



# RANGE POINT JOINT MASTER PLAN

## Background Report

Submitted to

Government of Yukon Land  
Development Branch

*and*

Kwanlin Dün First Nation Department  
of Heritage, Lands and Resources

*by*



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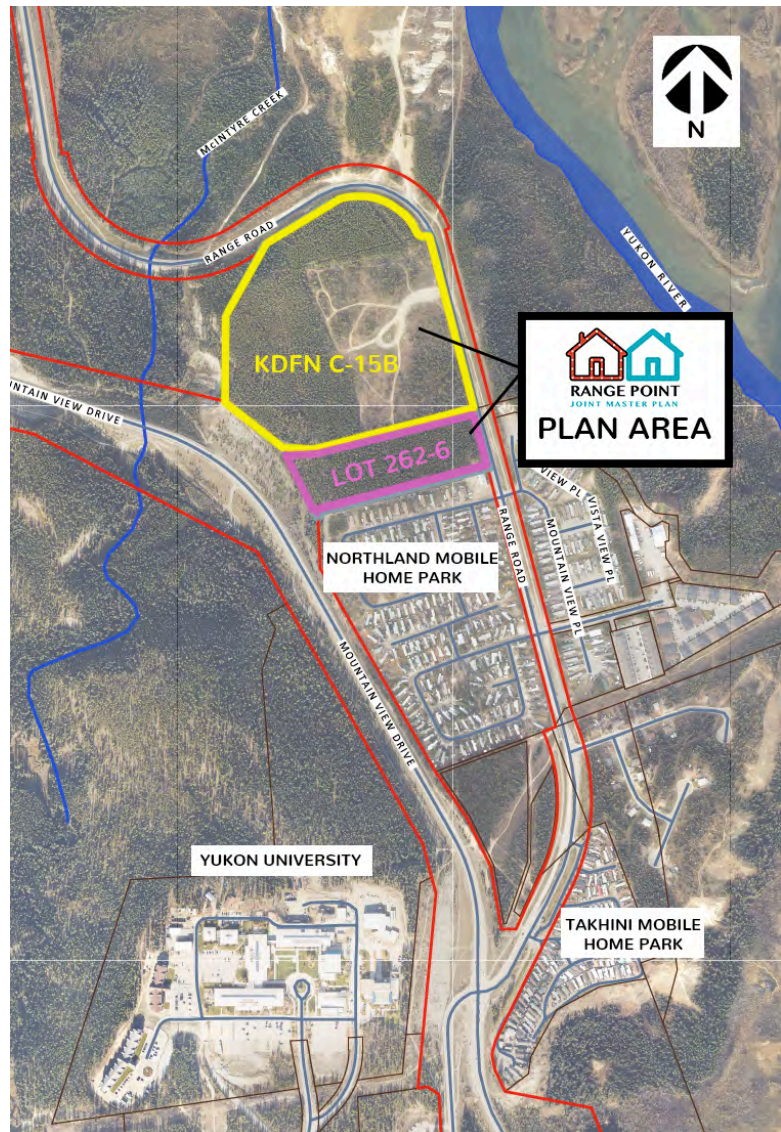
# 1.0 Introduction

The Government of Yukon (YG) Land Development Branch and Kwanlin Dün First Nation (KDFN) Department of Heritage, Lands and Resources (HLR) are jointly creating a master plan for YG’s Lot 262-6 and KDFN’s Settlement Land parcel C-15B in the Range Point neighbourhood of Whitehorse. Groundswell Planning was retained to lead the planning process in early February 2021. Since that time, the planning team (hereinafter referred to as “the Team”) has undertaken a desktop review of existing information and conducted numerous interviews.

This Background Report sets the context for master planning by summarizing the following information:

- Current site conditions, uses and values, including geotechnical, environmental, and heritage;
- The broader planning context, including the Range Point neighbourhood, relevant plans and policies from YG, KDFN, and/or the City of Whitehorse, and the outcomes of previous engagement;
- Current infrastructure in the planning area and Range Point neighbourhood and the anticipated scope and feasibility of new infrastructure required to service a prospective development;
- Market conditions, including population and demographic drivers of housing demand, housing prices and starts, and target markets; and
- The financial, policy and political dimensions of prospective joint development between YG/KDFN and how those intersect with the City as the land use regulator.

With the planning context established, the partner governments and the project Committee will be equipped to take the next step: identifying the most feasible development scenarios and outlining the key design criteria for the Team’s initial master plan concepts to respond to.



