May, 5, 2023
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Planning Department
City of Kelowna
RE: Official Community Plan Response
For 3805 Lakeshore Road, Kelowna, BC.
Development Permit Application

Design Rationale Statement (explain the project's conformity to relevant policies, form and character, materials, neighbourhood context, relationship to adjacent properties, OCP objectives, etc.)

The proposal places a strong emphasis on the corner site and its potential to establish an anchor within the neighborhood. The primary objective is to create a strong sense of place within the neighborhood. With this in mind, the design focuses on the corner massing of the building, with an emphasis on creating a dynamic and robust commercial road while simultaneously fashioning a charming and intimate residential street along Cook Road. The goal is to ensure that the building contributes positively to the neighborhood context and provides a sensitive transition in scale to existing and future buildings, parks, and open spaces.

The corner massing of the building is a pivotal component in achieving the desired outcome. The aim is to create a distinctive and memorable architectural form that will serve as a landmark within the area.

The proposal is highly responsive to topography and environmental features, while enhancing privacy, livability, safety, and accessibility. The project will provide adequate servicing, vehicle access, and parking while minimizing adverse impacts on the comfort, safety, and attractiveness of the public realm.

The commercial road will be the primary artery of the development, serving as a bustling and vibrant hub for the neighborhood. The design will focus on creating a lively and engaging streetscape that will attract foot traffic and stimulate commerce. To that end, large sidewalks, outdoor seating along hard/soft scaping, and other features will be incorporated.

In contrast, the residential street along Cook Road will be a more tranquil and serene space, designed to evoke a sense of intimacy and domesticity. The emphasis here will be on creating a pedestrian-friendly environment that encourages social interaction and outdoor activity. Features such as tree-lined streets, outdoor private seating areas, and inviting front porches will help to cultivate a strong sense of community and belonging.

The project will focus on high-performance design that reduces energy demand and maximizes occupant health and comfort while ensuring visual interest. Overall, the project will create a well-designed and sustainable urban environment that contributes positively to the surrounding community.

### 2.0 DESIGN FOUNDATIONS <br> 2.1 GENERAL RESIDENTIAL AND MIXED-USE GUIDELINES: TO SITE AND DESIGN BUILDINGS <br> TO POSITIVELY FRAME AND ACTIVATE STREETS AND PUBLIC OPEN SPACES

### 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.

The proposed development places a high priority on promoting foot traffic and social interaction at the ground level. The design of the building is visually engaging, enhancing the streetscape and creating a sense of enclosure and safety for pedestrians. Sustainable modes of transportation, such as walking and cycling, are actively encouraged through the provision of amenities such as bike parking and convenient pedestrian access.

The open plaza on Lakeshore Road, framed by trees, shrubs, and sod, features benches and bike racks to encourage cycling. In fact, more than $75 \%$ of the long-term bicycle parking is located within the first two storeys, and bicycle parking is provided on all floors for easy resident access and storage.

Ground-oriented units are located just steps from the street, with shared entrances to further promote spontaneous social interactions between residents and the public. The plaza along Lakeshore Road serves as a public space for people to meet and interact.

The large amenity space on the third floor, coupled with extensive private patios, offers ample opportunity for residents to socialize with one another, while also providing the public with eyes on the street and a constant human presence. Overall, the development aims to create a vibrant and welcoming streetscape that promotes community engagement and sustainable transportation options.

### 2.1.0 b - Incorporate high quality building, landscape, and streetscape design to support liveability, sustainability, and sense of place.

To enhance the liveability and sustainability of the project, high-quality and durable materials have been carefully chosen. Concrete Unit Pavers have been selected for their durability and are being used along Lakeshore's commercial street front and large residential lobby, ensuring long-lasting spaces. The streetscape design has been created with a memorable aesthetic, creating a sense of place for both residents and neighbors. The restoration and preservation of the existing wetland within the site has been given special attention, recognizing its importance to the project and site. Storm water management has been approached in a two-pronged manner. While some of the water will be retained using storm water tanks, a significant portion will be mitigated through planters in the 3rd floor amenity space, promoting sustainable water
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use. Lastly, the material palette has been carefully selected to resemble the natural landscape's colors in the Okanagan Valley, creating a sense of familiarity and enhancing the area's sense of place.
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.
2.1.0 d - Provide usable open spaces on site that balance privacy and access and that increase pedestrian connectivity throughout the city.
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.
The proposed building is set to become the focal point of Cook Truswell Village Centre, creating a strong sense of place while also being mindful of the adjacent wetland. To ensure the preservation of the wetland, the development has been confined to a small portion of the site, keeping it at a safe distance. An expansive south-facing outdoor amenity space on the third floor will provide privacy while balancing the proposed public commercial street along Lakeshore Rd. Locating the outdoor amenity space here has allowed the building to step back and create a smooth transition from the wetland. The parkade will be accessible from Cook Road but will be positioned away from the public realm, providing essential parking and servicing facilities. To soften its visual impact, the concrete parkade will feature patterns and texture created during the forming process, breaking down its scale and providing a smooth transition from the natural wetland to the built environment. To maintain the attractiveness of the public realm, the residential and commercial program has been positioned as two strong street edges.
2.1.1 RELATIONSHIP TO THE STREET: TO SITE AND DESIGN BUILDINGS TO POSITIVELY FRAME AND ACTIVATE STREETS AND PUBLIC OPEN SPACES.

### 2.1.1

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.
E. Ensure main building entries are clearly visible with direct sight lines from the fronting street. With a keen eye towards enhancing the built environment, the building form, entry, and facade have been meticulously oriented to address the prominent corner of Cook St and Lakeshore Rd. The resulting design creates a compelling and confident street edge, with the main residential entrance thoughtfully placed towards the corner yet still oriented towards the comparatively tranquil street. The ground-level units effectively reduce the scale of the building along Cook Road, generating pockets of liveliness along the street and infusing a feeling of domesticity as they transition into the adjacent residential area. Meanwhile, the commercial spaces have been strategically positioned to face the livelier Lakeshore road, ensuring the building remains an active and engaged contributor to the surrounding urban fabric.
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C. Minimize the distance between the building and the sidewalk to create street definition and a sense of enclosure (See Figure 1).
The proposed building form is delineated by adhering to the minimum setbacks, resulting in a clear and compelling street definition. By considering the spatial relationships between the building and its urban context, the design effectively reinforces the visual and physical boundaries of the street, creating an engaging and welcoming environment for pedestrians and passersby alike.
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.
In order to foster a vibrant and safe streetscape, the majority of the building's units have been deliberately positioned along its intersecting roads, with a focus on front-facing units. Notably, Cook Street features a particularly active frontage, with a series of ground-oriented units and a spacious balcony for third-floor units, serving to create an engaging and visually interesting street presence. The building's corner serves a dual purpose of anchoring the site while also creating a distinct vertical boundary that defines the street space. Additionally, the numerous windows incorporated into the corner design establish a connection between the building's occupants and those passing by.
G. Avoid the use of roll down panels and/or window bars on retail and commercial frontages that face streets or other public open spaces.
H. 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
The distance along Cook St from the proposed building to the existing restaurant across the street is approximately 30 M . The height of the residential podium is approximately 10 M , created the appropriate 1:3 street height to width ratio. The building has been designed to be friendly and accessible, and as such, no window panels or bars have been incorporated.
2.1.2 SCALE AND MASSING: 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.
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.
The building's mass has been thoughtfully designed to step back gracefully along Cook road as well as the East property line, allowing for a seamless transition in building height from the neighboring property. The upper East portion of the building has been set back approximately

31 feet from the property line, ensuring a respectful distance is maintained. The third level has been intentionally set to match the height of the adjacent residential property, ensuring a thoughtful and seamless transition in massing. This will also encourage light penetration and privacy. To enhance safety from the building edge and promote privacy through natural features, planting has been strategically placed along the edge of the 3rd-floor patio. Setbacks have also been thoughtfully incorporated throughout the building to reduce shadowing.
2.1.3 SITE PLANNING: 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.
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.
C. Limit the maximum grades on development sites to $30 \%$ (3:1).

