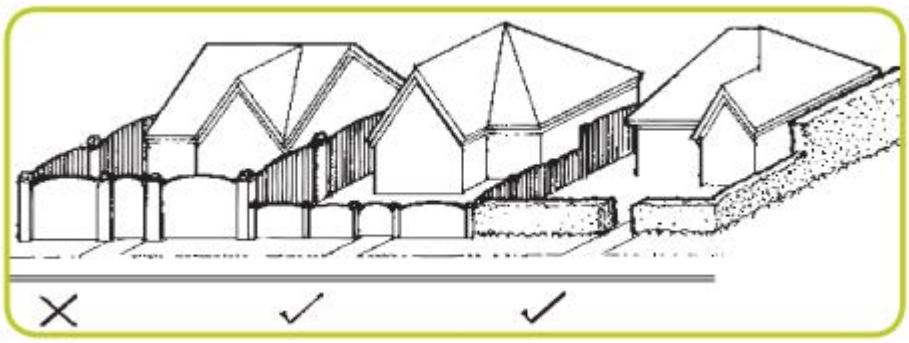
Front steps leading to the principle entrance are encouraged to be constructed in a style and of materials consistent with the established architectural style of the home.

Landscaping, Walks & Fences

Healthy, mature trees are encouraged to be maintained and protected during and after construction.



Front yard landscape plantings, walkways and other landscape installations are encouraged to be derived from the context of the adjacent sites.

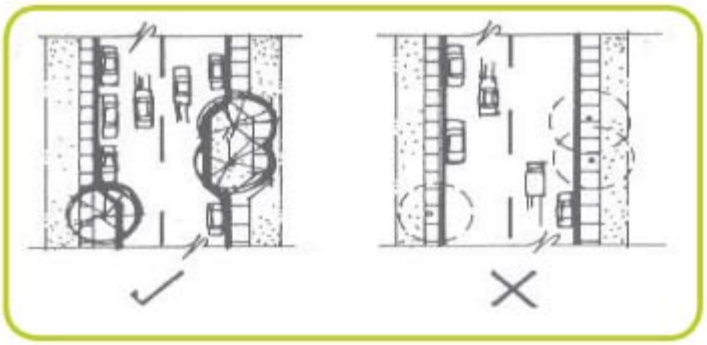


Fences or screening landscaping, greater than 1.0 metre in height, are discouraged in front yards unless inconsistent with treatment derived from the context of the adjacent sites.

Streetscape Guidelines

The established road right-of-way for existing streets should be retained at current dimensions. Council may consider variances of the City's servicing standards for roads within the Heritage Conservation Areas via a Development Variance Permit, Heritage Revitalization Agreement or Major Heritage Alteration Permit.

Character street lighting, in the form of the standard King Louminaire and decorative pole, is encouraged within the Heritage Conservation Areas, potentially funded through a Specified Area Bylaw for cost recovery of the incremental costs in excess of the conventional streetlight service.

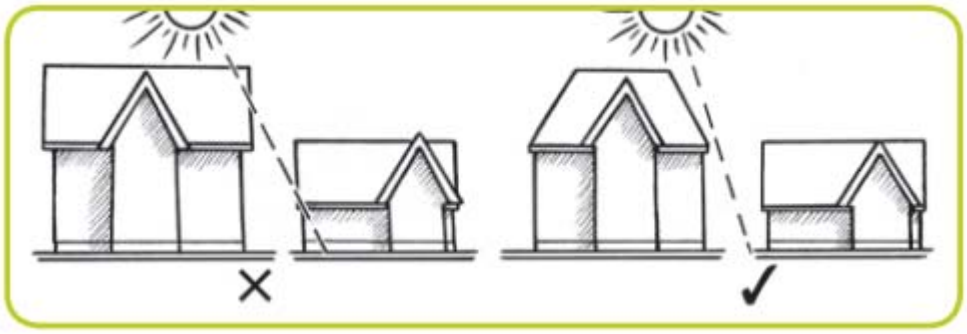


All healthy, mature boulevard trees within the public right-of-way are encouraged to be retained and protected during construction.

Any tree pruning required, for overhead wire clearances, public safety or any other reason, is encouraged to be undertaken under the direction of a Landscape Architect or arborist certified by the International Society of Arboriculture.

Privacy and Shadowing Guidelines

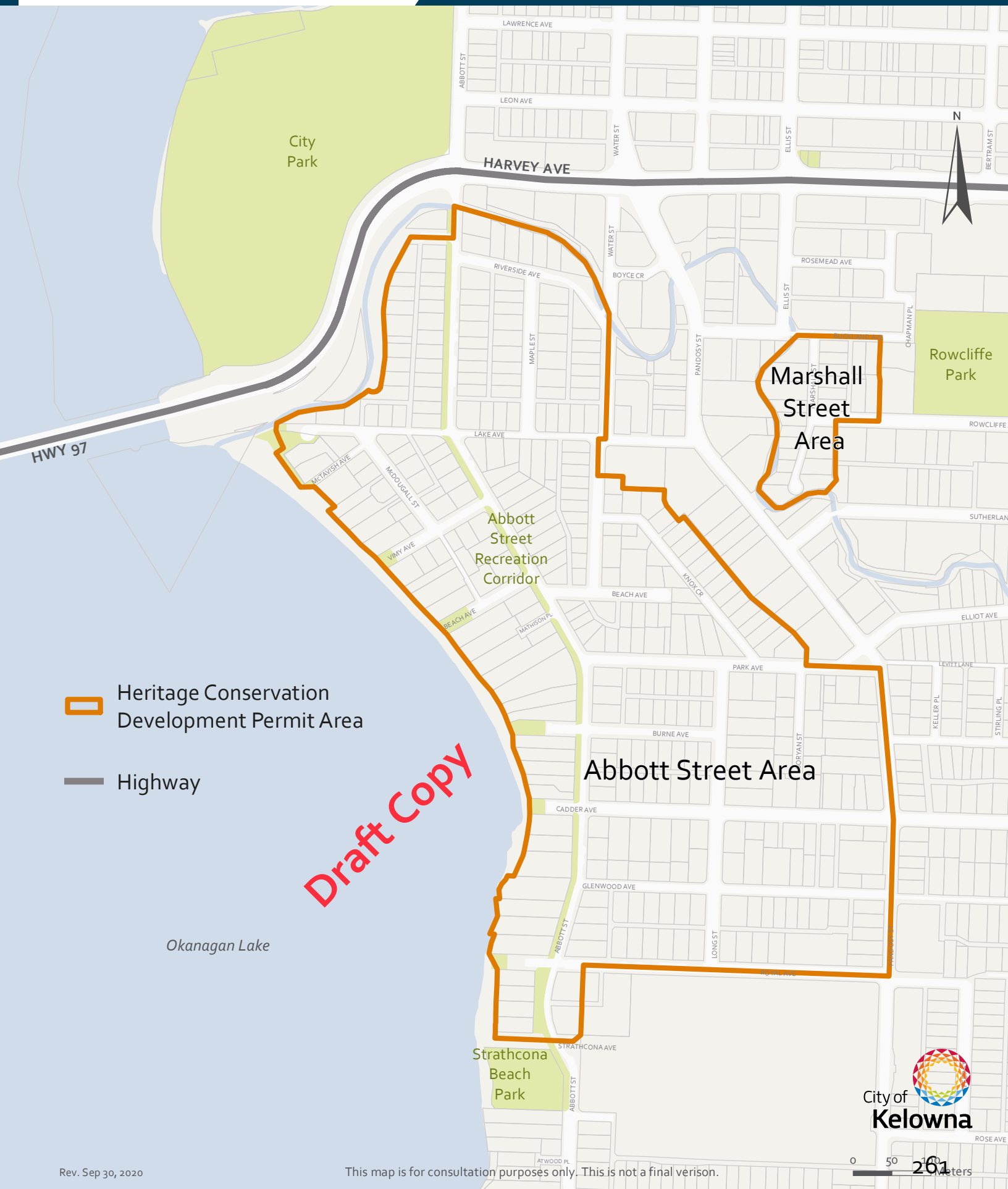
The design of front yards should provide for sight lines to the front yard and residence from the front street.



Casting of shadow on adjacent yards is minimized by stepping second storey elevations back to satisfy the sunlight requirements of the City's Zoning Bylaw. In cases where the architectural authenticity does not accommodate a stepped building form, overshadowing may be managed through other design solutions, such as locating the building on the site in ways which satisfy the Zoning Bylaw daylighting standards.

2040 Official Community Plan

Map 23.1 Heritage Conservation Development Permit Area



Rev. Sep 30, 2020

This map is for consultation purposes only. This is not a final verison.

Attachment 2: Summary of Draft 2040 OCP Future Land Use Designations

Future Land Use Designation	Supported Uses	Supported Forms	Density	Other Characteristics
Urban Centres (UC)	•Multi-dwelling residential •Apartment housing •Mixed use development •Commercial, including office, retail and visitor accommodation •Institutional	•Ground oriented multi-dwelling housing •Low, mid and high-rise buildings, as outlined in Chapter 4: Urban Centres	•Downtown: Approximately 9.0, where consistent with Urban Centre policy •Capri-Landmark: Approximately 4.5 and guided by the Capri Landmark Urban Centre Plan •Other Urban Centres: Approximately 2.5 and guided by Urban Centre policy.	•Guidance through Urban Centre Plans, other supplementary plans
Village Centres (VC)	•Multi-dwelling residential •Apartment housing •Mixed use development •Commercial, including small scale office, retail •Institutional •Tourist accommodation (Cook Truswell Village Centre only)	•Ground oriented multi-dwelling housing •Low-rise buildings •Mid-rise buildings (Cook / Truswell Village Centre only)	•Approximately 2.0 or as guided by policy. •Approximately 3,000 – 15,000 m2 of commercial floor space. Core Area village centres are expected to be larger than	•Guidance through additional as outlined in Chapter 5: Core Area, Chapter 6, Gateway and Chapter 7: Suburban Neighbourhoods.
Core Area Neighbourhood (C-NHD)	•Single and two dwelling residential •Ground oriented multi-dwelling residential •Small-scale commercial and institutional •Stacked townhouses* •Apartment housing* •Mixed use development*	•Attached and detached buildings up to 3 storeys • Multi-dwelling buildings up to approximately 6 storeys*	•Approximately 1.0 •Allow for up to approximately 1.8 along TSCs and strategic locations	•Sensitive infill in keeping with neighbourhood scale and orientation •Buildings oriented to Transit Supportive Corridor •Sensitivity to Heritage Conservation Areas
Core Area - Health District (C-HTH)	•Institutional (health services) •Ground oriented multi-dwelling residential •Small-scale commercial •Apartment housing	•Attached and detached buildings up to 3 storeys • Multi-dwelling buildings up to approximately 6 storeys*	•Approximately 1.5 •Allow for up to approximately 1.8 for residential uses along TSCs and strategic location.	•Development should be consistent with the Hospital Area Plan.

Future Land Use Designation	Supported Uses	Supported Forms	Density	Other Characteristics
Suburban Residential (S-RES)	•Single and two dwelling residential •Secondary suites and carriage houses. •Small scale institutional uses.	•Attached and detached buildings	•N/A	•Considerations for hillside and environmental context.
Suburban Multiple Unit (S-MU)	•Single and two dwelling residential •Ground oriented multi-dwelling residential •Low rise apartments •Secondary suites and carriage houses.	•Attached and detached buildings up to 4 storeys	•Attached and detached buildings up to 4 storeys •Up to approximately 1.3.	•Considerations for hillside and environmental context.
Regional Commercial (RCOM)	•Commercial, including, retail, tourist accommodation and small scale office. •Service commercial •Apartment housing*	•Buildings up to approximately 4 storeys	•N/A	•Considerations for transit orientation and pedestrian safety and comfort.
Neighbourhood Commercial (NCOM)	•Retail commercial •Apartment housing above the first floor.	•Buildings up to approximately 4 storeys	•Up to approximately 3,000 m2 of commercial space.	•Integration with surrounding neighbourhoods.
Industrial (IND)	•Industrial uses including manufacturing, repair, processing, storage and distribution •Accessory retail and office space	•Buildings up to approximately 4 storeys	•N/A	•Sensitive transitions into adjacent neighbourhoods •Higher employment densities in Core Area, lower employment densities in the Gateway.
Educational / Institutional (EDINST)	•Schools and post secondary institutions •Government and not-for-profit offices and services •Health services •Cultural and recreation facilities •Places of worship •Shelters and supportive housing	•Various	•N/A	•N/A

Future Land Use Designation	Supported Uses	Supported Forms	Density	Other Characteristics
Rural Residential (R-RES)	•Single dwelling housing •Secondary suites and carriage houses. •Low impact complimentary uses	•Single detached homes	•N/A	•Limited urban services.
Rural - Agricultural and Resource (R-AGR)	•Single dwelling housing •Low impact complimentary uses •Agriculture •Resource extraction	•Single detached homes •Agricultural structures	•N/A	•Limited urban services.
Parks (PARK)	•Recreation and cultural services •Limited retail commercial to support park uses	•Variable to support parks uses	•N/A	•Designed for active uses.
Natural Areas (NAT)	•Recreation and cultural services •Natural open space	•Variable to support parks uses	•N/A	•Designed for passive uses.
Private Recreational (REC)	•Recreation and cultural services •Limited retail commercial to support recreational uses	•Variable to support recreational uses	•N/A	•Designed for active uses.
Public Services / Utilities (PSU)	•Utility and communication infrastructure •Airport and aviation uses •Transportation infrastructure •Landfill operations •Renewable energy infrastructure	•Variable to support utility and transportation infrastructure uses	•N/A	•As guided by OCP policy.
Transportation Corridor (TC)	•Transportation infrastructure	•N/A	•N/A	•Automobile access and use discouraged.

** Where guided by OCP policy.*

2040 Official Community Plan

Map 3.1 Future Land Use

Permanent Growth Boundary

UC - Urban Centre

VC - Village Centre

C-NHD - Core Area Neighbourhood

C-HTH - Core Area - Health District

S-RES - Suburban Residential

S-MU - Suburban Multiple Unit

R-RES - Rural Residential

R-AGR - Rural - Agricultural & Resource

RCOM - Regional Commercial Corridor

NCOM - Neighbourhood Commercial

IND - Industrial

EDINST - Education / Institutional

PARK - Park and Open Space

REC - Private Recreational

NAT - Natural Area

TC - Transportation Corridor

PSU - Public Service Utilities

FNR - First Nations Reserve

Transit Supportive Corridor

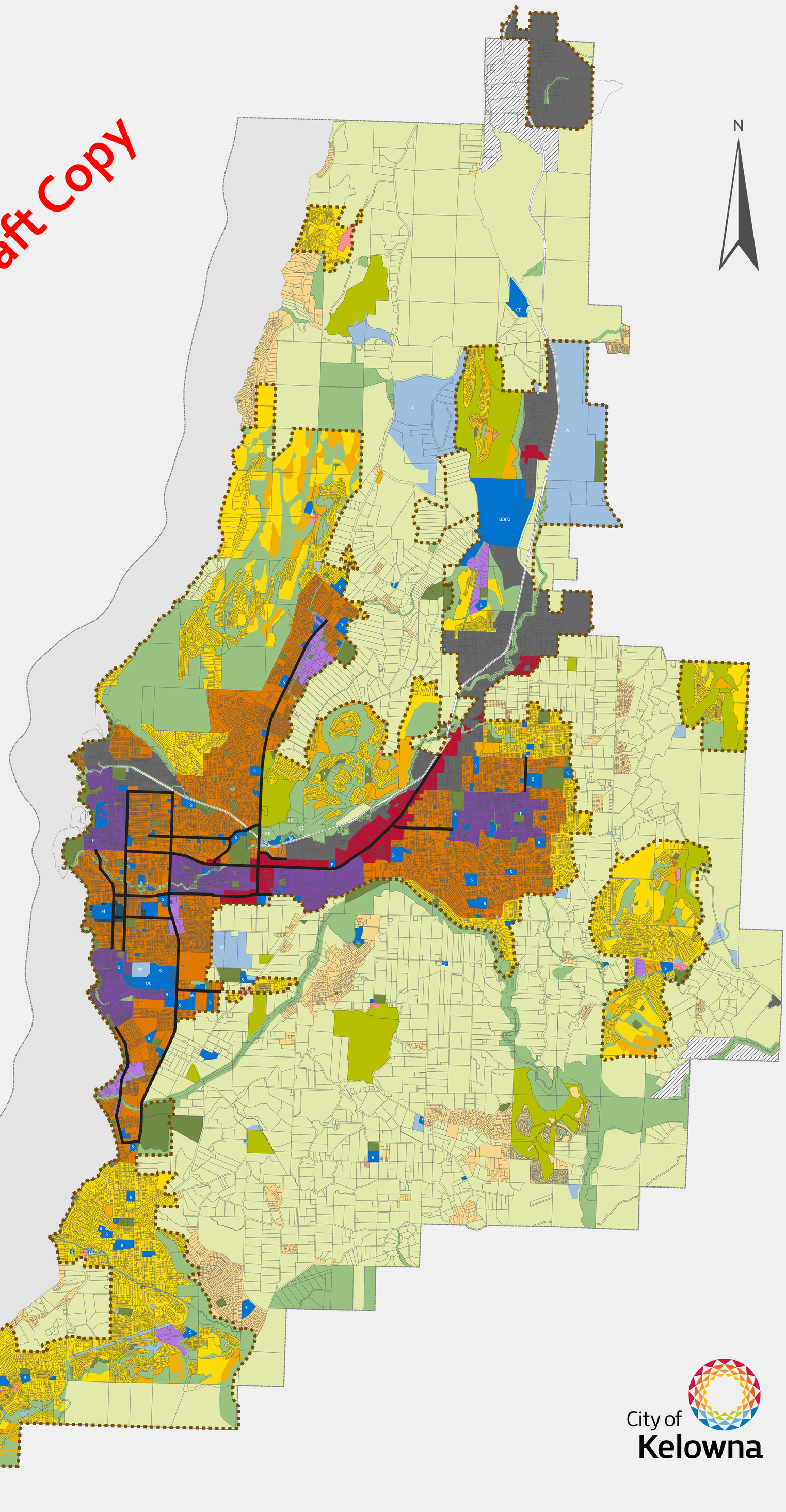
A Airport
F Firehall
H Hospital
L Landfill
S School
W Works Yard
CE Cemetery
ST Sewage Treatment
UBCO University of B.C. Okanagan
OC Okanagan College

Adaptive Re-Use of Heritage Buildings may be permitted within any Future Land Use Designation.

Temporary Commercial and Industrial Uses are not shown on this map.

Landuse designations apply only to legal parcels (i.e. roads, creeks, wetlands, etc. that are not a separate legal parcel have no land use designation applicable). The colours on the Future Land Use Map that extend to the middle of these features are applied to improve map aesthetics.

Draft Copy



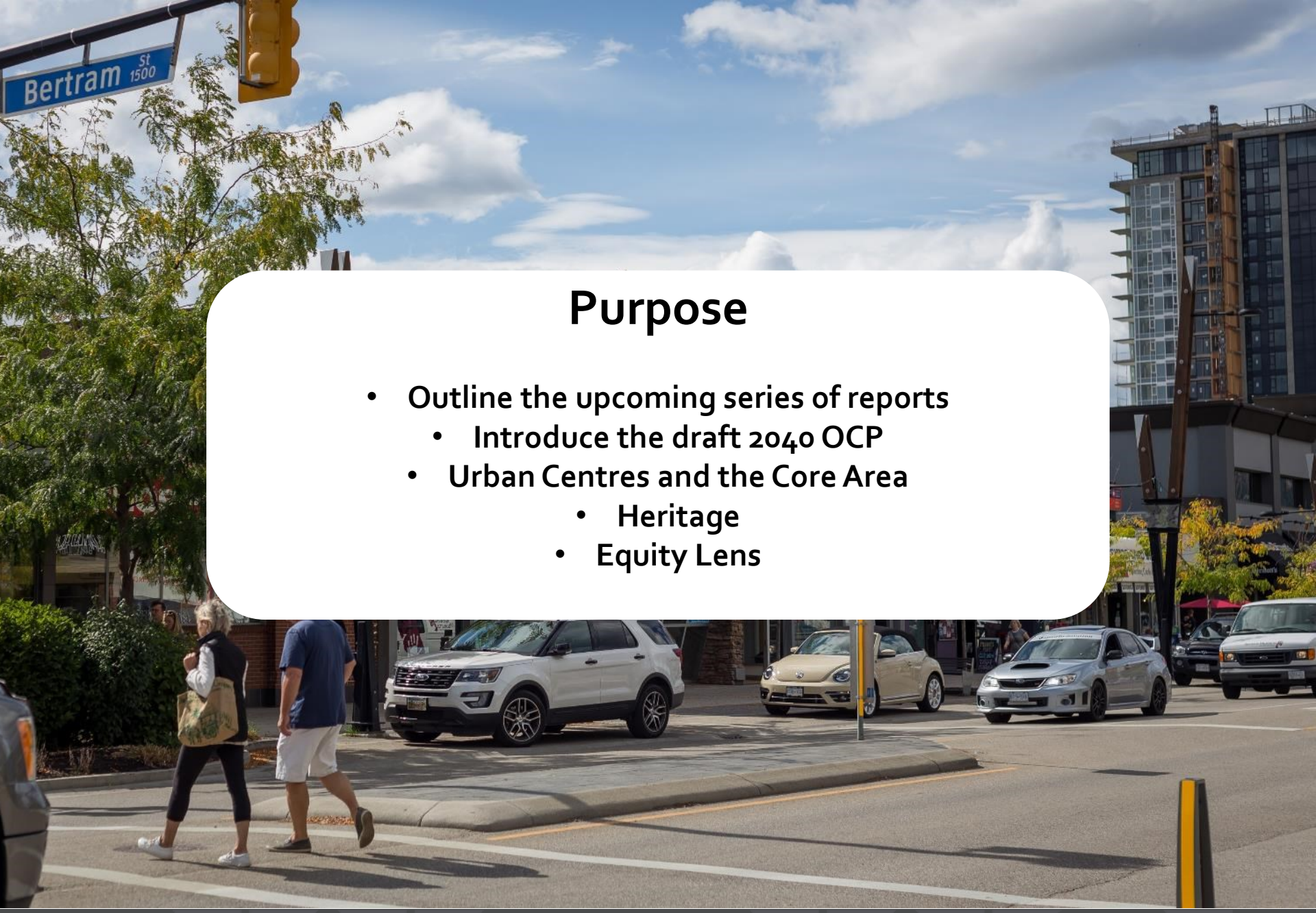
City of Kelowna

0 1 2 Kms

Rev. Aug 21, 2020

This draft map is for consultation purposes only. This is not a final version.

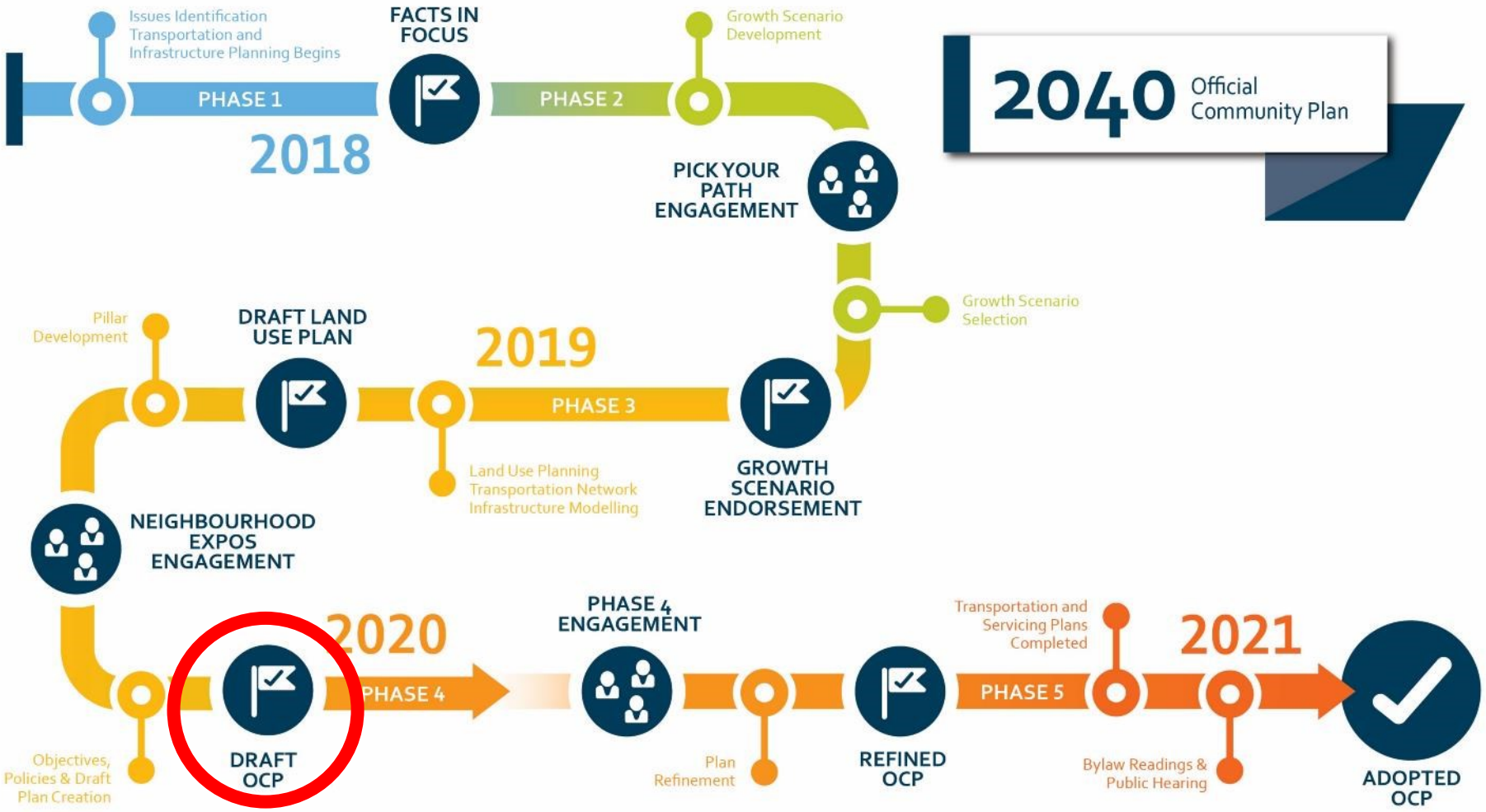
Our Kelowna as we Grow 2040



Purpose

- Outline the upcoming series of reports
- Introduce the draft 2040 OCP
- Urban Centres and the Core Area
- Heritage
- Equity Lens

OCP 2040 Process



Draft OCP Launch Schedule

November 23, 2020 (Morning):
Urban Centres, Core Area Districts
Equity Lens

December 7, 2020 (Morning):
Gateway, Suburban, Rural Districts
Parks, Environment and Climate Change

December 7, 2020 (Afternoon):
Draft Plan Review
Community and Stakeholder Engagement

Document Framework

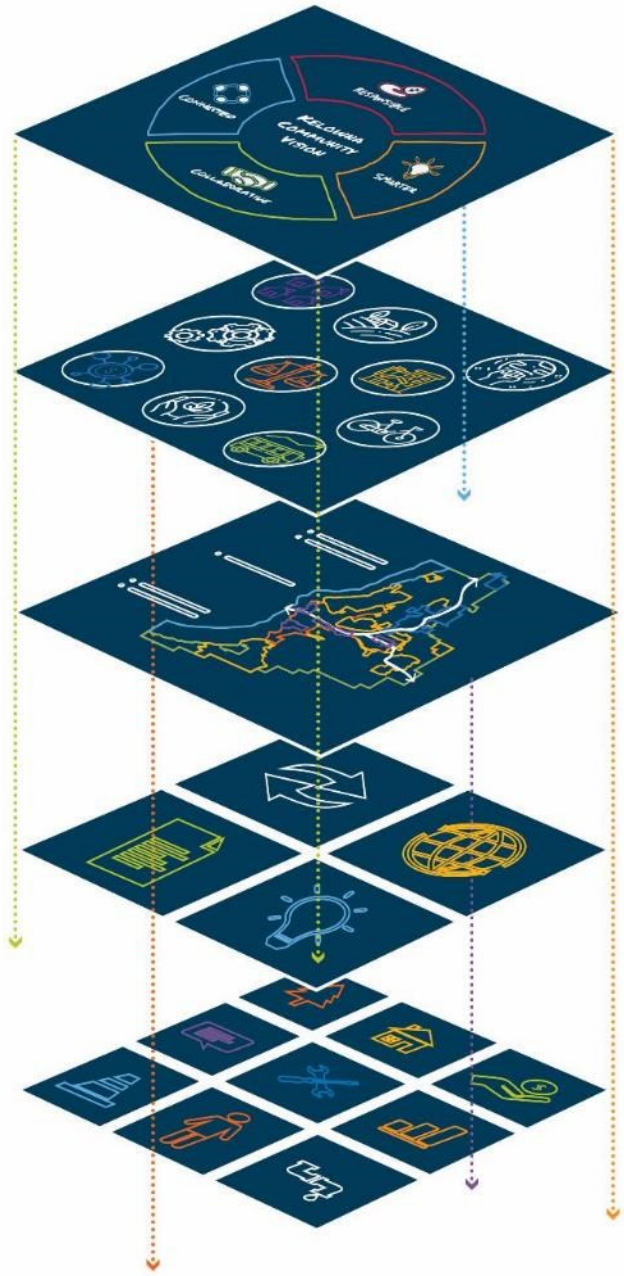
IMAGINE KELOWNA
What is our community's vision?

OCP PILLARS
How can the OCP meet that vision?

OCP GROWTH STRATEGY
What would the City look like under this vision?

OCP OBJECTIVES, POLICIES & MAPPING
How are we going to make it happen?

MAKING THE PLAN WORK
What needs to come next? Urban Centre Plans, Neighbourhood Plans, Corridor Studies



Focus Investment in Urban Centres

Stop Planning New Suburban Neighbourhoods

Target Growth Along Transit Corridors

Promote More Housing Diversity

Incorporate Equity Into City Building

Strengthen Kelowna as the Region's Economic Hub

Protect Agriculture

Prioritize Sustainable Transportation & Shared Mobility

Protect & Restore Our Environment

Take Action on Climate

Online First Approach

- Modern user experience
- Searchability
- Efficiency and flexibility
- Measurability

Image credit: iStock/graphicnoi

Making the Plan Work

Implementation Plan

New neighbourhood or area plans

Updates to existing bylaws and policies

New programs and initiatives

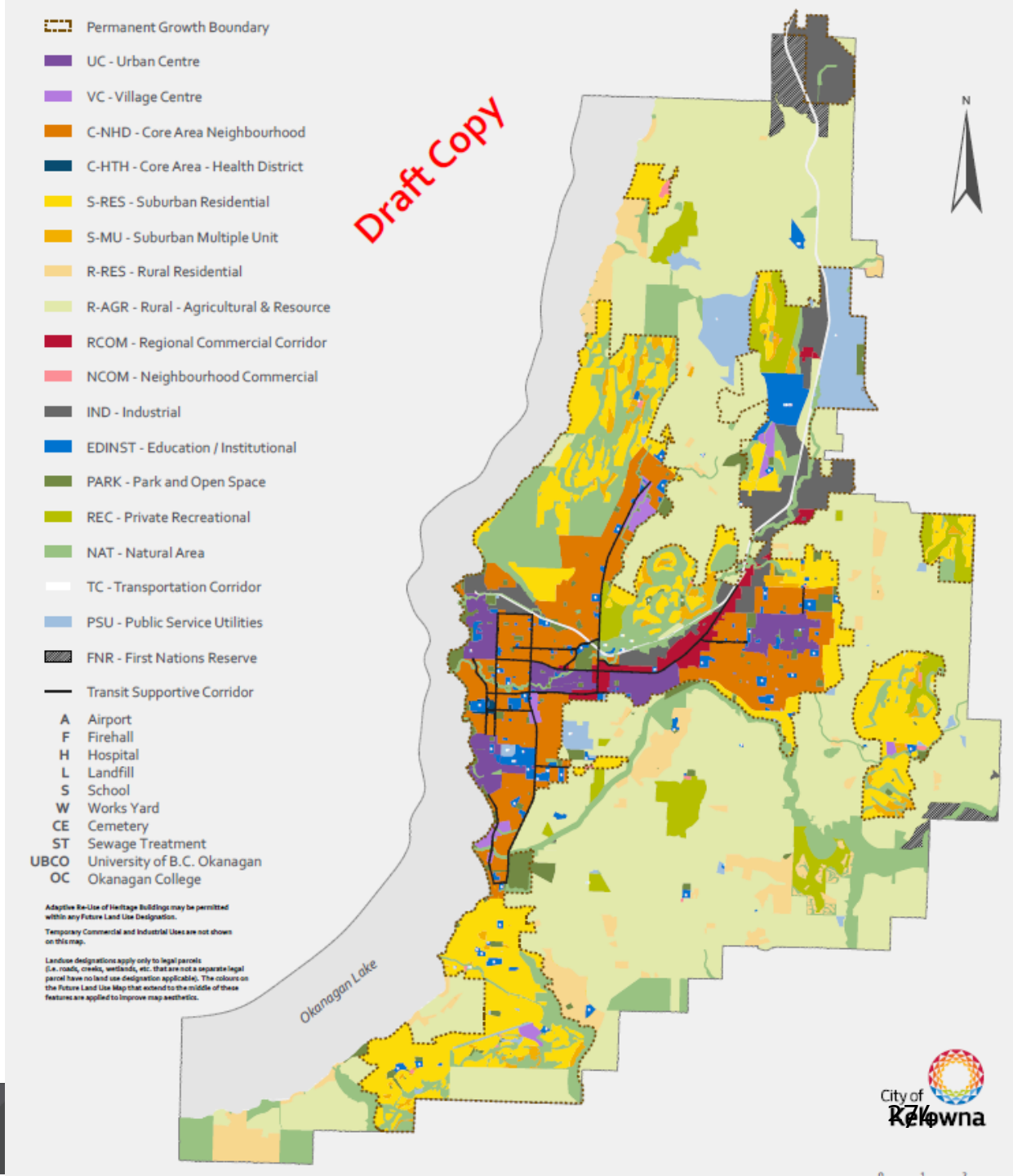
Prioritized over the life of the plan

Regular monitoring and reporting

Inform future plan updates

Based on progress of 10 OCP Pillars

Future Land Use Map



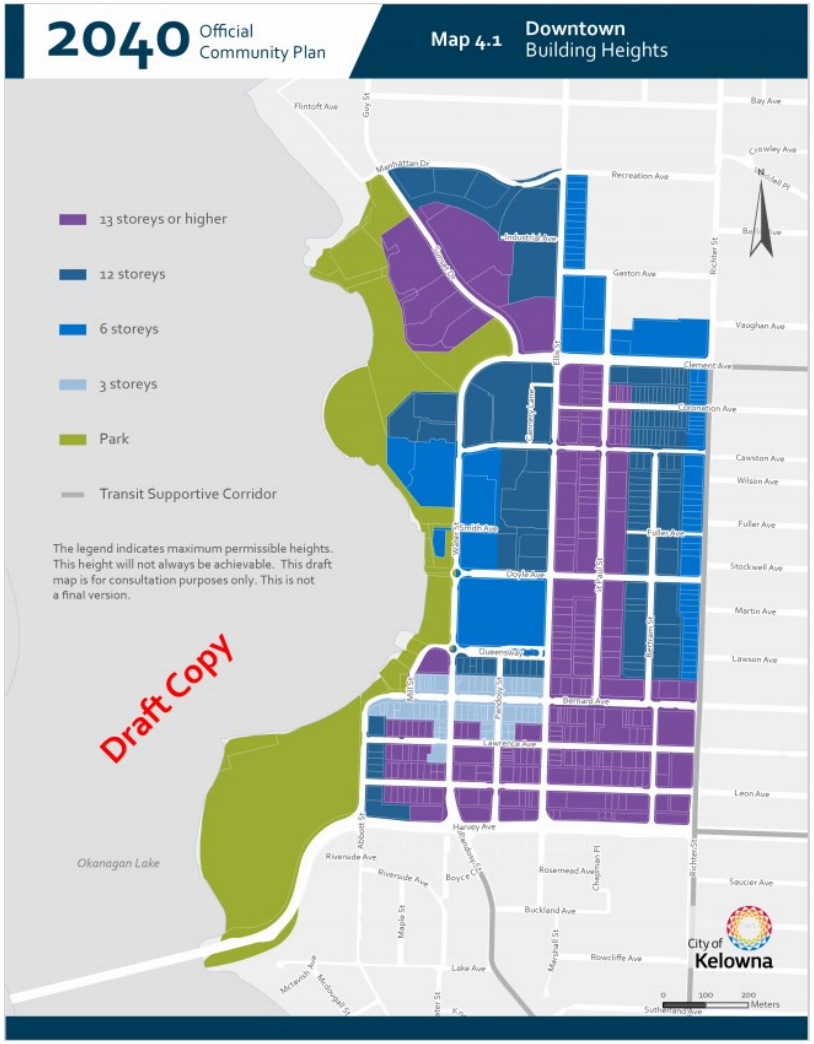
New Policy Directions

Urban Centres

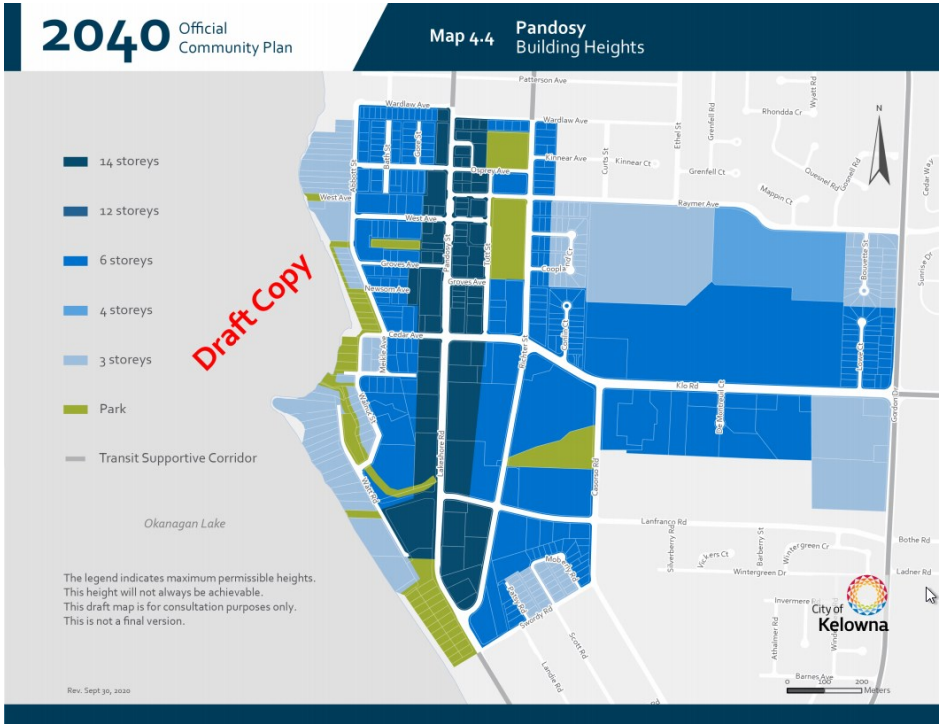
Urban Centres

- 4.1: Strengthen Urban Centres as Kelowna's primary hubs of activity
- 4.3-4.7: Urban Centre Specific Policies
- 4.11: Increase the diversity of housing types and tenures to create inclusive, affordable and complete Urban Centres.