**Figure 1. Overview of planning area and Range Point neighbourhood**

## 2.0 Site Overview

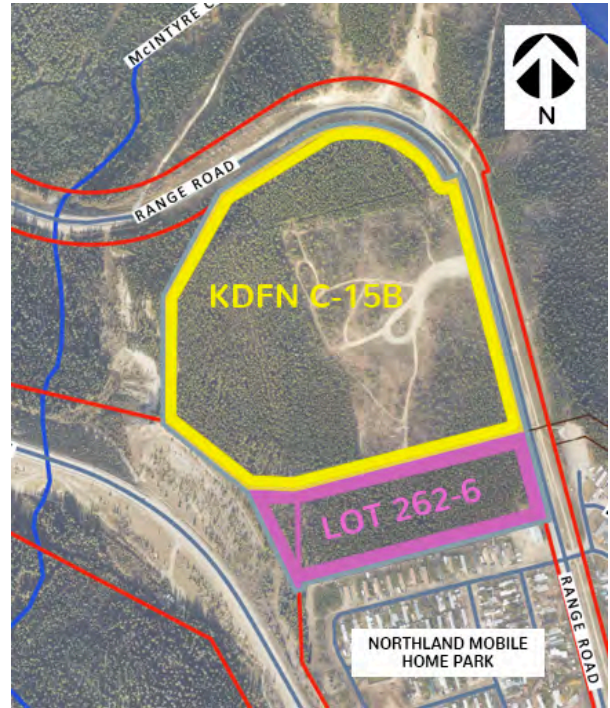
### 2.1 Legal Description and Size

The planning area consists of two surveyed land parcels and an unsurveyed “triangle” of Crown land situated between them. Refer to Table 1 and Figure 2.

**Table 1. Plan area land tenure/parcel sizes**

Parcel	Legal Description	Size (ha)
C-15B	LOT 1469 QUAD 105D/14 93163 CLSR YT LTO Plan 2007-0088 YT	14.85
Lot 262-6	LOT 262-6 GROUP 804 71449 CLSR YT LTO Plan 88-109 YT	3.30
Unsurveyed Crown land	n/a	0.30
<b>TOTAL</b>		<b>18.45</b>

For planning purposes (and ease of communication), Lot 262-6 and the adjoining portion of unsurveyed Crown land are considered one parcel and are both referred to as Lot 262-6 (unless otherwise noted).



**Figure 2. Overview of planning area**

### 2.2 Site Description and Uses

The planning area is situated on the west side of Range Road North and bordered by McIntyre Creek to the north, Mountain View Drive to the west, and Northland Park to the south. The planning area is generally flat to gently sloping; however, the western and northern portions of the site consist of a glaciolacustrine escarpment situated about 35 metres above McIntyre Creek with grades of up to 30%. Refer to Appendix A for detailed maps.

The area is mostly vegetated, with lodgepole pine predominant but spruce, poplar, and trembling aspen also present. Most of the eastern portion of C-15B is traversed by a series of dirt roads stemming from a wider gravel road/loop that connects to Range Road. In addition to this informal network of old roads, there are various trails traversing the site, most notably along the boundary line between the two parcels, directly behind Northland Park, and around the perimeter/escarpment.

The planning area’s close proximity to Northland Park and other Range Point development has resulted in heavy use of trails in the planning area by local residents. The gravel road/loop on C-15B was utilized as a turn-around by the City of Whitehorse’s (hereinafter referred to as “the City”) Transit Services until recently. A Memorandum of Understanding was signed between the City and KDFN in spring 2015 to allow the City to adopt and manage significant trails located on KDFN lands until future development occurs.

# Photo Log



Range Road at C-15B (facing S)



C-15B/Lot 262-6 western escarpment trail



C-15 turn-around/loop



Boundary line between Lot 262-6/C-15B



Well-used trail behind Northland Park



Northland Park



Slope failure by McIntyre Creek



Tilted trees indicating slope creep



The Point entrance



Yukon River view from the Point



Yukon River below the Point



C-15B dirt roads



## 2.3 Geotechnical Conditions

KDFN and YG separately commissioned geotechnical evaluations of their respective land parcels in 2007 and 2021, respectively. Both evaluations concluded that the planning area is suitable for serviced development.

The 2007 work found that soil conditions were consistent throughout C-15B and include a thin veneer of organic soil overlying 0.2-1.0m of silty sand, which is in turn underlain by glaciolacustrine silt (to undetermined depth). No bedrock, permafrost or groundwater was noted during test pitting. Seepage zones were noted along the bank overlooking McIntyre Creek, and there was evidence of mass movement processes (e.g., erosion), likely caused by the under-cutting of the toe-of-slope by the creek. The report notes potential for frost susceptible soils on the site and recommended that a development setback of 30m be applied to the northern boundary of C-15B and that natural vegetation remain intact throughout the adjacent greenbelt.