The building makes a memorable impact at the prominent intersection by embracing its site (see section 2.16 ). With a 3.0 M setback along Cook Road, the upper levels offer an attentive view of the street and a spacious patio for third-floor residents, promoting safety within the site. The entrance of the residential building enjoys the advantages of facing the peaceful Cook Road, while also being conveniently located near Lakeshore Road, thereby ensuring the safety of residents during entry and exit. The incorporation of a strong street edge, coupled with opportunities for natural surveillance, enables clear sight lines and enhances the safety of both residents and passersby.
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 1 m should be stepped and landscaped).
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, midblock connections, lanes, and courtyards through the appropriate selection of materials, stairs, and ramps as necessary, and the provision of wayfinding and lighting elements.

The building mass slopes gently in relation to the street, and landscaping is integrated to promote a more tranquil traffic flow along the bustling Lakeshore Rd. The building was sited and graded with a focus on universal accessibility principles, minimizing the need for ramps and steps. Although Cook Road is on a slight slope, the difference between the first floor slab and the side walk is mitigated by a few steps at the front of each patio.
2.1.4 SITE SERVICING, ACCESS, AND PARKING: 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.
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.
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.
The parkade has been strategically positioned at the rear of the building, ensuring it remains well out of sight from adjacent streets. While access to the parking is still granted from Cook Road, the majority of the parkade is located far away from any adjacent streets, prioritizing a strong residential and commercial street edge. Utilities have been carefully situated in a way that does not impede on public or private areas, while also ensuring their functionality and longevity. To separate the parking and utilities from the adjacent property, landscaping has been thoughtfully provided along the East Property Line setback. Additionally, landscaping is being proposed to restore the wetland and soften the transition from the parkade to the rest of the site.
E. Design parking areas to maximize rainwater infiltration through the use of permeable materials such as paving blocks, permeable concrete, or driveway planting strips.
The section above the parkade is designated as the building's outdoor amenity space, featuring ample plantings, including small trees, to aid in water management on the site.
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
Bicycle parking as been provided in accordance with the zoning by-law. More than $75 \%$ of the long-term bicycle parking is located within the first two storeys, and bicycle parking is provided
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on all floors for easy resident access and storage. A large portion of the short term parking has been distributed along Lakeshore Road for ease of access to commercial spaces.

## 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.
The design prioritizes parking access through the use of distinctive materials and massing, while the residential entrance is strategically located in a visible area to enhance safety through casual surveillance. The residential entrances features high quality materials such as Brick, while the parkade entrance portal showcases single skin metal in a variety of colours and finishes.
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.
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.
F. Use landscaping materials that soften development and enhance the public realm.
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.
The wetland is a crucial ecological feature that will be maintained, and the building design prioritizes its protection with the guidance of an environmental consultant. The building has been sited to make the a positive impact on the site, while ensuring the safety and longevity of the wetland. Strategically placed trees provide shade and scale for the public plaza in front of the commercial space, while maintaining functional open space. Trees, shrubs and sod
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contribute to the sites microclimate, ensure soil volumes are maximized to help water retention on site. Trees have been carefully located to reinforce the street edges and provide clear sight lines. Lastly, plant species have been chosen carefully for climate, durability, and sustainability with input from experts.
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.
The main strategy for rainwater management is to utilize natural aspects of the site, proposed softscape, and hardscaping to sustainably minimize water use for irrigation and manage water on-site. More than 35 cubic meters of water are expected to be managed within planters in the third-level amenity space and patios. These landscape elements were chosen for their multifunctionality, providing privacy from neighbors and safety from the building's edge. The bioswale along Lakeshore Road helps mitigate, capture, and filter stormwater. Durable and sustainable materials are chosen for the third-floor outdoor amenity space, with a diverse selection of activities designed to take place to ensure all residents are welcome. The community garden, besides allowing water retention and filtration, also enables residents to meet and work with one another.
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.
The lighting design for the site aims to provide adequate illumination without causing light pollution beyond the site. Bollard lights, wall lights, unit sign lights, and seat wall lights were incorporated into the design with this objective in mind. This selection forms an aesthetic that will help passersby find their way through the site.
2.1.6 BUILDING ARTICULATION, FEATURES, AND MATERIALS: TO ENHANCE LIVEABILITY, VISUAL INTEREST, IDENTITY, AND SENSE OF PLACE THROUGH BUILDING FORM,
ARCHITECTURAL COMPOSITION AND MATERIALS.
A. Express a unified architectural concept that incorporates variation in facade treatments, while considering the impact of massing and articulation on energy performance (see 2.2.1). 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
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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 or balconies, while balancing the significant potential for heat loss through thermal bridge connections which could impact energy performance (see 2.2.1); corner feature accents, such as turrets or cupolas; variations in roof height, shape and detailing; building entries; and Canopies and overhangs can 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 artwork; architectural lighting; grills and railings; substantial trim details and moldings/cornices; and trellises, pergolas, and arbors.
The building's dynamic form incorporates both additive and subtractive design elements, featuring a range of materials and colors that accentuate the various forms. The use of these design techniques creates a visually engaging and unique building. Due to its corner location, high visibility, and 'landmark' potential, the building has been designed to stand out in the urban context. The building's unique form is emphasized by the use of contrasting materials, such as metal, glass and brick, which catch the eye of passersby. The building's corner location has been capitalized on through the use of cantilevered volumes and large windows, providing views in multiple directions. The building's high visibility has been accentuated through the use of vibrant colors, such as copper, applied strategically to certain areas of the facade. Being situated on a corner location carries a significant responsibility to create a visual impact and serve as a recognizable landmark. To achieve this, the building's architecture must be carefully designed to break the urban pattern and stand out from surrounding structures. The building's corner location provides an opportunity to create a unique form that capitalizes on views in multiple directions. The cantilevered corner volumes and dynamic window patter creates a sense of movement and energy. This corner element adds to the building's identity and help it stand out in the urban context.
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.
The consideration of adjacent properties extends beyond building massing to include a deliberate reduction of windows on the East elevation, prioritizing the privacy of residents and neighbors. Further, This section of the building has been set back approximately 31 feet from the property line, providing an additional level of privacy to the adjacent residential lot.
D. Design buildings such that their form and architectural character reflect the buildings internal function and use.
E. Incorporate substantial, natural building materials such as masonry, stone, and wood into building facades
F. Provide weather protection such as awnings and canopies at primary building entries G. Place weather protection to reflect the building's architecture.
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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.

The building's form and material selection are purposefully aligned with its function. Groundoriented units along Cook St are constructed with brick, a material more suitable for human scale. This same brick is used to create a rhythmic pattern on the commercial space along Lakeshore Road, contributing to the overall form. Moreover, the building's design addresses functional requirements with a significant overhang along Lakeshore Rd, providing protection from the elements.
2.2.1 HIGH PERFORMANCE BUILDINGS : TO DESIGN BUILDINGS TO REDUCE ENERGY

DEMAND AND MAXIMIZE OCCUPANT HEALTH AND COMFORT, WHILE ENSURING VISUAL INTEREST.
A. Consider the impact of massing and articulation on energy performance, including consideration for strategies such as: Designing buildings with a pure form, simplified massing and fewer complex junctions to minimize building envelope heat loss; and Using articulation strategies for the building facade that are able to be done outside of the building thermal envelope.
B. Use simple shifts in massing and changes in exterior colors and textures to articulate facades.

The building's design utilizes basic form intersections to achieve an animated shape, relying on articulations outside the thermal envelope to express itself. It adheres to Step Code 3 for energy efficiency and employs changes in material or color to reinforce this approach.
C. For larger buildings, consider targeting 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: Higher WWR ratios can be accommodated at grade to promote at-grade transparency while accommodating the 40\% WWR in the building overall; and Lower WWR ratios can be accommodated on north facing facades to account for lower solar gain potential.
D. Orient buildings to maximize solar access to adjacent streets and public spaces, while also considering optimizing for solar orientation to improve energy performance and occupant comfort.
The proposed building's window-to-wall ratio is below the desired target of $40 \%$, effectively reducing heat gain and loss through the building envelope. Additionally, the L shape design ensures that all units have ample access to natural light.
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: 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.
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.
To achieve BC Energy Step Code 3, the use of highly insulative building materials has been combined with the avoidance of thermal bridging.