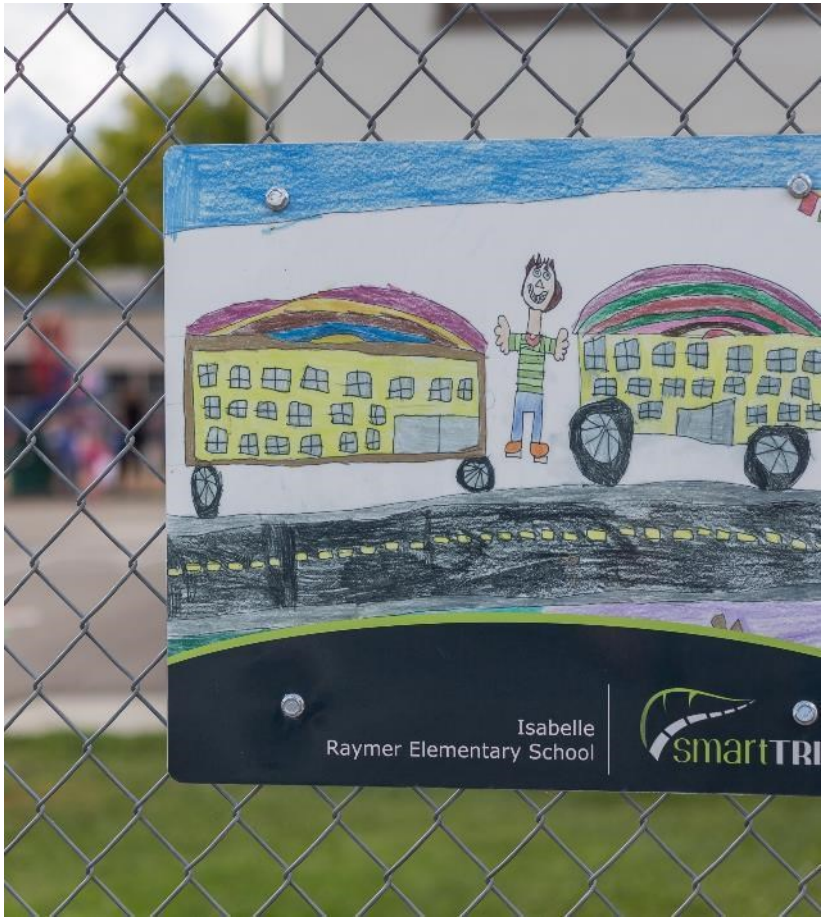
Urban Centre Mapping



Urban Centre Mapping



Urban Centres



- 4.14: Design Urban Centres to Foster Strong Social Connections and Community Safety.
- 4.16: Make Urban Centres safe and enjoyable for walking, cycling, transit and shared mobility.
- 4.18: Create urban streets that are attractive to live, work and shop on.

Form and Character Development Permit Guidelines

Urban Centres: What's Next?

- Plan refinement
  - Feedback from community and stakeholders
  - Building heights and street character
- Implementation following adoption
  - Urban Centre Plans: Rutland, Pandosy, Midtown

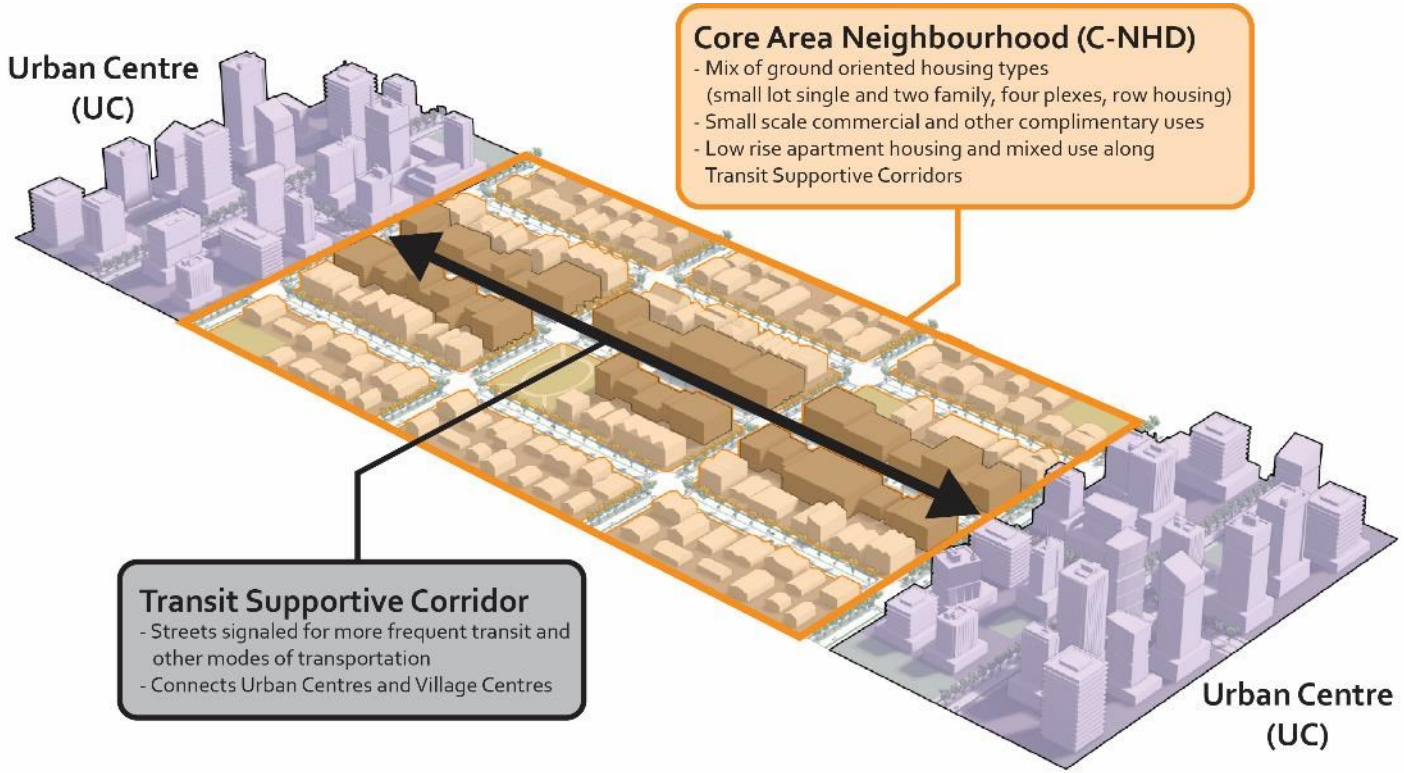
Residential Infill

- 5.3: Design residential infill to be sensitive to neighbourhood context.
- 5.10: Increase the diversity of housing forms and tenure to create an inclusive, affordable and complete Core Area.

Heritage

- Core Area Neighbourhood Future Land Use Designation
- Core Area policies
- Heritage policies
- Heritage Strategy

Village Centres and Transit Supportive Corridors



Commercial and Industrial

- 5.5: Focus large format commercial along the Highway 97 corridor.
- 5.14: Make the Highway 97 corridor a more attractive space.
- 5.6: Support the strategic and planned growth of the Kelowna General Hospital campus as the region's most critical health facility.
- 5.7: Encourage employment-intensive industrial uses in the Core Area.

Transportation

- 5.16: Provide safe, walkable, Core Area neighbourhoods that are connected to key destinations.
- 5.17: Create major streets that are walkable, support local retail and connect neighbourhoods to Urban Centres by car, bike and transit.

Core Area: What's Next?

- Plan refinement
  - Feedback from community and stakeholders
  - Guidance for infill development
  - Heritage implications
- Implementation following adoption
  - Heritage Strategy update
  - North End Industrial Redevelopment Plan
  - Corridor studies

Equitable Community

Equitable Community

- 9.1: Incorporate equity into planning decisions and resource allocation in our community.
- 4.2: Foster more inclusive and socially connected Urban Centres.
- 5.4: Strategically locate community services to foster greater inclusion and social connections in the Core Area.

Equitable Community

- 4.11, 5.10: Increase the diversity of housing types and tenures to create inclusive, affordable and complete Urban Centres and Core Area.
- 4.12, 5.11: Protect citizens from displacement due to Urban Centre and Core Area development.
- 4.13, 5.12: Protect the rental stock in Urban Centres.

Draft OCP Launch Schedule

December 7, 2020 (Morning):
Gateway, Suburban, Rural Districts
Parks, Environment and Climate Change

December 7, 2020 (Afternoon):
Draft Plan Review
Community and Stakeholder Engagement

Discussion

Report to Council

Date: November 23, 2020

To: Council

From: City Manager

Subject: 10-Year Capital Plan (2020 to 2029)

Department: Infrastructure Engineering

Recommendation:

THAT Council receives, for information, the report from the Infrastructure Engineering Manager dated November 23rd, 2020, with respect to the 10-Year Capital Plan;

AND THAT based on Council's direction, staff report back to Council with the amended 10-Year Capital Plan for endorsement.

Purpose:

To provide Council with the 10-Year Capital Plan for their review and direction prior to endorsement.

Background

This update to the *10-Year Capital Plan* forecasts the City's infrastructure needs from 2020 – 2029. The population of Kelowna is expected to increase by 22,000 in this timeframe and the *10-Year Capital Plan* forecasts $1.32 billion in infrastructure investment required to accommodate growth, enhance services, renew existing infrastructure assets and address climate change. The proposed infrastructure is a critical component to ensure Kelowna is well positioned to recover and emerge stronger after COVID-19. The 2020 Citizens Survey indicated the majority of people enjoy a good quality of life and receive good value for their tax dollars – good asset management are key to both metrics.

The development of this year's *10-Year Capital Plan* was delayed by the onset of COVID-19. The annual update to the *10-Year Capital Plan* is usually completed in the first half of each year but given the challenges brought on by the pandemic the update was deferred until November. There have been significant financial impacts related to the pandemic and these impacts have negatively affected the City's capital funding capacity ongoing. These impacts have been offset somewhat by the City's strong financial management in the past including reserves, the new infrastructure levy and the new Parks Development Cost Charge (DCC) introduced in 2019 and February 2020 respectively. However, there continues to be a capital funding shortfall with the City's infrastructure deficit estimated to be $377 million over the next 10-years.

The *10-Year Capital Plan* is guided by the direction set by Council in the *2030 Infrastructure Plan* and is updated annually to respond to the ever-changing environment. The *2030 Infrastructure Plan* was endorsed by Council in 2016 and since that time there have been a few changes. The *10-Year Capital Plan* reflects these changes and strikes a balance of infrastructure projects that maintain services, preserve existing assets and provides opportunity for growth and economic development.

The *10-Year Capital Plan* is based on the best available information at the time of preparation. As with any capital plan, there are risks with the assumptions associated with funding, construction costs, community priorities and changing legislative requirements. To respond to these changing conditions, the City is committed to updating the *10-Year Capital Plan* on an annual basis so that the plan remains accurate, responsive and practical. By doing so, the *10-Year Capital Plan* will help maximize the infrastructure investment in the community where and when it is most needed.

A summary of the *10-Year Capital Plan* is provided below and the reader is directed to the attached *10-Year Capital Plan* for complete details.

Financial Shifts

Since the last update to the *10-Year Capital Plan* in 2019 there have been several major factors that have affected the City's capital funding capacity both positively and negatively. These include the COVID-19 pandemic, new Parks Development Cost Charge, new infrastructure levy and infrastructure construction cost escalation.

Pandemic Reductions

The onset of the COVID-19 pandemic in March of 2020 impacted Kelowna in a profound way that continues today as the second wave of the pandemic intensifies. The final 2020 budget was reduced from 4.15% to 2.05 % in March 2020 at the beginning of COVID-19. This tax reduction was achieved largely by deferring planned capital investment in 2020 in the amount $24 million of which $5 million was funded from taxation.

The $5 million reduction in taxation in 2020 has long-term financial impacts as it is ongoing. The taxation funding for capital is referred to as Pay As You Go (PAYG) capital taxation and each year it is forecast to increase by 40% of new construction taxation revenue that comes from growth in the community (Figure 1 – blue bars). When PAYG is reduced it lowers the taxation funding in the specific year and affects future years as the new construction taxation revenue is applied to the lower base amount (Figure 1 – red line). The bottom line is that the $5 million reduction in PAYG capital

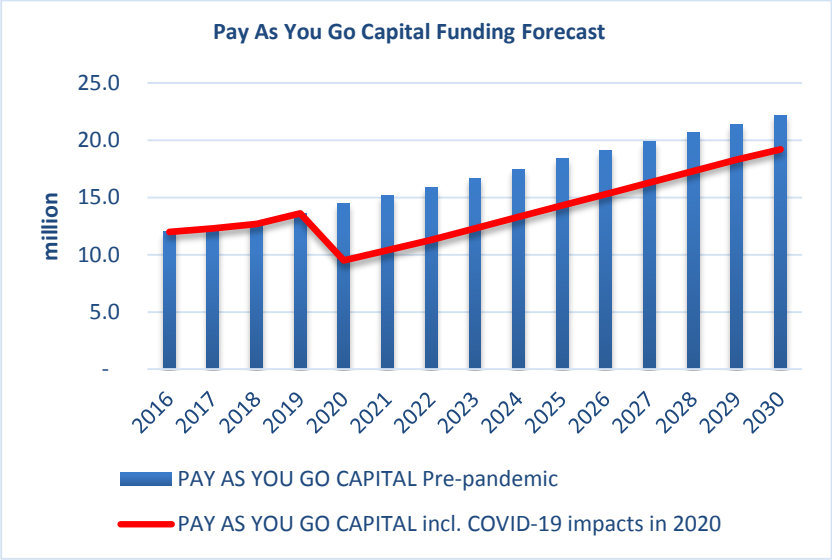


Figure 1 - Pay As You Go Capital forecast.

funding in 2020 results in a $41 million reduction in forecasted PAYG capital funding in the 10-years (2020-2029).

The recently announced Provincial Safe Restart Program funding has provided an opportunity to increase the PAYG capital taxation by $1.42M to be deliberated as part of the 2021 Preliminary Budget. If approved, the funding would reduce the ongoing $5M reduction impact from 2020 to $3.6 million. This additional funding would add $14 million in PAYG capital taxation in the next 10-years and would be included in the next update of the 10 Year Capital Plan.

Given the reduction in PAYG, the City maximized the use of existing reserves to offset the funding shortfall. Capital reserves that were fully utilized include Community Works Fund, Municipal Works Fund, Infrastructure Levy and Public Work and Equipment reserves. Moving forward these reserves no longer have any buffer to withstand further financial shock or fund unexpected projects.

Parks Development Cost Charge

Another financial shift in 2020 was the introduction of the Parks Development Cost Charge (DCC). In February 2020, Council approved a new Parks DCC that will generate $74 million in new revenue over the next 10-years to be used to build new park infrastructure and acquire parkland.

Infrastructure Levy

The Infrastructure Levy, introduced in 2019, will generate an additional $5.6 million per year over the next 10 years for a total of $56 million.

Cost Increases

It has been almost a year and a half since the last update to the *10-Year Capital Plan* and construction costs have continued to escalate across all infrastructure categories. Cost escalations, ranging from 2% to 12% depending on the infrastructure, have been built into this update and put further pressure on the City's ability to fund needed infrastructure.

The net result of these financial shifts is that capital investment in 10-Year Capital Plan remained about the same overall as previously forecasted but some cost centres fared better than others. Parks is in a much better position than a year ago because of the Parks DCC. COVID-19 illustrated the importance of park space with more than half of residents saying they increased their use of parks and outdoor spaces during the first six months of the pandemic. Buildings, Transportation and Storm Drainage relied heavily on reserves to increase investment but other cost centres like Water and Airport have considerably less infrastructure funding than forecast in the previous 10-Year Capital Plan.

It is worth noting that funding constraints have also caused projects to be deferred beyond the planning horizon of this 10-Year Capital Plan which defers the funding challenges to 2030 and beyond. These funding challenges will need to be addressed at some time in the future.

Infrastructure Investment Summary

The *10-Year Capital Plan* forecasts $1.32 billion of capital investment across 12 capital cost centres (Figure 2). Guided by Council and Corporate priorities proposed capital investment will focus in the following areas:

- Renewal of critical aging infrastructure,
- Parks acquisition and development,

- Transportation & mobility infrastructure making it easier for all people to get around by vehicle, transit, cycling and walking,
- Flood protection infrastructure to protect the community against the effects of climate change and flooding,
- Community amenities like recreation centres and public space to keep pace with Kelowna's population growth and the evolving needs of its residents,
- Airport development has been adjusted to align with passenger forecasts that incorporate the impact of COVID-19.

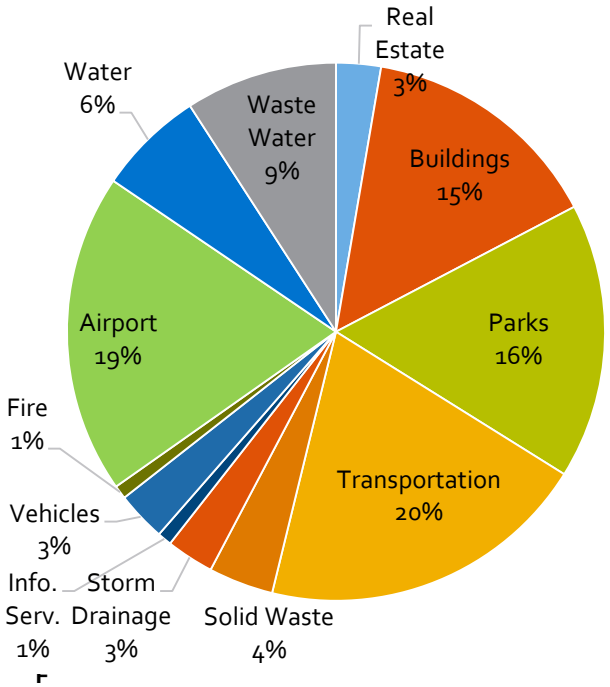


Figure 2 - Investment by cost centre $1.32 billion

Several funding sources support the planned infrastructure investment including: Taxation, Gas Tax, Reserves, DCCs, Debenture/Borrowing, confirmed Grants, Developer/Community Contributions, Utility and Airport revenues (Figure 3). The general taxation share of funding is $138 million and represents 10% of the total infrastructure investment. COVID-19 financial impacts have reduced taxation funding for capital by $41 million in the years 2020 - 2029.

The Infrastructure Levy funds have been fully allocated on projects that renew exiting assets like bridges and roads, accommodate growth and improve services in City Parks and natural areas and protect our community against climate change and flooding. The Infrastructure Levy funds are allocated as follows:

Cost Centre	Investment (million)	(%)
Parks	$15.6	28
Transportation	$27.1	48
Storm Drainage	$13.7	24
Total	**$56.4**	

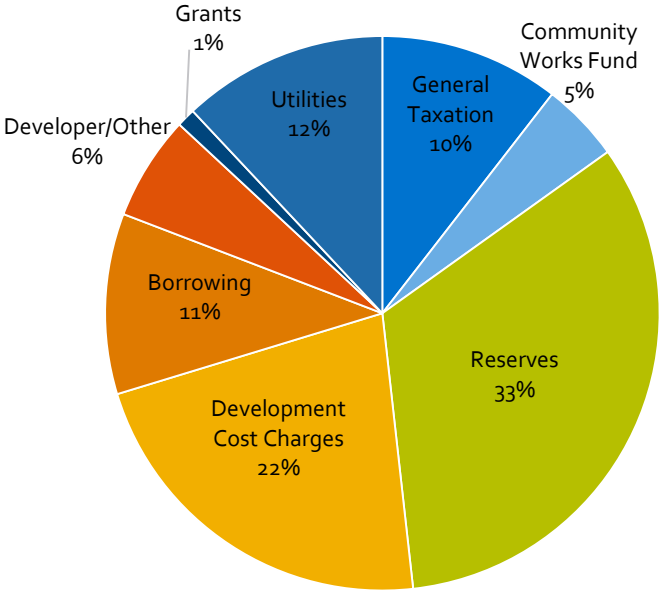


Figure 3 - Funding by source $1.32 billion.

The previous *10-Year Capital Plan* was endorsed by Council in July 2019 and, as discussed above, there have been a few significant financial shifts that have affected the City's infrastructure funding capacity and changed the timing of projects moving forward (Table 1).

TABLE 1 - Summary of investment changes by cost centre for funded (P1) projects.

Capital Cost Center	2020 10-Year Capital (2020-2029) ($ million)	2019 10-Year Capital (2020-2029) ($ million)	Difference ($ million)
Real Estate and Parking	$36	$37	-$1
Buildings	$199	$180	$19
Parks	$218	$136	$82
Transportation	$263	$248	$15
Solid Waste	$51	$54	-$3
Storm Drainage	$38	$18	$20
Information Services	$11	$11	$0
Vehicle or Mobile Equipment	$39	$43	-$4
Fire	$11	$9	$2
Water	$84	$118	-$34
Wastewater	$120	$82	$38
Airport	$253	$329	-$76
Unallocated Infrastructure Levy	$0	$45	-$45
Total	**$1,323**	**$1,310**	**$13**

Overall investment increased by $13 million to $1.32 billion in the updated *10-Year Capital Plan* for P1 projects. The more notable projects and changes between this update and the previous *10-Year Capital Plan* are listed below. This list is not comprehensive and does not include many of the smaller projects and changes.

- Real Estate and Parking
    - Overall net investment in Real Estate and Parking infrastructure has decreased by $2 million with reductions in both General Land Acquisition and Mill Creek restoration.
- Buildings
    - Overall net investment in Buildings infrastructure has increased by $19 million.
    - Parkinson Recreation Centre (Building, field realignment and parking): Project increase of $6.5 million for total project cost of $100 million.
    - Capital New Centre – Expansion – Project increase of $1.3 million for total project cost of $27 million.
    - Asset renewal investment increased by $7.8 million.
- Parks
    - Overall net investment in Parks infrastructure has increased $82 million.
    - DCC Parkland acquisition - Net investment increase of $8 million. Result of 2019 DCC program land cost increases and 2020 shift in Linear Park Acquisition moving from solely general fund to DCC program.
    - Park Development (Neighbourhood, Community, Recreation, City-wide, Linear) - Net investment increase of $73 million.

- Transportation
    - Overall net investment in Transportation infrastructure has increased $15 million.
    - DCC Roads and ATC – Net investment increase of $8.6 million. DCC program increased by 12% for construction costs and 25% for land components in 2019.
    - Transportation renewal projects - KLO Rd Mission Creek Bridge Replacement increased by $3.2 million to $8.4 million total project cost.
    - Overall Funding shifts:
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    - Stockpiles and Reprocessing Areas Relocation net investment decrease $12.9 million
    - Site improvements (multiple projects) – Net investment increase $5.3 million
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    - Mill Creek Flood Protection and Flood storage projects added to align with federal grant.
    - Storm Drainage Asset Renewal (Multiple projects) - Net investment decrease $1.8 million to offset the required taxation to meet the Milk Creek Flood Protection grant agreement.
- Information Services
    - Due to COVID related 2020 Final Budget cuts Information Services taxation funding decreased by $1.4 million or 17%. Taxation accounts for all future planned expenditures for City Front Office Equipment and Server and Data Storage Equipment.
    - Major Systems Projects – Net investment increase $2.2 million to account for new Financial Services software. This project is to be funded from reserve.
- Airport
    - Overall net investment in Airport infrastructure has decreased $76 million.
    - The pandemic has caused a significant decrease in Airport passenger numbers and a return to 2019 passenger numbers is not expected until at least 2023. This has led to significant changes in the Airport's capital investments over the next ten years and the result is a net investment decrease of $76 million from the previous *10-Year Capital Plan*.
- Water
    - Overall net investment in water infrastructure has decreased $33.5 million. The major change in investment by 10-Year Water infrastructure category is as follows:
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        - Network and Facility Improvements decrease of $8.4 million
        - Irrigation Network Improvements decrease of $4.75 million

- Wastewater
    - Overall investment in wastewater infrastructure has increased $38 million. The major change in investment by 10-Year Wastewater infrastructure category is as follows:
        - DCC Pipes Mains and Lift Stations and Treatment increase of $3.6 million
        - DCC Wastewater Treatment Facility increase of $28.9 million (Utility portion of Digestor project)
        - Network and Facility Renewal increase of $5.8 million

Operational Impacts

The *10-Year Capital Plan* forecasts $952 million in new infrastructure to accommodate growth and improve services to the community. This new infrastructure will require additional funding to operate and maintain. The operational impacts for the self-funded service areas including Water, Wastewater, Solid Waste and Airport will be accounted for in their respective funding models. The General Fund cost centers (Real Estate, Buildings, Parks, Transportation, Storm Drainage, Information Services and Vehicles) may require an additional $8.8 million annually to operate and maintain this new infrastructure by 2029.

Priority 2 Projects and Infrastructure Deficit

Infrastructure projects that are lower priority and not fully funded are termed Priority 2 (P2) projects. P2 projects amount to $558 million in the *10-Year Capital Plan* and include projects to accommodate growth, enhance services, and renew existing assets (Figure 4).

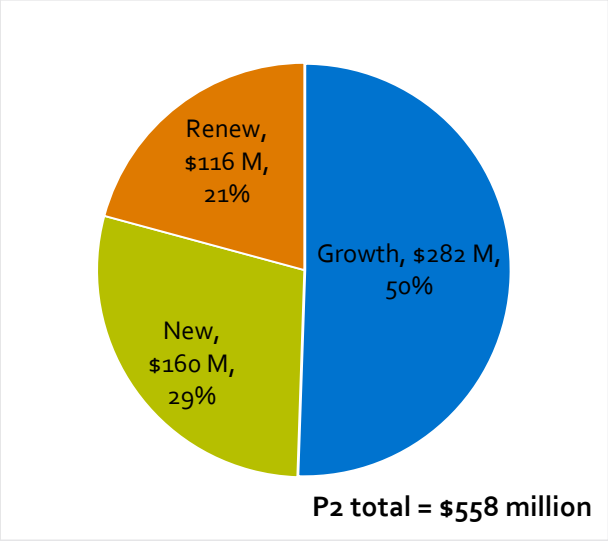

Figure 4. P2 Investment by asset category.

The value of P2 projects decreased by $135 million compared to the previous *10-Year Capital Plan*. The new Parks DCC combined with the Infrastructure Levy funded many Parks projects and significantly reduced the Parks deficit (Figure 5).

Large infrastructure deficits continue to exist in both Buildings and Transportation attributable to large infrastructure projects that are contingent on other funding sources (i.e. grants or partnerships).

- Clement 2 (Hwy 33 Ext.) - $59 million
- Airport Exchange - $35 million
- Transit Facility - $41 million
- Kelowna Community Theatre - $72 million

Funding shortfall for renewal of Building and Transportation assets is also contributing to the deficit in these cost centres.

Wastewater is another area with an appreciable infrastructure deficit primarily caused by the planned anerobic digester ($44 million). The Digester will likely be funded through a combination of utility funds and DCCs, but the funding strategy is still in development.

Due to COVID related 2020 Final Budget cuts Information Services taxation funding decreased by $1.4 million or 17%. This is significant because taxation accounts for all future planned IS expenditures.

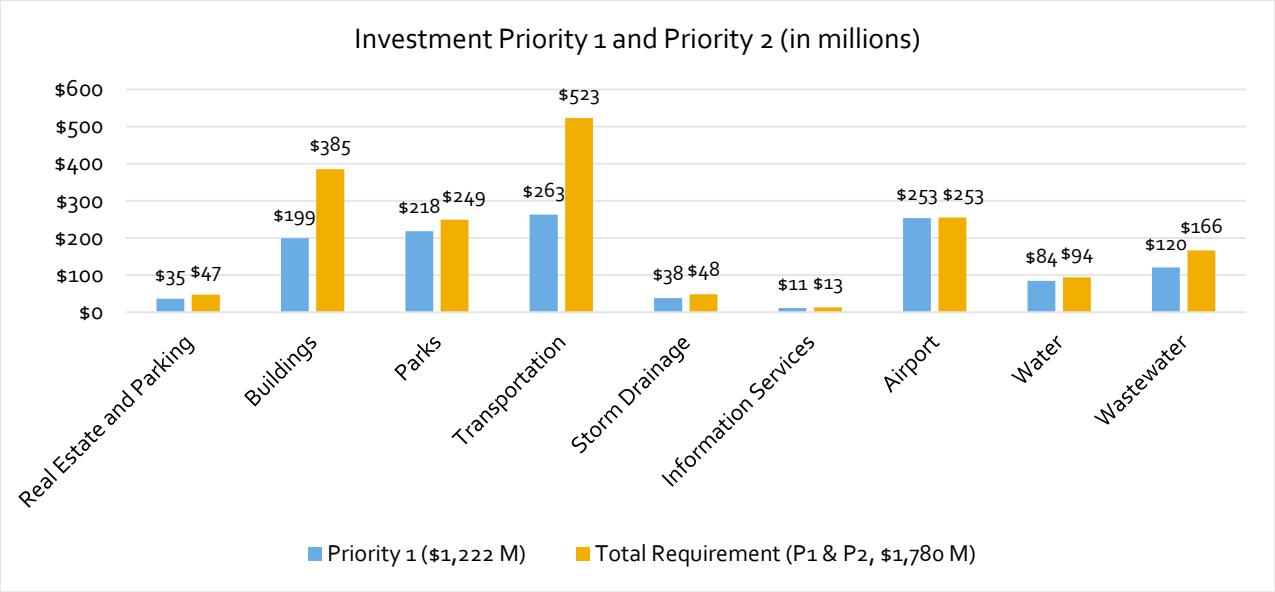

Figure 5 - Infrastructure Investment - P1 and P2.

Table 2 provides a breakdown of funding sources for the P2 projects and shows that a portion would be funded from other sources including DCCs, grants, utilities and/or partnerships. The City's share of the P2 projects is $377 million and represents the City's 'Infrastructure Deficit' for the next 10-years. The Infrastructure Deficit has decreased modestly by $19 million compared to the previous *10-Year Capital Plan*. The large investment gains attributable to the Parks DCC, Infrastructure Levy and leveraging existing reserves have been offset by the COVID-19 impacts and construction cost increases resulting in the modest improvement in the Infrastructure Deficit. The funding source(s) for the Infrastructure Deficit have not been identified and will be the focus of further analysis over the coming months.

Table 2 – P2 Infrastructure investment by category and funding source.

INFRASTRUCTURE CATEGORY		**Funding**	
	Cost	**City**	**Other***
Renewal	$116	$109	$7
Growth	$282	$149	$133
New (enhance service)	$160	$119	$41
TOTAL	**$558**	**$377**	**$181**

*Other includes DCC's, Grants, Utilities and Partnerships.

Financial/Budgetary Considerations:
The *10-Year Capital Plan* is based on sound financial information and assumptions and will be used to guide the annual capital plan as part of the annual budgeting process. The *10-Year Capital Plan* is a forecast of infrastructure projects, as Council's approval of these projects occurs during the annual budget process.

Internal Circulation:
Airport Director
Senior Airport Finance & Corporate Services Manager
Community Engagement Manager
Deputy City Manager
Director Strategic Investments
Divisional Director, Active Living and Culture
Divisional Director, Community Planning
Divisional Director, Corporate and Protective Services
Divisional Director, Corporate Strategic Services
Divisional Director, Infrastructure Division
Financial Planning Manager
Budget Supervisor
Fire Chief
Fleet Services Manager
Information Services Department Manager
Infrastructure Operations Department Manager
Parks & Buildings Planning Manager
Transportation Engineering Manager
Utility Services Manager

Considerations not applicable to this report:
Legal/Statutory Authority:
Legal/Statutory Procedural Requirements:
Existing Policy:
Personnel Implications:
External Agency/Public Comments:
Communications Comments:
Alternate Recommendation:

Submitted by:

J. Shaw, Infrastructure Engineering Manager

Approved for inclusion: A. Newcombe, Infrastructure Divisional Director

Attachment 1 - *10-Year Capital Plan* (2020 – 2029)
Attachment 2 - *10-Year Capital Plan* Presentation

cc: Airport Director
Deputy City Manager
Director Strategic Investments
Divisional Director, Active Living and Culture
Divisional Director, Corporate and Protective Services
Divisional Director, Corporate Strategic Services
Divisional Director, Financial Services
Divisional Director, Infrastructure Division
Fire Chief
Infrastructure Operations Department Manager

City of Kelowna

10-Year Capital Plan

2020 - 2029

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SECTION 1 INTRODUCTION

The development of this year's *10-Year Capital Plan* was delayed by the onset of COVID-19. The annual update to the *10-Year Capital Plan* is usually completed in the first half of each year but given the challenges brought on by the pandemic the update was postponed until November. There have been significant financial impacts related to the pandemic and these impacts have negatively affected the capital program and forced the City to maximize the use of reserves to offset the funding shortfall.

In the midst of these challenging times it's important to take stock of Kelowna's infrastructure needs versus limited funding and find a path forward that invests in the necessary infrastructure to support service delivery and ensure Kelowna is a City of the Future.

Economic resiliency is a Council priority aimed at efficient and sustainable service delivery supported by well-maintained world class infrastructure. The City has a rigorous infrastructure planning process that starts with understanding community expectations and ends with providing infrastructure that delivers the expected services to the community. The *2030 Infrastructure Plan i*s the City's strategic capital plan and is the link between the higher-level planning documents (above) including Imagine Kelowna, Official Community Plan, Council and Corporate Priorities and the infrastructure delivery plans (below) which include the *10-Year Capital Plan* and the *Annual Capital Plan*. Council endorsed the *2030 Infrastructure Plan* in April 2016, which set the direction for infrastructure investment until 2030. Recognizing that emerging issues and community priorities change, the *10-Year Capital Plan* was developed and updated annually to respond to these changing conditions. The *Annual Capital Plan* is, in turn, directed by the *10-Year Capital Plan* and in the end, we deliver infrastructure that the community expects.

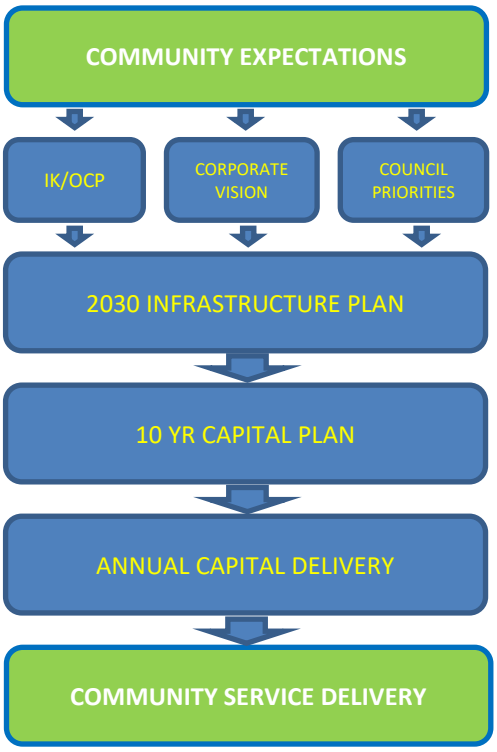

Figure 1 - Infrastructure Planning Model.

Adequate financing needs to be in place to schedule and undertake each capital investment. The *10-Year Capital Plan* looks at revenue sources whether it be rates, taxes, fees, development cost charges, grants, reserves or borrowing. As the City faces competing priorities, difficult decisions need to be made to optimize the spending to provide the most value to our residents and balancing needs versus wants. The *10-Year Capital Plan* provides the framework for long-term planning and fiscal management and allows the City to look ahead and answer four fundamental questions:

- "What do we need?"
- "Why do we need it?"
- "How are we going to pay for it?"
- "How much will it cost to operate and maintain?"

Answering these questions allows the City to anticipate current and future cost pressures, stretch the limits of our revenues by source, and make the necessary decisions to put in place essential infrastructure to support a future Kelowna. By doing so, this plan will help maximize the investment in the community where and when it is most needed.

This update of the 10-Year Capital Plan covers the City's infrastructure investment needs from 2020 – 2029. The plan is focused on taking care of existing infrastructure, ensuring the community's health and safety while meeting legislative requirements and providing opportunity for growth and economic development.

The *10-Year Capital Plan* contains infrastructure projects for all City service areas. Several documents have been used in this plan's preparation. These include:

- Imagine Kelowna
- Council priorities 2019 – 2022
- 2030 Infrastructure Plan
- 10-Year Capital Plan (2019 – 2028) – last year's plan.
- 2030 Official Community Plan
- 20 – Year Servicing Plan and Financing Strategy
- Principles and Strategies for Financial Strength and Stability
- Infrastructure Master Plans and Asset Management Plans
- Airport Long Term Capital Plan and the 2045 Airport Master Plan.

This *10-Year Capital Plan* (2020 – 2029), once adopted, will replace the previous *10-Year Capital Plan* (2019 – 2028).

SECTION 2 INFRASTRUCTURE INVESTMENT SUMMARY

Financial Shifts

Since the last update to the *10-Year Capital Plan* in 2019 there have been several major factors that have affected the City's capital funding capacity both positively and negatively. These include the COVID-19 pandemic, new Parks Development Cost Charge and infrastructure construction cost escalation.

The onset of COVID-19 pandemic in March of 2020 impacted Kelowna in a profound way that continues today as the second wave of the pandemic intensifies. Council proactively softened the financial hardship residents faced by reducing the 2020 tax increase at Final Budget from 4.15% to 2.05%. This tax reduction was achieved largely by deferring planned capital investment in 2020 in the amount of $24 million of which $5 million was funded from taxation.

The $5 million reduction in taxation in 2020 has long-term financial impacts. The taxation funding for capital is referred to as Pay As You Go (PAYG) and each year it is forecast to increase by 40% of new construction taxation revenue that comes from growth in the community (Figure 1 – blue bars). When PAYG is reduced it lowers the taxation funding in the specific year and affects future years as the new construction taxation revenue is applied to the lower base amount (Figure 2 – red line). The bottom line is that the $5 million reduction in PAYG capital funding in 2020 results in a $41 million reduction in forecasted PAYG capital funding in the 10-years (2020-2029).

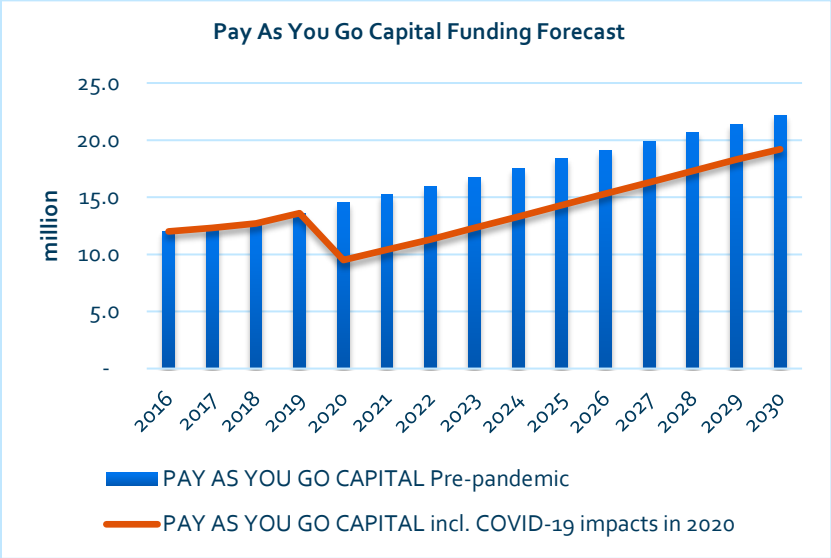

Figure 2 - Pay As You Go Capital forcast.

Another financial shift in 2020 was the introduction of the Parks Development Cost Charge (DCC). In February 2020, Council approved a new Parks DCC that will generate $74 million in new revenue to be used to build new park infrastructure and acquire linear parkland.

Given the reduction in PAYG, the City was forced to maximize the use of existing reserves to offset the funding shortfall. Capital reserves that were fully utilized include Community Works Fund, Municipal Works Fund, Infrastructure Levy and Public Work and Equipment reserves. Moving forward these reserves no longer have any buffer to withstand further financial shock or fund unexpected projects.