The 2021 evaluation noted very similar conditions on Lot 262-6 and predicted that pre-grading requirements would be minimal due to the gentle grades.

## 2.4 Environmental Values

As described above, the planning area is adjacent to residential development and situated between two major roads; as such, its environmental value is assumed to be fairly low. However, KDFN's C-Lands Plan identifies the general McIntyre Creek area as a significant wildlife area and this watershed is of major ecological value.

The McIntyre Creek-Yukon River confluence is dominated by shallow open water, marsh and shrub-dominated wetland ecosystems, alongside white spruce (*Picea glauca*) lowland forest. Previous studies have identified the location as a significant wildlife area due to its aquatic habitat characteristics and connectivity to areas outside the Yukon River corridor.

The Yukon River island complex, McIntyre Creek and its riparian forests, and steep slopes have also been identified as highly sensitive areas. Resident wildlife includes avian predators, forest birds, water birds, microtine mammals, ungulates, and fish. The confluence is a spring staging area for a variety of swans and other waterfowl. Most large animal species found in the Whitehorse area can occasionally be found in the McIntyre Creek area but mostly use the corridor for travel. Six fish species have been documented in the lower portion of the creek, including adult and juvenile Chinook salmon.



**Lower McIntyre Creek/Yukon River confluence, with planning area in the right/middle ground** (Credit: Alistair Maitland Photography)

## 2.5 Heritage Values

A Heritage Resource Impact Assessment was carried out for C-15B in 2007 and for Lot 262-6 in 2021. No heritage resources were encountered during either investigation, and neither deemed further assessment work necessary. The 2007 report recommended that personnel and contractors be briefed on proper protocols in the event that heritage resources are encountered during site work. The 2021 report is due in June 2021).

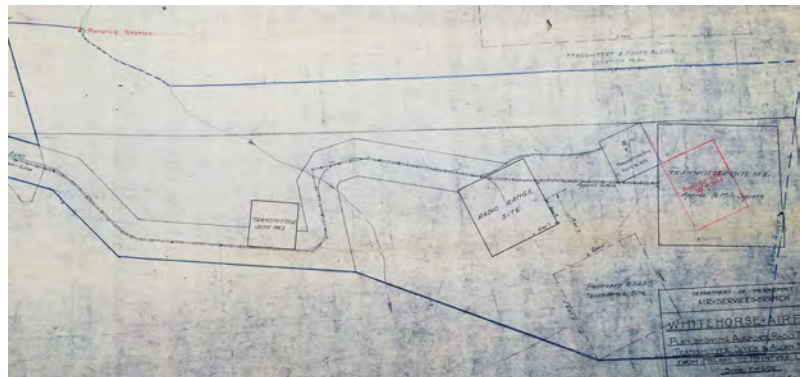
While the planning area is not believed to contain heritage resources, the lower McIntyre Creek area is known to have significant tangible and intangible heritage values. The lower reaches of the creek and nearby "Point", or Dàmäwtän (High Bank), played a key role as a First Nations gathering place, with many Southern Tutchone camping there both pre and post-contact. McIntyre Creek functioned as a major travel route between the Lake Laberge area and Fish Lake, which was an important fishing, hunting and camping area. The area around the Point was the site of numerous fish camps near the mouth of McIntyre Creek and across to Croucher Creek. Archaeological remains found on high banks at the mouth of McIntyre Creek suggest that this was an important prehistoric lookout and hunting site.

During World War II, the Point was utilized by the United States military as a dumpsite. The dump was subsequently re-opened by the City of Whitehorse and operated until 1975, when the Yukon Water Board ordered it closed due to impacts on McIntyre Creek.

C-15B played a small role in an interesting chapter in Yukon history. The Northwest Staging Route for air transport and travel was a major wartime logistical project in northwest Canada, with Whitehorse planned as a one of a series of airfields linking the Lower 48 to Alaska. The Japanese attack on Pearl Harbour in December 1941 precipitated a frantic rush to protect the remote coast of Alaska. C-15B became the location of a radio range transmitter site, significant because the adoption and installation of radio beacons made all-weather flight – not just visual navigation – possible during the war. The date of decommissioning is uncertain; however, air photo review by the Team suggests that the tower was on the site until around the 1970s.