### 4.0 LOW \& MID-RISE RESIDENTIAL \& MIXED USE

4.1.1 RELATIONSHIP TO THE STREET: TO SITE AND DESIGN BUILDINGS TO POSITIVELY FRAME AND ACTIVATE STREETS AND PUBLIC OPEN SPACES
a. Ensure lobbies and main building entries are clearly visible from the fronting street.
B. Avoid blank walls at grade wherever possible.
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 27). The residential lobby is situated along Cook Street near the corner of Lakeshore Road, providing a secure and peaceful entrance with good visibility. The parkade is conveniently located at the rear of the complex facing the wetland, allowing units and commercial spaces to face the street. Ground-level units are located along Cook Street, while commercial spaces with transparent glazing are placed along Lakeshore Road, both with appropriate setbacks to create a continuous frontage.
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 28).
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.
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.
The commercial entrances are regularly spaced to create a rhythmic pattern along the street. Ground-level units feature individual semi-private entries with a 3.0 M setback from the property line. The building's orientation is designed to provide windows and patios overlook the public street and amenity space.
4.1.2 SCALE AND MASSING: 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.
A. Residential building facades should have a maximum length of 60 m . A length of 40 m is referred.
B. Residential buildings should have a maximum width of 24 m
C. Buildings over 40m in length should incorporate a significant

Horizontal and vertical break in the facade (See Figure 33).
The residential facade spans 41 meters in length and 18.4 meters in width. The commercial facade features intentional breaks for visual appeal.
4.1.3 SITE PLANNING: 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.
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:
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 .
The levels and building form of the site have been carefully planned to ensure seamless transitions and alignment with the adjacent streets. The building has been positioned parallel to the front streets, with parking located towards the rear. A pattern has been established along the street edges of Lakeshore Road and Cook Road to break them down systematically, creating a rhythm that enhances the appropriate scale of the development.

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4.1.4 SITE SERVICING, ACCESS AND PARKING: 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
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A. Vehicular access should be from the lane (See Figure 36). 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
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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 1.2 m above grade, with the following considerations.
Due to the absence of a lane, access to the property is available through a secondary street with only one curb cut. Above grade parking has been provided due to the high-water table. Locating the parkade has been thoroughly considered to prioritizing dwelling units facing the adjacent streets.
4.1.5 PUBLICLY-ACCESSIBLE AND PRIVATE OPEN SPACES: TO DESIGN LANDSCAPES AND OPEN SPACES TO RESPOND TO AN OPEN SPACE PROGRAM THAT RELATES TO ITS USERS AND PROVIDES FLEXIBLE, ACCESSIBLE OPEN SPACE.
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
B. Locate semi-private open spaces to maximize sunlight penetration, minimize noise disruptions, and minimize 'overlook' from adjacent units.
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.
To encourage spontaneous social interactions, publicly accessible open spaces have been situated along Lakeshore Road, surrounded by landscape, benches, short-term bicycle parking, and durable hardscaping materials. As the street runs in a south-north direction and faces west, it should receive ample natural sunlight. Private open areas that face residential areas have been significantly stepped back to ensure privacy and minimize overlooking. Additionally, planters have been incorporated into these areas for safety and further privacy. A generously proportioned third-floor amenity area, oriented towards the south, has been created to provide a variety of facilities such as an outdoor kitchen, pool, couches, tables, and benches. This area is open to the east and south, allowing for abundant natural light. The design strikes a balance between softscaping and hardscaping, making the space accessible and enjoyable to a diverse range of people.
F. Design shared rooftop amenity spaces (such as outdoor recreation space and rooftop gardens on the top of a parkade; see Figure 38) 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.
architecture
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. The rooftop amenity space is situated above the parkade, with screening provided between private unit patios and the accessible area. The shared outdoor amenity space features plants grassed areas and trees to mitigate the heat island effect. Additionally, planters have been used to retain storm water, as well as provide further safety and privacy for residents. The amenity space has been designed to entertain a multitude of activities, while providing privacy from adjacent units.
4.1.6 BUILDING ARTICULATION, FEATURES \& MATERIALS: TO ENHANCE LIVEABILITY, VISUAL INTEREST, IDENTITY, AND SENSE OF PLACE THROUGH BUILDING FORM, ARCHITECTURAL COMPOSITION, AND MATERIALS.
A. Articulate building facades into intervals that are a maximum of 15 m wide for mixed-use buildings and 20 m wide for residential buildings. Strategies for articulating buildings should consider the potential impacts on energy performance (see 2.2.1), and include: 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 bay window or balcony for each interval, while balancing the significant potential for heat loss through thermal bridge connections which could impact energy performance; 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.
The commercial building facade spans intervals of 7-12 meters, while the residential building segments are 5-7 meters. The building's dynamic appearance is achieved through massing modulation, overhangs, cantilevers, and setbacks, which are accentuated by window patterns, balcony punch-outs, and decks. The massing expression extends upward, contributing to a cohesive roof design.
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 40).
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 by-product of massing.
E. Incorporate distinct architectural treatments for corner sites and highly visible buildings such as varying the roofline (See Figure 41), articulating the facade, adding pedestrian space, increasing the number and size of windows, and adding awnings and canopies.
architecture

The building's dynamic form incorporates both additive and subtractive design elements, featuring a range of materials and colors that accentuate the various forms. The use of these design techniques creates a visually engaging and unique building. Due to its corner location, high visibility, and 'landmark' potential, the building has been designed to stand out in the urban context. The building's unique form is emphasized by the use of contrasting materials, such as metal and glass, which catch the eye of passersby. The building's corner location has been capitalized on through the use of cantilevered volumes and large windows, providing views in multiple directions. The building's high visibility has been accentuated through the use of vibrant colors, such as 'copper', applied strategically to certain areas of the facade. Being situated on a corner location carries a significant responsibility to create a visual impact and serve as a recognizable landmark. To achieve this, the building's architecture must be carefully designed to break the urban pattern and stand out from surrounding structures. The building's corner location provides an opportunity to create a unique form that capitalizes on views in multiple directions. The cantilevered corner volumes and dynamic window patterns creates a sense of movement and energy. This corner element adds to the building's identity and help it stand out in the urban context.
F. Provide weather protection (e.g. Awnings, canopies, overhangs, etc.) Along all commercial streets and plazas (See Figure 42), 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.
The commercial street is sheltered by an architecturally integrated overhang scaled to the pedestrian which will provide weather protection while allowing light to penetrate. A substantial cantilevered section of the building shelters the residential entrance, providing both easy visibility and a feeling of enclosure. This feature also serves to break up the pattern of the ground-level units, facilitating its recognition.
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.
K. Avoid the following types of signage: 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.
The building signage is integrated to ensure clear identification of shops, while complying with the Sign Bylaw. Additionally, the massing includes a cantilevered overhang that will aid in providing pedestrians with a clear sense of scale.

## 3805 Lakeshore Road, Kelowna

## Carshare Information Package to Support Rezoning/Development Permit Application Submission dated May 2, 2023

Provided by: Jim Pattison Developments Ltd.

Provided to: Mark Tanner, Planner II - City of Kelowna

## Introduction:

Based on the parking reductions being sought in our application, Jim Pattison Developments (JPD) held a meeting with Modo Carshare (Kelowna) to discuss our project. At this meeting, Modo declined the opportunity to participate in our project, causing JPD to seek other carshare solutions. Fortunately, another Pattison Group company - Jim Pattison Lease (www.jimpattisonlease) has committed to providing both the carshare operating platform and vehicles required to support our project and which meet the carshare requirements of the City of Kelowna.

Our understanding of the definition of the City of Kelowna's Carshare Organization to be:
CAR-SHARE ORGANIZATION means operations that allow members of the general public to book vehicles on a short-term as-needed basis, paying only for the time they use the vehicle and the distance they drive. The operators are responsible for maintenance, insurance and vehicle booking through an online application.