It has been almost a year and a half since the last update to the *10-Year Capital Plan* and construction costs have continued to escalate across all infrastructure categories. Cost escalations, ranging from 2% to 12% depending on the infrastructure, have been built into this update and put further pressure on the City's ability to fund infrastructure needs.

The net result of these financial shifts is that capital investment in 10-Year Capital Plan remained about the same overall as previously forecasted but some cost centres fared better than others. Parks is in a much better position than a year

ago because of the Parks DCC. Buildings, Transportation and Storm Drainage relied heavily on reserves to increase investment but other cost centres like Water and Airport have considerably less infrastructure funding than forecast in the previous *10-Year Capital Plan.*

Infrastructure Investment

This update to the *10-Year Capital Plan* forecasts the City's infrastructure needs from 2020 – 2029. The population of Kelowna is expected to increase by approximately 22,000 over this timeframe and the *10-Year Capital Plan* forecasts $1.32 billion in infrastructure investment required to accommodate growth, enhance services and renew existing infrastructure assets.

Kelowna is a growing community that is transitioning into a thriving urban Centre with residents requesting more and improved services. Recognizing these future demands, infrastructure required to support growth accounts for $713 million (54%) of total investment and new infrastructure to support enhanced or improved services accounts for $239 million (18%) of the plan.

The City owns $3.8 billion in infrastructure assets and many of these assets are nearing the end of their service life. There is an emphasis on asset renewal in the *10-Year Capital Plan* with approximately $371 million or 28% of the plan allocated to renew existing infrastructure assets.

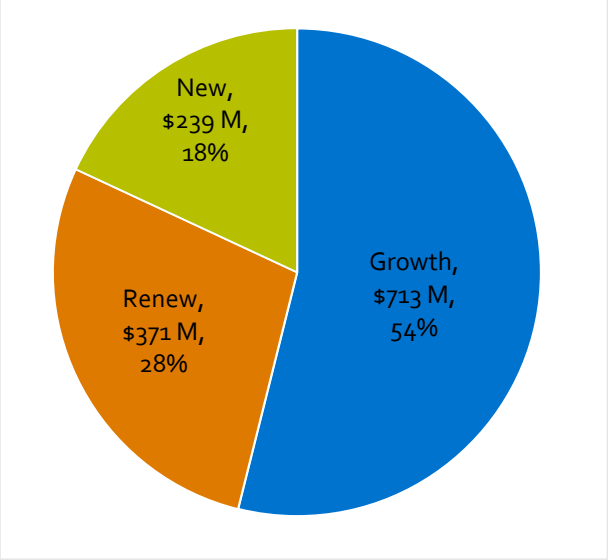

Figure 3 - Infrastructure by project driver $1.32 billion.

The 10-Year Capital Plan forecasts $1.32 billion of capital investment across 12 asset Cost Centres (Figure 3). Guided by Council and Corporate priorities proposed capital investment will focus in the following areas:

- Renewal of critical aging infrastructure,
- Parks acquisition and development,
- Transportation & mobility infrastructure making it easier for all people to get around by vehicle, transit, cycling and walking,
- Flood protection infrastructure to protect the community against the effects of climate change and flooding,
- Community amenities like recreation centres and public space to keep pace with Kelowna's population growth and the evolving needs of its residents,
- Airport development has been adjusted to align with passenger forecasts that incorporate the impact of COVID-19.

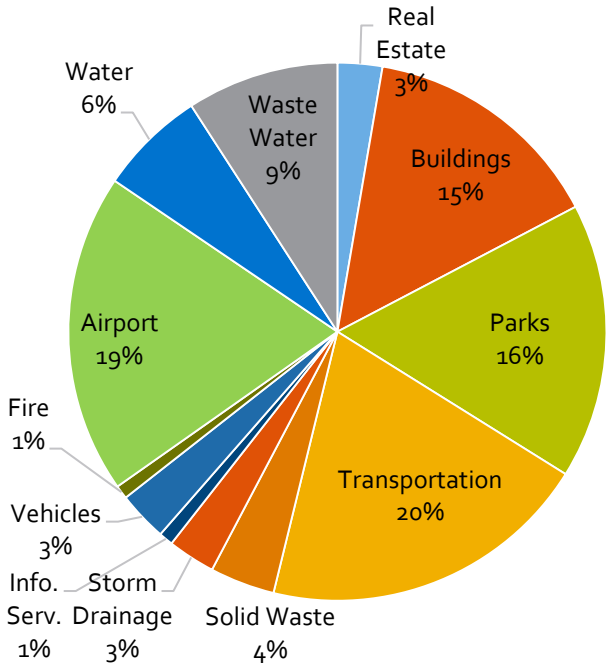

Figure 4- Investment by Asset Cost Centre $1.32 billion.

Several funding sources support the planned infrastructure investment including: Taxation, Gas Tax, Reserves, DCCs, Debenture/Borrowing, confirmed Grants, Developer/Community Contributions, Utility and Airport revenues (Figure 5). The general taxation share of funding is $138 million and represents 10% of the total infrastructure investment. COVID-19 financial impacts have reduced taxation funding for capital by $41 million in the next ten years.

Council approved an Infrastructure Levy (IL) in the 2019 Budget. The Infrastructure Levy will generate an additional $5.6 million per year over the next 10 years for a total of $56 million.

The IL funds have been fully allocated on projects that renew exiting assets like bridges and roads, accommodate growth and improve services in City Parks and natural areas and protect our community against climate change and flooding. The Infrastructure Levy funds are allocated as follows:

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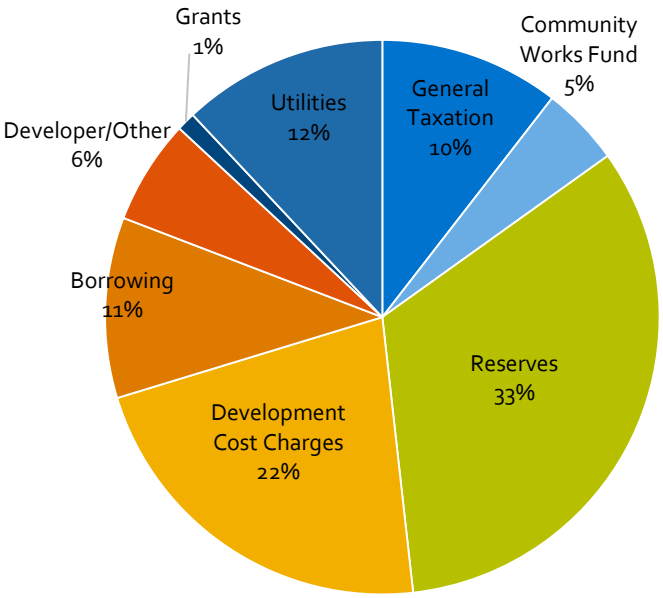

Figure 5 - Funding by source $1.32 billion.

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    - DCC Wastewater Treatment Facility increase of $28.9 million (Utility portion of Digestor project)
    - Network and Facility Renewal increase of $5.8 million

Operational Impacts

Infrastructure investment decisions should consider asset life cycle costs which includes both capital and operating expenses. Municipal infrastructure is designed to last a long time and depending on the asset the service life could vary from 50 – 100 years. The operating expense of municipal infrastructure can amount to 70 - 80% of the life cycle cost and that is why it is important to understand the operational impacts when making capital investment decisions.

Renewal of existing infrastructure is assumed to have no operational impacts because operational budgets are currently in place to support existing infrastructure. However, the *10-Year Capital Plan* forecasts $952 million in new infrastructure to accommodate growth and improve services to the community. This new infrastructure will require additional funding to operate and maintain.

Incremental operational impacts for new/growth infrastructure were calculated as a percentage of the 10-year annual historic average of Operating Expense/Capital. Table 2 summarizes the forecasted operational and maintenance (O&M) impacts for each service area.

Table 2 - Forecasted operation costs for new and growth Infrastructure ($millions).

Cost Centre*	Capital Investment (New + Growth)	% of Capital Investment for O&M	O & M Forecast by 2029
Buildings	$113	1.50%	$1.70
Parks	$103	2.58%	$2.66
Transportation	$208	1.42%	$2.51
Solid Waste	$45	10.49%	$1.80
Storm Drainage	$35	3.73%	$0.19
Vehicles & Equipment	$8	3.79%	$1.18
Water	$38	3.04%	$0.65
Wastewater	$68	6.08%	0.85
Total	**$608**		**$19 .10**

** Information for Airport, Real Estate and Parking Capital is not included in the table above.*

The operational impacts for the self-funded service areas including Water, Wastewater, Solid Waste and Airport will be accounted for in their respective funding models. The General Fund cost Centres (Buildings, Parks, Transportation, Storm Drainage, Information Services and Vehicles) will require an additional $8.8 million annually to operate and maintain this new infrastructure by 2029.

Priority 2 Projects and Infrastructure Deficit

Infrastructure projects that are lower priority and not fully funded are termed Priority 2 (P2) projects. P2 projects amount to $558 million in the *10-Year Capital Plan* and include projects to accommodate growth, enhance services, and renew existing assets (Figure 4).

The value of P2 projects in this update have decreased by $135 million compared to the previous *10-Year Capital Plan*. The new Parks DCC combined with the Infrastructure Levy funded many Parks projects and reduced significantly the Parks deficit (Figure 5).

Large infrastructure deficits continue to exist in both Buildings and Transportation attributable to large infrastructure projects that are contingent on other funding sources (i.e. grants or partnerships).

- Clement 2 (Hwy 33 Ext.) - $59 million
- Airport Exchange - $35 million
- Transit Facility - $41 million
- Kelowna Community Theatre - $72 million

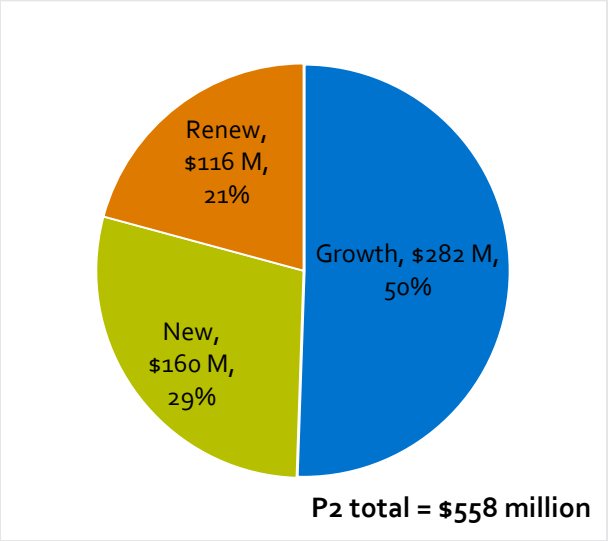


Figure 6 - P2 INVESTMENT SHORTFALL BY ASSET CATEGORY.

Funding shortfall for renewal of Building and Transportation assets is also contributing to the deficit in these cost centres.

Wastewater is another area with an appreciable infrastructure deficit primarily caused by the planned anerobic digester ($44 million). The Digester will likely be funded through a combination of utility funds and DCCs, but the funding strategy is still in development.

Due to COVID related 2020 Final Budget cuts Information Services taxation funding decreased by $1.4 million or 17%. This is significant because taxation accounts for all future planned IS expenditures.

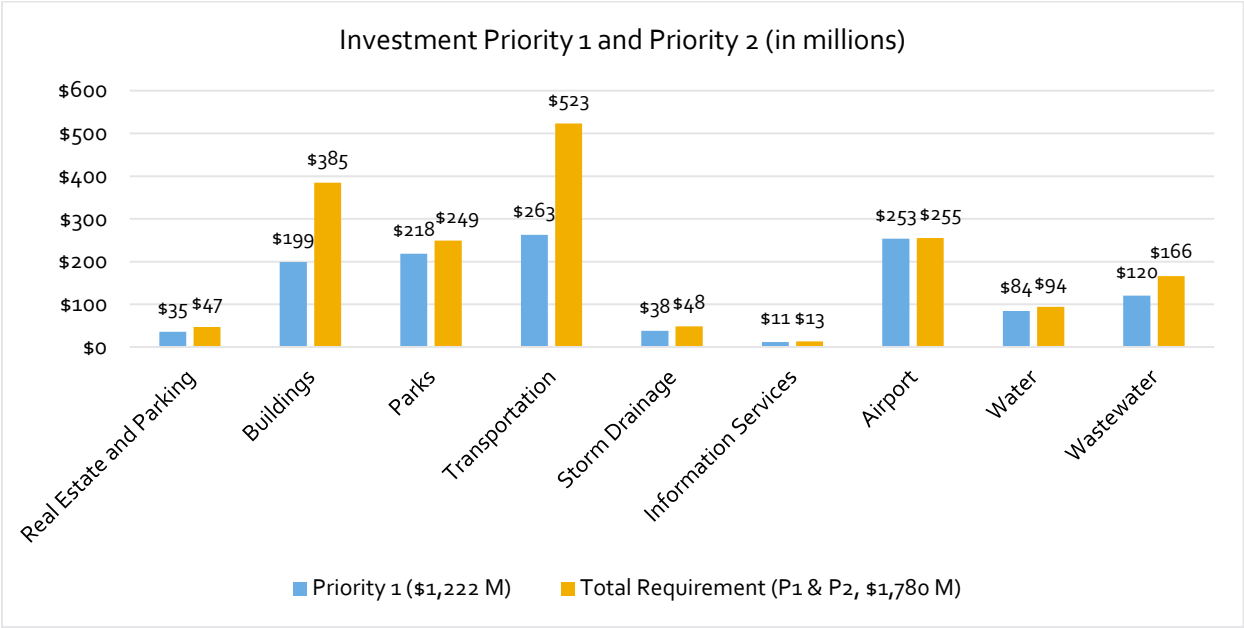


Figure 5 - Infrastructure Investment - P1 and P2.

Table 3 provides a breakdown of funding sources for the P2 projects and shows that a portion would be funded from other sources including DCCs, grants, utilities and/or partnerships. The City's share of the P2 projects is $377 million and represents the City's 'Infrastructure Deficit' for the next 10-years. The Infrastructure Deficit has decreased modestly by $19 million compared to the previous *10-Year Capital Plan*. The large investment gains attributable to the Parks DCC, Infrastructure Levy and leveraging existing reserves have been offset by the COVID-19 impacts and construction cost increases resulting in the modest improvement in the Infrastructure Deficit. The funding source(s) for the Infrastructure Deficit have not been identified and will be the focus of further analysis over the coming months.

Table 3 – P2 Infrastructure investment by category and funding source.

INFRASTRUCTURE CATEGORY		**Funding**	
	Cost	**City**	**Other***
Renewal	$116	$109	$7
Growth	$282	$149	$133
New (enhance service)	$160	$119	$41
TOTAL	**$558**	**$377**	**$181**

*Other includes DCC's, Grants, Utilities and Partnerships.

Both the number and value of P2 projects have decreased compared to the previous *10-Year Capital Plan*. Table 4 provides a summary of investment changes by cost center for the P2 projects.

Table 4 – Summary of changes by cost centre for P2 projects in the 2019 and 2020 *10-Year Capital Plans*.

Capital Cost Center	**2020 10-Year Capital (2020-2029) ($ million)**	**2019 10-Year Capital (2020-2029) ($ million)**	**Difference ($ million)**
Real Estate and Parking	$12	$12	$0
Buildings	$186	$162	$24
Parks	$31	$138	($107)
Transportation	$261	$311	($50)
Storm Drainage	$10	$17	($7)
Information Services	$1	$4	($3)
Fire	$1	$0.30	$1
Water	$10	$0.00	$10
Wastewater	$46	$49	($3)
Total	**$558**	**$693**	**($135)**

P2 projects have decreased by $135 million to $558 million in the updated *10-Year Capital Plan*. The main drivers for the increase are noted below. This list does not include many of the smaller changes related to cost increases and reductions, project additions and deletions and impacts related to changes in project timing.

- Buildings ($24.5 million increase)
    - Apple Bowl – Renovations - $5.2 million decrease (scope change)
    - City Yards - Replacement Construction - $29.9 million increase (project consolidated into 2029 to reflect borrowing requirements)
    - Downtown Activity Centre (replacement for Martin Centre) - Construction- $7 million decrease (project removed)
- Parks ($107 million decrease)
    - Park Development (Neighbourhood, Community, Recreation, City-Wide). Decrease of $103 million.
        - The *10-Year Capital Plan* now includes a comprehensive list of Parks development projects based on the new DCC Park Development Program
        - City Park -Spray Park, Skateboard Park and Playground, Picnic Area-$6.4 million decrease (scope change)
- Transportation ($51 million decrease)
        - Transportation renewal - Decrease of $32.8 million due to refined scope for P2 projects.
        - Transit infrastructure – Decrease of $25 million due to refined scope and project deferral to 2030.
- Drainage ($6 million decrease)
    - Full scope of Mill Creek Flood Protection project was elevated to P1 ($14 million) offset by adding in new geotechnical projects totalling $3.5 million and renewal projects moving from P1 to P2.
- Water ($9.6 million increase)
    - Unfunded projects: Poplar Point to Dilworth Mountain Transmission Upgrade Design $5.3 million, Burtch Watermain projects $1.5 million and Field Reservoir Add-on $1.5 million.
- Wastewater ($3.5 million increase)
    - Wastewater Treatment Digester – P2 portion rescoped to reflect the unfunded growth-related component.

SECTION 3 FUNDING SOURCES

General Fund

There are nine capital cost Centres funded from the General Fund (Real Estate, Buildings, Parks, Transportation, Storm Drainage, Information Services, Vehicles, Fire, Solid Waste). The General Fund is made up of several funding sources including: Taxation, Gas Tax, Surplus/Reserves, DCC Reserves, Debenture/Borrowing, Federal/Prov Grants, Developer/Community Contributions, Municipal Works Reserve, Utility revenue and the Infrastructure Levy (currently unallocated). The commitment from each funding source is shown in the chart below and totals $865 million.

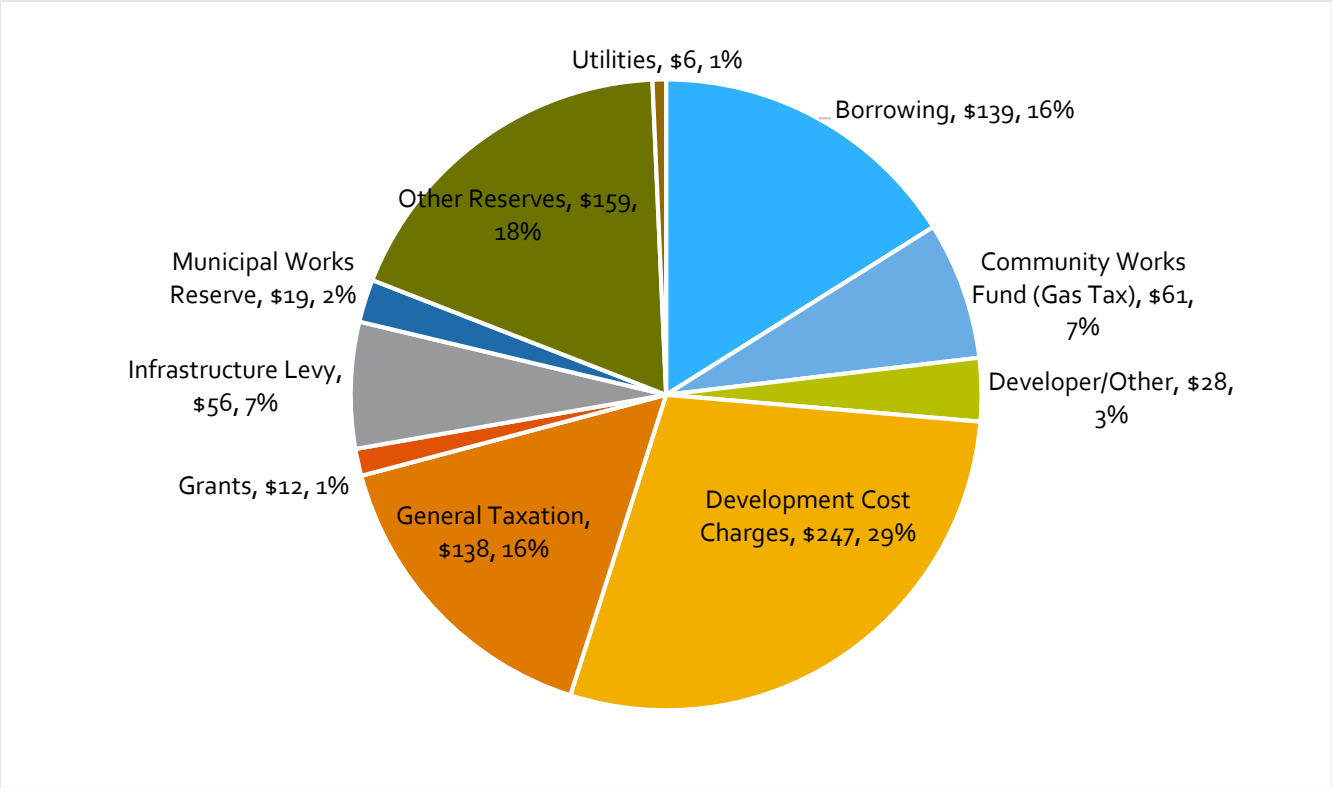


Figure 7 – *10-Year* Funding amounts by source for General Fund Projects (*in millions*).

Revenues from landfill tipping fees contribute to the Solid Waste reserve in the General Fund, in turn the Solid Waste cost Centre is funded from the Solid Waste reserve. Water, Wastewater and Airport are primarily funded from their own self-funded reserves and not the General Fund. Information on Water, Wastewater and Airport funding is provided later in this report.

General Taxation Funding

At $138 million over the next 10 years, general taxation contributes to 16% of the General Fund capital investment. In the previous plan taxation was the largest funding sources at 23%. The primary drivers of this proportionate decrease are the 2020 PAYG cuts that reduced PAYG for all future years, new funding from the 2020 Parks DCCs and increased use of reserves.

Table 5 compares the *10-Year Capital Plan* and *2030 Infrastructure Plan* 2016-2030, based on the percentage of taxation and Gas Tax investment in the general fund capital cost Centres.

Table 5 - *10-Year Capital* Tax and Gas Tax investment compared to *2030 Infrastructure Plan 2016-2030*.

Category	10-Year Capital Investment 2016-2030 ($ millions)	Change from 2030 Infrastructure plan	$ Value of Change over 2016-2030
Real Estate	$12.55	-0.03%	-117k
Buildings	$36.88	-0.34%	-1.14M
Parks	$60.78	0.22%	+742k
Transportation	$173.59	-0.10%	-327k
Storm Drainage	$14.92	-0.28%	-949k
Information Services	$14.82	-0.31%	-1.06M
Vehicles & Equipment	$1.35	-0.07%	-248k
Fire	$1.30	-0.09%	-291k
Total	**$316.19**		

Total investment by asset category in the *10-Year Capital Plan* is generally consistent with the *2030 Infrastructure Plan* as is the allocation of taxation and Gas Tax funding.

Infrastructure Levy

Council approved a 1.95% Infrastructure Levy (IL) in the 2019 Provisional Budget. Additional funding from new construction revenue ($435,000) was approved at Final Budget that brings the IL to 2.27% in 2019. The Infrastructure Levy (IL) will be included in both the 2019 and 2020 budgets, and ongoing thereafter. The amount to be contributed over the next 10 years to the IL reserve is $56.4 million ($5.64 million annually) with proposed use by Cost Centre as follows:

Table 6 - Projected appropriations from Infrastructure Levy ($ millions)

Cost Centre	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Grand Total
Parks	3.0	1.4	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	15.6
Transportation	1.4	2.8	3.0	2.3	1.7	2.3	1.4	3.9	4.2	4.1	27.1
Storm Drainage	1.0	1.4	1.6	1.9	2.6	1.9	3.3	-	-	-	13.7
Total	**5.4**	**5.6**	**5.9**	**5.6**	**5.6**	**5.6**	**6.1**	**5.4**	**5.6**	**5.5**	**56.4**

Note: Contributions to the Infrastructure Levy Reserve are ongoing.

A portion of New Construction Revenue funding was added to IL so that it is purposefully directed to the Infrastructure Deficit funding that Council had endorsed giving Council assurance that the funding will be used for this purpose.

$8.6 million of these funds have been allocated in 2019 and 2020. The remaining $45 million has not been allocated and are available to Council to assign to priority project(s) during their review of this and future *10-Year Capital Plans.*

Reserve/Surplus Funding

Reserve funds are used to fund infrastructure to prevent large fluctuations in annual general taxation requirements.

There is a total of $296 million in total general reserve funding. Community Works Fund reserve, which is funded from Gas Tax, accounts for $61M. The Solid Waste reserve accounts for $51 million.

The Municipal Works reserve was established in 2015 and will be used primarily to fund asset renewal projects. The reserve will fund approximately $19.2 million in capital projects in the next 10 years.

Annual Contributions:

- 2015, 2016: $940,000
- 2017: $1,000,000
- 2018 (ongoing): $1,500,000

Development Cost Charge Funding

Development cost charge funding accounts for $247 million or 29% of the General Fund capital investment. The timing of DCC projects must coincide with the availability of DCC revenues. Should revenue not be realized, as a result of slowed growth, the timing of DCC projects may need to be adjusted further.

Debenture/Borrowing

There is $139 million of debenture borrowing required to fund significant building projects (summarized below). The debt analysis below only reports on debt according to the general fund and the taxation impact of these borrows. In future versions of the *10-Year Capital Plan*, Debenture will be analyzed holistically across all funds to emphasize the overall debt capacity of the City.

Table 7 - Infrastructure projects that require borrowing 2020-2029.

Cost Centre	Project	Borrowing Amount ($ millions)	Year(s)
Buildings	Capital News Centre - Expansion, 2 Ice Sheets & Multi-use Facility	$21	2023
Buildings	City Hall - Envelope Renewal	$5	2025
Buildings	City Yards - New offices	$4	2029
Buildings	Mission Activity Centre - Construction	$5	2025
Buildings	North Glenmore Fire Hall (Stn #5) - Construction	$3	2024
Buildings	Parkinson Recreation Centre - Building replacement	$101	2021-2022
Total		**$139**	

The cost for debt servicing for the above projects is recoverable through taxation based on a twenty-year amortization period. Figure 8 shows projected debt servicing on the existing and projected expenditures as a percentage of the total taxation demand. The current policy of debt repayment is to not exceed 8% of the taxation demand for supported debt and 15% of City owned source revenues. Debt servicing, as a percentage of taxation demand, is anticipated to remain below 8% for the duration of the planning horizon.

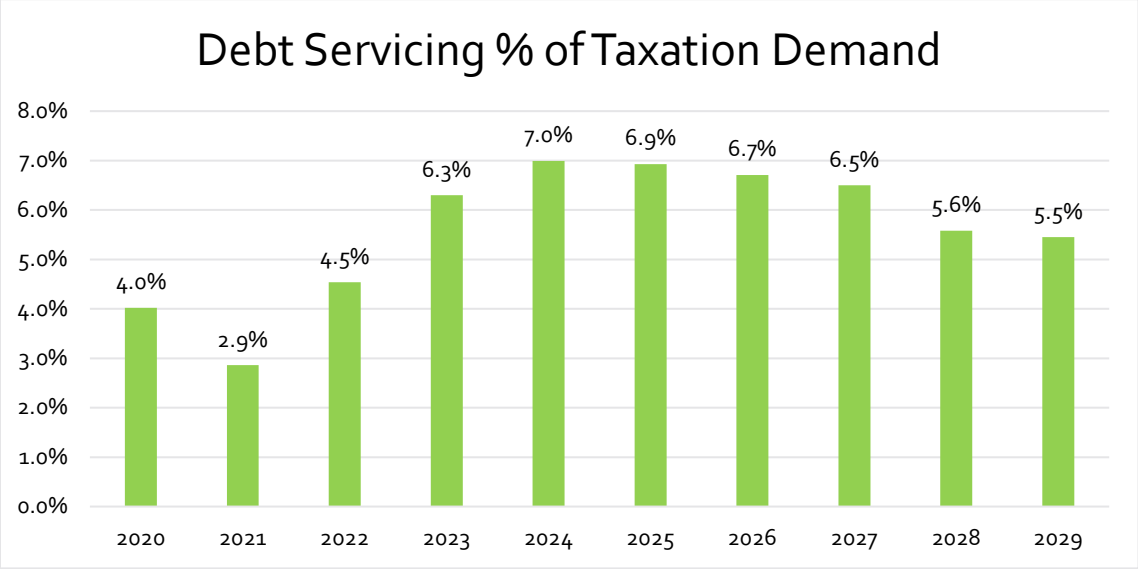


Figure 8 - Annual Debt Servicing as a Percentage of Taxation Demand 2020 - 2029.

Federal/Provincial Grants

Consistent with the City's Financial Principles & Strategies, the *10-Year Capital Plan* uses only confirmed grants as part of the financial strategy. As grants become available this will reduce reliance on taxation and other funding sources.

A total of $14 million is budgeted in the *10-Year Capital Plan* to be funded from confirmed provincial/federal grants (summarized below).

Table 8 - Federal/Provincial Funding ($ millions)

Cost Centre	Project	Assumed Funding
Storm Drainage	Mill Creek Flood Protection	$12
Airport	Mill Creek Flood Protection	$2
Total		**$14**

In 2017, the City received a $44 million grant and then a $12 million grant in 2018 through the Federal/Provincial Clean Water and Wastewater Funding Agreement. These grants are being used for water system upgrades to integrate South East Kelowna Irrigation District SEKID with the City Water Utility. This work was budgeted in 2017 and 2018 and does not appear in the planning horizon of this *10-Year Capital Plan* (2020 – 2029).

Developer/Community/Other Contributions

Developer/Community/Other Contributions provide $80 million towards capital projects in this plan. Developer/Community/Other Contributions are summarized in the table below.

Table 9 – Developer/Community/Other Contributions Funding ($ millions).

Cost Centre	Assumed Funding ($ millions)
Real Estate	$2.0
Buildings	$0.5
Parks	$0.2
Transportation	$23.3
Solid Waste	$0.3
Information Services	$0.5
Vehicles & Equipment	$0.7
Airport	$44.0
Water	$4.7
Wastewater	$4.1
Total	**$80.3**

Utility Revenue

Water and Wastewater utility revenue funding provides $6.2 million towards General Fund capital investment in this plan.

Water and Wastewater Funding

Water and Wastewater infrastructure is funded primarily from Utility, DCC reserves and Developer/Community/Other Contributions. The cost for the Water and Wastewater capital projects is $204 million and is funded from the following sources.

Table 10 – Utility Funding Sources *10-Year Capital Plan* ($ millions).

Water and Wastewater Funding Source	Amount
Development Cost Charges	$43.9
Dev/Community/Other Contributions	$8.8
Utility Revenue	$151.7
Total	**$204.4**

Airport Funding

The Airport's capital projects are split by business segment: Airside, Groundside, Terminal, and Airport Improvement Fee. Each segment maintains a reserve where the net of revenues and expenditures are contributed for future use of that business segment, including capital development. In the event the capital funding required exceeds the funds available for capital development the Airport will reassess the timing and scope of the project as well as the ability to increase fees and the capacity to take on additional debt when determining the best way to fund the development. During the 10-year term, additional debt is forecasted to be taken out for capital development within the Airport Improvement Fee business segment. Airport debenture affects the overall debt capacity of the City and these impacts must be considered holistically.

Table 11 – Airport Funding Sources *10-Year Capital Plan* ($ millions).

Airport	**Amount**
Reserves	$169.0
Debenture MFA	$38.0
Developer/Other	44.0
Grants	$2.40
Total	**$253.4**

APPENDIX

Capital Funding Summary - General (by Service and Expenditure Type) - Priority 1

Cost Centre - Service Area	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020 - 2030 Total
300 - Real Estate and Parking	**3,138,500**	**3,390,000**	**4,493,186**	**2,807,977**	**5,062,951**	**3,337,259**	**3,116,794**	**3,080,363**	**2,873,241**	**4,170,939**	**8,235,024**	**35,471,210**	**43,706,234**
New	2,378,000	1,860,000	2,670,186	2,465,477	3,571,951	2,817,259	2,523,794	2,547,363	2,572,241	3,010,939	7,932,524	26,417,210	34,349,734
Growth	80,000	100,000	1,335,000	0	1,200,000	0	0	0	0	0	0	2,715,000	2,715,000
Renewal	680,500	1,430,000	488,000	342,500	291,000	520,000	593,000	533,000	301,000	1,160,000	302,500	6,339,000	6,641,500
301 - Buildings	**644,500**	**91,268,500**	**23,061,316**	**29,381,359**	**14,718,834**	**18,191,682**	**3,956,644**	**2,971,150**	**4,461,359**	**9,944,905**	**6,659,089**	**198,600,249**	**205,259,338**
New	891,165	24,862,160	10,101,680	17,303,621	5,741,488	2,542,675	212,000	185,500	301,612	747,300	4,123,400	62,889,201	67,012,601
Growth	-1,076,430	27,100,410	1,738,400	1,206,545	6,073,005	10,467,500	0	0	0	6,587,900	0	52,097,330	52,097,330
Renewal	829,765	39,305,930	11,221,236	10,871,193	2,904,341	5,181,507	3,744,644	2,785,650	4,159,747	2,609,705	2,535,689	83,613,718	86,149,407
302 - Parks	**22,302,300**	**13,453,100**	**22,000,546**	**23,222,557**	**25,263,884**	**22,898,390**	**21,459,401**	**23,456,471**	**21,067,532**	**23,091,396**	**23,841,646**	**218,215,577**	**242,057,223**
New	3,682,430	933,780	1,973,408	1,291,756	2,048,214	1,631,104	3,609,046	1,991,947	1,934,195	1,309,102	1,634,986	20,404,982	22,039,968
Growth	17,644,870	10,894,320	19,247,652	21,748,112	21,190,670	20,532,286	17,192,503	20,329,524	18,255,337	21,343,941	21,456,660	188,379,215	209,835,875
Renewal	975,000	1,625,000	779,487	182,689	2,025,000	735,000	657,852	1,135,000	878,000	438,353	750,000	9,431,381	10,181,381
304 - Transportation	**11,842,818**	**19,994,518**	**13,942,690**	**20,616,603**	**22,756,549**	**31,118,483**	**28,383,764**	**26,760,187**	**25,291,685**	**61,925,935**	**87,610,347**	**262,633,232**	**350,243,579**
New	977,900	1,717,600	1,760,000	1,893,450	1,967,214	2,709,166	3,507,179	2,443,808	2,964,418	3,607,163	3,098,959	23,547,898	26,646,857
Growth	5,922,918	12,544,518	8,132,353	14,903,285	16,312,408	21,823,741	20,936,636	19,393,990	16,551,093	52,416,647	78,635,012	188,937,589	267,572,600
Renewal	4,942,000	5,732,400	4,050,337	3,819,868	4,476,927	6,585,576	3,939,949	4,922,389	5,776,174	5,902,125	5,876,377	50,147,745	56,024,122
305 - Solid Waste	**6,750,000**	**5,518,000**	**5,310,000**	**6,860,000**	**7,450,000**	**6,160,000**	**6,410,000**	**2,450,000**	**1,935,000**	**2,500,000**	**5,050,000**	**51,343,000**	**56,393,000**
New	4,226,500	549,000	1,799,000	5,324,000	1,184,500	1,711,500	1,231,000	294,000	523,000	459,000	1,094,000	17,301,500	18,395,500
Growth	1,963,500	4,453,200	2,991,000	1,006,000	5,305,500	3,738,500	4,359,000	1,616,000	872,000	1,501,000	3,316,000	27,805,700	31,121,700
Renewal	560,000	515,800	520,000	530,000	960,000	710,000	820,000	540,000	540,000	540,000	640,000	6,235,800	6,875,800
306 - Storm Drainage	**3,578,200**	**3,833,300**	**4,368,427**	**4,538,828**	**6,372,843**	**6,006,584**	**6,553,530**	**710,533**	**887,091**	**837,580**	**1,416,238**	**37,686,916**	**39,103,154**
New	2,207,400	1,519,983	2,150,927	2,252,502	3,046,176	3,215,746	3,450,192	410,533	452,416	427,166	1,112,905	19,133,041	20,245,946
Growth	1,078,300	1,503,317	1,962,500	2,164,168	2,826,667	2,528,338	3,103,338	0	434,675	410,414	0	16,011,717	16,011,717
Renewal	292,500	810,000	255,000	122,158	500,000	262,500	0	300,000	0	0	303,333	2,542,158	2,845,491
307 - Street Lights	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
New	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	0	0	0	0	0	0	0	0	0	0	0	0	0
Renewal	0	0	0	0	0	0	0	0	0	0	0	0	0
308 - Information Services	**1,583,400**	**1,306,100**	**578,546**	**3,034,074**	**908,473**	**933,984**	**786,999**	**637,608**	**731,118**	**750,811**	**729,547**	**11,251,113**	**11,980,660**
New	323,030	529,170	142,026	643,805	183,318	221,524	228,056	152,773	163,889	162,967	164,074	2,750,558	2,914,632
Growth	209,330	102,720	65,892	506,613	95,252	85,238	72,905	63,562	73,106	70,494	75,772	1,345,111	1,420,883
Renewal	1,051,040	674,210	370,628	1,883,656	629,903	627,222	486,038	421,273	494,123	517,350	489,701	7,155,444	7,645,145
310 - Vehicles	**4,697,700**	**3,993,900**	**2,831,009**	**4,001,221**	**3,377,685**	**2,650,550**	**2,132,886**	**2,515,907**	**5,745,918**	**7,387,160**	**8,675,457**	**39,333,936**	**48,009,393**
New	130,500	156,250	222,634	186,186	185,831	291,970	266,517	190,570	177,866	164,955	189,764	1,973,279	2,163,042
Growth	391,500	479,750	667,901	558,559	557,492	875,909	799,552	571,711	533,597	494,866	569,291	5,930,836	6,500,126
Renewal	4,175,700	3,357,900	1,940,474	3,256,476	2,634,363	1,482,671	1,066,817	1,753,626	5,034,456	6,727,339	7,916,403	31,429,822	39,346,225
311 - Fire	**1,056,700**	**110,000**	**3,774,546**	**230,000**	**596,000**	**625,000**	**179,600**	**2,908,822**	**348,500**	**948,826**	**1,194,747**	**10,777,994**	**11,972,741**
New	38,500	0	0	30,000	538,160	0	50,000	30,000	8,160	30,000	1,095,481	724,820	1,820,301
Growth	0	0	0	0	0	0	0	0	0	0	0	0	0
Renewal	1,018,200	110,000	3,774,546	200,000	57,840	625,000	129,600	2,878,822	340,340	918,826	99,266	10,053,174	10,152,440

Total General Capital Costs

Capital Costs	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020 - 2030 Total
Overall Total	**55,594,118**	**142,867,418**	**80,360,266**	**94,692,619**	**86,507,219**	**91,921,932**	**72,979,618**	**65,491,041**	**63,341,444**	**111,557,552**	**143,412,095**	**865,313,227**	**1,008,725,322**
New	14,855,425	32,127,943	20,819,861	31,390,797	18,466,852	15,140,944	15,077,785	8,246,494	9,097,797	9,918,592	20,446,092	175,142,488	195,588,580
Growth	26,213,988	57,178,235	36,140,698	42,093,282	53,560,993	60,051,512	46,463,933	41,974,787	36,719,807	82,825,262	104,052,734	483,222,497	587,275,231
Renewal	14,524,705	53,561,240	23,399,708	21,208,540	14,479,374	16,729,476	11,437,900	15,269,760	17,523,840	18,813,698	18,913,269	206,948,242	225,861,511