**1943 plan showing the location of the radio transmitter sites and the route of McIntyre Creek** (Source: Yukon Archives)



**Range Road dumpsite circa 1960s**  
(Source: Yukon Archives 85-25-595)

# 3.0 Planning Context

## 3.1 Designation and Zoning

The 2010 City of Whitehorse Official Community Plan (OCP) designates the planning area as Residential – Urban. Section 10.6.1 of the OCP establishes the purpose of Residential – Urban lands for a “variety of residential development in close proximity to services and amenities.” Sections 10.6.2 and 10.6.3 allow for all types of residential development to be accommodated, and also neighbourhood service commercial uses, park and outdoor recreation uses, schools, religious facilities, etc.

Under the City’s *Zoning Bylaw*, C-15B is zoned FP - First Nation Future Planning, Lot 262-6 is zoned RP – Residential Mobile Home Park, and the unsurveyed piece is zoned PE – Environmental Protection. Refer to Figure 3.

C-15B is a Type 2 Settlement Land parcel designated for Residential use under the KDFN *Self Government Agreement* (SGA). Section 28 of the SGA specifies that, on Type 2 parcels, KDFN is able to exercise planning, zoning and land development powers that are in accordance with its own, as well as City, legislation.

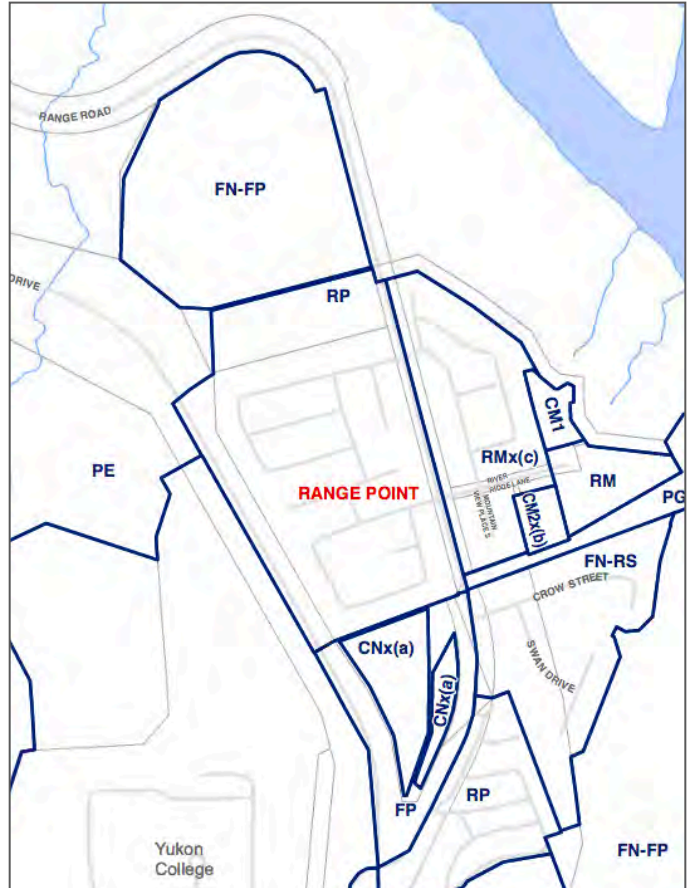


Figure 3. Range Point zoning (Source: Zoning Bylaw)

## 3.2 Range Point Neighbourhood

Range Point houses approximately 1240 people (YBS, 2020) in about 560 dwelling units (City of Whitehorse, 2014). Most of the area is occupied by private residential or condominium developments, and mobile homes are the dominant housing form. Refer to Table 2 and Figure 4.

Table 2. Overview of Range Point land tenure and housing forms

Development	Tenure	Housing Type
Takhini mobile home park	Privately owned	Mobile home
Northland mobile home park	Privately owned	Mobile home
Stone Ridge	Condominium	Two-storey row houses
Mountain View Place	Condominium	Mobile homes
Mountain Air Estates	Condominium	Single-storey town homes



Figure 4. Range Point land tenure, 2014 (Source: Range Road North Plan)

### 3.3 Kwanlin Dün First Nation Plans

#### Traditional Territory Land Vision (2017)

The Land Vision sets out four main land-based goals for the Traditional Territory (TT) and in particular Settlement Lands:

- 1) Community Development
- 2) Wildlife
- 3) Heritage
- 4) Revenue Generation

The document also establishes two overarching values - Well-Being of the Land and Well-Being of the People – and five guiding principles:

- Respect – for lands and animals
- Caring for the land
- Considering future generations
- Cooperation
- Community

*“KDFN’s ability to build strong partnerships with other governments and private developers will be central to the successful development of our Community Lands. Land development requires significant financial resources and expertise. Successful partnerships would enable KDFN to leverage the financial resources required and benefit from the previous experience of a successful developer, while maintaining ultimate authority over how our lands are developed.”*

**KDFN Traditional Territory Land Vision**

The Land Vision recommends that KDFN revenue generation goals be focused primarily on Settlement Lands within Whitehorse. It also directs that revenue generation be balanced with the need for some Settlement Lands to be reserved for community development (KDFN residential use). Opportunities to protect, manage and/or interpret wildlife and heritage values also should be considered.