As per the Planning Department's request, we have addressed the following issues with respect to providing our Carshare Program through Jim Pattison Lease:

1. Confirmation that Modo is not willing to provide carshare vehicles:

Attached please find an email from Modo Carshare confirming that they are not willing to provide carshare vehicles at the proposed development (3805 Lakeshore Road, Kelowna).
2. How the car-share would meet the requirements of the Zoning Bylaw (dedicated car and parking stall, available to the public)

The Carshare vehicles and dedicated Carshare stalls for our project would be located on the ground level of the secured parkade at 3805 Lakeshore Rd, as indicated on the attached plan. The parkade will be fully secured but will permit 24/7 access to Carshare members (both general public and tenants of our project) that have made a Carshare booking online. In a separate service agreement with Jim Pattison Developments, Jim Pattison Lease will ensure that regular maintenance schedules are adhered to, and adequate insurance is in place for the Carshare vehicles. Jim Pattison Lease is currently in the process of developing an online application dedicated to Carshare usage and payment platform, which we will share with the City of Kelowna when it is completed in the coming months.

## 3. Details on how the organization would operate (e.g., overall structure):

The Carshare platform will operate as a solely owned business line of Jim Pattison Lease. All vehicles, online applications and other proprietary business functions related to the Carshare business line will be owned and administered by Jim Pattison Lease. Jim Pattison Developments will enter into a Services Agreement with Jim Pattison Lease to provide the Carshare program to our project.

## 4. Previous experience or resources that would demonstrate that is it viable:

Jim Pattison Lease has been in business for over 61 years and is one of the largest privately held fleet vehicle management companies in Canada. Jim Pattison Lease also operates Visa Rentals and Leasing, a rental vehicle company that provides services in British Columbia and Alberta. They have been exploring entering the Carshare market for some time and possess the technological, financial and vehicle resources to deliver an exceptional Carshare offering to the Kelowna market, and to fill a clear market gap that exists as a result of having only one other Carshare provider for Kelowna in Modo.

## 5. Information on how booking would work and availability to the public:

The Jim Pattison Lease Carshare program would take bookings and payment through an online application, similar to Modo and other Carshare providers. We will share the new beta online booking application with the City of Kelowna when Jim Pattison Lease has completed it in the coming months. The online application would be available for free download by the general public and by the tenants of our project. Access to Carshare vehicles would be into the secured parkade at the project with an one-time access code via an access door as indicated on the attached plan. When the Carshare members are finished with their booking, they will return the Carshare vehicle to a designated stall at our project. The Carshare vehicles will be equipped with programable garage door openers to allow access in and out of the parkade.
6. Details about how the car-share would be secured (e.g.: if the building sells, how is it assured that the car-share will be continued, the parking stall will still be reserved etc.):

Like legal agreements that we have entered with the City of Vancouver for Carshare services, Jim Pattison Developments would propose to enter into a legal agreement with the City of Kelowna for Carshare services at the property, to be registered on title. We are pleased to share precedent legal agreements with the City of Kelowna or to review the terms of existing Carshare legal agreements that the City of Kelowna would like to use. The terms of the Carshare legal agreement would include for such items as specifically identified Carshare stalls to be designated, Jim Pattison Developments' obligations to maintain ongoing carshare services, and the length of time for those obligations. Jim Pattison Developments intends to hold and operate the project on a long-term basis, but in the unlikely event the property did sell, the legal agreement registered on title would have provisions such that the obligation to provide Carshare services would survive and be passed onto subsequent owners.
7. Assurances about the long-term sustainability and JPD's commitment to the car-share in the long term (e.g.: is it financially viable; it won't just be abandoned after a year or two if there is lower use):

Jim Pattison Developments has held extensive discussions with Jim Pattison Lease with regards to our proposed Carshare solution for this project. The Services Agreement that the two parties will enter into will ensure that this venture is financially accretive to Jim Pattison Lease and that they will maintain the service for the long term. Jim Pattison Lease views this Kelowna Carshare opportunity as a springboard to a much broader opportunity to develop and grow an entirely new business line for their company. Jim Pattison Developments intends to reconsider Carshare providers for all future multi-family residential projects, for which we have a deep development pipeline, and to look to Jim Pattison Lease as our Carshare provider. This approach will not only further support this new business line but will allow Jim Pattison Lease to build their brand in this space so they can pursue other third-party developers beyond Jim Pattison Developments.

## 3805 Lakeshore Road

## Site Location



## 3805 Lakeshore Road

## Site Location



## 3805 Lakeshore Road

3805 LAKESHORE ROAD, KELOWNA BC | CONTEXT \& COLOUR PHOTOGRAPHS

## Site Context



## 3805 Lakeshore Road

3805 LAKESHORE ROAD, KELOWNA BC | CONTEXT \& COLOUR PHOTOGRAPHS

## Site Context



A - VIEW SOUTHEAST FROM LAKESHORE / COOK


B - VIEW NORTHEAST FROM LAKESHORE

## 3805 Lakeshore Road

3805 LAKESHORE ROAD, KELOWNA BC | CONTEXT \& COLOUR PHOTOGRAPHS

## Site Context



C - VIEW EAST FROM LAKESHORE OF WETLAND


D - VIEW SOUTHWEST FROM COOK


## Mixed-Use Rental Residential Development

3805 Lakeshore Rd, Kelowna, BC

| ARCHITECTURAL |  |
| :---: | :---: |
| Formosis Architecture |  |
| 200-211 Columbia Street, |  |
| Vancouver, British Columbia |  |
| V6A 2R5 |  |
|  |  |
|  |  |
| A000 | COVER PAGE/ DRAwING LISTS |
| A001 | CONTEXT PLAN/ PROJECT STATISTICS |
| A002 | PERSPECTIVES |
| A003 | PERSPECTIVES |
| A004 | shadow diagrams |
| A152a | SITE PLAN |
| A152b | SITE PLAN |
| A211 | L1 floor plan |
| A212 | L2 FLOOR PLAN |
| A213 | L3 FLOOR PLAN |
| A214 | L4 FLOOR PLAN |
| A215 | L5 FLOOR PLAN |
| A216 | L6 FLOOR PLAN |
| A251 | ROof PLAN |
| A401 | bulding elevations |
| A402 | building elevations |
| A403 | Street elevations |
| A404 | COLOUR BoARD |
| A405 | building signage |
| A451a | building sections |
| A451b | BUILDING SECTIONS |
| A501 | unit layouts |
| A502 | UNIT LAYOUTS |
| A503 | UNIT LAYOUTS |
| A504 | UNIT LAYOUTS |
|  | UNIT LAYOUTS |



| MECHANICAL |
| :---: |
| Rocky Point Engineering |
| 208-20171 92A Avenue, |
| Langley, BCV1M3A5 |
|  |  |
|  |
|  |
| CIVIL |
| McElhanney |
| 2281 Hunter Road, |
| Kelowna, BC |
| V1X 7 C5 |
| Tel.: 2508618783 |
| https://ww |


| ELECTRICAL |
| :---: |
| Nemetz (S/A) \& Associates L |
| 2009 West 4th Avenue, |
|  |
|  |  |
|  |
| https://www.nemetz.com |
| CODE |
| Camphora Engineering Ltd. |
| 2479 Kingsway, |
| Vancouver, BC |
| V5R5G8 |
| Tel. 6048009822 |
| Fax: 6047579679 |

LANDSCAPE
GEOTECHNICAL

| VDZ+A Landscape Architecture | Tetra Tech |
| :---: | :---: |
| 102-355 Kingsway, | $1000-855$ Dunsmuir St., |
| Vancouver, BC | Vancouver, BC |
| V5T 337 | V6C 1N5 |
| Tel.: 6048820024 https://vdz.ca/ | Tel.: 6046850275 website.com |
| BUILDING ENVELOPE | SURVEY |
| Aqua-Coast Engineering Ltd. | Summit Land Surveying |
| $201-5155$ Ladner Trank Road, | ${ }^{1-2413}$ Main Street, |
| Delta, BC | West Kelowna, BC V4T 2 H |
| V4K 1W4 | V4T 2 H 8 |
| https://aqua-coast.cal | http: //www.summitsurveying.ca |