Total General Funding

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020 - 2030 Total
General Taxation	9,510,000	10,427,500	11,316,000	12,306,001	13,300,000	14,294,999	15,291,000	16,283,000	17,272,001	18,252,000	19,221,000	138,252,501	157,473,501
Community Works Fund	4,082,800	7,584,759	1,842,391	6,405,159	9,258,934	9,106,081	5,136,303	4,378,743	4,593,385	8,458,955	20,012,811	60,847,510	80,860,321
Reserves	23,045,222	28,782,100	25,062,814	26,430,662	30,670,681	24,259,587	20,007,618	17,155,690	16,407,010	23,225,236	30,326,890	235,046,620	265,373,510
Development Cost Charges	16,120,636	11,107,559	21,094,316	24,827,427	24,750,010	30,660,544	26,392,935	24,583,505	22,072,501	45,092,111	39,389,440	246,701,544	286,090,984
Borrowing	0	82,807,200	17,805,940	21,700,000	2,742,540	10,061,293	0	0	0	3,646,873	0	138,763,846	138,763,846
Developer/Other	1,037,160	850,000	1,015,000	770,565	3,000,479	736,500	2,751,990	2,501,724	2,455,991	12,420,616	33,960,484	27,540,025	61,500,509
Grants	1,033,300	933,300	1,400,000	1,766,666	2,266,667	2,033,334	2,533,333	0	0	0	0	11,966,600	11,966,600
Utilities	765,000	375,000	823,805	486,139	517,908	769,594	866,439	588,379	540,556	461,761	501,470	6,194,581	6,696,051

Capital Funding Summary - Utility (by Service and Expenditure Type) - Priority 1

Cost Centre - Service Area	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020 - 2030 Total
312 - Airport	**67,175,280**	**13,625,000**	**10,637,000**	**15,639,000**	**4,590,000**	**23,189,000**	**26,364,000**	**36,115,000**	**33,406,000**	**22,710,000**	**21,640,000**	**253,450,280**	**275,090,280**
New	49,500	99,500	473,500	8,445,500	533,500	533,500	49,500	49,500	49,500	49,500	49,500	10,333,000	10,382,500
Growth	67,326,000	12,076,000	2,082,000	222,000	1,169,000	16,040,600	20,203,000	17,929,000	20,973,000	18,588,000	21,091,000	176,608,600	197,699,600
Renewal	-200,220	1,449,500	8,081,500	6,971,500	2,887,500	6,614,900	6,111,500	18,136,500	12,383,500	4,072,500	499,500	66,508,680	67,008,180
313 - Water	**4,037,200**	**4,509,200**	**5,052,200**	**11,150,200**	**5,982,200**	**9,837,200**	**11,237,200**	**14,354,400**	**6,879,200**	**11,072,200**	**23,086,088**	**84,111,200**	**107,197,288**
New	709,772	984,772	724,772	929,772	1,054,772	544,772	549,772	575,772	1,049,472	3,934,772	12,897,410	11,058,420	23,955,830
Growth	559,428	184,428	584,428	5,752,428	159,428	3,624,428	5,319,428	9,360,628	1,161,728	459,428	2,645,678	27,165,780	29,811,458
Renewal	2,768,000	3,340,000	3,743,000	4,468,000	4,768,000	5,668,000	5,368,000	4,418,000	4,668,000	6,678,000	7,543,000	45,887,000	53,430,000
314 - Wastewater	**3,162,300**	**6,500,000**	**8,260,000**	**20,680,000**	**24,864,570**	**13,546,908**	**14,435,860**	**11,731,570**	**10,927,000**	**6,210,000**	**6,410,000**	**120,318,208**	**126,728,208**
New	69,869	560,500	1,785,500	15,630,500	14,460,327	4,068,430	3,741,977	1,306,447	272,690	160,500	160,500	42,056,739	42,217,239
Growth	401,431	649,500	724,500	49,500	5,381,314	3,819,478	5,293,883	4,825,124	4,854,310	49,500	49,500	26,048,539	26,098,039
Renewal	2,691,000	5,290,000	5,750,000	5,000,000	5,022,930	5,659,000	5,400,000	5,600,000	5,800,000	6,000,000	6,200,000	52,212,930	58,412,930

Total Utility Capital Costs

Capital Costs	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020 - 2030 Total
Overall Total	**74,374,780**	**24,634,200**	**23,949,200**	**47,469,200**	**35,436,770**	**46,573,108**	**52,037,060**	**62,200,970**	**51,212,200**	**39,992,200**	**51,136,088**	**457,879,688**	**509,015,776**
New	829,141	1,644,772	2,983,772	25,005,772	16,048,599	5,146,702	4,341,249	1,931,719	1,371,662	4,144,772	13,107,410	63,448,159	76,555,569
Growth	68,286,859	12,909,928	3,390,928	6,023,928	6,709,742	23,484,506	30,816,311	32,114,752	26,989,038	19,096,928	23,786,178	229,822,919	253,609,097
Renewal	5,258,780	10,079,500	17,574,500	16,439,500	12,678,430	17,941,900	16,879,500	28,154,500	22,851,500	16,750,500	14,242,500	164,608,610	178,851,110

Total Utility Funding

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020 - 2030 Total
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	29,175,280	1,655,000	10,637,000	15,639,000	4,590,000	23,189,000	25,964,000	18,115,000	17,406,000	22,710,000	36,213,888	169,080,280	205,294,168
Development Cost Charges	713,900	113,600	607,100	5,739,500	3,177,730	6,860,893	9,299,565	11,381,550	5,911,674	113,600	113,600	43,919,112	44,032,712
Borrowing	38,000,000	0	0	0	0	0	0	0	0	0	0	38,000,000	38,000,000
Developer/Other	150,000	12,150,000	150,000	150,000	2,186,200	150,000	2,202,000	16,150,000	16,150,000	3,335,000	150,000	52,773,200	52,923,200
Grants	0	0	0	0	0	0	400,000	2,000,000	0	0	0	2,400,000	2,400,000
Utilities	6,335,600	10,715,600	12,555,100	25,940,700	25,482,840	16,373,215	14,171,495	14,554,420	11,744,526	13,833,600	14,658,600	151,707,096	166,365,696

300 – REAL ESTATE AND PARKING

Real Estate and Parking - Categories

Cost Centre	Category Code	Name	Description	Overall Total Cost 2020-2029 (P1)	Overall Total Cost 2020-2030 (P1)
300 - Real Estate and Parking	L1	General Land	Annual allocation for the purchase of land for general purposes. This may allow for acquiring properties at less than fair market value, creating land assembly opportunities, creating a revenue generating land bank and providing trade potential.	20,342,201	22,864,101
300 - Real Estate and Parking	L2	Road and Sidewalk Land Acquisition	To fund the purchase of land required for the widening of roads to accommodate road improvements and/or sidewalks.	871,509	932,133
300 - Real Estate and Parking	L3	Parking Infrastructure	Funding to renew parking infrastructure and to invest in efficient parking management technology.	11,757,500	17,160,000
300 - Real Estate and Parking	L4	Strategic Land Redevelopment	Funding to redevelop City owned land to improve public benefit and encourage economic development.	2,500,000	2,750,000
			Grand Total	35,471,210	43,706,234

Real Estate and Parking

Priority 1 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020-2030 Total
L1	General Land	1,633,500	1,460,000	1,815,186	2,090,477	2,279,392	2,339,393	2,105,206	2,146,155	2,159,449	2,313,443	2,521,900	20,342,201	22,864,101
L2	Road and Sidewalk Land Acquisition	171,000	150,000	25,000	25,000	142,559	127,866	68,588	51,208	62,792	47,496	60,624	871,509	932,133
L3	Parking Infrastructure	1,084,000	1,530,000	2,403,000	442,500	2,391,000	620,000	693,000	633,000	401,000	1,560,000	5,402,500	11,757,500	17,160,000
L4	Strategic Land Redevelopment	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	2,500,000	2,750,000
	Total	3,138,500	3,390,000	4,493,186	2,807,977	5,062,951	3,337,259	3,116,794	3,080,363	2,873,241	4,170,939	8,235,024	35,471,210	43,706,234

Funding Sources

	Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
	General Taxation	736,900	525,500	585,186	860,477	1,166,951	1,212,259	918,794	942,363	967,241	1,105,939	1,327,524	9,021,610	10,349,134
	Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
	Reserves	2,334,000	2,780,000	3,653,000	1,692,500	3,641,000	1,870,000	1,943,000	1,883,000	1,651,000	2,810,000	6,652,500	24,257,500	30,910,000
	Development Cost Charges	67,600	84,500	0	0	0	0	0	0	0	0	0	152,100	152,100
	Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
	Developer/Other	0	0	255,000	255,000	255,000	255,000	255,000	255,000	255,000	255,000	255,000	2,040,000	2,295,000
	Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
	Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	3,138,500	3,390,000	4,493,186	2,807,977	5,062,951	3,337,259	3,116,794	3,080,363	2,873,241	4,170,939	8,235,024	35,471,210	43,706,234

Real Estate and Parking

Priority 2 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Overall Total Cost 2020-2029 (P2)	Overall Total Cost 2020-2030 (P2)
L1	General Land	66,000	222,000	374,931	258,370	125,608	115,607	338,029	300,260	395,551	286,695	183,100	2,483,051	2,666,151
L2	Road and Sidewalk Land Acquisition	0	66,000	176,000	190,000	197,000	205,000	252,000	280,000	313,000	326,000	338,705	2,005,000	2,343,705
L3	Parking Infrastructure	0	0	0	0	0	7,700,000	0	0	0	0	25,000,000	7,700,000	32,700,000
L4	Strategic Land Redevelopment	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	66,000	288,000	550,931	448,370	322,608	8,020,607	590,029	580,260	708,551	612,695	25,521,805	12,188,051	37,709,856

Funding Sources (Unfunded)

300 - Real Estate and Parking

L1 - General Land

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Land, Acquisition	1,633,500	1,460,000	1,560,186	1,835,477	2,024,392	2,084,393	1,850,206	1,891,155	1,904,449	2,058,443	2,266,900	18,302,201	20,569,101
Mission Creek Restoration	0	0	255,000	255,000	255,000	255,000	255,000	255,000	255,000	255,000	255,000	2,040,000	2,295,000
Total	1,633,500	1,460,000	1,815,186	2,090,477	2,279,392	2,339,393	2,105,206	2,146,155	2,159,449	2,313,443	2,521,900	20,342,201	22,864,101

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	633,500	460,000	560,186	835,477	1,024,392	1,084,393	850,206	891,155	904,449	1,058,443	1,266,900	8,302,201	9,569,101
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	10,000,000	11,000,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	255,000	255,000	255,000	255,000	255,000	255,000	255,000	255,000	255,000	2,040,000	2,295,000
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1,633,500	1,460,000	1,815,186	2,090,477	2,279,392	2,339,393	2,105,206	2,146,155	2,159,449	2,313,443	2,521,900	20,342,201	22,864,101

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Land, Acquisition	66,000	222,000	374,931	258,370	125,608	115,607	338,029	300,260	395,551	286,695	183,100	2,483,051	2,666,151
Total	66,000	222,000	374,931	258,370	125,608	115,607	338,029	300,260	395,551	286,695	183,100	2,483,051	2,666,151

Funding Sources (Unfunded)

300 - Real Estate and Parking

L2 - Road and Sidewalk Land Acquisition

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
DCC Road Widening, Land Acquisition	80,000	100,000	0	0	0	0	0	0	0	0	0	180,000	180,000
Road & Sidewalk, Land Acquisition	91,000	50,000	25,000	25,000	142,559	127,866	68,588	51,208	62,792	47,496	60,624	691,509	752,133
Total	171,000	150,000	25,000	25,000	142,559	127,866	68,588	51,208	62,792	47,496	60,624	871,509	932,133

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	103,400	65,500	25,000	25,000	142,559	127,866	68,588	51,208	62,792	47,496	60,624	719,409	780,033
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	67,600	84,500	0	0	0	0	0	0	0	0	0	152,100	152,100
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	171,000	150,000	25,000	25,000	142,559	127,866	68,588	51,208	62,792	47,496	60,624	871,509	932,133

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
DCC Road Widening, Land Acquisition	0	0	120,000	140,000	160,000	180,000	200,000	220,000	240,000	260,000	280,000	1,520,000	1,800,000
Road & Sidewalk, Land Acquisition	0	66,000	56,000	50,000	37,000	25,000	52,000	60,000	73,000	66,000	58,705	485,000	543,705
Total	0	66,000	176,000	190,000	197,000	205,000	252,000	280,000	313,000	326,000	338,705	2,005,000	2,343,705

Funding Sources (Unfunded)

300 - Real Estate and Parking
L3 - Parking Infrastructure
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Chapman Parkade - Infrastructure Renewal (HVAC)	120,000	0	180,000	0	0	0	0	0	0	0	0	300,000	300,000
Cook Road Boat Launch – Asphalt Renewal	0	95,000	0	0	0	0	0	0	0	0	0	95,000	95,000
Downtown Parkades-Major Maintenance	0	760,000	0	150,000	0	50,000	340,000	310,000	0	60,000	0	1,670,000	1,670,000
Electric Vehicle Charging Stations - Parkades & Lots	135,000	0	0	0	0	0	0	0	0	0	0	135,000	135,000
Expansion of Parking Mgmt into New Areas	0	0	615,000	0	0	0	0	0	0	0	0	615,000	615,000
Land Acquisition - Parkades and Strategic Initiatives	0	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	900,000	1,000,000
Library and Chapman Parkades - Accessible Door Openers	134,000	0	0	0	0	0	0	0	0	0	0	134,000	134,000
Library and Chapman Parkades - LED Lighting Retrofit	269,000	0	0	0	0	0	0	0	0	0	0	269,000	269,000
New Off-Street Parking - Purchase or Construction of Surface Stalls	0	0	1,200,000	0	2,000,000	0	0	0	0	0	0	3,200,000	3,200,000
New Parkades - Design and Construction	0	0	0	0	0	0	0	0	0	300,000	5,000,000	300,000	5,300,000
Parking Equipment and Facilities	426,000	575,000	308,000	192,500	291,000	470,000	253,000	223,000	301,000	1,100,000	302,500	4,139,500	4,442,000
Total	1,084,000	1,530,000	2,403,000	442,500	2,391,000	620,000	693,000	633,000	401,000	1,560,000	5,402,500	11,757,500	17,160,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	1,084,000	1,530,000	2,403,000	442,500	2,391,000	620,000	693,000	633,000	401,000	1,560,000	5,402,500	11,757,500	17,160,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1,084,000	1,530,000	2,403,000	442,500	2,391,000	620,000	693,000	633,000	401,000	1,560,000	5,402,500	11,757,500	17,160,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
New Parkades - Design and Construction	0	0	0	0	0	7,700,000	0	0	0	0	25,000,000	7,700,000	32,700,000
Total	0	0	0	0	0	7,700,000	0	0	0	0	25,000,000	7,700,000	32,700,000

Funding Sources (Unfunded)

300 - Real Estate and Parking
L4 - Strategic Land Redevelopment
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Strategic Land Servicing Requirements	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	2,500,000	2,750,000
Total	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	2,500,000	2,750,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	2,500,000	2,750,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	2,500,000	2,750,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

301 – BUILDINGS

Buildings - Categories

Cost Centre	Category Code	Name	Description	Overall Total Cost 2020-2029 (P1)	Overall Total Cost 2020-2030 (P1)
301 - Buildings	B1	Parks and Recreation Buildings	An allocation for the development of new Parks and Recreation buildings as well as the redevelopment and expansion of existing ones in various locations throughout the City to keep pace with the increasing demand due to population growth and emerging trends. This category includes Parks Administration, Parks washrooms, field houses, arenas and pools.	133,220,440	133,220,440
301 - Buildings	B2	Community and Cultural Buildings	An allocation for the development of new community and cultural buildings as well as the redevelopment, renewal and expansion of existing ones. This category includes the theaters, libraries, senior centres, community halls, art gallery, museums and the RCA.	11,427,300	15,550,700
301 - Buildings	B3	Civic/Protective Service Buildings	Funding to support renewal, replacement and cost of new Protective Services buildings which include firehalls, police stations and City Hall.	22,042,400	22,042,400
301 - Buildings	B4	Transportation and Public Works Buildings	Funding to support renewal, replacement and new construction of new Transportation and Public Works Buildings throughout the City to keep pace increasing demand due to population growth and emerging trends. This category includes Public Works Yard, parkades, cemetery and WWTF administration.	6,737,900	6,737,900
301 - Buildings	B5	Heritage Buildings	Funding for the restoration of City-owned heritage buildings.	2,088,200	2,088,200
301 - Buildings	B6	Capital Opportunities and Partnerships	Funding for special projects including partnerships with the School District on community space as part of new school construction as well as funding to allow for capital projects that were not envisioned during the plan development, including partnerships.	364,976	364,976
301 - Buildings	B7	Building Renewal, Rehabilitation & Infrastructure Upgrades	An allocation for major repairs or replacement of existing building infrastructure such as roofs, windows, mechanical systems, lighting, electrical and water services, hazardous material abatement, and other major maintenance items.	22,719,033	25,254,722
			Grand Total	198,600,249	205,259,338

Buildings

Priority 1 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020-2030 Total
B1	Parks and Recreation Buildings	1,172,500	82,887,200	19,505,940	25,324,700	848,000	577,700	848,000	742,000	848,000	466,400	0	133,220,440	133,220,440
B2	Community and Cultural Buildings	345,000	0	0	0	858,600	9,593,000	0	0	0	630,700	4,123,400	11,427,300	15,550,700
B3	Civic/Protective Service Buildings	-3,028,000	4,835,000	1,738,400	1,955,700	10,870,300	5,671,000	0	0	0	0	0	22,042,400	22,042,400
B4	Transportation and Public Works Buildings	150,000	0	0	0	0	0	0	0	0	6,587,900	0	6,737,900	6,737,900
B5	Heritage Buildings	0	0	0	0	0	0	874,500	0	1,213,700	0	0	2,088,200	2,088,200
B6	Capital Opportunities and Partnerships	0	0	93,710	93,411	88,243	0	0	0	89,612	0	0	364,976	364,976
B7	Building Renewal, Rehabilitation & Infrastructure Upgrades	2,005,000	3,546,300	1,723,266	2,007,548	2,053,691	2,349,982	2,234,144	2,229,150	2,310,047	2,259,905	2,535,689	22,719,033	25,254,722
	Total	644,500	91,268,500	23,061,316	29,381,359	14,718,834	18,191,682	3,956,644	2,971,150	4,461,359	9,944,905	6,659,089	198,600,249	205,259,338

Funding Sources

	Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
	General Taxation	395,000	1,300,500	2,253,483	2,254,648	2,677,161	2,473,708	1,869,529	1,781,015	2,622,618	2,334,098	3,198,557	19,961,760	23,160,317
	Community Works Fund	0	124,200	0	106,000	1,535,259	135,256	985,753	295,104	1,099,129	88,775	529,470	4,369,476	4,898,946
	Reserves	-136,000	6,736,600	3,008,183	5,327,300	7,775,631	5,528,707	1,109,331	900,826	750,000	3,881,922	2,941,467	34,882,500	37,823,967
	Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
	Borrowing	0	82,807,200	17,805,940	21,700,000	2,742,540	10,061,293	0	0	0	3,646,873	0	138,763,846	138,763,846
	Developer/Other	310,500	300,000	-6,290	-6,589	-11,757	-7,282	-7,969	-5,795	-10,388	-6,763	-10,405	547,667	537,262
	Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
	Utilities	75,000	0	0	0	0	0	0	0	0	0	0	75,000	75,000
	Total	644,500	91,268,500	23,061,316	29,381,359	14,718,834	18,191,682	3,956,644	2,971,150	4,461,359	9,944,905	6,659,089	198,600,249	205,259,338

Buildings

Priority 2 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Overall Total Cost 2020-2029 (P2)	Overall Total Cost 2020-2030 (P2)
B1	Parks and Recreation Buildings	1,030,000	1,437,000	3,916,500	10,594,960	4,091,600	250,000	250,000	0	250,000	2,510,440	18,126,000	24,330,500	42,456,500
B2	Community and Cultural Buildings	0	3,498,000	0	0	175,960	73,442,100	0	0	0	6,017,620	60,176,200	83,133,680	143,309,880
B3	Civic/Protective Service Buildings	0	0	0	0	312,700	3,137,600	344,500	3,990,900	5,459,000	0	0	13,244,700	13,244,700
B4	Transportation and Public Works Buildings	0	0	0	0	0	0	0	0	0	56,604,000	0	56,604,000	56,604,000
B5	Heritage Buildings	300,000	0	0	106,000	1,378,000	0	0	0	0	0	0	1,784,000	1,784,000
B6	Capital Opportunities and Partnerships	0	53,000	0	848,000	0	100,000	100,000	100,000	424,000	100,000	100,000	1,725,000	1,825,000
B7	Building Renewal, Rehabilitation & Infrastructure Upgrades	0	120,000	1,076,734	792,452	746,309	450,018	565,856	570,850	489,953	540,095	264,311	5,352,267	5,616,578
	Total	1,330,000	5,108,000	4,993,234	12,341,412	6,704,569	77,379,718	1,260,356	4,661,750	6,622,953	65,772,155	78,666,511	186,174,147	264,840,658

Funding Sources (Unfunded)

301 - Buildings

B1 - Parks and Recreation Buildings

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Capital News Centre - Expansion, 2 Ice Sheets & Multi-use Facility	230,000	0	0	0	0	0	0	0	0	0	0	230,000	230,000
Capital News Centre - Expansion, 2 Ice Sheets & Multi-use Facilty	0	0	1,700,000	25,324,700	0	0	0	0	0	0	0	27,024,700	27,024,700
H2o Boiler Replacement	492,000	0	0	0	0	0	0	0	0	0	0	492,000	492,000
H2O Centre - Pool Equipment Upgrades	50,000	0	0	0	0	0	0	0	0	0	0	50,000	50,000
Parkinson Recreation Centre - Building replacement	0	82,807,200	0	0	0	0	0	0	0	0	0	82,807,200	82,807,200
Parkinson Recreation Centre - Parking structure & offsites	0	0	3,389,940	0	0	0	0	0	0	0	0	3,389,940	3,389,940
Parkinson Recreation Centre - Site work & field relocation	0	0	14,416,000	0	0	0	0	0	0	0	0	14,416,000	14,416,000
Parks Washrooms Renovations or Replacement	0	80,000	0	0	848,000	577,700	848,000	742,000	848,000	466,400	0	4,410,100	4,410,100
Rutland Rec Park, Central Okanagan Rugby Enthusiasts Fieldhouse	400,500	0	0	0	0	0	0	0	0	0	0	400,500	400,500
Total	1,172,500	82,887,200	19,505,940	25,324,700	848,000	577,700	848,000	742,000	848,000	466,400	0	133,220,440	133,220,440

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	320,000	80,000	0	409,500	457,920	442,444	498,247	446,896	454,528	249,990	0	3,359,525	3,359,525
Community Works Fund	0	0	0	0	390,080	135,256	349,753	295,104	393,472	0	0	1,563,665	1,563,665
Reserves	542,000	0	1,700,000	3,215,200	0	0	0	0	0	216,410	0	5,673,610	5,673,610
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	82,807,200	17,805,940	21,700,000	0	0	0	0	0	0	0	122,313,140	122,313,140
Developer/Other	310,500	0	0	0	0	0	0	0	0	0	0	310,500	310,500
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1,172,500	82,887,200	19,505,940	25,324,700	848,000	577,700	848,000	742,000	848,000	466,400	0	133,220,440	133,220,440

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Apple Bowl - Renovations	580,000	615,000	0	0	0	0	0	0	0	0	0	1,195,000	1,195,000
Capital News Centre - Renewal	0	0	300,000	1,000,000	0	0	250,000	0	0	100,000	0	1,650,000	1,650,000
Elks Stadium - Renovations	0	0	0	409,160	4,091,600	0	0	0	0	0	0	4,500,760	4,500,760
KFY - Pool Mechanical Modernization	0	345,000	2,000,000	0	0	0	0	0	0	0	0	2,345,000	2,345,000
Memorial Arena - Adaptive Reuse	0	0	0	0	0	0	0	0	0	682,640	6,826,400	682,640	7,509,040
Mission Recreation Field House - Construction (2019 Prov)	450,000	477,000	0	0	0	0	0	0	0	0	0	927,000	927,000
Parkinson Recreation Centre - Parking structure	0	0	768,500	8,299,800	0	0	0	0	0	0	0	9,068,300	9,068,300
Parks Washrooms Renovations or Replacement	0	0	848,000	636,000	0	0	0	0	0	636,000	381,600	2,120,000	2,501,600
Prospera - Renewal	0	0	0	250,000	0	250,000	0	0	250,000	0	0	750,000	750,000
Prospera Place - Renovations	0	0	0	0	0	0	0	0	0	1,091,800	10,918,000	1,091,800	12,009,800
Total	1,030,000	1,437,000	3,916,500	10,594,960	4,091,600	250,000	250,000	0	250,000	2,510,440	18,126,000	24,330,500	42,456,500

Funding Sources (Unfunded)

301 - Buildings

B2 - Community and Cultural Buildings

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Mission Activity Centre - Construction	0	0	0	0	858,600	9,593,000	0	0	0	0	0	10,451,600	10,451,600
Rotary Centre for the Arts Expansion	0	0	0	0	0	0	0	0	0	630,700	4,123,400	630,700	4,754,100
Theatre Sound System, Hearing Loop, Dance Floor, Stage Risers	345,000	0	0	0	0	0	0	0	0	0	0	345,000	345,000
Total	345,000	0	0	0	858,600	9,593,000	0	0	0	630,700	4,123,400	11,427,300	15,550,700

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	541,925	1,402,463	541,925	1,944,388
Community Works Fund	0	0	0	0	571,011	0	0	0	0	88,775	529,470	659,786	1,189,256
Reserves	345,000	0	0	0	287,589	4,659,457	0	0	0	0	2,191,467	5,292,046	7,483,513
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	4,933,543	0	0	0	0	0	4,933,543	4,933,543
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	345,000	0	0	0	858,600	9,593,000	0	0	0	630,700	4,123,400	11,427,300	15,550,700

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Art Gallery Envelope Replacement	0	0	0	0	175,960	1,764,900	0	0	0	0	0	1,940,860	1,940,860
Downtown Cultural Centre - Construction	0	3,498,000	0	0	0	0	0	0	0	0	0	3,498,000	3,498,000
Glenmore Recreation Activity Centre - Development	0	0	0	0	0	0	0	0	0	823,620	8,236,200	823,620	9,059,820
Kelowna Community Theatre - Replacement Construction	0	0	0	0	0	71,677,200	0	0	0	0	0	71,677,200	71,677,200
Kelowna Museum - Replacement Construction	0	0	0	0	0	0	0	0	0	4,780,600	47,806,000	4,780,600	52,586,600
Rotary Art Centre - Expansion	0	0	0	0	0	0	0	0	0	413,400	4,134,000	413,400	4,547,400
Total	0	3,498,000	0	0	175,960	73,442,100	0	0	0	6,017,620	60,176,200	83,133,680	143,309,880

Funding Sources (Unfunded)

301 - Buildings
B3 - Civic/Protective Service Buildings
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
City Hall - Envelope Renewal	0	0	0	0	0	5,671,000	0	0	0	0	0	5,671,000	5,671,000
City Hall - Renovations, Phase 5	0	1,625,000	0	0	0	0	0	0	0	0	0	1,625,000	1,625,000
City Hall, Phase IV - Renovations	0	3,060,000	0	0	0	0	0	0	0	0	0	3,060,000	3,060,000
Civic Accomodation	0	150,000	1,738,400	455,800	0	0	0	0	0	0	0	2,344,200	2,344,200
North Glenmore Fire Hall (Stn #5) - Construction	0	0	0	0	9,502,900	0	0	0	0	0	0	9,502,900	9,502,900
North Glenmore Fire Hall (Stn #5) - Land acquisition	0	0	0	1,362,100	0	0	0	0	0	0	0	1,362,100	1,362,100
Rutland Community Policing Office - Expansion	0	0	0	68,900	683,700	0	0	0	0	0	0	752,600	752,600
Rutland Fire Hall - Renovation	0	0	0	68,900	683,700	0	0	0	0	0	0	752,600	752,600
Total	0	4,835,000	1,738,400	1,955,700	10,870,300	5,671,000	0	0	0	0	0	25,070,400	25,070,400

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	676,400	1,738,400	487,600	1,002,219	424,000	0	0	0	0	0	4,328,619	4,328,619
Community Works Fund	0	0	0	106,000	574,168	0	0	0	0	0	0	680,168	680,168
Reserves	-3,028,000	4,158,600	0	1,362,100	6,551,373	119,250	0	0	0	0	0	9,163,323	9,163,323
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	2,742,540	5,127,750	0	0	0	0	0	7,870,290	7,870,290
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	-3,028,000	4,835,000	1,738,400	1,955,700	10,870,300	5,671,000	0	0	0	0	0	22,042,400	22,042,400

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Kelowna Police Services Building - Expansion	0	0	0	0	0	0	344,500	3,445,000	0	0	0	3,789,500	3,789,500
KLO Fire Hall (Stn #6) - Construction	0	0	0	0	0	0	0	545,900	5,459,000	0	0	6,004,900	6,004,900
North Glenmore Community Policing Office - Construction	0	0	0	0	177,020	1,775,500	0	0	0	0	0	1,952,520	1,952,520
North Glenmore Fire Training Centre - Construction	0	0	0	0	135,680	1,362,100	0	0	0	0	0	1,497,780	1,497,780
Total	0	0	0	0	312,700	3,137,600	344,500	3,990,900	5,459,000	0	0	13,244,700	13,244,700

Funding Sources (Unfunded)

301 - Buildings

B4 - Transportation and Public Works Buildings

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
City Yards - New offices	0	0	0	0	0	0	0	0	0	6,587,900	0	6,587,900	6,587,900
City Yards Office - Renovation Planning	150,000	0	0	0	0	0	0	0	0	0	0	150,000	150,000
Total	150,000	0	0	0	0	0	0	0	0	6,587,900	0	6,737,900	6,737,900

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	75,000	0	0	0	0	0	0	0	0	25,515	0	100,515	100,515
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	2,915,512	0	2,915,512	2,915,512
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	3,646,873	0	3,646,873	3,646,873
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	75,000	0	0	0	0	0	0	0	0	0	0	75,000	75,000
Total	150,000	0	0	0	0	0	0	0	0	6,587,900	0	6,737,900	6,737,900

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
City Yards - Replacement Construction	0	0	0	0	0	0	0	0	0	56,604,000	0	56,604,000	56,604,000
Total	0	0	0	0	0	0	0	0	0	56,604,000	0	56,604,000	56,604,000

Funding Sources (Unfunded)

301 - Buildings

B5 - Heritage Buildings

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Heritage Asset Management Program	0	0	0	0	0	0	874,500	0	1,213,700	0	0	2,088,200	2,088,200
Total	0	0	0	0	0	0	874,500	0	1,213,700	0	0	2,088,200	2,088,200

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	238,500	0	508,043	0	0	746,543	746,543
Community Works Fund	0	0	0	0	0	0	636,000	0	705,657	0	0	1,341,657	1,341,657
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	874,500	0	1,213,700	0	0	2,088,200	2,088,200

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Brent's Grist Mill - Adaptive Reuse and Site Development	0	0	0	106,000	1,378,000	0	0	0	0	0	0	1,484,000	1,484,000
Cameron House - Adaptive Reuse	300,000	0	0	0	0	0	0	0	0	0	0	300,000	300,000
Total	300,000	0	0	106,000	1,378,000	0	0	0	0	0	0	1,784,000	1,784,000

Funding Sources (Unfunded)

301 - Buildings

B6 - Capital Opportunities and Partnerships

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Capital Opportunities & Partnership Fund	0	0	93,710	93,411	88,243	0	0	0	89,612	0	0	364,976	364,976
Total	0	0	93,710	93,411	88,243	0	0	0	89,612	0	0	364,976	364,976

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	100,000	100,000	100,000	7,282	7,969	5,795	100,000	6,763	10,405	427,809	438,214
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	-6,290	-6,589	-11,757	-7,282	-7,969	-5,795	-10,388	-6,763	-10,405	-62,833	-73,238
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	93,710	93,411	88,243	0	0	0	89,612	0	0	364,976	364,976

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Capital Opportunities & Partnership Fund	0	53,000	0	848,000	0	100,000	100,000	100,000	424,000	100,000	100,000	1,725,000	1,825,000
Total	0	53,000	0	848,000	0	100,000	100,000	100,000	424,000	100,000	100,000	1,725,000	1,825,000

Funding Sources (Unfunded)

301 - Buildings

B7 - Building Renewal, Rehabilitation & Infrastructure Upgrades

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Building Infrastructure Renewal	0	0	1,723,266	2,007,548	2,053,691	2,349,982	2,234,144	2,229,150	2,310,047	2,259,905	2,535,689	17,167,733	19,703,422
Building Systems Automation & Performance Optimization	200,000	0	0	0	0	0	0	0	0	0	0	200,000	200,000
Capital News Centre - Arena Chiller Replacement	0	350,000	0	0	0	0	0	0	0	0	0	350,000	350,000
City Hall Server Room Air Conditioning Replacement	105,000	0	0	0	0	0	0	0	0	0	0	105,000	105,000
Civic/Protective Service Buildings Infrastructure Renewal	0	355,100	0	0	0	0	0	0	0	0	0	355,100	355,100
Community and Cultural Buildings Infrastructure Renewal	0	212,200	0	0	0	0	0	0	0	0	0	212,200	212,200
H2O Centre Heat Recovery Chiller Replacement	0	600,000	0	0	0	0	0	0	0	0	0	600,000	600,000
H2O Centre Heating System & Building Efficiency Upgrades	600,000	0	0	0	0	0	0	0	0	0	0	600,000	600,000
Kelowna Community Theatre Renewal	0	630,000	0	0	0	0	0	0	0	0	0	630,000	630,000
Kelowna Family Y Renewal	200,000	0	0	0	0	0	0	0	0	0	0	200,000	200,000
Library Boiler Replacement	0	350,000	0	0	0	0	0	0	0	0	0	350,000	350,000
Memorial Arena Chiller Replacement	350,000	0	0	0	0	0	0	0	0	0	0	350,000	350,000
Municipal Buildings Roofing Renewal	500,000	0	0	0	0	0	0	0	0	0	0	500,000	500,000
Parks and Recreation Buildings Infrastructure Renewal	0	530,000	0	0	0	0	0	0	0	0	0	530,000	530,000
Rotary Centre for the Arts Boiler Replacement	50,000	0	0	0	0	0	0	0	0	0	0	50,000	50,000
Rutland Arena (West) Chiller & Dehumidifer Replacement	0	424,000	0	0	0	0	0	0	0	0	0	424,000	424,000
Water St. Boat Launch Ramp Renewal	0	95,000	0	0	0	0	0	0	0	0	0	95,000	95,000
Total	2,005,000	3,546,300	1,723,266	2,007,548	2,053,691	2,349,982	2,234,144	2,229,150	2,310,047	2,259,905	2,535,689	22,719,033	25,254,722

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	544,100	415,083	1,257,548	1,117,022	1,599,982	1,124,813	1,328,324	1,560,047	1,509,905	1,785,689	10,456,824	12,242,513
Community Works Fund	0	124,200	0	0	0	0	0	0	0	0	0	124,200	124,200
Reserves	2,005,000	2,578,000	1,308,183	750,000	936,669	750,000	1,109,331	900,826	750,000	750,000	750,000	11,838,009	12,588,009
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	300,000	0	0	0	0	0	0	0	0	0	300,000	300,000
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2,005,000	3,546,300	1,723,266	2,007,548	2,053,691	2,349,982	2,234,144	2,229,150	2,310,047	2,259,905	2,535,689	22,719,033	25,254,722

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Building Infrastructure Renewal	0	0	1,076,734	792,452	746,309	450,018	565,856	570,850	489,953	540,095	264,311	5,232,267	5,496,578
Parkinson Rec Centre Boiler & Hot Water Tank Replacements	0	120,000	0	0	0	0	0	0	0	0	0	120,000	120,000
Total	0	120,000	1,076,734	792,452	746,309	450,018	565,856	570,850	489,953	540,095	264,311	5,352,267	5,616,578

Funding Sources (Unfunded)

302 – PARKS

Parks - Categories

Cost Centre	Category Code	Name	Description	Overall Total Cost 2020-2029 (P1)	Overall Total Cost 2020-2030 (P1)
302 - Parks	P1	DCC Parkland Acquisition	Park acquisition program based on the residential growth in the City for the purchase of parkland (Neighbourhood, Community, Recreation and City-wide level parks) under the Development Cost Charge program (DCC). Funding is primarily allocated from developer revenue with general taxation covering both the assist factor and infill/conversion units and Land Use Contracts not required to pay DCC's.	104,335,000	115,731,000
302 - Parks	P2	Natural Area Parkland Acquisition	Park acquisition program for the purchase of Natural Areas not attributed to the DCC program.	300,000	300,000
302 - Parks	P3	Neighbourhood Park Development	An allocation to cover the development of neighbourhood level parks including off-site costs related to park development, but does not include buildings.	18,848,154	19,762,641
302 - Parks	P4	Community Park Development	An allocation to cover the development of community level parks including off-site costs related to park development, but does not include buildings.	25,106,974	27,108,557
302 - Parks	P5	Recreation Park Development	An allocation to cover the development of recreation level parks including off-site costs related to park development, but does not include buildings.	30,910,308	30,910,308
302 - Parks	P6	City-wide Park Development	An allocation to cover the development of city-wide level parks including off-site costs related to park development, but does not include buildings.	23,579,771	31,952,902
302 - Parks	P7	Linear/Natural Area Park Development	An allocation to cover the development of natural areas and linear parks/trails.	2,714,088	2,739,107
302 - Parks	P8	Park Renewal, Rehabilitation & Infrastructure Upgrades	An allocation for major repairs or replacement of existing park infrastructure such as sidewalks, hard-surfaced trails, parking lots, sport courts, lighting, electrical and water services, irrigation, fencing, bridges and other major structures.	11,502,382	12,633,808
302 - Parks	P9	Capital Opportunities Partnership	An allocation for various strategic investments into the park and open space system as well as funding to allow for capital projects that were not envisioned during the plan development, including partnerships.	850,000	850,000
302 - Parks	P10	Urban Streetscape and Urban Centres Development and Renewal	An allocation for urban centre improvements, enhanced streetscapes and walkways, and other urban spaces that are not defined parks.	68,900	68,900
			Grand Total	218,215,577	242,057,223

Parks
Priority 1 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020-2030 Total
P1	DCC Parkland Acquisition	8,613,000	3,658,000	12,292,000	11,396,000	11,396,000	11,396,000	11,396,000	11,396,000	11,396,000	11,396,000	11,396,000	104,335,000	115,731,000
P2	Natural Area Parkland Acquisition	300,000	0	0	0	0	0	0	0	0	0	0	300,000	300,000
P3	Neighbourhood Park Development	130,000	1,999,200	0	2,658,287	4,152,499	3,478,487	2,864,173	1,092,006	914,487	1,559,015	914,487	18,848,154	19,762,641
P4	Community Park Development	4,434,300	0	6,093,038	3,065,907	0	0	0	0	4,131,736	7,381,993	2,001,583	25,106,974	27,108,557
P5	Recreation Park Development	190,000	4,390,000	2,009,990	5,881,478	1,299,870	2,539,659	702,123	8,727,521	2,909,174	2,260,493	0	30,910,308	30,910,308
P6	City-wide Park Development	6,840,000	2,222,000	0	0	7,620,804	4,268,200	2,628,767	0	0	0	8,373,131	23,579,771	31,952,902
P7	Linear/Natural Area Park Development	1,000,000	295,000	458,974	0	75,057	270,000	0	345,057	270,000	0	25,019	2,714,088	2,739,107
P8	Park Renewal, Rehabilitation & Infrastructure Upgrades	795,000	670,000	1,146,544	220,885	719,654	946,044	3,668,338	1,595,887	1,246,135	493,895	1,131,426	11,502,382	12,633,808
P9	Capital Opportunities Partnership	0	150,000	0	0	0	0	200,000	300,000	200,000	0	0	850,000	850,000
P10	Urban Streetscape and Urban Centres Development and Renewal	0	68,900	0	0	0	0	0	0	0	0	0	68,900	68,900
	Total	22,302,300	13,453,100	22,000,546	23,222,557	25,263,884	22,898,390	21,459,401	23,456,471	21,067,532	23,091,396	23,841,646	218,215,577	242,057,223

Funding Sources

	Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
	General Taxation	3,052,300	2,341,600	3,421,248	5,271,031	4,129,911	4,478,787	3,809,531	5,824,205	3,491,485	4,351,083	4,950,309	40,171,181	45,121,490
	Community Works Fund	701,900	762,000	0	0	0	25,000	26,788	25,000	193,000	0	0	1,733,688	1,733,688
	Reserves	4,879,582	2,276,000	1,788,108	1,879,607	2,959,715	1,567,326	3,999,892	2,066,056	1,957,501	1,857,500	1,554,000	25,231,287	26,785,287
	Development Cost Charges	13,668,518	8,073,500	16,806,448	16,095,426	17,817,676	16,847,362	13,640,299	15,567,296	15,441,978	16,902,217	17,359,414	150,860,720	168,220,134
	Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
	Developer/Other	0	0	-15,258	-23,507	356,582	-20,085	-17,109	-26,086	-16,432	-19,404	-22,077	218,701	196,624
	Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
	Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	22,302,300	13,453,100	22,000,546	23,222,557	25,263,884	22,898,390	21,459,401	23,456,471	21,067,532	23,091,396	23,841,646	218,215,577	242,057,223

Parks
Priority 2 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Overall Total Cost 2020-2029 (P2)	Overall Total Cost 2020-2030 (P2)
P1	DCC Parkland Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0
P2	Natural Area Parkland Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0
P3	Neighbourhood Park Development	0	0	0	0	0	0	0	0	0	0	0	0	0
P4	Community Park Development	0	0	0	420,000	4,200,000	0	0	0	0	0	0	4,620,000	4,620,000
P5	Recreation Park Development	200,000	0	540,000	0	970,000	0	270,000	2,700,000	0	0	900,000	4,680,000	5,580,000
P6	City-wide Park Development	640,000	0	0	0	0	325,000	0	0	0	0	2,175,000	965,000	3,140,000
P7	Linear/Natural Area Park Development	965,000	100,000	270,000	100,000	140,000	140,000	410,000	140,000	200,000	200,000	200,000	2,665,000	2,865,000
P8	Park Renewal, Rehabilitation & Infrastructure Upgrades	990,000	450,000	650,000	560,000	205,000	150,000	150,000	155,000	420,000	215,000	205,000	3,945,000	4,150,000
P9	Capital Opportunities Partnership	150,000	0	100,000	100,000	100,000	100,000	100,000	0	0	100,000	0	750,000	750,000
P10	Urban Streetscape and Urban Centres Development and Renewal	0	270,000	4,626,100	0	5,400,000	3,240,000	0	0	0	0	0	13,536,100	13,536,100
	Total	2,945,000	820,000	6,186,100	1,180,000	11,015,000	3,955,000	930,000	2,995,000	620,000	515,000	3,480,000	31,161,100	34,641,100

Funding Sources (Unfunded)

302 - Parks

P1 - DCC Parkland Acquisition

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
DCC Parkland Acquisition	8,613,000	3,658,000	12,292,000	11,396,000	11,396,000	11,396,000	11,396,000	11,396,000	11,396,000	11,396,000	11,396,000	104,335,000	115,731,000
Total	8,613,000	3,658,000	12,292,000	11,396,000	11,396,000	11,396,000	11,396,000	11,396,000	11,396,000	11,396,000	11,396,000	104,335,000	115,731,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	564,900	417,000	1,299,144	1,299,144	768,277	1,299,144	1,299,144	1,299,144	1,299,144	1,299,144	1,196,676	10,844,185	12,040,861
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	416,982	0	102,144	0	530,867	0	0	0	0	0	102,468	1,049,993	1,152,461
Development Cost Charges	7,631,118	3,241,000	10,890,712	10,096,856	10,096,856	10,096,856	10,096,856	10,096,856	10,096,856	10,096,856	10,096,856	92,440,822	102,537,678
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	8,613,000	3,658,000	12,292,000	11,396,000	11,396,000	11,396,000	11,396,000	11,396,000	11,396,000	11,396,000	11,396,000	104,335,000	115,731,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

302 - Parks
P2 - Natural Area Parkland Acquisition

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Natural Park Acquisition	300,000	0	0	0	0	0	0	0	0	0	0	300,000	300,000
Total	300,000	0	0	0	0	0	0	0	0	0	0	300,000	300,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	300,000	0	0	0	0	0	0	0	0	0	0	300,000	300,000
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	300,000	0	0	0	0	0	0	0	0	0	0	300,000	300,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

302 - Parks
P3 - Neighbourhood Park Development

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Ballou Park	0	1,568,600	0	0	0	0	0	0	0	0	0	1,568,600	1,568,600
Barlee Park Frontage Improvements	130,000	0	0	0	0	0	0	0	0	0	0	130,000	130,000
Burne Avenue Park	0	0	0	1,808,815	0	0	0	0	0	0	0	1,808,815	1,808,815
Elliot Avenue Park	0	0	0	0	1,041,100	0	0	0	0	0	0	1,041,100	1,041,100
Kirschner Park #1	0	0	0	849,472	283,157	0	0	0	0	0	0	1,132,629	1,132,629
Marshall Street	0	0	0	0	1,033,047	0	0	0	0	0	0	1,033,047	1,033,047
Martin Park	0	0	0	0	0	0	1,406,313	0	0	0	0	1,406,313	1,406,313
Neighbourhood Park Development #1	0	0	0	0	0	2,869,398	0	0	0	0	0	2,869,398	2,869,398
Neighbourhood Park Development #2	0	0	0	0	0	609,089	0	0	0	0	0	609,089	609,089
Neighbourhood Park Development #3	0	0	0	0	0	0	425,850	0	0	0	0	425,850	425,850
Neighbourhood Park Development #4	0	0	0	0	0	0	1,032,010	0	0	0	0	1,032,010	1,032,010
Neighbourhood Park Development #5	0	0	0	0	0	0	0	1,092,006	0	0	0	1,092,006	1,092,006
Neighbourhood Park Development #6	0	0	0	0	0	0	0	0	914,487	0	0	914,487	914,487
Neighbourhood Park Development #7	0	0	0	0	0	0	0	0	0	1,559,015	0	1,559,015	1,559,015
Neighbourhood Park Development #8	0	0	0	0	0	0	0	0	0	0	914,487	0	914,487
Tower Ranch Park #1	0	430,600	0	0	0	0	0	0	0	0	0	430,600	430,600
Walrod Park	0	0	0	0	1,795,195	0	0	0	0	0	0	1,795,195	1,795,195
Total	130,000	1,999,200	0	2,658,287	4,152,499	3,478,487	2,864,173	1,092,006	914,487	1,559,015	914,487	18,848,154	19,762,641

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	130,000	50,000	0	727,495	443,662	568,129	189,068	124,488	100,536	588,271	0	2,921,649	2,921,649
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	220,900	0	22,107	734,065	22,583	296,106	0	3,715	0	104,251	1,299,476	1,403,727
Development Cost Charges	0	1,728,300	0	1,908,685	2,974,772	2,887,775	2,378,999	967,518	810,236	970,744	810,236	14,627,029	15,437,265
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	130,000	1,999,200	0	2,658,287	4,152,499	3,478,487	2,864,173	1,092,006	914,487	1,559,015	914,487	18,848,154	19,762,641

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

302 - Parks

P4 - Community Park Development

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Casorso Park	0	0	0	0	0	0	0	0	4,131,736	1,377,245	0	5,508,981	5,508,981
Dehart Park	0	0	6,093,038	3,065,907	0	0	0	0	0	0	0	9,158,945	9,158,945
Gallagher Park	0	0	0	0	0	0	0	0	0	6,004,748	2,001,583	6,004,748	8,006,331
Ponds Community Park - Sports Field Construction	998,000	0	0	0	0	0	0	0	0	0	0	998,000	998,000
Rowcliffe Park (Central Green) - Development, Phases 3	460,000	0	0	0	0	0	0	0	0	0	0	460,000	460,000
Rowcliffe Park - DCC Park Development	280,000	0	0	0	0	0	0	0	0	0	0	280,000	280,000
Rutland Centennial Park - Improvements	2,696,300	0	0	0	0	0	0	0	0	0	0	2,696,300	2,696,300
Total	4,434,300	0	6,093,038	3,065,907	0	0	0	0	4,131,736	7,381,993	2,001,583	25,106,974	27,108,557

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	579,100	0	454,554	0	0	0	0	0	560,079	608,445	0	2,202,178	2,202,178
Community Works Fund	260,000	0	0	0	0	0	0	0	0	0	0	260,000	260,000
Reserves	965,400	0	652,762	1,404,000	0	0	0	0	515,577	1,857,500	702,465	5,395,239	6,097,704
Development Cost Charges	2,629,800	0	4,985,722	1,661,907	0	0	0	0	3,056,080	4,916,048	1,299,118	17,249,557	18,548,675
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4,434,300	0	6,093,038	3,065,907	0	0	0	0	4,131,736	7,381,993	2,001,583	25,106,974	27,108,557

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Pacific Court - Development	0	0	0	420,000	4,200,000	0	0	0	0	0	0	4,620,000	4,620,000
Total	0	0	0	420,000	4,200,000	0	0	0	0	0	0	4,620,000	4,620,000

Funding Sources (Unfunded)

302 - Parks

P5 - Recreation Park Development

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Glenmore Recreation - Future Phases	0	0	900,000	5,881,478	0	0	0	6,781,478	2,260,493	2,260,493	0	18,083,942	18,083,942
Glenmore Recreation Park, Phase 2 - Construction	190,000	0	0	0	0	0	0	0	0	0	0	190,000	190,000
Lombardy Park, Protective Netting - Construction	0	140,000	0	0	0	0	0	0	0	0	0	140,000	140,000
Mission Recreation - Softball Diamonds	0	3,330,000	1,109,990	0	0	0	0	0	0	0	0	4,439,990	4,439,990
Mission Recreation - Youth Park, Plaza, & Trail System	0	0	0	0	0	2,106,369	702,123	0	0	0	0	2,808,492	2,808,492
Mission Recreational Park - Artificial Turf Replacement	0	920,000	0	0	0	0	0	0	0	0	0	920,000	920,000
Parkinson Recreation - Grass Soccer Field	0	0	0	0	1,299,870	433,290	0	0	0	0	0	1,733,160	1,733,160
Rutland Recreation - Soccer Fields	0	0	0	0	0	0	0	1,946,043	648,681	0	0	2,594,724	2,594,724
Total	190,000	4,390,000	2,009,990	5,881,478	1,299,870	2,539,659	702,123	8,727,521	2,909,174	2,260,493	0	30,910,308	30,910,308

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	34,100	358,000	396,774	3,000,000	9,445	941,128	312,660	2,433,600	92,159	1,341,924	0	8,919,790	8,919,790
Community Works Fund	155,900	552,000	0	0	0	0	0	0	0	0	0	707,900	707,900
Reserves	0	1,673,100	683,202	453,500	182,227	60,743	0	1,857,500	1,338,209	0	0	6,248,481	6,248,481
Development Cost Charges	0	1,806,900	930,014	2,427,978	1,108,198	1,537,788	389,463	4,436,421	1,478,806	918,569	0	15,034,137	15,034,137
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	190,000	4,390,000	2,009,990	5,881,478	1,299,870	2,539,659	702,123	8,727,521	2,909,174	2,260,493	0	30,910,308	30,910,308

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Mission Recreation Park - Development, Softball Diamond Lighting	0	0	540,000	0	0	0	0	0	0	0	0	540,000	540,000
Recreation Park Development - New Artificial Turf Field	0	0	0	0	0	0	270,000	2,700,000	0	0	0	2,970,000	2,970,000
Recreation Park Development - New Baseball Diamond (2019 Prov)	200,000	0	0	0	0	0	0	0	0	0	0	200,000	200,000
Recreation Park Development - New Tennis Courts	0	0	0	0	970,000	0	0	0	0	0	900,000	970,000	1,870,000
Total	200,000	0	540,000	0	970,000	0	270,000	2,700,000	0	0	900,000	4,680,000	5,580,000

Funding Sources (Unfunded)

302 - Parks

P6 - City-wide Park Development

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
City Park - Improvements, Waterfront Promenade Phase 3	0	200,000	0	0	2,100,000	0	0	0	0	0	0	2,300,000	2,300,000
City Park - Playground Expansions & Additional Amenities	0	0	0	0	0	4,268,200	2,628,767	0	0	0	0	6,896,967	6,896,967
City Park Promenade Design - Phase 2	2,110,000	0	0	0	0	0	0	0	0	0	0	2,110,000	2,110,000
Kerry Park - Future Phases	0	571,700	0	0	5,145,804	0	0	0	0	0	0	5,717,504	5,717,504
Kerry Park - Hotel Interface Work	0	0	0	0	375,000	0	0	0	0	0	0	375,000	375,000
Pandosy Waterfront Park	4,500,000	1,450,300	0	0	0	0	0	0	0	0	0	5,950,300	5,950,300
Sarson's Beach Park - Expansion	230,000	0	0	0	0	0	0	0	0	0	0	230,000	230,000
Sutherland Bay Park	0	0	0	0	0	0	0	0	0	0	8,373,131	0	8,373,131
Total	6,840,000	2,222,000	0	0	7,620,804	4,268,200	2,628,767	0	0	0	8,373,131	23,579,771	31,952,902

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	801,200	959,100	0	0	2,270,455	539,257	0	0	0	0	2,750,130	4,570,012	7,320,142
Community Works Fund	286,000	0	0	0	0	0	0	0	0	0	0	286,000	286,000
Reserves	2,697,200	32,000	0	0	1,404,000	1,404,000	1,853,786	0	0	0	491,964	7,390,986	7,882,950
Development Cost Charges	3,055,600	1,230,900	0	0	3,571,349	2,324,943	774,981	0	0	0	5,131,037	10,957,773	16,088,810
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	375,000	0	0	0	0	0	0	375,000	375,000
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6,840,000	2,222,000	0	0	7,620,804	4,268,200	2,628,767	0	0	0	8,373,131	23,579,771	31,952,902

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Bluebird Beach Park	0	0	0	0	0	0	0	0	0	0	2,175,000	0	2,175,000
City Park - Infrastructure Renewal, Power to Events Area	200,000	0	0	0	0	0	0	0	0	0	0	200,000	200,000
City Park - Spray Park, Skateboard Park and Playground, Picnic Area	440,000	0	0	0	0	0	0	0	0	0	0	440,000	440,000
Sarson's Beach Park - Expansion	0	0	0	0	0	325,000	0	0	0	0	0	325,000	325,000
Total	640,000	0	0	0	0	325,000	0	0	0	0	2,175,000	965,000	3,140,000

Funding Sources (Unfunded)

302 - Parks

P7 - Linear/Natural Area Park Development

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Gopher Creek Linear Park - DCC Park Development	400,000	0	0	0	0	0	0	0	0	0	0	400,000	400,000
Knox Mountain Park - Improvements	0	220,000	458,974	0	0	270,000	0	270,000	270,000	0	0	1,488,974	1,488,974
Linear Park - DCC Program	0	75,000	0	0	75,057	0	0	75,057	0	0	25,019	225,114	250,133
Shoreline Restoration - Flood Damage	600,000	0	0	0	0	0	0	0	0	0	0	600,000	600,000
Total	1,000,000	295,000	458,974	0	75,057	270,000	0	345,057	270,000	0	25,019	2,714,088	2,739,107

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	48,000	53,600	458,974	0	0	270,000	0	270,000	270,000	0	0	1,370,574	1,370,574
Community Works Fund	0	175,000	0	0	0	0	0	0	0	0	0	175,000	175,000
Reserves	600,000	0	0	0	8,556	0	0	8,556	0	0	2,852	617,112	619,964
Development Cost Charges	352,000	66,400	0	0	66,501	0	0	66,501	0	0	22,167	551,402	573,569
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1,000,000	295,000	458,974	0	75,057	270,000	0	345,057	270,000	0	25,019	2,714,088	2,739,107

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Natural Area Development	100,000	100,000	0	100,000	140,000	140,000	140,000	140,000	200,000	200,000	200,000	1,260,000	1,460,000
Bellevue Creek - Development Phase 2	550,000	0	0	0	0	0	0	0	0	0	0	550,000	550,000
Knox Mountain Park	215,000	0	270,000	0	0	0	270,000	0	0	0	0	755,000	755,000
Poplar Point Drive Beach Access	100,000	0	0	0	0	0	0	0	0	0	0	100,000	100,000
Total	965,000	100,000	270,000	100,000	140,000	140,000	410,000	140,000	200,000	200,000	200,000	2,665,000	2,865,000

Funding Sources (Unfunded)

302 - Parks

P8 - Park Renewal, Rehabilitation & Infrastructure Upgrades

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Irrigation Renewal	300,000	300,000	550,000	182,689	450,000	350,000	550,000	750,000	550,000	438,353	500,000	4,421,042	4,921,042
Park Infrastructure Renewal	0	0	396,544	38,196	269,654	266,044	1,310,486	395,887	503,135	55,542	381,426	3,235,488	3,616,914
Parking Renewal	0	0	0	0	0	250,000	107,852	250,000	193,000	0	250,000	800,852	1,050,852
Access For All Improvements	0	100,000	0	0	0	0	0	0	0	0	0	100,000	100,000
Boyce-Gyro Beach Park - Final Phase	220,000	0	0	0	0	0	0	0	0	0	0	220,000	220,000
Kelowna Memorial Cemetery - Improvements	200,000	200,000	200,000	0	0	80,000	1,700,000	200,000	0	0	0	2,580,000	2,580,000
Parkinson Recreation Park - Hammer/Discus Cage Replacement	75,000	0	0	0	0	0	0	0	0	0	0	75,000	75,000
Sport Courts/Water Parks/Skate Parks Renewal & Replacements	0	70,000	0	0	0	0	0	0	0	0	0	70,000	70,000
Total	795,000	670,000	1,146,544	220,885	719,654	946,044	3,668,338	1,595,887	1,246,135	493,895	1,131,426	11,502,382	12,633,808

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	595,000	435,000	796,544	220,885	619,654	841,044	1,791,550	1,370,887	953,135	493,895	981,426	8,117,594	9,099,020
Community Works Fund	0	35,000	0	0	0	25,000	26,788	25,000	193,000	0	0	304,788	304,788
Reserves	200,000	200,000	350,000	0	100,000	80,000	1,850,000	200,000	100,000	0	150,000	3,080,000	3,230,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	795,000	670,000	1,146,544	220,885	719,654	946,044	3,668,338	1,595,887	1,246,135	493,895	1,131,426	11,502,382	12,633,808

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Irrigation Renewal	0	0	300,000	160,000	55,000	0	0	55,000	270,000	0	55,000	840,000	895,000
Access For All Improvements	100,000	0	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	900,000	1,000,000
Dog Parks	85,000	0	0	0	0	0	0	0	0	0	0	85,000	85,000
Kelowna Memorial Cemetery Improvements	0	50,000	0	50,000	50,000	50,000	50,000	0	50,000	0	50,000	300,000	350,000
Parking Renewal	380,000	400,000	250,000	250,000	0	0	0	0	0	115,000	0	1,395,000	1,395,000
Sport Courts/Water Parks/Skate Parks Renewal & Replacements	425,000	0	0	0	0	0	0	0	0	0	0	425,000	425,000
Total	990,000	450,000	650,000	560,000	205,000	150,000	150,000	155,000	420,000	215,000	205,000	3,945,000	4,150,000

Funding Sources (Unfunded)

302 - Parks

P9 - Capital Opportunities Partnership

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Capital Opportunities and Partnership Fund	0	150,000	0	0	0	0	200,000	300,000	200,000	0	0	850,000	850,000
Total	0	150,000	0	0	0	0	200,000	300,000	200,000	0	0	850,000	850,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	15,258	23,507	18,418	20,085	217,109	326,086	216,432	19,404	22,077	856,299	878,376
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	150,000	0	0	0	0	0	0	0	0	0	150,000	150,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	-15,258	-23,507	-18,418	-20,085	-17,109	-26,086	-16,432	-19,404	-22,077	-156,299	-178,376
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	150,000	0	0	0	0	200,000	300,000	200,000	0	0	850,000	850,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Capital Opportunities and Partnership Fund	150,000	0	100,000	100,000	100,000	100,000	100,000	0	0	100,000	0	750,000	750,000
Total	150,000	0	100,000	100,000	100,000	100,000	100,000	0	0	100,000	0	750,000	750,000

Funding Sources (Unfunded)

302 - Parks

P10 - Urban Streetscape and Urban Centres Development and Renewal

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Art Walk - Extension Doyle to Queensway (2019 Prov)	0	68,900	0	0	0	0	0	0	0	0	0	68,900	68,900
Total	0	68,900	0	0	0	0	0	0	0	0	0	68,900	68,900

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	68,900	0	0	0	0	0	0	0	0	0	68,900	68,900
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	68,900	0	0	0	0	0	0	0	0	0	68,900	68,900

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Art Walk - Extension Smith to Doyle	0	0	1,926,100	0	0	0	0	0	0	0	0	1,926,100	1,926,100
Bennett Plaza - Improvements (50% renewal) (2019 Prov)	0	270,000	2,700,000	0	0	0	0	0	0	0	0	2,970,000	2,970,000
Boat Launch - Land Acquisition and Facility Renewal (2019 Prov)	0	0	0	0	5,400,000	3,240,000	0	0	0	0	0	8,640,000	8,640,000
Total	0	270,000	4,626,100	0	5,400,000	3,240,000	0	0	0	0	0	13,536,100	13,536,100

Funding Sources (Unfunded)

304 – TRANSPORTATION

Transportation - Categories

Cost Centre	Category Code	Name	Description	Overall Total Cost 2020-2029 (P1)	Overall Total Cost 2020-2030 (P1)
304 - Transportation	T1	DCC Roads	Allocation for design, land and construction costs associated with DCC Road projects.	128,241,054	185,224,024
304 - Transportation	T2	DCC Roads - Active Transportation	Allocation for design, land and construction costs associated with DCC Active Transportation projects. General taxation to cover 77.7% Assist.	46,778,833	68,764,833
304 - Transportation	T3	Non-DCC Roads	Infrastructure upgrades which are not part of the 20 Year Servicing Plan and Financing Strategy (collectors and local roads) and City initiated projects to upgrade streets to full urban standards including drainage, fillet paving, sidewalks and landscaped boulevards.	3,750,000	4,100,000
304 - Transportation	T4	Transportation System Renewal	Allocation for overlay and other processes, including micro asphalting, for rehabilitation of City roads. Also includes renewal of curb and gutter, bike paths, retaining walls, handrails and stairways	54,505,445	60,381,822
304 - Transportation	T5	Bicycle Network	Allocation for bike network system additions and improvements.	6,665,000	7,265,000
304 - Transportation	T6	Sidewalk Network	Allocation required to complete the Non-DCC portion of the sidewalk network.	10,566,900	11,151,900
304 - Transportation	T7	Safety and Operational Improvements	Allocation to cover field reviews and capital improvements for safety improvements or to improve operational efficiency. This will include projects such as left turn bays, traffic control changes, safety barriers, signs, markings, handicap access improvements and retrofit medians.	4,885,000	5,495,000
304 - Transportation	T8	Traffic Control Infrastructure	This program is for construction of new traffic signal control infrastructure that is not part of the DCC program. This includes new traffic signals and pedestrian activated traffic signals, installation of new communication for the traffic signals system and where new development occurs install conduit for future traffic signals. Program also includes renewal of existing traffic signals.	4,280,000	4,730,000
304 - Transportation	T9	Transit Facilities	Construction of new and renewal of existing transit facilities, bus pullouts and shelters.	2,961,000	3,131,000
			Grand Total	262,633,232	350,243,579

Transportation

Priority 1 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020-2030 Total
T1	DCC Roads	1,980,518	2,442,418	4,229,324	10,204,135	9,369,689	17,501,407	16,930,844	11,425,598	9,831,011	44,326,110	56,982,970	128,241,054	185,224,024
T2	DCC Roads - Active Transportation	2,737,300	3,699,700	3,264,329	3,687,600	5,453,333	579,200	4,957,971	7,307,200	6,184,500	8,907,700	21,986,000	46,778,833	68,764,833
T3	Non-DCC Roads	450,000	500,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	3,750,000	4,100,000
T4	Transportation System Renewal	5,195,000	5,782,400	3,974,037	3,819,868	4,476,927	10,716,576	3,939,949	4,922,389	5,776,174	5,902,125	5,876,377	54,505,445	60,381,822
T5	Bicycle Network	220,000	750,000	450,000	375,000	1,920,000	500,000	500,000	800,000	550,000	600,000	600,000	6,665,000	7,265,000
T6	Sidewalk Network	800,000	5,750,000	360,000	450,000	501,600	500,300	550,000	495,000	580,000	580,000	585,000	10,566,900	11,151,900
T7	Safety and Operational Improvements	325,000	470,000	420,000	445,000	515,000	465,000	515,000	510,000	610,000	610,000	610,000	4,885,000	5,495,000
T8	Traffic Control Infrastructure	0	330,000	450,000	500,000	0	50,000	450,000	800,000	1,200,000	500,000	450,000	4,280,000	4,730,000
T9	Transit Facilities	135,000	270,000	445,000	785,000	170,000	456,000	190,000	150,000	210,000	150,000	170,000	2,961,000	3,131,000
	Total	11,842,818	19,994,518	13,942,690	20,616,603	22,756,549	31,118,483	28,383,764	26,760,187	25,291,685	61,925,935	87,610,347	262,633,232	350,243,579

Funding Sources

	Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
	General Taxation	3,894,600	5,293,200	4,076,161	3,073,613	3,413,326	3,634,930	7,718,579	6,470,609	8,655,781	8,723,389	7,627,794	54,954,188	62,581,982
	Community Works Fund	2,860,900	6,011,059	1,364,058	5,570,826	7,245,342	8,467,492	3,645,429	4,025,306	3,267,923	8,336,847	19,450,007	50,795,182	70,245,189
	Reserves	2,302,800	5,240,700	3,534,777	2,821,718	2,903,335	4,836,414	1,881,265	5,108,078	4,650,999	4,651,000	4,991,119	37,931,086	42,922,205
	Development Cost Charges	2,384,518	2,949,559	4,287,868	8,732,001	6,932,334	13,813,182	12,752,636	9,016,209	6,630,523	28,189,894	22,030,026	95,688,724	117,718,750
	Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
	Developer/Other	400,000	500,000	679,826	418,445	2,262,212	366,465	2,385,855	2,139,985	2,086,459	12,024,805	33,511,401	23,264,052	56,775,453
	Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
	Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	11,842,818	19,994,518	13,942,690	20,616,603	22,756,549	31,118,483	28,383,764	26,760,187	25,291,685	61,925,935	87,610,347	262,633,232	350,243,579

Transportation

Priority 2 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Overall Total Cost 2020-2029 (P2)	Overall Total Cost 2020-2030 (P2)
T1	DCC Roads	0	0	0	0	600,750	2,128,000	60,265,288	0	0	2,898,255	26,019,689	65,892,293	91,911,982
T2	DCC Roads - Active Transportation	0	0	0	0	0	0	0	0	0	4,553,700	7,617,700	4,553,700	12,171,400
T3	Non-DCC Roads	0	0	36,500,000	0	0	0	0	0	4,000,000	0	0	40,500,000	40,500,000
T4	Transportation System Renewal	5,183,500	3,600,000	5,761,393	5,526,009	5,158,845	6,991,978	5,809,033	4,840,535	3,993,985	3,886,130	4,908,532	50,751,408	55,659,940
T5	Bicycle Network	1,000,000	1,150,000	1,000,000	1,500,000	1,500,000	3,000,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	15,150,000	16,650,000
T6	Sidewalk Network	500,000	625,000	450,000	425,000	400,000	375,000	391,110	592,019	300,000	275,000	750,000	4,333,129	5,083,129
T7	Safety and Operational Improvements	400,000	460,000	460,000	485,000	495,000	495,000	545,000	580,000	580,000	580,000	580,000	5,080,000	5,660,000
T8	Traffic Control Infrastructure	2,000,000	1,100,000	1,050,000	550,000	2,000,000	1,000,000	1,750,000	500,000	550,000	1,550,000	550,000	12,050,000	12,600,000
T9	Transit Facilities	460,000	0	42,255,000	2,500,000	11,050,000	1,050,000	3,000,000	1,600,000	300,000	0	960,000	62,215,000	63,175,000
	Total	9,543,500	6,935,000	87,476,393	10,986,009	21,204,595	15,039,978	73,260,431	9,612,554	11,223,985	15,243,085	42,885,921	260,525,530	303,411,451

Funding Sources (Unfunded)

304 - Transportation
T1 - DCC Roads
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Benvoulin 1 (Casorso - KLO)	0	0	0	0	0	0	0	823,491	2,470,471	2,470,471	2,664,234	5,764,433	8,428,667
Burtch 2 (Byrns - KLO)	0	0	0	0	673,172	6,114,828	0	0	0	0	0	6,788,000	6,788,000
Burtch 4 (Harvey - Sutherland)	0	0	0	0	0	59,149	593,851	0	0	0	0	653,000	653,000
Casorso 1 & Bridge (Swamp - Benvoulin)	0	0	0	0	0	0	0	400,501	0	3,576,833	0	3,977,334	3,977,334
Clement 1 (Ellis - Graham)	0	0	0	0	222,300	0	3,999,880	0	0	0	0	4,222,180	4,222,180
Clement 3 (COMC) Land only (Hwy 33 - McCurdy)	0	0	0	0	68,750	0	1,331,250	0	0	0	0	1,400,000	1,400,000
Dehart 2 (Lakeshore - Gordon)	0	0	0	0	0	0	0	0	0	0	2,094,000	0	2,094,000
Frost 1 (Killdeer - Chute Lake)	0	0	0	0	0	0	2,343,000	0	0	0	0	2,343,000	2,343,000
Gallagher 1 (Lago Vista - Gallagher)	0	0	0	0	0	0	0	0	0	12,003,000	0	12,003,000	12,003,000
Gordon 1 (Frost - South Perimeter)	258,953	258,953	258,953	258,953	258,953	258,953	258,953	258,953	258,953	0	0	2,330,577	2,330,577
Gordon Bridge @ Bellevue Creek	0	0	0	0	0	0	0	0	0	53,903	526,097	53,903	580,000
Guisachan 2 (Gordon - Nelson)	0	0	0	0	0	0	0	0	366,300	0	0	366,300	366,300
Guisachan 3 (Ethel - Gordon)	0	0	0	0	287,100	2,583,900	0	0	0	0	0	2,871,000	2,871,000
Hollywood 3 (McCurdy - Stremel)	0	0	0	60,000	0	0	0	364,382	1,880,618	0	0	2,305,000	2,305,000
Hollywood 4 (Stremel - Hwy 97 N)	0	0	0	60,000	0	0	0	1,646,250	4,117,750	0	0	5,824,000	5,824,000
Hollywood 5 (Hwy 97 - Rails with Trails)	0	0	0	60,000	368,550	0	1,414,200	0	0	0	0	1,842,750	1,842,750
Hollywood 5 Bridge @ Mill Creek	0	0	0	60,000	144,199	0	1,097,801	0	0	0	0	1,302,000	1,302,000
Hollywood 6 (Rails with Trails - Sexsmith Rd)	0	0	0	60,000	0	0	584,000	0	0	0	0	644,000	644,000
Hollywood 7 DCC (Sexsmith - Appaloosa), Road	0	0	0	0	190,000	0	3,610,000	0	0	0	0	3,800,000	3,800,000
Hollywood 8 (Appaloosa - Quail Ridge)	0	0	0	0	0	0	0	0	0	1,147,176	5,162,292	1,147,176	6,309,468
Hwy Link - Gordon (Sutherland - Bernard)	0	0	0	0	0	0	0	0	0	4,903,000	0	4,903,000	4,903,000
Hwy Link - Pandosy (Land)	0	0	0	0	0	0	0	0	0	1,000,000	0	1,000,000	1,000,000
Lakeshore 1 (DeHart - Vintage Terrace)	311,700	641,100	0	0	0	0	0	0	0	0	0	952,800	952,800
Lakeshore 1 Bridge @ Bellevue Creek	780,000	664,500	0	0	0	0	0	0	0	0	0	1,444,500	1,444,500
Lakeshore 1A (Vintage Terrace - Barnaby)	0	0	0	0	0	0	0	0	0	0	3,093,000	0	3,093,000
Lakeshore 2 (Old Meadows - DeHart)	0	0	0	0	0	0	0	0	0	881,787	7,910,213	881,787	8,792,000
Lakeshore 3 (Richter - Old Meadows)	0	0	0	0	0	0	0	0	0	2,898,255	0	2,898,255	2,898,255
Lakeshore 3 Bridge @ Wilson Creek	0	0	0	0	0	0	0	0	107,054	1,091,946	0	1,199,000	1,199,000
Lakeshore 4 DCC (Lanfranco - Richter), Road	0	0	0	0	0	90,469	398,063	5,169,999	0	0	0	5,658,531	5,658,531
Lone Pine (Hwy 33 - 500 m east)	0	0	0	0	0	0	0	0	0	4,331,000	0	4,331,000	4,331,000
McCulloch Area DCC (KLO/Hall/Spiers)	0	0	0	0	0	2,890,600	0	0	0	0	0	2,890,600	2,890,600
McCurdy 1 Land Only (Dilworth - COMC)	0	0	0	0	0	0	0	1,693,000	0	0	0	1,693,000	1,693,000
Pandosy 1 (Rose - Raymer)	0	0	0	0	334,990	669,981	669,981	0	0	0	1,339,961	1,674,952	3,014,913
Richter 1 (Sutherland - KLO)	0	0	958,900	8,630,100	0	0	0	0	0	0	0	9,589,000	9,589,000

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Ridge 100% Development Construct (Cara Glen - Union)	0	0	0	0	0	0	0	0	0	0	30,341,000	0	30,341,000
Rose 1 (Pandosy - Ethel)	0	0	0	0	0	0	0	439,157	0	7,319,275	0	7,758,432	7,758,432
Sector B Roads Top Lift Paving DCC - Various Project	0	0	0	0	0	0	0	0	0	2,118,960	0	2,118,960	2,118,960
Sexsmith 5 (Longhill - Acland)	0	0	0	385,217	6,191,810	0	0	0	0	0	3,852,173	6,577,027	10,429,200
South Perimeter 1 DCC (Gordon Dr - Stewart 1), Road	629,865	629,865	629,865	629,865	629,865	629,865	629,865	629,865	629,865	530,504	0	6,199,289	6,199,289
Stewart 3 DCC (Crawford - Swamp), Road	0	248,000	2,381,606	0	0	4,203,662	0	0	0	0	0	6,833,268	6,833,268
Total	1,980,518	2,442,418	4,229,324	10,204,135	9,369,689	17,501,407	16,930,844	11,425,598	9,831,011	44,326,110	56,982,970	128,241,054	185,224,024

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	85,800	214,700	410,360	572,334	307,237	2,124,623	3,061,364	1,600,922	2,436,179	4,934,120	2,869,007	15,747,639	18,616,646
Community Works Fund	0	103,000	174,541	1,606,570	1,375,732	1,674,589	469,180	591,249	342,461	1,039,067	3,592,669	7,376,389	10,969,058
Reserves	120,800	0	0	0	0	0	344,943	0	0	383,830	88,662	849,573	938,235
Development Cost Charges	1,773,918	2,124,718	3,644,423	7,909,666	5,716,241	13,702,195	11,839,218	7,386,703	5,251,380	26,203,477	17,127,148	85,551,939	102,679,087
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	115,565	1,970,479	0	1,216,139	1,846,724	1,800,991	11,765,616	33,305,484	18,715,514	52,020,998
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1,980,518	2,442,418	4,229,324	10,204,135	9,369,689	17,501,407	16,930,844	11,425,598	9,831,011	44,326,110	56,982,970	128,241,054	185,224,024

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Airport Way	0	0	0	0	0	0	0	0	0	0	1,872,000	0	1,872,000
Hollywood 8	0	0	0	0	0	0	0	0	0	0	5,156,532	0	5,156,532
Lakeshore 3	0	0	0	0	0	0	0	0	0	2,898,255	18,991,157	2,898,255	21,889,412
Clement 2- Hwy 33 Ext. (Clem & Hwy 33-1): Spall-Enterp.	0	0	0	0	0	0	58,934,038	0	0	0	0	58,934,038	58,934,038
Clement 3 (COMC) Land only (Hwy 33 - McCurdy)	0	0	0	0	68,750	0	1,331,250	0	0	0	0	1,400,000	1,400,000
Hollywood 5 (Hwy 97 - Rails with Trails) P2	0	0	0	0	532,000	2,128,000	0	0	0	0	0	2,660,000	2,660,000
Total	0	0	0	0	600,750	2,128,000	60,265,288	0	0	2,898,255	26,019,689	65,892,293	91,911,982

Funding Sources (Unfunded)

304 - Transportation
T2 - DCC Roads - Active Transportation
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Abbott 1 AT (Rose - Lakeshore)	0	0	0	0	0	0	0	0	0	1,486,300	6,080,300	1,486,300	7,566,600
Casorso 3 AT (KLO Rd - Barrera Rd)	0	167,000	0	2,337,800	661,400	0	0	2,208,800	0	0	0	5,375,000	5,375,000
Casorso 4 AT (Raymer - KLO)	0	666,000	0	0	0	0	0	0	0	0	0	666,000	666,000
Dilworth (Leckie 1, 2, 3) AT (Rails with Trails - Mission Creek Greenway)	0	0	352,900	628,300	4,630,700	0	0	0	0	0	0	5,611,900	5,611,900
Ethel 3C AT (Rose - Raymer)	2,700,000	0	0	0	0	0	0	0	0	0	0	2,700,000	2,700,000
Ethel 6 AT (Clement - Cawston)	0	0	111,000	721,500	0	0	0	0	0	0	0	832,500	832,500
Glenmore 3 AT (Clement - High)	0	0	0	0	0	0	0	0	0	732,300	4,065,300	732,300	4,797,600
Glenmore 4 AT (High - Dallas)	0	0	0	0	0	0	0	0	905,400	4,268,300	3,880,300	5,173,700	9,054,000
Glenmore 5 AT (Scenic - John Hindle)	0	0	0	0	0	0	526,600	2,632,900	0	0	0	3,159,500	3,159,500
Hollywood 10 AT (Hwy 33 - McCurdy)	0	0	0	0	0	0	0	0	0	203,100	1,762,900	203,100	1,966,000
Hollywood 11 AT (Springfield - Mission Creek Greenway)	0	0	0	0	0	0	0	0	0	0	84,000	0	84,000
Hollywood 3 AT (McCurdy - Stremel)	0	0	0	0	0	0	0	46,600	419,400	0	0	466,000	466,000
Hollywood 4 AT (Stremel - Hwy 97)	0	0	0	0	0	0	0	0	1,067,000	0	0	1,067,000	1,067,000
Hollywood 5 AT (Hwy 97 - Rails with Trails)	0	0	0	0	65,900	0	593,100	0	0	0	0	659,000	659,000
Hollywood 6 AT (Rails with Trails - Sexsmith)	0	0	0	0	29,700	0	267,300	0	0	0	0	297,000	297,000
Hollywood 8 AT (Appaloosa - Quail Ridge)	0	0	0	0	0	0	0	0	0	660,500	5,756,500	660,500	6,417,000
Hollywood 9 DCC (Hollydell - Hwy 33), ATC	0	0	0	0	0	0	0	494,300	3,792,700	0	0	4,287,000	4,287,000
Houghton 1 DCC (Nickel - Rails with Trails), ATC	-151,000	2,651,000	0	0	0	0	0	0	0	0	0	2,500,000	2,500,000
Houghton 2 AT (Hollywood - Rutland)	0	0	2,418,929	0	0	0	2,542,071	0	0	0	0	4,961,000	4,961,000
KLO 1 AT (Abbott - Pandosy)	0	0	0	0	0	111,500	809,500	0	0	0	0	921,000	921,000
KLO 2 AT (Pandosy - Okanagan College)	0	0	0	0	0	0	193,200	1,688,800	0	0	0	1,882,000	1,882,000
Lake 1 AT (Pandosy - Abbott)	0	0	0	0	65,633	467,700	0	0	0	0	0	533,333	533,333
Lakeshore 1 AT (DeHart - Vintage Terrace)	188,300	215,700	0	0	0	0	0	0	0	0	0	404,000	404,000
Lakeshore 2 AT (Old Meadows - DeHart)	0	0	0	0	0	0	0	0	0	178,300	356,700	178,300	535,000
Lakeshore 3 AT (Richter - Old Meadows)	0	0	0	0	0	0	0	0	0	612,900	0	612,900	612,900
Lakeshore 4 AT (Lanfranco - Richter)	0	0	0	0	0	0	26,200	235,800	0	0	0	262,000	262,000
Rails with Trails DCC (Dilworth - Commerce Ave), ATC	0	0	381,500	0	0	0	0	0	0	0	0	381,500	381,500
Rose 1 AT (Ethel - Pandosy)	0	0	0	0	0	0	0	0	0	766,000	0	766,000	766,000
Total	2,737,300	3,699,700	3,264,329	3,687,600	5,453,333	579,200	4,957,971	7,307,200	6,184,500	8,907,700	21,986,000	46,778,833	68,764,833