TRAFFIC
Creative Transportation Solutions Ltd
13233 Henry Avenue.
13233 Henry Avenue
Summerland, BC
VOH 1 ZO
Po Box: 1650
Tel.: 2504049094
Fax: 6049366175
https:/lcts-bc.com

## ENVIRONMENTAL

ECOSCAPE Environmental Consultants Ltd.
102-450 Neave Crt
V1V 2M2
Tel.: 2504917337
Fax: 2504917772

ISSUED FOR:
ISSUED FOR: RE-ZONING / DP

DATE:
DATE: $05-05-2023$
${ }_{\text {SET: }}^{\text {SET }}$ No.: 1



|  |
| :--- | :--- |



VIEW FROM CORNER AT LAKESHORE ROAD \& COOK ROAD LOOKING SOUTH-EAST














SOUTH ELEVATION
SCALE 1:150


SOUTH ELEVATION
SOUTH ELEVA
SCALE 1:150



NORTH ELEVATION
SCALE 1:150


SCALE 1:150








$\overbrace{\text { TYPE G }}^{[1-\mathrm{BED}}$

| TYPE G |
| :--- | :--- |
| Area: 645 sq.f. |
| 104 |












TYPE A


## 3805 LAKESHORE ROAD DEVELOPMENT

Issued for Development Permit

Contact Information
$\overline{\mathrm{VDZ}+\mathrm{A}} \mathrm{P}$ Fort Langley Studio
102- -981 Church Street
Fort Langley, British Columbia, V1M 2R8 Mount Pleasant Studio 102-355 Kingsway
Vancouver, British Kelowna Studio
302-1001 302-1001 Manhattan Drive
Kelowna, British Columbia, V1Y 1H7


Key Project Contacts Jim Pattison Developments Proectowner 200-879 Marine Drive
North Vancouver, BC
V7P 1R7

Mitch Cramp cramp@ip-develop
cramp@e-d
0.6044885880

Formosis Architecture
Project Building Architecture 200-211 Columbia Street Vancouver, BC
VGA $2 R 5$
Ivan Katz
ikatz@form ivatœ@trormosis.ca
ika
0.2363263836

| Sheet List Table |  |
| :---: | :---: |
| Sheet Number | Sheet Tille |
| L-01 | COVER SHEET |
| L-02 | OVERALL PLAN |
| L-03 | L3 AMENITY LANSCAPE PLAN |
| L-04 | PLANTING PALETTE |
| L-05A | L1 LIGHTING PLAN |
| L-05B | L LIGHHTING PLAN |
| L-06 | L1 WATER CONSERVATION IRRIGATION PLAN |
| L-07 | L3 WATER CONSERVATION IRRIGATION PLAN |
| LD-01 | DETAILS |
| LD-02 | DETALLS |
| LD-03 | DETALLS |
| LD-04 | DETALLS |
| LD-05 | DETALLS |



(1) SITE PLAN OVERVIEW









WATER CONSERVATION LEGEND

|  | ZONE \#1: HIGH EFFICIENCY SUBSURFACE DRIP IR WATER USE PLANTING AREAS MICROCLIMATE: EAST EXPOSURE PARTALIY SH ESTMMATED ANNUAL WATER USE: 16cu.m. |
| :---: | :---: |
|  | ZONE \#2: HIGH EFFIIIINCY SUBSURFACE DRIP IRRIGATION FOR MODERATE WATER USE PLANTING AREAS TOTAL AREA: 19.1 ${ }^{2}$ <br> MICROCLIMATE: SOUTHEAST EXPOSURE, PARTALILY SHADED BY BULILING ESTIMATED ANNUAL WATER USE: 8 cu.m. |
|  | ZONE \#3: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATIO WATER USE PLANTING AREAS <br> MICROCLIMATE: SOUTH EXPOSURE, PARTIALIY SHADED <br> ESTMMATED ANNUAL WATER USE: 42 Cum |

WATER CONSERVATION CALCULATIONS


water balance 194 cum /rear





3. Al componentis as specilies or apporved altemate
5. Allinactort to ensure no visible pooling occurs on poveres surface
. All paver cuts to be minimum $\frac{1}{3}$ Paver.
(1) UNIT PAVER AT GRADE

notes:
Al components as specified or approved altemate


4) $\frac{\text { HYORAPRESSED SLAB ON SLAB }}{\text { scabitio }}$ $\qquad$ (5) DRIP STRIP AT GRADE $\qquad$
(6) $\frac{\text { DRIP STRPP ON SLAB }}{\text { Sase }}$
 3. Referto Me echanical for





27 April 2023

## Attn: Lara Reid

Jim Pattison Developments
200-879 Marine Drive
North Vancouver, BC V7P 1R7

## RE: 3805 Lakeshore Road - Zoning Summary Spreadsheet: Landscape Requirements

The following table summarizes the proposed landscape buffer improvements for the site.

| Landscaping Standards | Zone |  | Proposed |  |
| :---: | :---: | :---: | :---: | :---: |
|  | VC1 |  | VC1 |  |
| Min. tree amount | Total: | 15 | Total: | $12^{1}$ |
| Min. deciduous tree caliper | Large Medium Small | $\begin{aligned} & 5 \mathrm{~cm} \\ & 4 \mathrm{~cm} \\ & 3 \mathrm{~cm} \end{aligned}$ | Large Medium Small | $\begin{aligned} & 5 \mathrm{~cm} \\ & 4 \mathrm{~cm} \\ & 3 \mathrm{~cm} \end{aligned}$ |
| Min. coniferous tree height | 250 cm |  | 250 cm |  |
| Min. ratio between tree size | Large Medium Small | 50\% min. <br> No min. or max 25\% max. | Large Medium Small | $\begin{gathered} 50 \% \\ 42 \% \\ 8 \% \end{gathered}$ |
| Min. growing medium area | 75\% soil | landscaping |  |  |
| Min. growing medium volumes per tree | Large <br> Medium <br> Small | $30 \mathrm{~m}^{3}$ if single, 25 $\mathrm{m}^{3}$ if cluster $20 \mathrm{~m}^{3}$ if single, 18 $\mathrm{m}^{3}$ if cluster $15 \mathrm{~m}^{3}$ if single, 12 $\mathrm{m}^{3}$ if cluster | Large <br> Medium <br> Small | $\begin{gathered} 30 \mathrm{~m}^{3} \text { - single, } \\ 25 \mathrm{~m}^{3} \text { - shared }{ }^{3} \\ 20 \mathrm{~m}^{3} \text { - single, } \\ 18 \mathrm{~m}^{3} \text { - shared }{ }^{3} \\ 15 \mathrm{~m}^{3} \text { ea. }{ }^{3} \end{gathered}$ |
| Landscape graded areas (7.2.7) | Lawn Areas Shrubs/GCs Cross Slopes | Max 1:3 (33\%) <br> Max 1:2 (50\%) <br> Min. 1:50 (2\%) | Lawn Areas <br> Shrubs/GCs <br> Cross Slopes | Max 1:3 (33\%) <br> Max 1:2 (50\%) <br> Min. 1:50 (2\%) |
| Fence Height | Front/Flanking Yard Side Yard Rear Yard | Max. 1.2 mHT . <br> Max. 2.0m HT. <br> Max. 2.0m HT. | Front/Flanking Yard Side Yard Rear Yard | 1.2m HT. <br> None proposed None proposed |


| Riparian management area? | $\mathrm{Y} / \mathrm{N}$ | Yes, refer to Environmental Assessment and Environmental Management Plan (by others) |
| :---: | :---: | :---: |
| Retention of existing trees on site? | $\mathrm{Y} / \mathrm{N}$ | Yes, refer to Arborist Report |
| Surface parking lot (7.2.10)? | $\mathrm{Y} / \mathrm{N}$ | No, all parking is located within the parkade |
| Refuse \& recycle bins screened? | $\mathrm{Y} / \mathrm{N}$ | Yes, bins are located within the parkade |
| Other: | ${ }^{1}$ Variance to minimum tree amount due to existing street light conflicts along Lakeshore Road, to increase visibility to commercial frontage along Lakeshore Road, and to accommodate private patios for the units along Cook Road. |  |
|  | ${ }^{2}$ Variance to the minimum growing medium area to accommodate commercial frontage along Lakeshore Road and unit entries, parkade entrance, and pad mounted transformer along Cook Road. |  |

Please let me know if you have any questions or need for clarification.

Sincerely,
Kim McNamee | MBCLSA, CSLA, BLA
Landscape Architect
VDZ+A Consulting inc.

## VDZ+A

## ARBORIST REPORT

March 13, 2023

## 3805 Lakeshore Road



VDZ PROJECT\#: DP2022-76
SITE ADDRESS: 3805 Lakeshore Road, Kelowna, BC

PREPARED FOR:
Jim Pattison Developments \#200 - 879 Marine Drive North Vancouver, BC V7P 1R7

PROJECT ARBORIST:
D. Glyn Romaine

ISA Certified Arborist PN-7929A
CONSULTING ARBORIST:
Atiya Livingston
ISA Certified Arborist PN-9199A
INTRODUCTION ..... 3
ASSIGNMENT ..... 3
LIMITATIONS OF ASSIGNMENT ..... 3
TESTING \& ANALYSIS ..... 3
PURPOSE \& USE OF REPORT ..... 3
SITE DESCRIPTION. ..... 4-5
SITE REVIEW ..... 4
PROPOSED DEVELOPMENT ..... 4
ENVIRONMENTAL DESCRIPTION ..... 4
TREE PRESERVATION SUMMARY .....  5
REPLACEMENT TREES SPECIES RECOMMENDATION .....  5
SUMMARY OF FINDINGS ..... 5
TREE ASSESSMENT. ..... 6-9
REPLACEMENT TREE REQUIREMENTS ..... 10
APPENDICES ..... 11-25
APPENDIX A - PHOTOS ..... 11-18
APPENDIX B - TREE PROTECTION FENCING ..... 19-20
APPENDIX C-GLOSSARY ..... 21-22
APPENDIX D - LIMITATIONS ..... 23
APPENDIX E - TREE MANAGEMENT PLAN ..... 24-25

## ASSIGNMENT

VDZ has been retained by the Jim Pattison Developments to prepare a report to assess the tree(s) located at 3805 Lakeshore Road, Kelowna, BC. VDZ performed a site review entailing identification and visual assessment of the tree(s) on-site based on the documents provided by the client or representative(s).

The Project Arborist will provide recommendations for the retention or removal of the tree(s) on this site based on the existing site conditions and the proposed use of the site. Mitigation of development impact on the tree(s) has been considered as part of the tree assessment process.

## LIMITS OF THE ASSIGNMENT

VDZ's observations are limited to one site visit on March 4, 2023. No tissue or soil samples were sent to a lab for identification or analysis. VDZ located the trees using onsite navigation and a tree survey was supplied by the client or representative(s).

During the winter season, deciduous trees are in winter dormancy, limiting the assessment of tree health during this time.

All recommendations are based on the health and condition of the tree, as well as conflicts with the architectural plan provided at the time of this report. Should there be changes to finalized working drawings, final recommendations will be adjusted to address the changes where necessary.

## TESTING AND ANALYSIS

VDZ used visual tree assessment and mallet sounding to test the trees' health, condition, and risk level. Glyn Romaine of VDZ+A completed the fieldwork for this assignment under overcast conditions and a temperature of $\sim 0$ degrees Celcius. The topographic survey used during this assessment was completed by Summit Land Surveying and dated February 4, 2022. Site observations were recorded and trees were affixed with an aluminum tree tag. A limited level 1 assessment was completed for tree OS1 as it was not accessible at the time of assessment.

## PURPOSE AND USE OF REPORT

The purpose of this report is to assist the property owner in compliance with the City of Kelowna Tree Protection Bylaw No. 8041, the Municipal Properties Tree Bylaw No. 8042, and the Current Zoning Bylaw, No. 8000.

## SITE REVIEW

The property is located in southwest Kelowna at the southeast corner of Lakeshore Road and Cook Road. There is mixed use residential/commercial building to the north, strata homes to the east and south, and a lakeside resort across Lakeshore Rd to the west. The north portion of the site contains a single-story commercial building and open parking lot, while the entire south ern portion is an un-developed riparian area.


FIG. 1 - AERIAL VIEW OF PROPERTY (Kelowna Map Viewer, 2021)
Off-site Trees - There are private off-site tree associated with this project.
Municipal Trees - There are municipal trees associated with this project.
Straddling Trees - There are no trees straddling the property lines associated with this project.

## PROPOSED SITE DEVELOPMENT

The conceptual site plan calls for the demolition and clearing of a commercial building and surface parking lot, followed by the construction of a multi-family mixed-use residential and commercial building.

## ENVIRONMENTAL DESCRIPTION

Half of the site is a riparian area with mostly herbaceous species with some black cottonwood, willow and growing around the perimeter. 3 Siberian elm trees (invasive in the Okanagan) have established on the edge of the riparian area. Vegetation on the northern, developed portion of the site is mostly lawn with non-native ornamental shrubs growing around the existing building and parking lot.

There is no evidence of raptors' nests, osprey nests, or heron colonies on the site. Removal of trees however between March 15 - August 15 (date subject to change depending on seasonal nesting behavior and therefore must be confirmed with the City) will require a bird nesting survey. This is as prescribed by the federal Migratory Birds Convention Act (MBCA), 1994 and Section 34 of the BC Wildlife Act. It is the responsibility of the owner/developer to ensure they comply with the city's regulations governing nesting birds on sites where development is occurring.

## TREE PRESERVATION SUMMARY

All the Trees identified on the Tree Management Plan and within the Tree Assessment Data Table have been given their Retention/Removal recommendation on a preliminary basis. Final recommendations will be based upon design/construction and grading details.

Long-term tree preservation success is dependent on minimizing the impact caused during pre-construction clearing operations, construction, and post-construction activities. Best efforts must be made to ensure the Tree Protection Zone remains undisturbed. Ongoing monitoring of retained trees through the development process and implementation of mitigating works (watering, mulching, etc.) is essential for success.

## SPECIES RECOMMENDATION FOR REPLACEMENT TREES

Given the required replacement plantings for the site, the Arborist recommends the following tree species for long-term survivability based on local conditions and future climate projections. In addition to the following trees, other interior adapted species are also recommended.

- Colorado spruce (Picea pungens)
- flowering crab apple (Malus spp.)
- green ash (Fraxinus pennsylvanica)
- lilac Tree (Syringa reticula)
- ponderosa pine (pinus ponderosa)
- quaking aspen (Populus tremuloides)


## SUMMARY OF FINDINGS

- 16 on-site trees were identified. 1 is within the development area and recommended for removal. 15 are within the riparian area and are recommended for retention.
- Of the 15 on-site riparian trees 3 are Siberian elm, an invasive species. Current retention recommendations are subject to advice from RPBio.
- 2 City trees were identified. Both are recommended for retention, and 1 will require Tree Protection Barrier (TPB).
- 11 off-site trees were identified. All are recommended for retention.