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	1,494,000	778,000	1,521,676	768,476	901,222	271,633	1,624,144	1,625,874	3,091,848	643,732	2,357,885	12,720,605	15,078,490
Community Works Fund	632,700	2,096,859	411,830	2,096,789	3,336,018	115,080	1,190,218	3,293,372	1,713,509	5,782,179	13,271,810	20,668,554	33,940,364
Reserves	0	0	327,378	0	0	0	349,340	758,448	0	495,372	1,453,427	1,930,538	3,383,965
Development Cost Charges	610,600	824,841	643,445	822,335	1,216,093	110,987	913,418	1,629,506	1,379,143	1,986,417	4,902,878	10,136,785	15,039,663
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	360,000	0	0	81,500	880,851	0	0	0	0	1,322,351	1,322,351
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2,737,300	3,699,700	3,264,329	3,687,600	5,453,333	579,200	4,957,971	7,307,200	6,184,500	8,907,700	21,986,000	46,778,833	68,764,833

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Abbott 1 AT	0	0	0	0	0	0	0	0	0	4,553,700	2,678,700	4,553,700	7,232,400
Glenmore 3 AT	0	0	0	0	0	0	0	0	0	0	2,502,500	0	2,502,500
Glenmore 5 AT	0	0	0	0	0	0	0	0	0	0	2,119,500	0	2,119,500
Airport Way AT (Hollywood N - Hwy 97 N)	0	0	0	0	0	0	0	0	0	0	317,000	0	317,000
Total	0	0	0	0	0	0	0	0	0	4,553,700	7,617,700	4,553,700	12,171,400

Funding Sources (Unfunded)

304 - Transportation

T3 - Non-DCC Roads

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Burtch & Harvey Intersection Improvements	100,000	0	0	0	0	0	0	0	0	0	0	100,000	100,000
Roadway Urbanization	350,000	500,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	3,650,000	4,000,000
Total	450,000	500,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	3,750,000	4,100,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	50,000	0	30,174	47,120	58,267	65,035	61,135	56,739	64,532	90,811	144,083	523,813	667,896
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	400,000	500,000	319,826	302,880	291,733	284,965	288,865	293,261	285,468	259,189	205,917	3,226,187	3,432,104
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	450,000	500,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	3,750,000	4,100,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Airport Way Interchange Proposed Partnership	0	0	35,000,000	0	0	0	0	0	0	0	0	35,000,000	35,000,000
Clifton Road Upgrades	0	0	0	0	0	0	0	0	4,000,000	0	0	4,000,000	4,000,000
Lawrence/Leon upgrade (Abbott-Richter) upgrade	0	0	1,500,000	0	0	0	0	0	0	0	0	1,500,000	1,500,000
Total	0	0	36,500,000	0	0	0	0	0	4,000,000	0	0	40,500,000	40,500,000

Funding Sources (Unfunded)

T4 - Transportation System Renewal

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Bridge Rehabilitation - Renewal	300,000	325,000	400,000	400,000	400,000	325,000	350,000	400,000	400,000	400,000	400,000	3,700,000	4,100,000
KLO Rd Mission Creek Bridge Replacement	300,000	0	0	0	0	8,100,000	0	0	0	0	0	8,400,000	8,400,000
Road Renewal	3,700,000	4,400,000	2,938,607	2,648,991	3,341,155	1,508,022	2,690,967	3,659,465	4,506,015	4,613,870	4,551,468	34,007,092	38,558,560
Sidewalk & Bikeway Renewal	155,000	204,100	104,318	98,853	87,829	89,686	154,182	97,186	83,476	100,621	86,316	1,175,251	1,261,567
Street Light Pole and Wiring Renewal	270,000	223,300	161,112	262,024	212,943	213,868	214,800	215,738	216,683	217,634	218,593	2,208,102	2,426,695
Streetscaping in Urban Centers	0	300,000	0	0	0	0	0	0	0	0	0	300,000	300,000
Traffic Signal and Communications Upgrades and Renewals	260,000	220,000	250,000	250,000	275,000	300,000	300,000	300,000	300,000	300,000	300,000	2,755,000	3,055,000
Transit - Bus Stop Renewal	110,000	110,000	120,000	160,000	160,000	180,000	230,000	250,000	270,000	270,000	320,000	1,860,000	2,180,000
Urban Centre Improvements	100,000	0	0	0	0	0	0	0	0	0	0	100,000	100,000
Total	5,195,000	5,782,400	3,974,037	3,819,868	4,476,927	10,716,576	3,939,949	4,922,389	5,776,174	5,902,125	5,876,377	54,505,445	60,381,822

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	1,419,800	2,458,800	433,951	156,399	0	548,839	1,554,936	582,074	613,222	1,364,726	911,819	9,132,747	10,044,566
Community Works Fund	1,893,200	186,200	777,687	1,226,751	1,759,592	5,840,323	1,486,031	140,685	661,953	915,601	1,685,528	14,888,023	16,573,551
Reserves	1,882,000	3,137,400	2,762,399	2,436,718	2,717,335	4,327,414	898,982	4,199,630	4,500,999	3,621,798	3,279,030	30,484,675	33,763,705
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5,195,000	5,782,400	3,974,037	3,819,868	4,476,927	10,716,576	3,939,949	4,922,389	5,776,174	5,902,125	5,876,377	54,505,445	60,381,822

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Gravel shoulder paving, streetscaping in urban centers	300,000	0	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	4,300,000	4,800,000
Highway 97 Rapid Station Renewal	0	0	0	0	0	0	0	0	0	0	960,000	0	960,000
Transit Renewal - Kelowna North Stop Upgrades	100,000	0	0	0	0	0	0	0	0	0	0	100,000	100,000
Transit Renewal - Mission Network Restructuring	0	0	200,000	0	0	0	0	0	0	0	0	200,000	200,000
Transportation Renewal	4,783,500	3,600,000	5,061,393	5,026,009	4,658,845	6,491,978	5,309,033	4,340,535	3,493,985	3,386,130	3,448,532	46,151,408	49,599,940
Total	5,183,500	3,600,000	5,761,393	5,526,009	5,158,845	6,991,978	5,809,033	4,840,535	3,993,985	3,886,130	4,908,532	50,751,408	55,659,940

Funding Sources (Unfunded)

304 - Transportation

T5 - Bicycle Network

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Abbott Protected Bike Route (Rose - West), ATC	0	250,000	0	0	0	0	0	0	0	0	0	250,000	250,000
Active Transportation Corridor/Bicycle Network Expansion	200,000	250,000	450,000	375,000	450,000	500,000	500,000	550,000	550,000	600,000	600,000	4,425,000	5,025,000
Bertram Overpass AT Approaches	0	0	0	0	1,000,000	0	0	0	0	0	0	1,000,000	1,000,000
Okanagan Rail Trail - Connection to Waterfront Park Pathway	20,000	250,000	0	0	0	0	0	0	0	0	0	270,000	270,000
Rails with Trails lighting (Commerce Ave to Hwy 97 Overpass), ATC	0	0	0	0	470,000	0	0	250,000	0	0	0	720,000	720,000
Total	220,000	750,000	450,000	375,000	1,920,000	500,000	500,000	800,000	550,000	600,000	600,000	6,665,000	7,265,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	220,000	475,000	450,000	0	1,470,000	0	0	800,000	0	0	0	3,415,000	3,415,000
Community Works Fund	0	275,000	0	375,000	450,000	500,000	500,000	0	550,000	600,000	600,000	3,250,000	3,850,000
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	220,000	750,000	450,000	375,000	1,920,000	500,000	500,000	800,000	550,000	600,000	600,000	6,665,000	7,265,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Active Transportation Corridor/Bicycle Network Expansion	0	150,000	0	0	0	0	0	0	0	0	0	150,000	150,000
Glenmore (McKinley to Lake Country) Shoulder Widening	0	0	0	0	0	1,500,000	0	0	0	0	0	1,500,000	1,500,000
Master Planned Primary AT Routes	1,000,000	1,000,000	1,000,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	13,500,000	15,000,000
Total	1,000,000	1,150,000	1,000,000	1,500,000	1,500,000	3,000,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	15,150,000	16,650,000

Funding Sources (Unfunded)

304 - Transportation
T6 - Sidewalk Network
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Central Green Pedestrian Overpass	500,000	5,500,000	0	0	0	0	0	0	0	0	0	6,000,000	6,000,000
Sidewalk Network Expansion	300,000	250,000	360,000	450,000	501,600	500,300	550,000	495,000	580,000	580,000	585,000	4,566,900	5,151,900
Total	800,000	5,750,000	360,000	450,000	501,600	500,300	550,000	495,000	580,000	580,000	585,000	10,566,900	11,151,900

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	300,000	566,700	360,000	434,284	111,600	109,800	452,000	495,000	580,000	580,000	285,000	3,989,384	4,274,384
Community Works Fund	335,000	3,350,000	0	15,716	324,000	337,500	0	0	0	0	300,000	4,362,216	4,662,216
Reserves	165,000	1,833,300	0	0	66,000	53,000	98,000	0	0	0	0	2,215,300	2,215,300
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	800,000	5,750,000	360,000	450,000	501,600	500,300	550,000	495,000	580,000	580,000	585,000	10,566,900	11,151,900

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Sidewalk Network Expansion	500,000	625,000	450,000	425,000	400,000	375,000	391,110	592,019	300,000	275,000	750,000	4,333,129	5,083,129
Total	500,000	625,000	450,000	425,000	400,000	375,000	391,110	592,019	300,000	275,000	750,000	4,333,129	5,083,129

Funding Sources (Unfunded)

304 - Transportation

T7 - Safety and Operational Improvements

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Crosswalk Safety signals and flashers	325,000	100,000	100,000	125,000	125,000	125,000	125,000	150,000	150,000	150,000	150,000	1,475,000	1,625,000
Neighbourhood Traffic Calming	0	60,000	60,000	60,000	70,000	70,000	70,000	80,000	80,000	80,000	80,000	630,000	710,000
Road safety & operations Partnership with ICBC	0	250,000	200,000	200,000	250,000	200,000	250,000	200,000	300,000	300,000	300,000	2,150,000	2,450,000
Safe Routes to School Program	0	60,000	60,000	60,000	70,000	70,000	70,000	80,000	80,000	80,000	80,000	630,000	710,000
Total	325,000	470,000	420,000	445,000	515,000	465,000	515,000	510,000	610,000	610,000	610,000	4,885,000	5,495,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	325,000	470,000	420,000	445,000	515,000	465,000	515,000	510,000	610,000	610,000	610,000	4,885,000	5,495,000
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	325,000	470,000	420,000	445,000	515,000	465,000	515,000	510,000	610,000	610,000	610,000	4,885,000	5,495,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Crosswalk Safety signals and flashers	100,000	100,000	100,000	125,000	125,000	125,000	125,000	150,000	150,000	150,000	150,000	1,250,000	1,400,000
Road Safety & Operations Partnership with ICBC	250,000	300,000	300,000	300,000	300,000	300,000	350,000	350,000	350,000	350,000	350,000	3,150,000	3,500,000
Safe routes to school program	50,000	60,000	60,000	60,000	70,000	70,000	70,000	80,000	80,000	80,000	80,000	680,000	760,000
Total	400,000	460,000	460,000	485,000	495,000	495,000	545,000	580,000	580,000	580,000	580,000	5,080,000	5,660,000

Funding Sources (Unfunded)

304 - Transportation

T8 - Traffic Control Infrastructure

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Intelligent Transportation Systems	0	30,000	0	50,000	0	50,000	0	50,000	0	50,000	0	230,000	230,000
Traffic Signals and Roundabouts	0	300,000	450,000	450,000	0	0	450,000	750,000	1,200,000	450,000	450,000	4,050,000	4,500,000
Total	0	330,000	450,000	500,000	0	50,000	450,000	800,000	1,200,000	500,000	450,000	4,280,000	4,730,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	330,000	450,000	500,000	0	50,000	450,000	800,000	1,200,000	500,000	450,000	4,280,000	4,730,000
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	330,000	450,000	500,000	0	50,000	450,000	800,000	1,200,000	500,000	450,000	4,280,000	4,730,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Traffic Signals and Roundabouts	1,000,000	1,100,000	550,000	550,000	1,000,000	1,000,000	550,000	500,000	550,000	550,000	550,000	7,350,000	7,900,000
Transit priority measures (Technology, signal, Queue Jumpers, etc.)	1,000,000	0	500,000	0	1,000,000	0	1,200,000	0	0	1,000,000	0	4,700,000	4,700,000
Total	2,000,000	1,100,000	1,050,000	550,000	2,000,000	1,000,000	1,750,000	500,000	550,000	1,550,000	550,000	12,050,000	12,600,000

Funding Sources (Unfunded)

T9 - Transit Facilities

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Mission Rec Exchange	0	0	0	500,000	0	0	0	0	0	0	0	500,000	500,000
Rutland Park & Ride,Mobility Hub,Operations facility	0	0	280,000	0	0	200,000	0	0	0	0	0	480,000	480,000
Transit - Land Acquisition	0	150,000	115,000	245,000	50,000	116,000	50,000	0	60,000	0	0	786,000	786,000
Transit - New Bus Stops	135,000	120,000	50,000	40,000	120,000	140,000	140,000	150,000	150,000	150,000	170,000	1,195,000	1,365,000
Total	135,000	270,000	445,000	785,000	170,000	456,000	190,000	150,000	210,000	150,000	170,000	2,961,000	3,131,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	150,000	50,000	0	0	0	60,000	0	0	260,000	260,000
Community Works Fund	0	0	0	250,000	0	0	0	0	0	0	0	250,000	250,000
Reserves	135,000	270,000	445,000	385,000	120,000	456,000	190,000	150,000	150,000	150,000	170,000	2,451,000	2,621,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	135,000	270,000	445,000	785,000	170,000	456,000	190,000	150,000	210,000	150,000	170,000	2,961,000	3,131,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Capri-Landmark	0	0	0	0	0	0	0	0	300,000	0	0	300,000	300,000
Lakeshore/Pandosy Transit Priority	0	0	0	0	0	0	2,500,000	1,600,000	0	0	0	4,100,000	4,100,000
Midtown Transit Optimization	250,000	0	0	0	1,300,000	950,000	0	0	0	0	0	2,500,000	2,500,000
Mission Rec Exchange	0	0	0	2,400,000	0	0	0	0	0	0	0	2,400,000	2,400,000
Orchard Park Exchange	210,000	0	0	0	7,250,000	0	0	0	0	0	0	7,460,000	7,460,000
Queensway Operations Centre	0	0	0	0	0	0	500,000	0	0	0	0	500,000	500,000
Rapidbus Stop Replacement	0	0	0	0	0	0	0	0	0	0	960,000	0	960,000
Rutland network restructure	0	0	50,000	100,000	100,000	100,000	0	0	0	0	0	350,000	350,000
Rutland Park & Ride,Mobility Hub,Operations facility	0	0	1,120,000	0	0	0	0	0	0	0	0	1,120,000	1,120,000
Transit Facility (2019 Prov)	0	0	41,085,000	0	0	0	0	0	0	0	0	41,085,000	41,085,000
YLW Transit Hub	0	0	0	0	2,400,000	0	0	0	0	0	0	2,400,000	2,400,000
Total	460,000	0	42,255,000	2,500,000	11,050,000	1,050,000	3,000,000	1,600,000	300,000	0	960,000	62,215,000	63,175,000

Funding Sources (Unfunded)

305 – SOLID WASTE

Solid Waste - Categories

Cost Centre	Category Code	Name	Description	Overall Total Cost 2020-2029 (P1)	Overall Total Cost 2020-2030 (P1)
305 - Solid Waste	SW1	Equipment	Funding for new equipment and replacement of existing equipment.	4,650,000	6,150,000
305 - Solid Waste	SW2	Site Improvement	Funding for site improvements like buildings, roads, landscaping and fencing.	13,950,000	14,050,000
305 - Solid Waste	SW3	Gas Management	Required for design, installation and extension of gas management system and utilization of gas to energy.	5,350,000	5,800,000
305 - Solid Waste	SW4	Leachate Management	Required for installation and extension of leachate collection, treatment, recirculation network and pump facilities.	1,225,000	1,225,000
305 - Solid Waste	SW5	Drainage & Groundwater Management	Funding for design and installation of surface and groundwater systems, piping, storage and pump stations.	7,250,000	9,250,000
305 - Solid Waste	SW6	Recycling & Waste Management	Facilities and infrastructure to support waste management and recycling including composting, waste separation and diversion, last chance mercantile, and curbside bins.	1,050,000	1,050,000
305 - Solid Waste	SW7	Landfill Area Development	Required for planning, design and development of areas for filling to maximize available space.	12,458,000	12,458,000
305 - Solid Waste	SW8	Closure & Reclamation	Required for design and construction of final cover system and closure infrastructure and reclamation of disturbed areas to natural state.	1,620,000	2,160,000
305 - Solid Waste	SW9	Solid Waste Renewal	Renewal and replacement of site infrastructure and equipment.	3,790,000	4,250,000
			Grand Total	51,343,000	56,393,000

Solid Waste

Priority 1 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020-2030 Total
SW1	Equipment	300,000	300,000	300,000	350,000	350,000	350,000	1,500,000	400,000	400,000	400,000	1,500,000	4,650,000	6,150,000
SW2	Site Improvement	4,700,000	1,100,000	2,600,000	4,825,000	100,000	100,000	100,000	100,000	225,000	100,000	100,000	13,950,000	14,050,000
SW3	Gas Management	700,000	450,000	450,000	750,000	450,000	450,000	450,000	450,000	750,000	450,000	450,000	5,350,000	5,800,000
SW4	Leachate Management	0	0	0	225,000	1,000,000	0	0	0	0	0	0	1,225,000	1,225,000
SW5	Drainage & Groundwater Management	50,000	0	1,500,000	0	250,000	2,750,000	1,800,000	500,000	100,000	300,000	2,000,000	7,250,000	9,250,000
SW6	Recycling & Waste Management	750,000	0	0	0	0	0	300,000	0	0	0	0	1,050,000	1,050,000
SW7	Landfill Area Development	250,000	3,558,000	0	250,000	4,300,000	2,050,000	1,800,000	0	0	250,000	0	12,458,000	12,458,000
SW8	Closure & Reclamation	0	0	0	0	540,000	0	0	540,000	0	540,000	540,000	1,620,000	2,160,000
SW9	Solid Waste Renewal	0	110,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	3,790,000	4,250,000
	Total	6,750,000	5,518,000	5,310,000	6,860,000	7,450,000	6,160,000	6,410,000	2,450,000	1,935,000	2,500,000	5,050,000	51,343,000	56,393,000

Funding Sources

	Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
	General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
	Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
	Reserves	6,000,000	5,518,000	5,310,000	6,860,000	7,450,000	6,160,000	6,410,000	2,450,000	1,935,000	2,500,000	5,050,000	50,593,000	55,643,000
	Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
	Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
	Developer/Other	250,000	0	0	0	0	0	0	0	0	0	0	250,000	250,000
	Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
	Utilities	500,000	0	0	0	0	0	0	0	0	0	0	500,000	500,000
	Total	6,750,000	5,518,000	5,310,000	6,860,000	7,450,000	6,160,000	6,410,000	2,450,000	1,935,000	2,500,000	5,050,000	51,343,000	56,393,000

Solid Waste

Priority 2 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Overall Total Cost 2020-2029 (P2)	Overall Total Cost 2020-2030 (P2)
SW1	Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0
SW2	Site Improvement	0	0	0	0	0	0	0	0	0	0	0	0	0
SW3	Gas Management	0	0	0	0	0	0	0	0	0	0	0	0	0
SW4	Leachate Management	0	0	0	0	0	0	0	0	0	0	0	0	0
SW5	Drainage & Groundwater Management	0	0	0	0	0	0	0	0	0	0	0	0	0
SW6	Recycling & Waste Management	0	0	0	0	0	0	0	0	0	0	0	0	0
SW7	Landfill Area Development	0	0	0	0	0	0	0	0	0	0	0	0	0
SW8	Closure & Reclamation	0	0	0	0	0	0	0	0	0	0	0	0	0
SW9	Solid Waste Renewal	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Funding Sources (Unfunded)

305 - Solid Waste
SW1 - Equipment
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Automated Collection Curbside Carts	300,000	300,000	300,000	350,000	350,000	350,000	400,000	400,000	400,000	400,000	400,000	3,550,000	3,950,000
Equipment	0	0	0	0	0	0	1,000,000	0	0	0	1,000,000	1,000,000	2,000,000
Landfill Equipment GPS Replacement	0	0	0	0	0	0	100,000	0	0	0	100,000	100,000	200,000
Total	300,000	300,000	300,000	350,000	350,000	350,000	1,500,000	400,000	400,000	400,000	1,500,000	4,650,000	6,150,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	300,000	300,000	300,000	350,000	350,000	350,000	1,500,000	400,000	400,000	400,000	1,500,000	4,650,000	6,150,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	300,000	300,000	300,000	350,000	350,000	350,000	1,500,000	400,000	400,000	400,000	1,500,000	4,650,000	6,150,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources
(Unfunded)

305 - Solid Waste
SW2 - Site Improvement
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Site Works and Investigations	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,000,000	1,100,000
Landfill Automation	0	0	0	125,000	0	0	0	0	125,000	0	0	250,000	250,000
Landfill Liner Design and Construction	2,300,000	0	0	4,600,000	0	0	0	0	0	0	0	6,900,000	6,900,000
Prep - Blasting, site Prep	2,100,000	1,000,000	2,500,000	0	0	0	0	0	0	0	0	5,600,000	5,600,000
Water System Installation	200,000	0	0	0	0	0	0	0	0	0	0	200,000	200,000
Total	4,700,000	1,100,000	2,600,000	4,825,000	100,000	100,000	100,000	100,000	225,000	100,000	100,000	13,950,000	14,050,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	4,700,000	1,100,000	2,600,000	4,825,000	100,000	100,000	100,000	100,000	225,000	100,000	100,000	13,950,000	14,050,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4,700,000	1,100,000	2,600,000	4,825,000	100,000	100,000	100,000	100,000	225,000	100,000	100,000	13,950,000	14,050,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

305 - Solid Waste

SW3 - Gas Management

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Landfill and Leachate Gas Headers Areas 2 and 3	300,000	0	0	300,000	0	0	0	0	300,000	0	0	900,000	900,000
Landfill Gas & Leachate Recirculation Laterals	400,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	4,450,000	4,900,000
Total	700,000	450,000	450,000	750,000	450,000	450,000	450,000	450,000	750,000	450,000	450,000	5,350,000	5,800,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	700,000	450,000	450,000	750,000	450,000	450,000	450,000	450,000	750,000	450,000	450,000	5,350,000	5,800,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	700,000	450,000	450,000	750,000	450,000	450,000	450,000	450,000	750,000	450,000	450,000	5,350,000	5,800,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

305 - Solid Waste
SW4 - Leachate Management

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Leachate Perimeter Pipe	0	0	0	225,000	0	0	0	0	0	0	0	225,000	225,000
Odour Control and Leachate Treatment	0	0	0	0	1,000,000	0	0	0	0	0	0	1,000,000	1,000,000
Total	0	0	0	225,000	1,000,000	0	0	0	0	0	0	1,225,000	1,225,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	225,000	1,000,000	0	0	0	0	0	0	1,225,000	1,225,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	225,000	1,000,000	0	0	0	0	0	0	1,225,000	1,225,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

SW5 - Drainage & Groundwater Management

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Drainage & Groundwater Management	50,000	0	0	0	50,000	250,000	0	0	0	50,000	250,000	400,000	650,000
Leachate LS - North East Corner - Pump Station (Area 3)	0	0	1,500,000	0	0	0	0	0	0	0	0	1,500,000	1,500,000
Stormwater Bypass System	0	0	0	0	200,000	2,500,000	1,800,000	500,000	100,000	250,000	1,750,000	5,350,000	7,100,000
Total	50,000	0	1,500,000	0	250,000	2,750,000	1,800,000	500,000	100,000	300,000	2,000,000	7,250,000	9,250,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	50,000	0	1,500,000	0	250,000	2,750,000	1,800,000	500,000	100,000	300,000	2,000,000	7,250,000	9,250,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	50,000	0	1,500,000	0	250,000	2,750,000	1,800,000	500,000	100,000	300,000	2,000,000	7,250,000	9,250,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

305 - Solid Waste
SW6 - Recycling & Waste Management
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Commonage - Exterior Biosolids Tipping Bay	75,000	0	0	0	0	0	0	0	0	0	0	75,000	75,000
Commonage - Pavement Repairs	500,000	0	0	0	0	0	0	0	0	0	0	500,000	500,000
Commonage - Pond Pump Kiosk	100,000	0	0	0	0	0	0	0	0	0	0	100,000	100,000
Commonage - Secondary Odour Control Misting System	75,000	0	0	0	0	0	0	0	0	0	0	75,000	75,000
Facility - Recycling Study	0	0	0	0	0	0	300,000	0	0	0	0	300,000	300,000
Total	750,000	0	0	0	0	0	300,000	0	0	0	0	1,050,000	1,050,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	300,000	0	0	0	0	300,000	300,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	250,000	0	0	0	0	0	0	0	0	0	0	250,000	250,000
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	500,000	0	0	0	0	0	0	0	0	0	0	500,000	500,000
Total	750,000	0	0	0	0	0	300,000	0	0	0	0	1,050,000	1,050,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

305 - Solid Waste
SW7 - Landfill Area Development

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Road Construction	250,000	100,000	0	250,000	0	250,000	0	0	0	250,000	0	1,100,000	1,100,000
Stockpiles and Reprocessing Areas Relocation	0	3,458,000	0	0	4,300,000	1,800,000	1,800,000	0	0	0	0	11,358,000	11,358,000
Total	250,000	3,558,000	0	250,000	4,300,000	2,050,000	1,800,000	0	0	250,000	0	12,458,000	12,458,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	250,000	3,558,000	0	250,000	4,300,000	2,050,000	1,800,000	0	0	250,000	0	12,458,000	12,458,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	250,000	3,558,000	0	250,000	4,300,000	2,050,000	1,800,000	0	0	250,000	0	12,458,000	12,458,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

305 - Solid Waste
SW8 - Closure & Reclamation
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Miscellaneous Reclamation	0	0	0	0	540,000	0	0	540,000	0	540,000	540,000	1,620,000	2,160,000
Total	0	0	0	0	540,000	0	0	540,000	0	540,000	540,000	1,620,000	2,160,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	540,000	0	0	540,000	0	540,000	540,000	1,620,000	2,160,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	540,000	0	0	540,000	0	540,000	540,000	1,620,000	2,160,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

305 - Solid Waste

SW9 - Solid Waste Renewal

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Infrastructure Renewal	0	110,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	3,790,000	4,250,000
Total	0	110,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	3,790,000	4,250,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	110,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	3,790,000	4,250,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	110,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	3,790,000	4,250,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

306 – STORM DRAINAGE

Storm Drainage - Categories

Cost Centre	Category Code	Name	Description	Overall Total Cost 2020-2029 (P1)	Overall Total Cost 2020-2030 (P1)
306 - Storm Drainage	D1	Hydraulic Upgrading Program	Estimated expenditures to cover hydraulic improvements to the storm drainage system. These projects are taken directly from the area drainage plans (North, Rutland, Central, Downtown, South Mission and South East Kelowna). Projects are ranked according to priority.	35,906,331	37,322,569
306 - Storm Drainage	D2	Storm Drainage Quality Program	This program includes storm water quality projects taken from the area drainage plans and forms the overall work program. The program includes a hydrocarbon and sediment reduction program along high traffic/accident routes. The program considers priority sanding routes, environmental risk, accident rate and coordinated opportunities as criteria for location selection.	678,427	678,427
306 - Storm Drainage	D3	Storm Water Renewal	This program provides for the renewal and replacement of pipes, pump stations, and treatment facilities.	1,102,158	1,102,158
			Grand Total	37,686,916	39,103,154

Storm Drainage

Priority 1 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020-2030 Total
D1	Hydraulic Upgrading Program	3,378,200	3,333,300	4,250,000	4,416,670	6,372,843	5,586,584	6,553,530	290,533	887,091	837,580	1,416,238	35,906,331	37,322,569
D2	Storm Drainage Quality Program	200,000	120,000	118,427	0	0	120,000	0	120,000	0	0	0	678,427	678,427
D3	Storm Water Renewal	0	380,000	0	122,158	0	300,000	0	300,000	0	0	0	1,102,158	1,102,158
	Total	3,578,200	3,833,300	4,368,427	4,538,828	6,372,843	6,006,584	6,553,530	710,533	887,091	837,580	1,416,238	37,686,916	39,103,154

Funding Sources

	Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
	General Taxation	274,900	500,000	451,376	122,158	1,054,178	1,611,331	237,568	677,200	853,758	804,247	1,382,904	6,586,716	7,969,620
	Community Works Fund	520,000	500,000	478,333	728,333	478,333	478,333	478,333	33,333	33,333	33,333	33,334	3,761,664	3,794,998
	Reserves	1,750,000	1,600,000	1,813,718	1,921,671	2,573,665	1,883,586	3,304,296	0	0	0	0	14,846,936	14,846,936
	Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
	Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
	Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
	Grants	1,033,300	933,300	1,400,000	1,766,666	2,266,667	2,033,334	2,533,333	0	0	0	0	11,966,600	11,966,600
	Utilities	0	300,000	225,000	0	0	0	0	0	0	0	0	525,000	525,000
	Total	3,578,200	3,833,300	4,368,427	4,538,828	6,372,843	6,006,584	6,553,530	710,533	887,091	837,580	1,416,238	37,686,916	39,103,154

Storm Drainage

Priority 2 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Overall Total Cost 2020-2029 (P2)	Overall Total Cost 2020-2030 (P2)
D1	Hydraulic Upgrading Program	15,000	0	750,000	520,189	1,540,000	1,376,667	1,311,759	1,150,000	675,000	500,000	1,040,000	7,838,615	8,878,615
D2	Storm Drainage Quality Program	0	0	1,574	120,000	120,000	0	120,000	0	120,000	120,000	120,000	601,574	721,574
D3	Storm Water Renewal	270,000	0	300,000	237,842	300,000	0	300,000	0	125,000	381,000	300,000	1,913,842	2,213,842
	Total	285,000	0	1,051,574	878,031	1,960,000	1,376,667	1,731,759	1,150,000	920,000	1,001,000	1,460,000	10,354,031	11,814,031

Funding Sources (Unfunded)

306 - Storm Drainage
D1 - Hydraulic Upgrading Program
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Bertram Creek - Install ditch inlet, storm drain and riprap apron	50,000	0	0	0	0	0	0	0	0	0	0	50,000	50,000
Burtch Extension	0	0	0	0	0	503,241	0	0	0	0	0	503,241	503,241
Glenmore Landfill Diversion (Curtis Rd)	0	0	0	0	0	0	220,188	129,812	0	0	0	350,000	350,000
Gopher Creek (Springfield - Old Joe Riche)	0	0	0	0	350,000	0	0	0	0	0	303,333	350,000	653,333
Heimlich Road	0	0	0	0	200,000	0	0	0	0	0	0	200,000	200,000
Knox Mountain Geotechnical Engineering	750,000	1,000,000	750,000	0	0	0	0	0	0	0	0	2,500,000	2,500,000
Lower Spiers Rd Improvements	0	0	0	0	0	0	0	0	0	0	350,000	0	350,000
McKenzie Rd Channel Improvements	0	0	0	0	0	0	0	160,721	0	0	0	160,721	160,721
Mill Creek Flood Protection	1,670,000	2,333,300	3,500,000	4,416,670	5,666,668	5,083,343	6,333,342	0	887,091	837,580	0	30,727,994	30,727,994
Mill Creek Flood Storage	908,200	0	0	0	0	0	0	0	0	0	0	908,200	908,200
Morrison/Moyer Pond	0	0	0	0	156,175	0	0	0	0	0	0	156,175	156,175
Richter (Raymer - Burtch)	0	0	0	0	0	0	0	0	0	0	625,000	0	625,000
Thompson Creek Upgrades (Lakeshore)	0	0	0	0	0	0	0	0	0	0	137,905	0	137,905
Total	3,378,200	3,333,300	4,250,000	4,416,670	6,372,843	5,586,584	6,553,530	290,533	887,091	837,580	1,416,238	35,906,331	37,322,569

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	74,900	0	372,424	0	1,054,178	1,191,331	237,568	290,533	853,758	804,247	1,382,904	4,878,939	6,261,843
Community Works Fund	520,000	500,000	438,858	728,333	478,333	478,333	478,333	0	33,333	33,333	33,334	3,688,856	3,722,190
Reserves	1,750,000	1,600,000	1,813,718	1,921,671	2,573,665	1,883,586	3,304,296	0	0	0	0	14,846,936	14,846,936
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	1,033,300	933,300	1,400,000	1,766,666	2,266,667	2,033,334	2,533,333	0	0	0	0	11,966,600	11,966,600
Utilities	0	300,000	225,000	0	0	0	0	0	0	0	0	525,000	525,000
Total	3,378,200	3,333,300	4,250,000	4,416,670	6,372,843	5,586,584	6,553,530	290,533	887,091	837,580	1,416,238	35,906,331	37,322,569

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Brandt's Creek East (Bonn - Sexsmith)	0	0	0	0	0	0	0	150,000	0	0	0	150,000	150,000
Burtch Extension	0	0	0	0	0	0	246,759	0	0	0	0	246,759	246,759
Channel Dredging - Mouth to Ritcher	0	0	0	0	0	0	0	0	0	0	250,000	0	250,000
Design Flood Protection Upgrades (Clement to Brandt's Creek)	0	0	500,000	0	0	0	0	0	0	0	0	500,000	500,000
Ellis Street (Harvey - Leon)	0	0	0	0	0	0	125,000	0	0	0	0	125,000	125,000
Ellis Street (Lawrence - Bernard)	0	0	0	0	0	0	100,000	0	0	0	0	100,000	100,000
Ellis Street (Leon - Lawrence)	0	0	0	0	0	0	125,000	0	0	0	0	125,000	125,000
Francis Brook @ McKenzie / Gibson	0	0	0	0	0	145,000	0	0	0	0	0	145,000	145,000
Frost and Frazer Lake Stormwater Improvements	0	0	200,000	0	0	0	0	0	0	0	0	200,000	200,000
Future Hydraulic Projects	0	0	0	0	0	0	95,000	0	0	0	70,000	95,000	165,000
Geotechnical program	0	0	0	0	500,000	0	0	500,000	0	500,000	500,000	1,500,000	2,000,000
Gopher Creek (Kloppenburg to Springfield)	0	0	0	0	365,000	331,667	0	0	0	0	0	696,667	696,667
Gordon Dr. (Laurier - Sutherland)	0	0	0	0	0	0	0	0	175,000	0	0	175,000	175,000

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
KLO Road (Mission Creek - Harvest Club)	0	0	0	0	150,000	0	0	0	0	0	0	150,000	150,000
Maqiunna Road	0	0	50,000	0	0	0	0	0	0	0	0	50,000	50,000
McCulloch Road (Harvest Club - Pooley)	0	0	0	0	325,000	0	0	0	0	0	0	325,000	325,000
Mill Creek Dredging	0	0	0	200,000	200,000	0	0	0	0	0	220,000	400,000	620,000
Rembler Cr Channel (Chute Lake - Lakeshore)	15,000	0	0	0	0	0	0	0	0	0	0	15,000	15,000
Rifle Road to Mill Creek	0	0	0	0	0	150,000	0	0	0	0	0	150,000	150,000
Springfield @ Gopher Creek / Belgo @ Clarissa	0	0	0	0	0	0	120,000	0	0	0	0	120,000	120,000
Storage Swainson Rd & McKenzie Rd	0	0	0	220,189	0	0	0	0	0	0	0	220,189	220,189
Sunset Dr Gate Valves	0	0	0	100,000	0	0	0	0	0	0	0	100,000	100,000
Swainson Road to McKenzie Rd.	0	0	0	0	0	250,000	0	0	0	0	0	250,000	250,000
Trench Place - Geotechnical	0	0	0	0	0	500,000	500,000	500,000	500,000	0	0	2,000,000	2,000,000
Total	15,000	0	750,000	520,189	1,540,000	1,376,667	1,311,759	1,150,000	675,000	500,000	1,040,000	7,838,615	8,878,615

Funding Sources (Unfunded)

306 - Storm Drainage

D2 - Storm Drainage Quality Program

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Belgo Road @Clarissa	0	120,000	0	0	0	0	0	0	0	0	0	120,000	120,000
Containment Devices	200,000	0	118,427	0	0	120,000	0	120,000	0	0	0	558,427	558,427
Total	200,000	120,000	118,427	0	0	120,000	0	120,000	0	0	0	678,427	678,427

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	200,000	120,000	78,952	0	0	120,000	0	86,667	0	0	0	605,619	605,619
Community Works Fund	0	0	39,475	0	0	0	0	33,333	0	0	0	72,808	72,808
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	200,000	120,000	118,427	0	0	120,000	0	120,000	0	0	0	678,427	678,427

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Containment Devices	0	0	1,574	120,000	120,000	0	120,000	0	120,000	120,000	120,000	601,574	721,574
Total	0	0	1,574	120,000	120,000	0	120,000	0	120,000	120,000	120,000	601,574	721,574

Funding Sources (Unfunded)

306 - Storm Drainage

D3 - Storm Water Renewal

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Asset Renewal Projects	0	380,000	0	0	0	150,000	0	300,000	0	0	0	830,000	830,000
Long Street (Royal - Glenwood)	0	0	0	0	0	150,000	0	0	0	0	0	150,000	150,000
Thomson Creek Upgrades (Dehart)	0	0	0	122,158	0	0	0	0	0	0	0	122,158	122,158
Total	0	380,000	0	122,158	0	300,000	0	300,000	0	0	0	1,102,158	1,102,158

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	380,000	0	122,158	0	300,000	0	300,000	0	0	0	1,102,158	1,102,158
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	380,000	0	122,158	0	300,000	0	300,000	0	0	0	1,102,158	1,102,158