## TABLE 1 - TREE INVENTORY ASSESSMENT

Removals are based on the condition of the tree and take into consideration the provided site plan
CRZ = Critical Root Zone - see Tree Protection Barrier (TPB) Specification (see pg. 19) LCR = Live Crown Ratio DBH = Diameter at Breast Height (1 m)
CRAD = Crown Radius

| Tag \# | Common name Botanical name | $\begin{aligned} & \hline \mathrm{DBH} \\ & (\mathrm{~cm}) \end{aligned}$ | $\begin{gathered} \text { CRAD } \\ (\mathrm{m}) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { LCR } \\ (\%) \\ \hline \end{gathered}$ | Condition | Comments | Remove / Retain |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 201 | Norway maple Acer platanoides | 66 | 7.6 | 70 | Good | Codominant at 2 m . Large butters some damage to exposed roots. <br> Growing within proposed building envelope. | Remove |
| 202 | Norway maple Acer platanoides | 52 | 6.5 | 70 | Good | Codominant at 2 m with 3 leaders.one awkwardly attached and wraps around other. Some broken branches hanger. Exposed surface roots. <br> Growing in riparian area. <br> Tree Protection Barrier required. | Retain |
| 203 | Black cottonwood Populus trichocarpa | 36 | 3.3 | 80 | Good | Crook at 8 m . Surface roots visible \& m north of tree. With several suckering stems wmerging from roots from 2 m to 5 m north of the tree and 3 m to west. Suckers between $5-11 \mathrm{~cm}$ diameter. 5,7,9,11,11, 6,6,8, 9 . Gall on surface roots. <br> Growing in riparian area. <br> Tree Protection Barrier required. | Retain |
| 204 | Siberian elm Ulmus pumila | $\begin{aligned} & \hline 39(18, \\ & 21) \end{aligned}$ | 4 | 80 | Fair | Codominant at 1 m with included bark and wet wood. Leans south. <br> Growing in riparian area. <br> ${ }^{\star}$ Invasive tree - Not protected by Tree Protection Bylaw. | Retain* |

## TREE INVENTORY ASSESSMENT

| 205 | Siberian elm <br> Ulmus pumila | 31 | 4.3 | 60 | Fair | Growing on a mound in wetland. Codominant at 2 m . Some dead branches. Girdling root. <br> Growing in riparian area. <br> ${ }^{\star}$ Invasive tree - Not protected by Tree Protection Bylaw. | Retain* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 206 | Siberian elm <br> Ulmus pumila | $\begin{aligned} & 131(49, \\ & 43,39) \end{aligned}$ | 10.6 | 90 | Fair | Multiple stems from 0.4 m. 6 trunks. Growing on mound. Some broken branches. Hangers. Growing in riparian area. <br> ${ }^{\star}$ Invasive tree - Not protected by Tree Protection Bylaw. | Retain* |
| 207 | Black cottonwood Populus trichocarpa | $\begin{aligned} & 45(16,14, \\ & 15) \end{aligned}$ | 5.5 | 80 | Fair | Multistemmed from base. Under crown of 206. Growing in riparian area. <br> Tree Protection Barrier required. | Retain |
| 208 | Black cottonwood Populus trichocarpa | $\begin{aligned} & 40(27, \\ & 13) \end{aligned}$ | 4.2 | 70 | Fair | Multistemmed from base. Under crown of 206. Growing in riparian area. <br> Tree Protection Barrier required. | Retain |
| NT1 | Black cottonwood Populus trichocarpa | 18 | 4 | 70 | Good | Codominant at 1 m . Suckers from roots around 3 m from trunk. <br> Growing in riparian area. | Retain |
| NT2 | Black cottonwood Populus trichocarpa | 22 | 4 | 60 | Good | Growing on bank. Phototrophic lean to north. Growing in riparian area. | Retain |
| NT3 | Black cottonwood Populus trichocarpa | $\begin{aligned} & \hline 38(22, \\ & 16) \end{aligned}$ | 4 | 60 | Good | 2 stems from base. Growing in riparian area. | Retain |
| NT4 | Black cottonwood Populus trichocarpa | 39 | 5.9 | 60 | Good | Growing in riparian area. | Retain |
| NT5 | Willow Salix sp. | 23 | 6.1 | 40 | Good | Growing with large Act. Reaching south. Growing in riparian area. | Retain |

## TREE INVENTORY ASSESSMENT

| NT6 | Black cottonwood Populus trichocarpa | $\begin{aligned} & \hline 27(16, \\ & 11) \end{aligned}$ | 4 | 60 | Good | 3 stems from base. Smallest stem is dead. Growing in riparian area. | Retain |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NT7 | Black cottonwood Populus trichocarpa | 18 | 4 | 60 | Good | Pistol butt. Dead stem adjacent that is same size. <br> Growing in riparian area. | Retain |
| NT8 | Black cottonwood Populus trichocarpa | 14 | 4 | 60 | Good | Pistol butt. <br> Growing in riparian area. | Retain |
| H1 | American arborvitae Thuja occidentalis |  |  | 100 | Fair | Cedar hege. Some sagging branches. Growing in riparian area. | Retain |
| The following trees are growing on City property. |  |  |  |  |  |  |  |
| C1 | Red maple Acer rubrum | 35 | 5.5 | 60 | Good | Previously topped. Exposed roots with some damage mainly on west side. Growing 0.7 m from utilities box. Buried trunk flare. Tree Protection Barrier required. | Retain |
| C2 | Red maple Acer rubrum | 25 | 4 | 60 | Good | Previously topped. | Retain |
| The following trees are growing off-site on private property. |  |  |  |  |  |  |  |
| OS1 | Callery pear Pyrus calleryana | 20 | 2.5 | 60 | Good | Vigourous growth. Crown does not reach property line. Limited assessment. No access. | Retain |
| OS2 | Black cottonwood Populus trichocarpa | $\begin{aligned} & 80(28,29, \\ & 23) \end{aligned}$ | 6.4 | 60 | Good | Multistemmed from basset. Around 5 stems. Growing in riparian area. | Retain |
| OS3 | Black cottonwood Populus trichocarpa | 15 | 4.4 | 70 | Good | Reaches north. Growing in riparian area. | Retain |
| OS4 | Black cottonwood Populus trichocarpa | 15 | 5.3 | 40 | Good | Reaches northeast. Growing in riparian area. | Retain |
| OS5 | Black cottonwood Populus trichocarpa | 12 | 3 | 50 | Good | Some dead branches. Growing in riparian area. | Retain |


| OS6 | Black cottonwood <br> Populus trichocarpa | 19 | 4.5 | 50 | Good | Growing in riparian area. | Retain |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| OS7 | Black cottonwood <br> Populus trichocarpa | $27(17$, <br> $10)$ | 4.5 | 50 | Fair | Codominant at 0.1 m. Large west stem has <br> dead broken top. Small stem reaches north. <br> Growing in riparian area. | Retain |
| OS8 | Black cottonwood <br> Populus trichocarpa | 12 | 5.2 | 50 | Good | Reaches east. <br> Growing in riparian area. | Retain |
| OS9 | Black cottonwood <br> Populus trichocarpa | 19 | 4 | 50 | Good | Reaches southeast <br> Growing in riparian area. | Retain |
| OS10 | Willow <br> Salix sp. | 43 | 6.8 | 50 | Good | Some dead branches. <br> Growing in riparian area. | Retain |
| OS11 | Black hawthorn <br> Crataegus douglasii | $13(7,6)$ | 3.5 | 50 | Good | 2 stems from base. <br> Growing in riparian area. | Retain |

Table 2 : Summary of Tree Preservation by Tree Species - On-site and City trees

| Tree Species | Existing | Remove | Retain |
| :---: | :---: | :---: | :---: |
| Deciduous Trees |  |  |  |
| Black cottonwood | 10 | 0 | 10 |
| Willow | 1 | 0 | 1 |
| Norway maple | 2 | 1 | 1 |
| Red maple | 2 | 0 | 2 |
| Siberian elm | 3 | 0 | 3 |
| Coniferous Trees |  |  |  |
|  | 0 | 0 | 0 |
| Total | 18 | 1 | 81 |
| Total Replacement Trees Proposed (excluding Boulevard Street Trees) |  | TBD |  |
| Total Retained and Replacement Trees Number |  | TBD |  |

Summary, report, and plan prepared and submitted by: D. Glyn Romaine

(Signature of Arborist)

March 13, 2023
Date


FIG. 2 - Tree 201, looking southeast from Lakeshore Rd.


FIG. 3 - Surface roots on Tree 201


FIG. 4 - Tree OS1 - limited access.


FIG. 5 - Tree 206, 204, 202, 203.


FIG. 6 - Surface roots on Tree 202


FIG. 7 - Surface roots and suckers on Tree 203.


FIG. 8 - Tree 204


FIG. 9 - Included bark and wetwood on Tree 204.


FIG. 10 - H1 (Hedge), Tree 205, Tree 204 (L-R).


FIG. 11 - H1 (Hedge), Tree 206, Tree 207, looking east.


FIG. 12 - Tree 208, 206, 207.


FIG. 13 - Trees NT8-NT1, H1, 206, 202.