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
(P2) Thomson Creek Upgrades (Dehart)	0	0	0	32,611	0	0	0	0	0	0	0	32,611	32,611
Asset Renewal Projects	0	0	300,000	205,231	300,000	0	300,000	0	125,000	381,000	300,000	1,611,231	1,911,231
Kirschner Pond Liner (investigation and possible Installation)	270,000	0	0	0	0	0	0	0	0	0	0	270,000	270,000
Total	270,000	0	300,000	237,842	300,000	0	300,000	0	125,000	381,000	300,000	1,913,842	2,213,842

Funding Sources (Unfunded)

308 – INFORMATION SERVICES

Information Services - Categories

Cost Centre	Category Code	Name	Description	Overall Total Cost 2020-2029 (P1)	Overall Total Cost 2020-2030 (P1)
308 - Info. Serv.	I1	Front Office Equipment	Information Services have been utilizing a 5 year replacement cycle for desktop equipment which includes computers, printers, monitors, scanners and software. It also includes work group equipment such as large format plotters and copiers.	3,800,006	4,062,651
308 - Info. Serv.	I2	Server & Data Storage	To provide equipment and software in City Hall data centre to support the various systems in place for staff and includes equipment for the Fire Hall data centre. Included are servers, disk storage, tape backups and the related software.	1,231,937	1,414,332
308 - Info. Serv.	I3	Major System Projects	Major systems projects include Class Registration Software Replacement and Online Platform Redevelopment.	4,534,585	4,690,923
308 - Info. Serv.	I4	Communications Systems	To provide a networking environment that interconnects the various places and spaces used by City staff, this budget will support the expansion of the City's fibre optic ring which will reduce need for leased communication lines. Network components that have reached the end of their serviceable life will also be replaced.	1,684,585	1,812,754
			Grand Total	11,251,113	11,980,660

Information Services

Priority 1 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020-2030 Total
I1	Front Office Equipment	423,500	435,000	202,609	447,275	408,706	518,249	276,022	183,497	423,101	482,047	262,645	3,800,006	4,062,651
I2	Server & Data Storage	290,000	190,000	88,892	98,857	200,351	45,152	39,739	196,054	41,616	41,276	182,395	1,231,937	1,414,332
I3	Major System Projects	689,900	526,100	183,710	2,260,000	171,729	144,488	206,645	128,035	133,170	90,808	156,338	4,534,585	4,690,923
I4	Communications Systems	180,000	155,000	103,335	227,942	127,687	226,095	264,593	130,022	133,231	136,680	128,169	1,684,585	1,812,754
	Total	1,583,400	1,306,100	578,546	3,034,074	908,473	933,984	786,999	637,608	731,118	750,811	729,547	11,251,113	11,980,660

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	843,700	455,700	528,546	724,074	858,473	883,984	736,999	587,608	681,118	700,811	679,547	7,001,013	7,680,560
Community Works Fund	0	187,500	0	0	0	0	0	0	0	0	0	187,500	187,500
Reserves	689,700	537,900	0	2,260,000	0	0	0	0	0	0	0	3,487,600	3,487,600
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	500,000	550,000
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	75,000	0	0	0	0	0	0	0	0	0	75,000	75,000
Total	1,583,400	1,306,100	578,546	3,034,074	908,473	933,984	786,999	637,608	731,118	750,811	729,547	11,251,113	11,980,660

Information Services

Priority 2 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Overall Total Cost 2020-2029 (P2)	Overall Total Cost 2020-2030 (P2)
I1	Front Office Equipment	0	0	139,283	0	91,082	55,639	71,267	45,811	85,242	101,879	90,150	590,203	680,353
I2	Server & Data Storage	0	0	61,108	0	44,649	4,848	10,261	48,946	8,384	8,724	62,605	186,920	249,525
I3	Major System Projects	0	100,000	126,290	0	38,271	15,512	53,355	31,965	26,830	19,192	53,662	411,415	465,077
I4	Communications Systems	0	0	36,665	0	17,313	18,905	55,407	19,978	16,769	18,320	26,831	183,357	210,188
	Total	0	100,000	363,346	0	191,315	94,904	190,290	146,700	137,225	148,115	233,248	1,371,895	1,605,143

Funding Sources (Unfunded)

308 - Information Services

I1 - Front Office Equipment

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Front Office Equipment	423,500	435,000	202,609	447,275	408,706	518,249	276,022	183,497	423,101	482,047	262,645	3,800,006	4,062,651
Total	423,500	435,000	202,609	447,275	408,706	518,249	276,022	183,497	423,101	482,047	262,645	3,800,006	4,062,651

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	423,500	150,000	202,609	447,275	408,706	518,249	276,022	183,497	423,101	482,047	262,645	3,515,006	3,777,651
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	285,000	0	0	0	0	0	0	0	0	0	285,000	285,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	423,500	435,000	202,609	447,275	408,706	518,249	276,022	183,497	423,101	482,047	262,645	3,800,006	4,062,651

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Front Office Equipment	0	0	139,283	0	91,082	55,639	71,267	45,811	85,242	101,879	90,150	590,203	680,353
Total	0	0	139,283	0	91,082	55,639	71,267	45,811	85,242	101,879	90,150	590,203	680,353

Funding Sources (Unfunded)

308 - Information Services
I2 - Server & Data Storage
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Server and Data Storage Equipment	290,000	190,000	88,892	98,857	200,351	45,152	39,739	196,054	41,616	41,276	182,395	1,231,937	1,414,332
Total	290,000	190,000	88,892	98,857	200,351	45,152	39,739	196,054	41,616	41,276	182,395	1,231,937	1,414,332

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	290,000	190,000	88,892	98,857	200,351	45,152	39,739	196,054	41,616	41,276	182,395	1,231,937	1,414,332
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	290,000	190,000	88,892	98,857	200,351	45,152	39,739	196,054	41,616	41,276	182,395	1,231,937	1,414,332

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Server and Data Storage Equipment	0	0	61,108	0	44,649	4,848	10,261	48,946	8,384	8,724	62,605	186,920	249,525
Total	0	0	61,108	0	44,649	4,848	10,261	48,946	8,384	8,724	62,605	186,920	249,525

Funding Sources (Unfunded)

308 - Information Services
I3 - Major System Projects
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Asset Management System - Phase 3	0	325,000	0	0	0	0	0	0	0	0	0	325,000	325,000
Major Systems Projects	689,900	201,100	183,710	2,260,000	171,729	144,488	206,645	128,035	133,170	90,808	156,338	4,209,585	4,365,923
Total	689,900	526,100	183,710	2,260,000	171,729	144,488	206,645	128,035	133,170	90,808	156,338	4,534,585	4,690,923

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	200	65,700	183,710	0	171,729	144,488	206,645	128,035	133,170	90,808	156,338	1,124,485	1,280,823
Community Works Fund	0	187,500	0	0	0	0	0	0	0	0	0	187,500	187,500
Reserves	689,700	197,900	0	2,260,000	0	0	0	0	0	0	0	3,147,600	3,147,600
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	75,000	0	0	0	0	0	0	0	0	0	75,000	75,000
Total	689,900	526,100	183,710	2,260,000	171,729	144,488	206,645	128,035	133,170	90,808	156,338	4,534,585	4,690,923

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Major Systems Projects	0	100,000	126,290	0	38,271	15,512	53,355	31,965	26,830	19,192	53,662	411,415	465,077
Total	0	100,000	126,290	0	38,271	15,512	53,355	31,965	26,830	19,192	53,662	411,415	465,077

Funding Sources (Unfunded)

308 - Information Services

I4 - Communications Systems

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Communications Networks Upgrades	130,000	105,000	53,335	177,942	77,687	176,095	214,593	80,022	83,231	86,680	78,169	1,184,585	1,262,754
Fibre Optic Service Line	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	500,000	550,000
Total	180,000	155,000	103,335	227,942	127,687	226,095	264,593	130,022	133,231	136,680	128,169	1,684,585	1,812,754

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	130,000	50,000	53,335	177,942	77,687	176,095	214,593	80,022	83,231	86,680	78,169	1,129,585	1,207,754
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	55,000	0	0	0	0	0	0	0	0	0	55,000	55,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	500,000	550,000
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	180,000	155,000	103,335	227,942	127,687	226,095	264,593	130,022	133,231	136,680	128,169	1,684,585	1,812,754

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Communications Networks Upgrades	0	0	36,665	0	17,313	18,905	55,407	19,978	16,769	18,320	26,831	183,357	210,188
Total	0	0	36,665	0	17,313	18,905	55,407	19,978	16,769	18,320	26,831	183,357	210,188

Funding Sources (Unfunded)

310 – VEHICLE OR MOBILE EQUIPMENT

Vehicles - Categories

Cost Centre	Category Code	Name	Description	Overall Total Cost 2020-2029 (P1)	Overall Total Cost 2020-2030 (P1)
310 - Vehicles	V1	Additional Vehicles / Equipment	This budget supports the addition of new vehicles and equipment to the corporate fleet in response to increased service demand from population growth or additional services.	7,904,114	8,663,168
310 - Vehicles	V2	Vehicle / Equipment Renewal	As part of the City's vehicle replacement program, vehicles at the end of their service life cycles are replaced using funds from the equipment replacement reserve. Cars and light trucks have an average design life of 10 years.	31,429,822	39,346,225
			Grand Total	39,333,936	48,009,393

Vehicles

Priority 1 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020-2030 Total
V1	Additional Vehicles / Equipment	522,000	636,000	890,535	744,745	743,322	1,167,879	1,066,069	762,281	711,462	659,821	759,054	7,904,114	8,663,168
V2	Vehicle / Equipment Renewal	4,175,700	3,357,900	1,940,474	3,256,476	2,634,363	1,482,671	1,066,817	1,753,626	5,034,456	6,727,339	7,916,403	31,429,822	39,346,225
	Total	4,697,700	3,993,900	2,831,009	4,001,221	3,377,685	2,650,550	2,132,886	2,515,907	5,745,918	7,387,160	8,675,457	39,333,936	48,009,393

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	252,000	11,000	0	0	0	0	0	0	0	0	0	263,000	263,000
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	4,229,040	3,982,900	2,180,482	3,437,866	2,771,335	1,788,554	1,180,234	1,838,908	5,114,010	6,808,421	7,997,422	33,331,750	41,329,172
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	26,660	0	51,722	77,216	88,442	92,402	86,213	88,620	91,352	116,978	176,565	719,605	896,170
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	190,000	0	598,805	486,139	517,908	769,594	866,439	588,379	540,556	461,761	501,470	5,019,581	5,521,051
Total	4,697,700	3,993,900	2,831,009	4,001,221	3,377,685	2,650,550	2,132,886	2,515,907	5,745,918	7,387,160	8,675,457	39,333,936	48,009,393

Vehicles

Priority 2 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Overall Total Cost 2020-2029 (P2)	Overall Total Cost 2020-2030 (P2)
V1	Additional Vehicles / Equipment	0	130,000	0	0	0	0	0	0	0	0	0	130,000	130,000
V2	Vehicle / Equipment Renewal	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	130,000	0	0	0	0	0	0	0	0	0	130,000	130,000

Funding Sources (Unfunded)

310 - Vehicles

V1 - Additional Vehicles / Equipment

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Additional Vehicles/Equipment - Buildings	132,000	120,000	6,290	6,589	11,757	7,282	7,969	5,795	10,388	6,763	10,405	314,833	325,238
Additional Vehicles/Equipment - Parks	0	110,000	15,258	23,507	18,418	20,085	17,109	26,086	16,432	19,404	22,077	266,299	288,376
Additional Vehicles/Equipment - Real Estate	0	0	32,951	27,828	30,611	32,744	33,279	36,612	30,884	32,412	32,349	257,321	289,670
Additional Vehicles/Equipment - Solid Waste	80,000	350,000	207,057	153,562	106,361	273,139	80,138	48,670	48,670	48,670	48,670	1,396,267	1,444,937
Additional Vehicles/Equipment - Transportation	120,000	45,000	30,174	47,120	58,267	65,035	61,135	56,739	64,532	90,811	144,083	638,813	782,896
Additional Vehicles/Equipment - Wastewater	0	0	272,189	272,189	329,047	481,719	751,944	439,685	415,590	331,559	340,693	3,293,922	3,634,615
Additional Vehicles/Equipment - Water	190,000	0	326,616	213,950	188,861	287,875	114,495	148,694	124,966	130,202	160,777	1,725,659	1,886,436
Graffiti Eradication Power Washer Replacement	0	11,000	0	0	0	0	0	0	0	0	0	11,000	11,000
Total	522,000	636,000	890,535	744,745	743,322	1,167,879	1,066,069	762,281	711,462	659,821	759,054	7,904,114	8,663,168

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	252,000	11,000	0	0	0	0	0	0	0	0	0	263,000	263,000
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	53,340	625,000	240,008	181,390	136,972	305,883	113,417	85,282	79,554	81,082	81,019	1,901,928	1,982,947
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	26,660	0	51,722	77,216	88,442	92,402	86,213	88,620	91,352	116,978	176,565	719,605	896,170
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	190,000	0	598,805	486,139	517,908	769,594	866,439	588,379	540,556	461,761	501,470	5,019,581	5,521,051
Total	522,000	636,000	890,535	744,745	743,322	1,167,879	1,066,069	762,281	711,462	659,821	759,054	7,904,114	8,663,168

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Additional Vehicles/Equipment - Fire	0	40,000	0	0	0	0	0	0	0	0	0	40,000	40,000
Additional Vehicles/Equipment - Parks	0	90,000	0	0	0	0	0	0	0	0	0	90,000	90,000
Total	0	130,000	0	0	0	0	0	0	0	0	0	130,000	130,000

Funding Sources (Unfunded)

310 - Vehicles

V2 - Vehicle / Equipment Renewal

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Vehicle/Equipment Renewal	4,175,700	3,357,900	1,940,474	3,256,476	2,634,363	1,482,671	1,066,817	1,753,626	5,034,456	6,727,339	7,916,403	31,429,822	39,346,225
Total	4,175,700	3,357,900	1,940,474	3,256,476	2,634,363	1,482,671	1,066,817	1,753,626	5,034,456	6,727,339	7,916,403	31,429,822	39,346,225

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	4,175,700	3,357,900	1,940,474	3,256,476	2,634,363	1,482,671	1,066,817	1,753,626	5,034,456	6,727,339	7,916,403	31,429,822	39,346,225
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4,175,700	3,357,900	1,940,474	3,256,476	2,634,363	1,482,671	1,066,817	1,753,626	5,034,456	6,727,339	7,916,403	31,429,822	39,346,225

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

311 – FIRE

Fire - Categories

Cost Centre	Category Code	Name	Description	Overall Total Cost 2020-2029 (P1)	Overall Total Cost 2020-2030 (P1)
311 - Fire	F1	Vehicle / Equipment Renewal	As part of the Fire Departments vehicle/equipment replacement program, vehicles and equipment at the end of their service life cycles are replaced using funds from the Fire Departments equipment replacement reserve.	8,410,794	9,545,541
311 - Fire	F2	Additional Vehicles / Equipment	This budget supports the addition of new vehicles and equipment to the Fire Department in response to increased service demand from population growth.	60,600	60,600
311 - Fire	F3	Communications Systems	To provide for radio system improvements or replacement, including dispatch requirements	2,306,600	2,366,600
			Grand Total	10,777,994	11,972,741

Fire

Priority 1 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020-2030 Total
F1	Vehicle / Equipment Renewal	996,100	110,000	3,324,546	0	0	0	0	2,778,822	282,500	918,826	1,134,747	8,410,794	9,545,541
F2	Additional Vehicles / Equipment	60,600	0	0	0	0	0	0	0	0	0	0	60,600	60,600
F3	Communications Systems	0	0	450,000	230,000	596,000	625,000	179,600	130,000	66,000	30,000	60,000	2,306,600	2,366,600
	Total	1,056,700	110,000	3,774,546	230,000	596,000	625,000	179,600	2,908,822	348,500	948,826	1,194,747	10,777,994	11,972,741

Funding Sources

	Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
	General Taxation	60,600	0	0	0	0	0	0	0	0	232,433	54,365	293,033	347,398
	Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
	Reserves	996,100	110,000	3,774,546	230,000	596,000	625,000	179,600	2,908,822	348,500	716,393	1,140,382	10,484,961	11,625,343
	Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
	Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
	Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
	Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
	Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,056,700	110,000	3,774,546	230,000	596,000	625,000	179,600	2,908,822	348,500	948,826	1,194,747	10,777,994	11,972,741

Fire

Priority 2 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Overall Total Cost 2020-2029 (P2)	Overall Total Cost 2020-2030 (P2)
F1	Vehicle / Equipment Renewal	0	0	0	0	0	0	0	0	0	0	0	0	0
F2	Additional Vehicles / Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0
F3	Communications Systems	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Funding Sources (Unfunded)

311 - Fire

F1 - Vehicle / Equipment Renewal

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
ATV	0	0	0	0	0	0	0	0	0	0	30,201	0	30,201
Bush Truck 1	0	0	0	0	0	0	0	0	282,500	0	0	282,500	282,500
Bush Truck 3	0	0	250,000	0	0	0	0	0	0	0	0	250,000	250,000
Bush Truck 5 (previously Engine 8)	0	0	325,000	0	0	0	0	0	0	0	0	325,000	325,000
Engine 1	0	0	952,000	0	0	0	0	0	0	0	0	952,000	952,000
Engine 2	0	0	0	0	0	0	0	923,635	0	0	0	923,635	923,635
Engine 3	867,000	0	0	0	0	0	0	0	0	0	0	867,000	867,000
Engine 4	0	0	0	0	0	0	0	923,635	0	0	0	923,635	923,635
Engine 5 (Glenmore)	0	0	0	0	0	0	0	0	0	0	1,050,181	0	1,050,181
Engine 7	0	0	597,546	0	0	0	0	0	0	0	0	597,546	597,546
Engine 9	0	0	0	0	0	0	0	0	0	686,393	0	686,393	686,393
Fire Equipment	129,100	0	0	0	0	0	0	0	0	0	0	129,100	129,100
Fire Equipment Replacement	0	110,000	0	0	0	0	0	0	0	0	0	110,000	110,000
Ladder 2	0	0	1,200,000	0	0	0	0	0	0	0	0	1,200,000	1,200,000
Renewal	0	0	0	0	0	0	0	0	0	232,433	54,365	232,433	286,798
Rescue 1	0	0	0	0	0	0	0	931,552	0	0	0	931,552	931,552
Total	996,100	110,000	3,324,546	0	0	0	0	2,778,822	282,500	918,826	1,134,747	8,410,794	9,545,541

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	232,433	54,365	232,433	286,798
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	996,100	110,000	3,324,546	0	0	0	0	2,778,822	282,500	686,393	1,080,382	8,178,361	9,258,743
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	996,100	110,000	3,324,546	0	0	0	0	2,778,822	282,500	918,826	1,134,747	8,410,794	9,545,541

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

311 - Fire

F2 - Additional Vehicles / Equipment

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Bail Out Devices	38,500	0	0	0	0	0	0	0	0	0	0	38,500	38,500
Fire Extinguisher Demonstration Unit	22,100	0	0	0	0	0	0	0	0	0	0	22,100	22,100
Total	60,600	0	0	0	0	0	0	0	0	0	0	60,600	60,600

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	60,600	0	0	0	0	0	0	0	0	0	0	60,600	60,600
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	60,600	0	0	0	0	0	0	0	0	0	0	60,600	60,600

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

311 - Fire

F3 - Communications Systems

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Annual Phone System Refresh	0	0	0	0	0	50,000	0	0	50,000	0	0	100,000	100,000
Annual Phone System Upgrades	0	0	0	30,000	30,000	0	30,000	30,000	0	30,000	30,000	150,000	180,000
Backup Dispatch Centre Renovations	0	0	0	0	50,000	0	0	0	0	0	0	50,000	50,000
Dispatch Centre - New	0	0	0	0	500,000	0	0	0	0	0	0	500,000	500,000
Dispatch Furniture Console Upgrade	0	0	0	0	0	0	0	100,000	0	0	0	100,000	100,000
Equipment - Communications Systems	0	0	0	0	0	0	20,000	0	0	0	0	20,000	20,000
FDM CAD Replacement	0	0	0	200,000	0	0	0	0	0	0	0	200,000	200,000
Furniture	0	0	0	0	0	0	129,600	0	0	0	0	129,600	129,600
NG911 Phone System	0	0	450,000	0	0	0	0	0	0	0	0	450,000	450,000
Radio Console System	0	0	0	0	0	575,000	0	0	0	0	0	575,000	575,000
UPS Upgrade	0	0	0	0	16,000	0	0	0	16,000	0	30,000	32,000	62,000
Total	0	0	450,000	230,000	596,000	625,000	179,600	130,000	66,000	30,000	60,000	2,306,600	2,366,600

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	450,000	230,000	596,000	625,000	179,600	130,000	66,000	30,000	60,000	2,306,600	2,366,600
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	450,000	230,000	596,000	625,000	179,600	130,000	66,000	30,000	60,000	2,306,600	2,366,600

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

312– AIRPORT

Airport - Categories

Cost Centre	Category Code	Name	Description	Overall Total Cost 2020-2029 (P1)	Overall Total Cost 2020-2030 (P1)
312 - Airport	A1	Airside		19,238,000	19,288,000
312 - Airport	A2	Groundside		49,967,420	53,057,420
312 - Airport	A3	Terminal		8,316,860	8,816,860
312 - Airport	A4	AIF		175,928,000	193,928,000
			Grand Total	253,450,280	275,090,280

Airport

Priority 1 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020-2030 Total
A1	Airside	50,000	12,130,000	612,000	335,000	50,000	361,000	550,000	5,050,000	50,000	50,000	50,000	19,238,000	19,288,000
A2	Groundside	-478,580	525,000	1,241,000	50,000	70,000	4,330,000	11,580,000	16,550,000	16,050,000	50,000	3,090,000	49,967,420	53,057,420
A3	Terminal	328,860	300,000	2,082,000	1,492,000	722,000	400,000	764,000	542,000	672,000	1,014,000	500,000	8,316,860	8,816,860
A4	AIF	67,275,000	670,000	6,702,000	13,762,000	3,748,000	18,098,000	13,470,000	13,973,000	16,634,000	21,596,000	18,000,000	175,928,000	193,928,000
	Total	67,175,280	13,625,000	10,637,000	15,639,000	4,590,000	23,189,000	26,364,000	36,115,000	33,406,000	22,710,000	21,640,000	253,450,280	275,090,280

Funding Sources

	Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
	General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
	Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
	Reserves	29,175,280	1,625,000	10,637,000	15,639,000	4,590,000	23,189,000	25,964,000	18,115,000	17,406,000	22,710,000	21,640,000	169,050,280	190,690,280
	Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
	Borrowing	38,000,000	0	0	0	0	0	0	0	0	0	0	38,000,000	38,000,000
	Developer/Other	0	12,000,000	0	0	0	0	0	16,000,000	16,000,000	0	0	44,000,000	44,000,000
	Grants	0	0	0	0	0	0	400,000	2,000,000	0	0	0	2,400,000	2,400,000
	Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	67,175,280	13,625,000	10,637,000	15,639,000	4,590,000	23,189,000	26,364,000	36,115,000	33,406,000	22,710,000	21,640,000	253,450,280	275,090,280

Airport

Priority 2 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Overall Total Cost 2020-2029 (P2)	Overall Total Cost 2020-2030 (P2)
A1	Airside	0	0	0	0	0	0	0	1,000,000	0	0	0	1,000,000	1,000,000
A2	Groundside	0	0	0	0	0	0	0	0	0	0	0	0	0
A3	Terminal	0	0	0	0	0	0	0	0	0	0	0	0	0
A4	AIF	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	1,000,000	0	0	0	1,000,000	1,000,000

Funding Sources (Unfunded)

312 - Airport
A1 - Airside
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Airport East Lands Roads and Servicing	0	12,000,000	0	0	0	0	0	0	0	0	0	12,000,000	12,000,000
Airport Small Capital Projects	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	500,000	550,000
Airside Equipment	0	80,000	62,000	0	0	0	0	0	0	0	0	142,000	142,000
Airside Pavement and Infrastructure	0	0	400,000	285,000	0	311,000	0	0	0	0	0	996,000	996,000
Fire training Area Relocation	0	0	100,000	0	0	0	0	0	0	0	0	100,000	100,000
Mill Creek Realignment	0	0	0	0	0	0	500,000	5,000,000	0	0	0	5,500,000	5,500,000
Total	50,000	12,130,000	612,000	335,000	50,000	361,000	550,000	5,050,000	50,000	50,000	50,000	19,238,000	19,288,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	50,000	130,000	612,000	335,000	50,000	361,000	350,000	3,050,000	50,000	50,000	50,000	5,038,000	5,088,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	12,000,000	0	0	0	0	0	0	0	0	0	12,000,000	12,000,000
Grants	0	0	0	0	0	0	200,000	2,000,000	0	0	0	2,200,000	2,200,000
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	50,000	12,130,000	612,000	335,000	50,000	361,000	550,000	5,050,000	50,000	50,000	50,000	19,238,000	19,288,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Mill Creek Realignment	0	0	0	0	0	0	0	1,000,000	0	0	0	1,000,000	1,000,000
Total	0	0	0	0	0	0	0	1,000,000	0	0	0	1,000,000	1,000,000

Funding Sources (Unfunded)

312 - Airport

A2 - Groundside

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Additional Land Purchases	0	0	0	0	0	0	0	0	0	0	3,040,000	0	3,040,000
Airport Car Rental Quick Turn Around Facility	0	0	0	0	0	600,000	7,500,000	0	0	0	0	8,100,000	8,100,000
Airport Groundside Infrastructure	0	25,000	50,000	0	0	30,000	0	0	0	0	0	105,000	105,000
Airport Hotel and Parking Development	0	0	0	0	0	0	0	16,000,000	16,000,000	0	0	32,000,000	32,000,000
Airport Mill Creek Realignment	0	0	0	0	0	0	500,000	0	0	0	0	500,000	500,000
Airport Parking	0	0	1,141,000	0	0	600,000	0	0	0	0	0	1,741,000	1,741,000
Airport Parking Lot Equipment	-528,580	450,000	0	0	0	0	0	500,000	0	0	0	421,420	421,420
Airport Roadways	0	0	0	0	20,000	3,050,000	3,530,000	0	0	0	0	6,600,000	6,600,000
Airport Small Capital	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	500,000	550,000
Total	-478,580	525,000	1,241,000	50,000	70,000	4,330,000	11,580,000	16,550,000	16,050,000	50,000	3,090,000	49,967,420	53,057,420

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	-478,580	525,000	1,241,000	50,000	70,000	4,330,000	11,380,000	550,000	50,000	50,000	3,090,000	17,767,420	20,857,420
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	16,000,000	16,000,000	0	0	32,000,000	32,000,000
Grants	0	0	0	0	0	0	200,000	0	0	0	0	200,000	200,000
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	-478,580	525,000	1,241,000	50,000	70,000	4,330,000	11,580,000	16,550,000	16,050,000	50,000	3,090,000	49,967,420	53,057,420

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

312 - Airport

A3 - Terminal

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Airport Small Capital Projects	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	500,000	550,000
Airport Technology Replacement	0	0	270,000	999,000	301,000	0	312,000	0	119,000	0	0	2,001,000	2,001,000
Airport Terminal Building Renovations	290,000	250,000	1,762,000	443,000	371,000	350,000	402,000	492,000	503,000	964,000	450,000	5,827,000	6,277,000
Integrated Security Network	250,000	0	0	0	0	0	0	0	0	0	0	250,000	250,000
Total	590,000	300,000	2,082,000	1,492,000	722,000	400,000	764,000	542,000	672,000	1,014,000	500,000	8,578,000	9,078,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	328,860	300,000	2,082,000	1,492,000	722,000	400,000	764,000	542,000	672,000	1,014,000	500,000	8,316,860	8,816,860
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	328,860	300,000	2,082,000	1,492,000	722,000	400,000	764,000	542,000	672,000	1,014,000	500,000	8,316,860	8,816,860

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

312 - Airport
A4 - AIF
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Airport Airfield Lighting	0	0	249,000	0	0	0	0	0	0	0	0	249,000	249,000
Airport Airside Equipment	0	0	2,603,000	2,136,000	727,000	226,000	393,000	1,695,000	802,000	629,000	0	9,211,000	9,211,000
Airport Airside Pavement Rehabilitation	0	620,000	2,550,000	620,000	1,439,000	5,865,000	4,455,000	10,400,000	10,740,000	730,000	0	37,419,000	37,419,000
Airport Apron 1 South Expansion	0	0	0	0	538,000	4,945,000	4,945,000	1,878,000	2,770,000	2,770,000	0	17,846,000	17,846,000
Airport Combined Operations Building	0	0	500,000	0	560,000	6,578,000	3,677,000	0	0	0	0	11,315,000	11,315,000
Airport CUSS/CUTE Replacement	0	0	376,000	2,610,000	0	0	0	0	0	0	0	2,986,000	2,986,000
Airport Replacement of Loading Bridges	0	0	0	0	0	0	0	0	170,000	1,700,000	0	1,870,000	1,870,000
Airport Runway End Safety Area	0	0	156,000	7,912,000	0	0	0	0	0	0	0	8,068,000	8,068,000
Airport Self-serve Baggage Drop	0	50,000	268,000	484,000	484,000	484,000	0	0	0	0	0	1,770,000	1,770,000
Airport Terminal Expansion South	67,275,000	0	0	0	0	0	0	0	2,152,000	15,767,000	18,000,000	85,194,000	103,194,000
Total	67,275,000	670,000	6,702,000	13,762,000	3,748,000	18,098,000	13,470,000	13,973,000	16,634,000	21,596,000	18,000,000	175,928,000	193,928,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	29,275,000	670,000	6,702,000	13,762,000	3,748,000	18,098,000	13,470,000	13,973,000	16,634,000	21,596,000	18,000,000	137,928,000	155,928,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	38,000,000	0	0	0	0	0	0	0	0	0	0	38,000,000	38,000,000
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	67,275,000	670,000	6,702,000	13,762,000	3,748,000	18,098,000	13,470,000	13,973,000	16,634,000	21,596,000	18,000,000	175,928,000	193,928,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources
(Unfunded)

313– WATER

Water - Categories

Cost Centre	Category Code	Name	Description	Overall Total Cost 2020-2029 (P1)	Overall Total Cost 2020-2030 (P1)
313 - Water	W1	DCC Pipes (Mains)	New water mains to accommodate growth.	19,409,200	28,458,088
313 - Water	W2	DCC Booster Stations & PRVs	New booster stations &PRV's to accommodate growth.	0	0
313 - Water	W3	DCC Water Treatment	New treatment capacity and facilities to accommodate growth.	500,000	500,000
313 - Water	W4	DCC Reservoirs & Filling Stations	New reservoirs and filling stations to accommodate growth.	9,785,000	9,785,000
313 - Water	W5	DCC Offsite & Oversize	The City's share of costs to oversize water infrastructure and to do work in excess of the developer's own needs.	1,172,000	1,289,200
313 - Water	W6	Network and Facility Renewal	Renewal of existing water mains, booster stations, PRVs, water treatment systems, reservoirs and filling stations that has reached the end of its service life.	40,300,000	45,225,000
313 - Water	W7	Network and Facility Improvements	Network and facility improvements to meet current standards. Contributed assets and water meters that are needed to support development and are funded from development.	2,995,000	10,670,000
313 - Water	W8	Irrigation Network Improvements	Network and Facility Improvements to meet current standards. Fire protection, upper watershed infrastructure, well stations and transmission mains are all included in this irrigation network.	9,950,000	11,270,000
			Grand Total	84,111,200	107,197,288

Water

Priority 1 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020-2030 Total
W1	DCC Pipes (Mains)	300,000	0	500,000	5,700,000	0	3,500,000	5,200,000	2,667,200	1,542,000	0	9,048,888	19,409,200	28,458,088
W2	DCC Booster Stations & PRVs	0	0	0	0	0	0	0	0	0	0	0	0	0
W3	DCC Water Treatment	150,000	350,000	0	0	0	0	0	0	0	0	0	500,000	500,000
W4	DCC Reservoirs & Filling Stations	0	0	0	0	0	0	0	6,600,000	0	3,185,000	0	9,785,000	9,785,000
W5	DCC Offsite & Oversize	117,200	117,200	117,200	117,200	117,200	117,200	117,200	117,200	117,200	117,200	117,200	1,172,000	1,289,200
W6	Network and Facility Renewal	2,850,000	3,350,000	3,500,000	4,000,000	3,850,000	4,750,000	4,450,000	3,500,000	3,750,000	6,300,000	4,925,000	40,300,000	45,225,000
W7	Network and Facility Improvements	150,000	422,000	465,000	513,000	695,000	150,000	150,000	150,000	150,000	150,000	7,675,000	2,995,000	10,670,000
W8	Irrigation Network Improvements	470,000	270,000	470,000	820,000	1,320,000	1,320,000	1,320,000	1,320,000	1,320,000	1,320,000	1,320,000	9,950,000	11,270,000
	Total	4,037,200	4,509,200	5,052,200	11,150,200	5,982,200	9,837,200	11,237,200	14,354,400	6,879,200	11,072,200	23,086,088	84,111,200	107,197,288

Funding Sources

	Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
	General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
	Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
	Reserves	0	30,000	0	0	0	0	0	0	0	0	14,573,888	30,000	14,603,888
	Development Cost Charges	354,700	58,600	552,100	5,684,500	58,600	3,513,100	4,014,600	6,566,200	1,063,984	58,600	58,600	21,924,984	21,983,584
	Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
	Developer/Other	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	3,335,000	150,000	4,685,000	4,835,000
	Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
	Utilities	3,532,500	4,270,600	4,350,100	5,315,700	5,773,600	6,174,100	7,072,600	7,638,200	5,665,216	7,678,600	8,303,600	57,471,216	65,774,816
	Total	4,037,200	4,509,200	5,052,200	11,150,200	5,982,200	9,837,200	11,237,200	14,354,400	6,879,200	11,072,200	23,086,088	84,111,200	107,197,288

Water

Priority 2 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Overall Total Cost 2020-2029 (P2)	Overall Total Cost 2020-2030 (P2)
W1	DCC Pipes (Mains)	0	0	0	0	0	0	0	5,332,800	0	0	0	5,332,800	5,332,800
W2	DCC Booster Stations & PRVs	0	0	0	0	0	0	0	0	0	0	0	0	0
W3	DCC Water Treatment	0	0	350,000	500,000	0	0	0	0	0	0	0	850,000	850,000
W4	DCC Reservoirs & Filling Stations	0	0	0	0	0	0	0	0	0	0	0	0	0
W5	DCC Offsite & Oversize	0	0	0	0	0	0	0	0	0	0	0	0	0
W6	Network and Facility Renewal	0	0	0	0	0	0	1,500,000	450,000	0	0	0	1,950,000	1,950,000
W7	Network and Facility Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0
W8	Irrigation Network Improvements	0	0	0	1,500,000	0	0	0	0	0	0	0	1,500,000	1,500,000
	Total	0	0	350,000	2,000,000	0	0	1,500,000	5,782,800	0	0	0	9,632,800	9,632,800

Funding Sources (Unfunded)

313 - Water
W1 - DCC Pipes (Mains)
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Cedar Creek Transmission System Stage 2	0	0	0	0	0	0	0	0	0	0	9,048,888	0	9,048,888
Clifton Main Upgrade 2 ---> from Grainger Rd. to Rio Dr. (formerly Skyline Supply Main)	0	0	0	0	0	0	0	0	1,542,000	0	0	1,542,000	1,542,000
Clifton Road TM - Clement to Skyline	0	0	0	0	0	0	1,200,000	0	0	0	0	1,200,000	1,200,000
Knox Mountain Transmission System Upgrades	0	0	0	0	0	0	4,000,000	0	0	0	0	4,000,000	4,000,000
Poplar Point to Dilworth Mountain Transmission Upgrade Design	300,000	0	500,000	0	0	0	0	2,667,200	0	0	0	3,467,200	3,467,200
Royal View TM - Gordon To Clifton	0	0	0	0	0	3,500,000	0	0	0	0	0	3,500,000	3,500,000
Royal View TM - Knox to Gordon	0	0	0	5,700,000	0	0	0	0	0	0	0	5,700,000	5,700,000
Total	300,000	0	500,000	5,700,000	0	3,500,000	5,200,000	2,667,200	1,542,000	0	9,048,888	19,409,200	28,458,088

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	9,048,888	0	9,048,888
Development Cost Charges	296,100	0	493,500	5,625,900	0	3,454,500	3,956,000	0	1,005,384	0	0	14,831,384	14,831,384
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	3,900	0	6,500	74,100	0	45,500	1,244,000	2,667,200	536,616	0	0	4,577,816	4,577,816
Total	300,000	0	500,000	5,700,000	0	3,500,000	5,200,000	2,667,200	1,542,000	0	9,048,888	19,409,200	28,458,088

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Poplar Point to Dilworth Mountain Transmission Upgrade Design (P2)	0	0	0	0	0	0	0	5,332,800	0	0	0	5,332,800	5,332,800
Total	0	0	0	0	0	0	0	5,332,800	0	0	0	5,332,800	5,332,800

Funding Sources (Unfunded)

313 - Water

W2 - DCC Booster Stations & PRVs

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

313 - Water

W3 - DCC Water Treatment

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Poplar Point UV	150,000	350,000	0	0	0	0	0	0	0	0	0	500,000	500,000
Total	150,000	350,000	0	0	0	0	0	0	0	0	0	500,000	500,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	150,000	350,000	0	0	0	0	0	0	0	0	0	500,000	500,000
Total	150,000	350,000	0	0	0	0	0	0	0	0	0	500,000	500,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Poplar Point UV (P2)	0	0	350,000	500,000	0	0	0	0	0	0	0	850,000	850,000
Total	0	0	350,000	500,000	0	0	0	0	0	0	0	850,000	850,000

Funding Sources (Unfunded)

313 - Water

W4 - DCC Reservoirs & Filling Stations

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Frost Pump Station and Reservoir System Upgrade	0	0	0	0	0	0	0	0	0	3,185,000	0	3,185,000	3,185,000
PZ STRG UPGRADE PZ 419 Storage upgrade	0	0	0	0	0	0	0	6,600,000	0	0	0	6,600,000	6,600,000
Total	0	0	0	0	0	0	0	6,600,000	0	3,185,000	0	9,785,000	9,785,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	6,507,600	0	0	0	6,507,600	6,507,600
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	3,185,000	0	3,185,000	3,185,000
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	92,400	0	0	0	92,400	92,400
Total	0	0	0	0	0	0	0	6,600,000	0	3,185,000	0	9,785,000	9,785,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

313 - Water

W5 - DCC Offsite & Oversize

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Offsite & Oversize - Water	117,200	117,200	117,200	117,200	117,200	117,200	117,200	117,200	117,200	117,200	117,200	1,172,000	1,289,200
Total	117,200	117,200	117,200	117,200	117,200	117,200	117,200	117,200	117,200	117,200	117,200	1,172,000	1,289,200

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	58,600	58,600	58,600	58,600	58,600	58,600	58,600	58,600	58,600	58,600	58,600	586,000	644,600
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	58,600	58,600	58,600	58,600	58,600	58,600	58,600	58,600	58,600	58,600	58,600	586,000	644,600
Total	117,200	117,200	117,200	117,200	117,200	117,200	117,200	117,200	117,200	117,200	117,200	1,172,000	1,289,200