FIG. 14 - Trees OS10-OS2, NT8-NT1, looking southwest.


FIG. 15 - Trees C2, C1, growing along Cook Rd.


FIG. 16 - Exposed surface roots fo Tree C1 extend into subject property.


FIG. 17 - Entrance form Cook Rd. looking west. Tree 201 visible.


FIG. 18 - Looking north along Lakeshore Rd.


FIG. 19 - Looking south along Lakeshore Rd. at southwest corner of property at on and off-site cottonwoods and willows in Riparian area.


FIG. 20 - Looking southeast across riparian area.

## Specifications for Tree Protection Barriers - SCHEDULE C



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## General Requirements and Limitations for Operations Within the Tree Protection Zone

- The Contractor shall not engage in any construction activity within the Tree Protection Zone (TPZ) without the approval of the Project Arborist including: operating, moving or storing equipment; storing supplies or materials; locating temporary facilities including trailers or portable toilets and shall not permit employees to traverse the area to access adjacent areas of the project or use the area for lunch or any other work breaks. Permitted activity, if any, within the Tree Protection Zone maybe indicated on the drawings along with any required remedial activity as listed below.
- In the event that construction activity is unavoidable within the Tree Protection Zone, notify the Project Arborist and submit a detailed written plan of action for approval. The plan shall include: a statement detailing the reason for the activity including why other areas are not suited; a description of the proposed activity; the time period for the activity, and a list of remedial actions that will reduce the impact on the Tree Protection Zone from the activity. Remedial actions shall include but shall not be limited to the following:
- In general, demolition and excavation within the drip line of trees and shrubs shall proceed with extreme care either by the use of hand tools, directional boring and/or Air Spade. If any excavation work is required within the Tree Protection Zone (TPZ), the Project Arborist must be present during excavation, and a trench should be 'hand dug' to a depth of 60 cm outside the Drip Line, to uncover any potential roots. The Project Arborist should cleanly prune roots and recommend the appropriate treatment for any structural roots encountered.
- Knife excavation where indicated or with other low impact equipment that will not cause damage to the tree, roots soil.
- When encountered, exposed roots, 1 inches and larger in diameter shall be worked around in a manner that does not break the outer layer of the root surface (bark). These roots shall be covered in Wood Chips and shall be maintained above permanent wilt point at all times. Roots one inch and larger in diameter shall not be cut without the approval of the Project Arborist. Excavation shall be tunnelled under these roots without cutting them. In the areas where roots are encountered, work shall be performed and scheduled to close excavations as quickly as possible over exposed roots.
- Tree branches that interfere with the construction may be tied back or pruned to clear only to the point necessary to complete the work. Other branches shall only be RETAINED when specifically indicated by the Project Arborist. Tying back or trimming of all branches and the cutting of roots shall be in accordance with accepted arboriculture practices (ANSI A300, part 8) and be performed under supervision of the Project Arborist.
- Do not permit foot traffic, scaffolding or the storage of materials within the Tree Protection Zone.
- Protect the Tree Protection Zone at all times from compaction of the soil; damage of any kind to trunks, bark, branches, leaves and roots of all plants; and contamination of the soil, bark or leaves with construction materials, debris, silt, fuels, oils, and any chemicals substance. Notify the Project Arborist of any spills, compaction or damage and take corrective action immediately using methods approved by the Project Arborist
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## GLOSSARY OF KEY TERMS

Caliper: the diameter of a tree at 15 centimetres [ 6 inches] above the natural grade of the ground, measured from the base of the tree.

Certified arborist: a person accredited as such by the International Society of Arboriculture.
Council: the Municipal Council of the City of Kelowna.
Cut down: to cut down a tree, remove or kill a tree by any means.
Dangerous or hazardous tree or limb: a tree or limb identified by a qualified person as being, or likely to become in the immediate future, a danger to people or property.
D.B.H.: a tree diameter at breast height ( 1 m above grade).

Dead, diseased or damaged trees or limbs: a tree or limb identified by a qualified person as being or likely to become in the immediate future, a danger to people or property.
Deciduous: tree or plant that sheds most or all of its foliage annually.
Drip line: horizontal line on the ground encircling a tree corresponding to the furthest extension of the branches of a tree.
Director of Planning \& Development Services: the person appointed by Council as such and includes his or her lawful deputy.
Engineer: a person registered or licensed as a professional engineer pursuant to the provisions of the Engineers and Geoscientists Act, R.S.B.C. 1996, c. 116, as amended.
General Manager: the person appointed by Council as the General Manager of Planning and Development or the duly authorized representative.
Group of trees: a tree massing that includes a minimum of 20 trees with a maximum spacing of 5 m between each tree.
Landscape architect: a person registered with the British Columbia Society of Landscape Architects.
Leave strip: an area established to protect the riparian zone of all streams identified in Tables 2.1 and 2.2 of the Kelowna Official Community Plan (1994-2013) Bylaw No. 7600. Leave strips along stream corridors with banks which have a slope of greater than $10 \%$ shall be measured from the top of the bank. Leave strips along streams with moderately sloping banks (less than $10 \%$ slope) shall be measured from the normal high water mark. The Leave Strip width is determined in Table 2.2 of the Kelowna Official Community Plan (1994-2013) Bylaw No, 7600.

Owner: means the registered owner of an estate in fee simple, and includes:
(a) the tenant for life under a registered life estate,
(b) the registered holder of the last registered agreement for sale, and
(c) the holder or occupier of land held in the manner mentioned in Sections 356 and 357 of the Municipal Act.
Permit: a Tree Cutting Permit issued pursuant to Section 7.0 of the Tree Protection Bylaw.
Person: a natural person, his heirs, executors, administrators, or assigns, a firm corporation, municipal or quasi-municipal corporation, society or party school board, hospital board, or other government or government agency.

Professional engineer: a professional engineer registered under the Engineers and Geoscientists Act, with experience in geotechnical engineering.

Protected tree: means any tree with a diameter of 150 mm or more measured 1 m above grade which is:

- located within a designated stream corridor Leave Strip within a Natural Environment/Hazard Condition Development Permit Area as identified in the Kelowna Official Plan (1994-2013).
- located on a slope with a grade equal to or greater than $30 \%$ and which is within a Natural Environment/ Hazardous Condition Development Permit Area as identified in the Kelowna Official Plan (1994-2013)
- a tree located on land listed in Schedule "A" of the Tree Protection Bylaw.

Qualified person: a professional engineer, landscape architect or a certified arborist.
Replacement tree: a tree planted on a property to replace a tree which has been removed or damaged on the same property.

Retained Tree: a tree that is shown on a site plan attached to a Tree Cutting Permit as a tree that will be retained.
Stream: a natural watercourse or source of water supply, whether usually containing water or not, ground water, lake, river, creek, spring, ravine, swamp and gulch, as defined by the Water Act.

Tree: a self-supporting woody plant that is a species of coniferous or deciduous genus which normally grows to a height of five (5) metres or greater, notwithstanding its current size.
Sound Arboricultural Practice: tree planting, pruning and maintenance practices endorsed by the International Society of Arboriculture.

## LIMITATIONS

This report is considered valid for the day of the site assessment. Trees are living things and as such are subject to changes over time. Photographs, drawings, or excerpts of plans provided within this report are not tantamount to legal surveys or engineering reports. They are intended to be used as visual aides and at such time that further details are required, it will be necessary to review the source documents.

The trees included in this assessment were done so under the standards and parameters of the Tree Protection Bylaw 2006, No. 16100. This does not imply any information regarding trees outside of this scope.

As the project arborist, I have exercised my reasonable Duty of Care while assessing the subject trees. Defects and potential risk issues are sometimes not observable. It is the responsibility of the Owner to exercise the Standard of Care and maintain the trees to said standards, and to carry out recommended mitigations outlined in this report.

Sincerely,

D. Glyn Romaine, VDZ+A Consulting Inc.

ISA Certified Arborist PN-7929A
ISA Tree Risk Assessment Qualification
(236) 521-4645

# TREE MANAGEMENT PLAN 

## See attached Tree Management Plan

Original size: $24 \times 36$
Print as $11 \times 17$ for foldout