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

313 - Water
W6 - Network and Facility Renewal
Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Bellevue Creek Water Main Crossing at Varney Court	150,000	0	0	0	0	0	0	0	0	0	0	150,000	150,000
Cast Iron Replacement Program	0	1,500,000	0	0	0	0	0	0	0	0	0	1,500,000	1,500,000
Ellis St (Knox Mtn - Clement)	0	0	0	1,750,000	0	0	0	0	0	0	0	1,750,000	1,750,000
Lakeshore Upgrade (Bellevue Creek - Collett)	350,000	0	0	0	0	0	0	0	0	0	0	350,000	350,000
Office Acoustic & Yard Security Items - Gulley Rd	0	100,000	0	0	0	0	0	0	0	0	0	100,000	100,000
PZ STRG UPGRADE PZ 530 Storage upgrade	0	0	0	0	0	0	0	0	0	1,500,000	0	1,500,000	1,500,000
SKYLINE PS - Station Upgrade - Safety Issues	0	1,250,000	0	0	0	0	0	0	0	800,000	1,000,000	2,050,000	3,050,000
Water Meter Replacement Program	1,450,000	500,000	1,500,000	1,500,000	1,300,000	1,750,000	1,000,000	0	0	0	0	9,000,000	9,000,000
Water Network and Facility Renewal	900,000	0	2,000,000	750,000	2,550,000	3,000,000	3,450,000	3,500,000	3,750,000	4,000,000	3,925,000	23,900,000	27,825,000
Total	2,850,000	3,350,000	3,500,000	4,000,000	3,850,000	4,750,000	4,450,000	3,500,000	3,750,000	6,300,000	4,925,000	40,300,000	45,225,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	30,000	0	0	0	0	0	0	0	0	0	30,000	30,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	2,850,000	3,320,000	3,500,000	4,000,000	3,850,000	4,750,000	4,450,000	3,500,000	3,750,000	6,300,000	4,925,000	40,270,000	45,195,000
Total	2,850,000	3,350,000	3,500,000	4,000,000	3,850,000	4,750,000	4,450,000	3,500,000	3,750,000	6,300,000	4,925,000	40,300,000	45,225,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Burtch (KLO - Raymer) Watermain	0	0	0	0	0	0	0	450,000	0	0	0	450,000	450,000
Burtch (Raymer - Byrns) Watermain	0	0	0	0	0	0	1,500,000	0	0	0	0	1,500,000	1,500,000
Total	0	0	0	0	0	0	1,500,000	450,000	0	0	0	1,950,000	1,950,000

Funding Sources (Unfunded)

313 - Water

W7 - Network and Facility Improvements

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Altura FF Upgrade	0	0	0	100,000	0	0	0	0	0	0	0	100,000	100,000
Capozzi FF - Truswell	0	0	0	263,000	0	0	0	0	0	0	0	263,000	263,000
Chemical Storage Tank Replacement – Kettle Valley UV Facility	0	100,000	0	0	0	0	0	0	0	0	0	100,000	100,000
Dam Surveillance & Watershed Monitoring	0	22,000	0	0	0	0	0	0	0	0	0	22,000	22,000
Eldorado Pump Station Removal	0	0	0	0	0	0	0	0	0	0	2,000,000	0	2,000,000
Fairway Cr & Eagle Dr FF	0	0	0	0	545,000	0	0	0	0	0	0	545,000	545,000
Hydro Excavator Parking Facility	0	100,000	0	0	0	0	0	0	0	0	0	100,000	100,000
KLO Connection Main - Rutland	0	0	0	0	0	0	0	0	0	0	5,525,000	0	5,525,000
Snow Runoff Hydrology	0	50,000	0	0	0	0	0	0	0	0	0	50,000	50,000
Water Meter - New Installations	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	1,500,000	1,650,000
Young and Hazel Rd Existing FF deficiency	0	0	315,000	0	0	0	0	0	0	0	0	315,000	315,000
Total	150,000	422,000	465,000	513,000	695,000	150,000	150,000	150,000	150,000	150,000	7,675,000	2,995,000	10,670,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	5,525,000	0	5,525,000
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	1,500,000	1,650,000
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	272,000	315,000	363,000	545,000	0	0	0	0	0	2,000,000	1,495,000	3,495,000
Total	150,000	422,000	465,000	513,000	695,000	150,000	150,000	150,000	150,000	150,000	7,675,000	2,995,000	10,670,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

313 - Water

W8 - Irrigation Network Improvements

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Dam Repairs	250,000	250,000	250,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	4,250,000	4,750,000
Hydrants	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	200,000	220,000
Irrigation Mainline Renewal	0	0	0	0	500,000	500,000	500,000	500,000	500,000	500,000	500,000	3,000,000	3,500,000
PRV Upgrades	200,000	0	200,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	2,500,000	2,800,000
Total	470,000	270,000	470,000	820,000	1,320,000	1,320,000	1,320,000	1,320,000	1,320,000	1,320,000	1,320,000	9,950,000	11,270,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	470,000	270,000	470,000	820,000	1,320,000	1,320,000	1,320,000	1,320,000	1,320,000	1,320,000	1,320,000	9,950,000	11,270,000
Total	470,000	270,000	470,000	820,000	1,320,000	1,320,000	1,320,000	1,320,000	1,320,000	1,320,000	1,320,000	9,950,000	11,270,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Field Reservoir Add-on (Irrigation)	0	0	0	1,500,000	0	0	0	0	0	0	0	1,500,000	1,500,000
Total	0	0	0	1,500,000	0	0	0	0	0	0	0	1,500,000	1,500,000

Funding Sources (Unfunded)

314 – WASTEWATER

Wastewater - Categories

Cost Centre	Category Code	Name	Description	Overall Total Cost 2020-2029 (P1)	Overall Total Cost 2020-2030 (P1)
314 - Wastewater	WW1	DCC Pipes (Mains)	New wastewater mains to support growth.	22,607,300	22,607,300
314 - Wastewater	WW2	DCC Lift Stations	New wastewater lift stations to support growth.	5,764,000	5,764,000
314 - Wastewater	WW3	DCC Wastewater Treatment Facilities	New wastewater treatment facilities to support growth.	36,116,908	36,116,908
314 - Wastewater	WW4	DCC Oversize	The City's share of costs to oversize wastewater infrastructure and to do work in excess of the developer's own needs.	1,100,000	1,210,000
314 - Wastewater	WW5	Network and Facility Renewal	Renewal of existing wastewater mains, lift stations and existing treatment facilities that have reached the end of their service life.	51,590,000	57,790,000
314 - Wastewater	WW6	Network and Facility Improvements	Collection and facility improvements to meet current standards. Contributed assets that are needed to support development and are funded from development.	3,140,000	3,240,000
			Grand Total	120,318,208	126,728,208

Wastewater

Priority 1 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2020-2029 Total	2020-2030 Total
WW1	DCC Pipes (Mains)	312,300	0	0	0	4,682,570	0	6,773,860	5,921,570	4,917,000	0	0	22,607,300	22,607,300
WW2	DCC Lift Stations	0	0	1,500,000	0	2,212,000	0	2,052,000	0	0	0	0	5,764,000	5,764,000
WW3	DCC Wastewater Treatment Facilities	0	1,000,000	800,000	14,320,000	12,760,000	7,236,908	0	0	0	0	0	36,116,908	36,116,908
WW4	DCC Oversize	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	1,100,000	1,210,000
WW5	Network and Facility Renewal	2,640,000	5,200,000	5,750,000	5,000,000	5,000,000	5,200,000	5,400,000	5,600,000	5,800,000	6,000,000	6,200,000	51,590,000	57,790,000
WW6	Network and Facility Improvements	100,000	190,000	100,000	1,250,000	100,000	1,000,000	100,000	100,000	100,000	100,000	100,000	3,140,000	3,240,000
	Total	3,162,300	6,500,000	8,260,000	20,680,000	24,864,570	13,546,908	14,435,860	11,731,570	10,927,000	6,210,000	6,410,000	120,318,208	126,728,208

Funding Sources

	Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
	General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
	Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
	Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
	Development Cost Charges	359,200	55,000	55,000	55,000	3,119,130	3,347,793	5,284,965	4,815,350	4,847,690	55,000	55,000	21,994,128	22,049,128
	Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
	Developer/Other	0	0	0	0	2,036,200	0	2,052,000	0	0	0	0	4,088,200	4,088,200
	Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
	Utilities	2,803,100	6,445,000	8,205,000	20,625,000	19,709,240	10,199,115	7,098,895	6,916,220	6,079,310	6,155,000	6,355,000	94,235,880	100,590,880
	Total	3,162,300	6,500,000	8,260,000	20,680,000	24,864,570	13,546,908	14,435,860	11,731,570	10,927,000	6,210,000	6,410,000	120,318,208	126,728,208

Wastewater

Priority 2 - Costs

Code	Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Overall Total Cost 2020-2029 (P2)	Overall Total Cost 2020-2030 (P2)
WW1	DCC Pipes (Mains)	0	0	0	0	0	0	0	0	0	0	0	0	0
WW2	DCC Lift Stations	0	0	0	0	0	0	0	0	0	0	3,000,000	0	3,000,000
WW3	DCC Wastewater Treatment Facilities	0	0	2,900,000	21,480,000	19,140,000	0	0	0	0	0	0	43,520,000	43,520,000
WW4	DCC Oversize	0	0	0	0	0	0	0	0	0	0	0	0	0
WW5	Network and Facility Renewal	0	0	0	0	0	0	0	0	0	0	0	0	0
WW6	Network and Facility Improvements	0	0	663,000	653,000	687,000	0	0	0	0	0	0	2,003,000	2,003,000
	Total	0	0	3,563,000	22,133,000	19,827,000	0	0	0	0	0	3,000,000	45,523,000	48,523,000

Funding Sources (Unfunded)

314 - Wastewater

WW1 - DCC Pipes (Mains)

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Byrns Baron Trunk Phase 2	0	0	0	0	0	0	3,532,000	3,532,000	3,532,000	0	0	10,596,000	10,596,000
Glenmore Connection - Glenmore Rd from Cross Rd to 200 m north of Scenic Rd	0	0	0	0	2,293,000	0	0	0	0	0	0	2,293,000	2,293,000
Lakeshore Trunk - (Cook - Gyro)	0	0	0	0	0	0	3,241,860	0	0	0	0	3,241,860	3,241,860
Lakeshore Trunk - (Gyro - KPCC (Swordy - Casorso))	0	0	0	0	2,389,570	0	0	0	0	0	0	2,389,570	2,389,570
Lakeshore Trunk - (Old Meadows - Lexington)	0	0	0	0	0	0	0	2,389,570	0	0	0	2,389,570	2,389,570
Rutland Trunk	0	0	0	0	0	0	0	0	1,385,000	0	0	1,385,000	1,385,000
Water Street DCC Force Main	312,300	0	0	0	0	0	0	0	0	0	0	312,300	312,300
Total	312,300	0	0	0	4,682,570	0	6,773,860	5,921,570	4,917,000	0	0	22,607,300	22,607,300

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	304,200	0	0	0	1,316,650	0	5,229,965	4,760,350	4,792,690	0	0	16,403,855	16,403,855
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	2,036,200	0	0	0	0	0	0	2,036,200	2,036,200
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	8,100	0	0	0	1,329,720	0	1,543,895	1,161,220	124,310	0	0	4,167,245	4,167,245
Total	312,300	0	0	0	4,682,570	0	6,773,860	5,921,570	4,917,000	0	0	22,607,300	22,607,300

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

314 - Wastewater

WW2 - DCC Lift Stations

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Gyro Lift Station	0	0	0	0	2,212,000	0	0	0	0	0	0	2,212,000	2,212,000
Rose Avenue Lift Station	0	0	0	0	0	0	2,052,000	0	0	0	0	2,052,000	2,052,000
Water St Lift Station	0	0	1,500,000	0	0	0	0	0	0	0	0	1,500,000	1,500,000
Total	0	0	1,500,000	0	2,212,000	0	2,052,000	0	0	0	0	5,764,000	5,764,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	1,747,480	0	0	0	0	0	0	1,747,480	1,747,480
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	2,052,000	0	0	0	0	2,052,000	2,052,000
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	1,500,000	0	464,520	0	0	0	0	0	0	1,964,520	1,964,520
Total	0	0	1,500,000	0	2,212,000	0	2,052,000	0	0	0	0	5,764,000	5,764,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Water St Lift Station	0	0	0	0	0	0	0	0	0	0	3,000,000	0	3,000,000
Total	0	0	0	0	0	0	0	0	0	0	3,000,000	0	3,000,000

Funding Sources (Unfunded)

314 - Wastewater

WW3 - DCC Wastewater Treatment Facilities

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Digestion Facility	0	400,000	800,000	14,320,000	12,760,000	0	0	0	0	0	0	28,280,000	28,280,000
Existing Compost Plant Expansion	0	0	0	0	0	7,236,908	0	0	0	0	0	7,236,908	7,236,908
Site Development and Preliminary Design	0	600,000	0	0	0	0	0	0	0	0	0	600,000	600,000
Total	0	1,000,000	800,000	14,320,000	12,760,000	7,236,908	0	0	0	0	0	36,116,908	36,116,908

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	3,292,793	0	0	0	0	0	3,292,793	3,292,793
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	1,000,000	800,000	14,320,000	12,760,000	3,944,115	0	0	0	0	0	32,824,115	32,824,115
Total	0	1,000,000	800,000	14,320,000	12,760,000	7,236,908	0	0	0	0	0	36,116,908	36,116,908

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Anaerobic Digestion	0	0	0	21,480,000	0	0	0	0	0	0	0	21,480,000	21,480,000
Biogas Utilization (PSA Upgrader)	0	0	0	0	3,120,000	0	0	0	0	0	0	3,120,000	3,120,000
Sidestream Nitrogen Removal	0	0	0	0	7,440,000	0	0	0	0	0	0	7,440,000	7,440,000
Sidestream Phosphorous Removal	0	0	0	0	8,580,000	0	0	0	0	0	0	8,580,000	8,580,000
Site Conveyance	0	0	2,900,000	0	0	0	0	0	0	0	0	2,900,000	2,900,000
Total	0	0	2,900,000	21,480,000	19,140,000	0	0	0	0	0	0	43,520,000	43,520,000

Funding Sources (Unfunded)

314 - Wastewater

WW4 - DCC Oversize

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Offsite & Oversize - Wastewater	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	1,100,000	1,210,000
Total	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	1,100,000	1,210,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	550,000	605,000
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	550,000	605,000
Total	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	1,100,000	1,210,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

314 - Wastewater
WW5 - Network and Facility Renewal

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Burtch Crossing	0	0	1,250,000	0	0	0	0	0	0	0	0	1,250,000	1,250,000
Lift Station Renewal	0	700,000	0	0	0	0	0	0	0	0	0	700,000	700,000
Pipe Replacement	350,000	0	0	0	0	0	0	0	0	0	0	350,000	350,000
Renewal - Wastewater mains and facilities	0	3,700,000	4,265,000	5,000,000	5,000,000	5,200,000	5,400,000	5,600,000	5,800,000	6,000,000	6,200,000	45,965,000	52,165,000
Renewal - Wastewater mains and facilities - SCADA	0	300,000	0	0	0	0	0	0	0	0	0	300,000	300,000
Sanitary Replacement	2,090,000	0	0	0	0	0	0	0	0	0	0	2,090,000	2,090,000
Sewer Lift Station SCADA & Communications Integration & Replacement	200,000	0	235,000	0	0	0	0	0	0	0	0	435,000	435,000
WWTF Blower Replacement	0	500,000	0	0	0	0	0	0	0	0	0	500,000	500,000
Total	2,640,000	5,200,000	5,750,000	5,000,000	5,000,000	5,200,000	5,400,000	5,600,000	5,800,000	6,000,000	6,200,000	51,590,000	57,790,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	2,640,000	5,200,000	5,750,000	5,000,000	5,000,000	5,200,000	5,400,000	5,600,000	5,800,000	6,000,000	6,200,000	51,590,000	57,790,000
Total	2,640,000	5,200,000	5,750,000	5,000,000	5,000,000	5,200,000	5,400,000	5,600,000	5,800,000	6,000,000	6,200,000	51,590,000	57,790,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
No Projects													
Total	0	0	0	0	0	0	0	0	0	0	0		

Funding Sources (Unfunded)

314 - Wastewater

WW6 - Network and Facility Improvements

Priority 1 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Emerging Issues	0	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	900,000	1,000,000
KLO Rd Mission Creek Bridge Sanitary Main	100,000	0	0	0	0	900,000	0	0	0	0	0	1,000,000	1,000,000
Wastewater Treatment Facility Uninterruptible Power Supply Renewal	0	90,000	0	0	0	0	0	0	0	0	0	90,000	90,000
Wastewater Treatment Odour Control Media Replacement (NEW)	0	0	0	1,150,000	0	0	0	0	0	0	0	1,150,000	1,150,000
Total	100,000	190,000	100,000	1,250,000	100,000	1,000,000	100,000	100,000	100,000	100,000	100,000	3,140,000	3,240,000

Funding Sources

Fund	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
General Taxation	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Works Fund	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Development Cost Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
Borrowing	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer/Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	100,000	190,000	100,000	1,250,000	100,000	1,000,000	100,000	100,000	100,000	100,000	100,000	3,140,000	3,240,000
Total	100,000	190,000	100,000	1,250,000	100,000	1,000,000	100,000	100,000	100,000	100,000	100,000	3,140,000	3,240,000

Priority 2 Projects - Costs

Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total 2020-2029	Total 2020-2030
Okaview - Reserve Project - SCA 28 (Curlew Drive to Okaview Road)	0	0	184,000	0	0	0	0	0	0	0	0	184,000	184,000
Rutland Central - Reserve Project - SCA 22 - Husch Road	0	0	0	0	687,000	0	0	0	0	0	0	687,000	687,000
Rutland Central - Reserve Project - SCA 22 - Mallach Road	0	0	479,000	0	0	0	0	0	0	0	0	479,000	479,000
Rutland Central - Reserve Project - SCA 22 - Scarboro Road	0	0	0	653,000	0	0	0	0	0	0	0	653,000	653,000
Total	0	0	663,000	653,000	687,000	0	0	0	0	0	0	2,003,000	2,003,000

Funding Sources (Unfunded)

10-Year Capital Plan Update

(2020 – 2029)

November 23rd, 2020

Meeting Agenda

- Financial Shifts
- Overview
- Cost Centre Review
- Infrastructure Deficit
- Next Steps

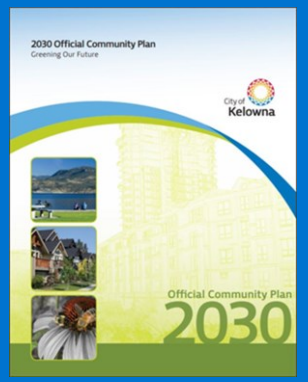
Planning Continuum

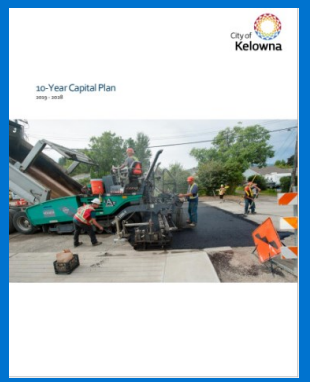
Understanding Community Service Expectations

2040 OCP

2040 Infrastructure Plan

Delivering Infrastructure that supports Service Delivery





Imagine Kelowna

2030 OCP

Council Priorities

2030 Inf. Plan

10-Yr Capital Plan
(Annually updated)

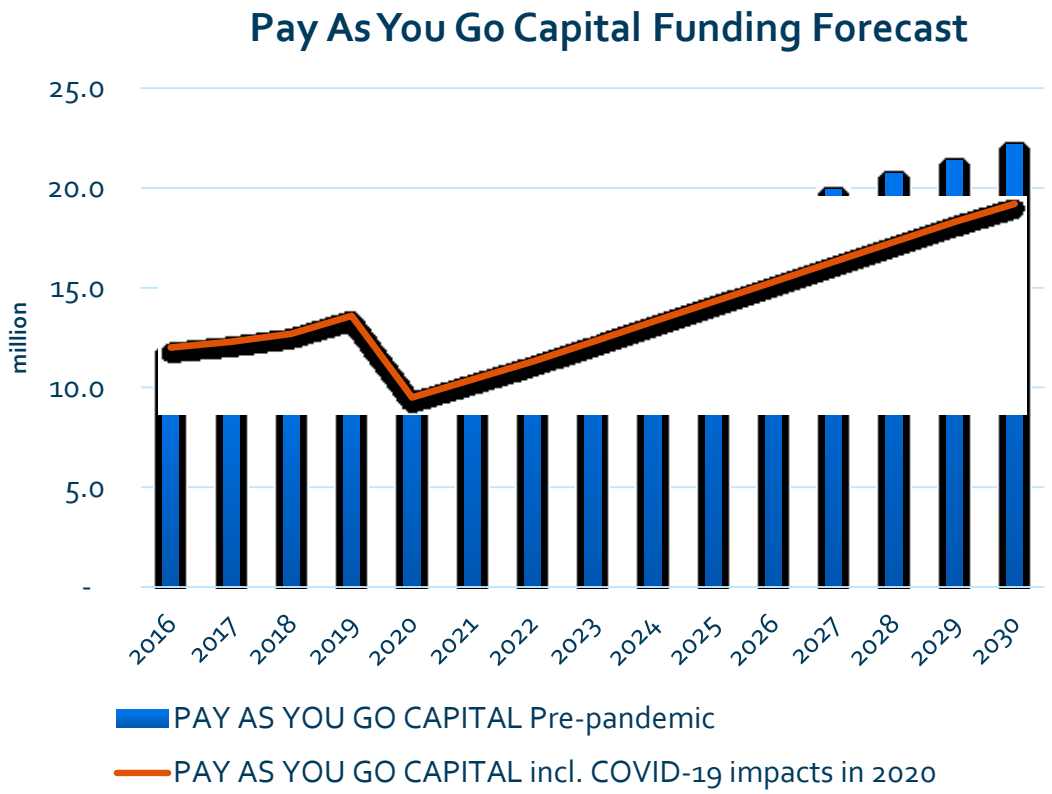
Annual Capital Program

Financial Shifts

- COVID Impacts to PAYG capital funding
- Infrastructure cost escalation
- Leveraging capital reserves
- Parks Development DCC
- Infrastructure Levy

COVID Impacts

- PAYG reduced by $5 million in 2020
- Affects future years ongoing
- Net result $41 million reduction in PAYG funding 2020 – 2029.
- Broader financial impacts because PAYG used to support other funding sources (i.e. grants, DCC, CWF, partnerships).

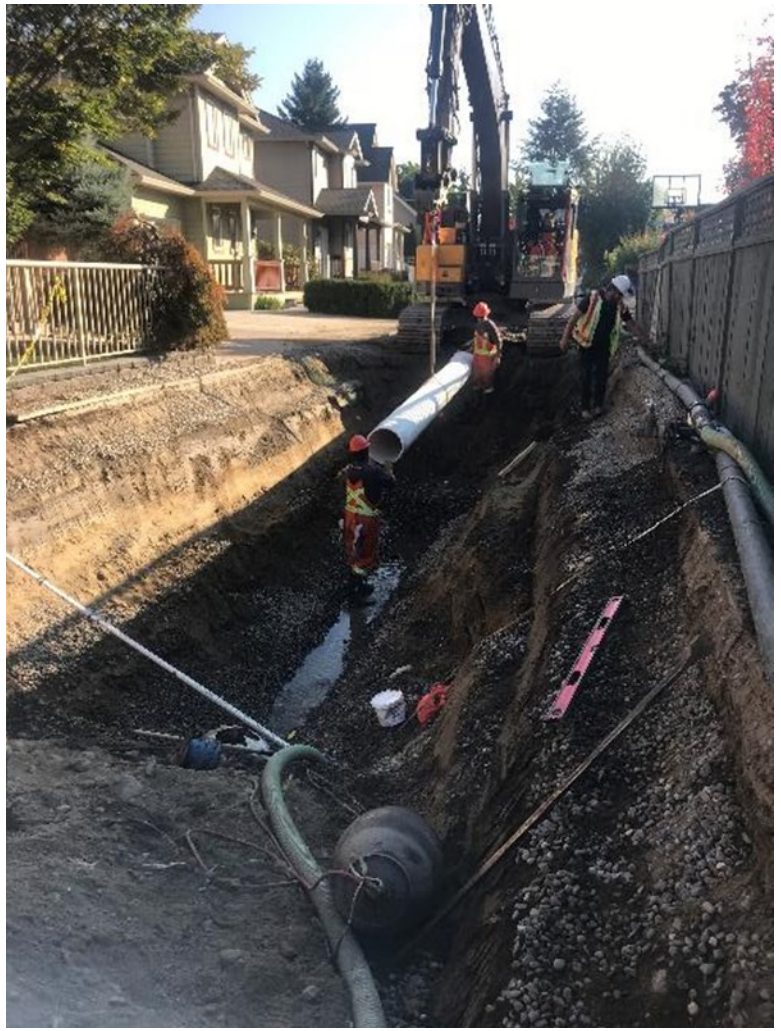


Construction Cost Escalation

- DCC land costs +25%
- DCC infrastructure +7%
- DCC increase approved 2019
- Building construction +6%

Leveraging Capital Reserves

- Capital Reserves were utilized to the maximum to offset funding shortfall.
- One time opportunity and not financially sustainable long-term.
- Reserves include:
  - Community Works Fund (Gas Tax),
  - Municipal Works Fund (Building),
  - Infrastructure Levy,
  - Public Work and Equipment reserves.



Parks DCC

- Approved in 2020
- Additional $74 million Parks Development and land
- 30% of Infrastructure Levy

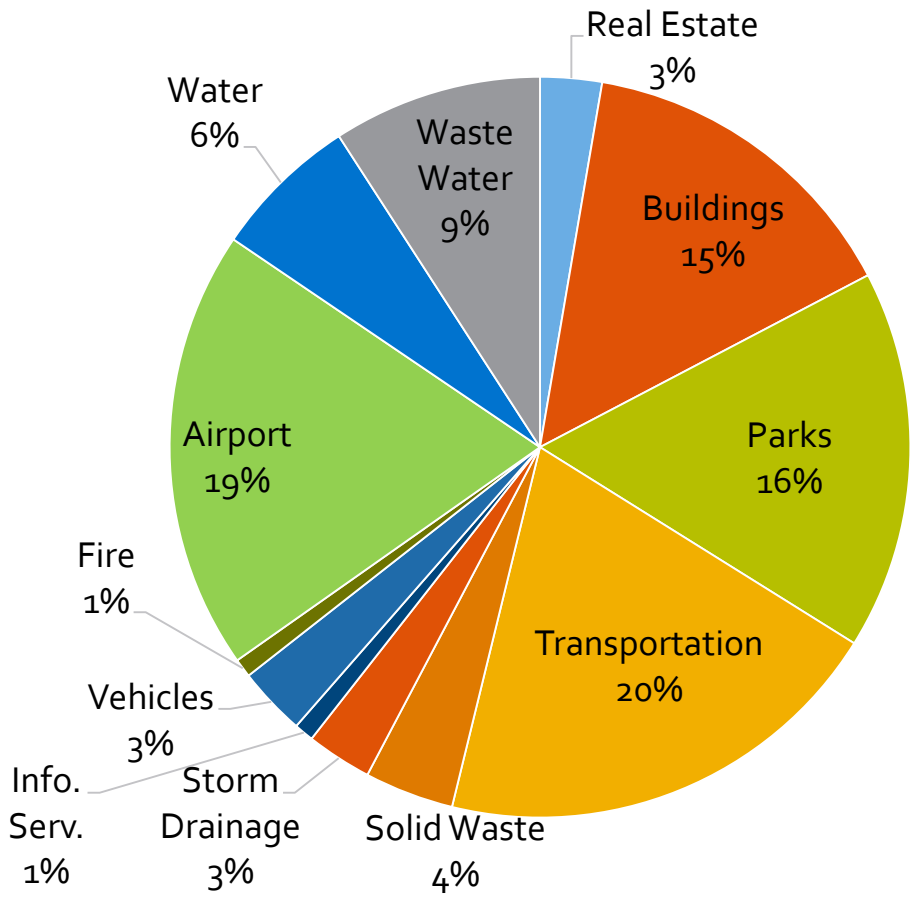
Infrastructure Levy

- Approved 2019
- Adds $5.6 million/annually
- Used to support:
  - Parks Development,
  - Transportation Renewal,
  - Flood prevention.

Cost Centre	Investment (million)	(%)
Parks	$15.6	28
Transportation	$27.1	48
Storm Drainage	$13.7	24
Total	**$56.4**	

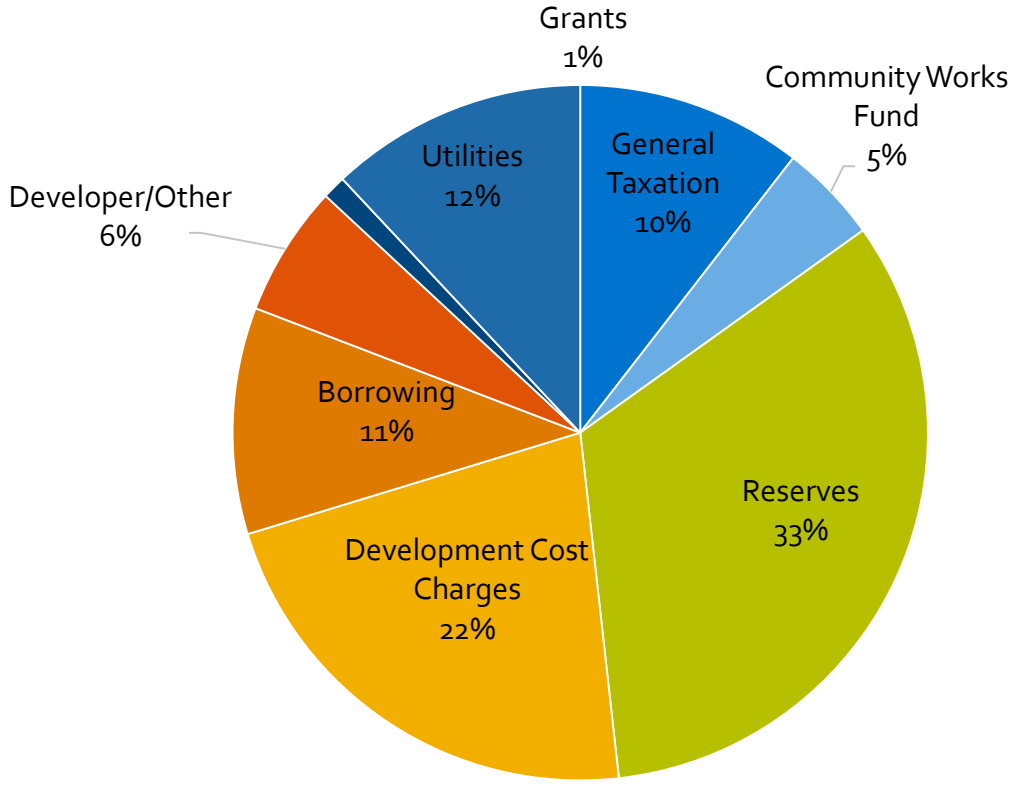
Investment Summary (2020 – 2029)

- $1.32 billion total investment
- Renewal of critical aging infrastructure,
- Parks acquisition and development,
- Transportation & mobility infrastructure making it easier for all people to get around by vehicle, transit, cycling and walking,
- Flood protection infrastructure to protect the community against the effects of climate change and flooding,
- Recreation centres and public space to keep pace with Kelowna's population growth and the evolving needs of its residents,
- Airport development adjusted to align with lower passenger demand resulting from COVID-19.



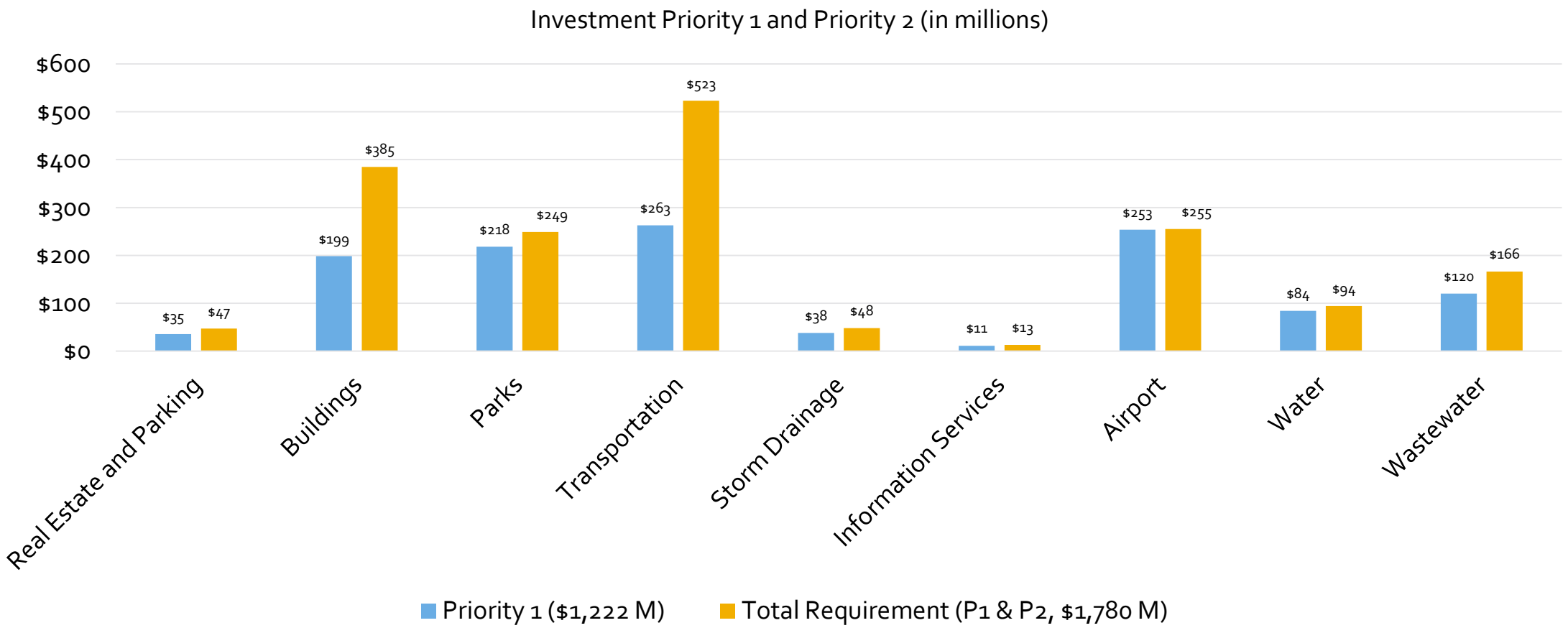
Funding

- $1.32 billion forecasted funding
- 10% taxation ($138 million)
- 4% infrastructure levy ($56 million)
- 1 % confirmed grants ($14 million)
- 33% reserves ($436 million)
- 22% DCC ($291 million)



Funding by source $1.32 billion.

Investment Priority



Transportation

- Investment $263 million (20%)
- Net increase $15 million
- Big Projects and Programs (P1)
  - Road and bridge renewal
  - Active transportation
  - Road improvements for growth
- Unfunded Projects(P2)
  - Transportation renewal
  - Clement 2 – Hwy 33 Ext
  - Transit Facility
  - Airport Exchange
  - Infrastructure deficit $137 million

Kelowna International Airport

- Investment $253 million (19%)
- Net decrease of $76 million
- Main Projects and Programs
  - Terminal expansion ($85M)
  - Airside pavement ($55M)
  - Hotel ($32M)
  - East Lands development ($12M)
  - Combined operations building ($11M)
  - Airside equipment ($9M)
  - Runway end safety area ($8M)
  - Car rental facility ($8M)
  - Mill Creek realignment ($6M)
  - No Infrastructure deficit.

Parks

- Investment $218 million (16%)
- Net increase $82 million
- Park Development DCCs now included
- Big projects and programs (P1)
  - DCC parkland acquisition
  - Park Development
    - Pandosy Waterfront, Dehart, Casorso, Gallagher, Kerry, Mission Recreation, and City Park
    - Neighbourhood and Linear parks
  - Irrigation renewal
- Unfunded Projects(P2)
  - Park infrastructure renewal (irrigation, playgrounds, parking)
  - Boat launch renewal
  - Blue Bird Beach
  - Infrastructure deficit - $31 million

Buildings

- Investment $199 million (15%)
- Net increase $19 million
- Big projects and programs (P1)
  - Parkinson Recreation Centre
  - CNC Expansion
  - North Glenmore Firehall
  - Mission Activity Centre
- Unfunded projects(P2)
  - Buildings Renewal
  - Kelowna Community Theatre
  - City Yards Replacement
  - CNC, Prospera and Kelowna Family Y – Renovations
  - Infrastructure deficit - $186 million

Water

- Investment $84 million (6%)
- Net reduction $34 million
- Big Projects and Programs (P1)
  - Major focus on inner City water transmission and storage projects from Poplar Point to Dilworth Mountain.
  - Almost 50% of capital budget will go toward renewal and regulatory upgrades.
  - Installation of water meters across the City.
- Unfunded Projects(P2)
  - Irrigation system major renewals
  - Major Dam Safety Improvements for McCulloch Reservoir
  - Infrastructure deficit $9.6 million

Wastewater

- Investment $120 million (9%)
- Net increase $38 million
- Big Projects and Programs (P1)
  - System Renewal will account for over 40% of the 10 Year budget.
  - Biosolids Digestion – An added process to the wastewater treatment process. 45% is funded through reserves, and the remainder is P2 through growth.
- Unfunded Projects(P2)
  - Biosolids Digestion – 55% is not yet funded and requires funding through growth.
  - Remaining Sewer Connection Areas. Grant funding opportunities remain only funded through development and program charges.
  - Infrastructure deficit $45 million

Solid Waste

- Investment $51 million (4%)
- Net increase $15 million
- Big Projects and Programs (P1)
  - Expansion of the landfill footprint to Areas 2 & 3
  - A new compost process to produce Glengrow.
  - A new stormwater management program
- Unfunded Projects(P2)
  - No infrastructure deficit

Storm Drainage

- Investment $38 million (3%)
- Net increase $20 million
- Big Projects and Programs (P1)
  - Mill Creek Flood Protection Project – Upgrading the diversion, some Dike improvements and Improvements to enhance the Sexsmith Area.
  - Knox Mountain Slope Stability Project.
- Unfunded Projects(P2)
  - The airport component of the Mill Creek Flood Protection Project needs to be re-allocated to take advantage of 40% DMAF funding (Disaster Mitigation and Adaptation Fund)
  - A number of stormwater major system components and lake outlets across the City remain unfunded.
  - Annual geotechnical hazard maintenance.
  - Infrastructure deficit $10 million

Vehicles and Equipment

- Investment $39 million (3%)
- Net decrease $4 million
- Big Projects and Programs (P1)
  - Vehicle & Equipment Renewal
  - Additional vehicles to support growth
- Unfunded Projects(P2)
  - Difficult to forecast demand for additional vehicles and equipment demand caused by growth and service improvements
  - Working on better forecasting and funding strategy
  - No infrastructure deficit

Information Services

- Investment $11 million (1%)
- Big Projects and Programs (P1)
  - Front Office Equipment and Server and Data Storage
  - Major System Projects
  - Communications Network and Fibre Optics
- Unfunded Projects(P2)
  - Taxation funding decreased by $1.4 million or 17%. Taxation accounts for all future planned expenditures for City Front Office Equipment and Server and Data Storage Equipment.
  - Infrastructure deficit $1.4 million

Fire

- Investment $11 million (1%)
- Net increase $2 million
- Big Projects and Programs (P1)
  - Vehicle/Equipment Renewal
  - Communication Systems
- Unfunded Projects(P2)
  - No infrastructure deficit

Infrastructure Deficit

- Infrastructure required to accommodate growth, enhance services, and renew existing assets
- City's Infrastructure Deficit $377 million

INFRASTRUCTURE CATEGORY		Funding	
	Cost	City	Other
Renewal	$116	$109	$7
Growth	$282	$149	$133
New (enhance service)	$160	$119	$41
TOTAL	$558	$377	$181

Questions?

For more information, visit **kelowna.ca**.