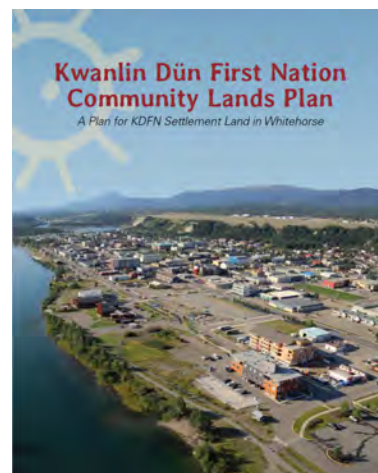
## Community Lands Plan (2020)

KDFN’s Community Lands Plan identifies C-15B for the achievement of all four Land Vision goals and their corresponding objectives:

<b>Community Development</b>	To provide land for KDFN residential and infrastructure needs.	<b>Heritage</b>	To conserve areas of high heritage value while maintaining and creating opportunities for continued traditional use of the land.
<b>Wildlife</b>	To conserve areas of high ecological value and maintain the health of wildlife populations.	<b>Revenue Generation</b>	To make lands available to generate revenue for the benefit of the KDFN community.

The Plan also includes a set of policies directly relevant to C-15B development, including:

1. *“Development must reflect best practices in design and building construction. The development of new neighbourhoods, in particular, shall incorporate high standards of planning and design...”*
2. *Work cooperatively with the City of Whitehorse to protect significant wildlife habitat...*
9. *KDFN shall inform beneficiaries and citizens and other affected parties of all land development initiatives and ensure that such communication is clear, comprehensive and accessible.*
10. *When a Community Lands parcel is selected for development, KDFN beneficiaries and citizens shall be provided an opportunity to submit input into the planning and development of the land parcel to ensure that traditional values, such as wildlife and heritage, are protected as much as possible during development.”*



## 3.4 City of Whitehorse Plans

### Range Road North Neighbourhood Plan (2014)

Subsequent to direction from the 2010 OCP, the City of Whitehorse undertook a plan for the Range Road North area in 2013/14 with the broad objectives of making it a complete and successful neighbourhood. Broadly, the Plan commits to:

- Formalizing and signing an improved trail network;

- Developing the Point site as part of the larger McIntyre Creek Regional Park;
- Range Road improvements and a linear park; and
- High standards for new housing developments on Lot 262-6 ("infill site") and C-15B.

With respect to Lot 262-2 specifically, the Plan established the following actions/considerations:

- Small, affordable housing units in a variety of one, two, and three unit configurations;
- High quality and street friendly housing design through "comprehensive" zoning;
- Preservation of key trails, 10m wide greenspace behind Northland, and greenspace on the western perimeter;
- Construction of access road that straddles Lot 262-6 and C-15B; and,
- For zoning, consideration of two options: RCM3 (for condominium style development) or RCS2 (for individual lot development).



**Figure 5. Preliminary concept for Lot 262-6**  
(Source: Range Road North Neighbourhood Plan)



**Figure 6. Rendering of Range Road linear park** (Source: Range Road North Neighbourhood Plan)

## Range Point/Whistle Bend/Takhini/Porter Creek Trail Plan (2016)

Pursuant to its 2007 Trail Plan, the City of Whitehorse actively manages trails located within municipal boundaries. Neighbourhood-level trail planning identifies highly valued and/or significant trails for formal City adoption, subsequent incorporation into the City's Trails Maintenance Policy, and ongoing maintenance by the City and/or its partners.

Trail planning was undertaken for the Range Point/Whistle Bend/Takhini/Porter Creek neighbourhoods between January and June 2016 in order to identify candidate City trails, their proposed designations (i.e. non-motorized or motorized multi-use), and potential connections and additions to the proposed City network in the area. Refer to Appendix B for the map.

Several trail concepts recommended by the Plan have a direct bearing on the planning area, including:

- The designation of the escarpment trail extending along the eastern limit of Mountainview Drive west of Northland Mobile Home Park, Lot 262-6, and C-15B parcel as a non-motorized City trail (pending KDFN approval);
- The refinement and development of a small network of singletrack trails in the forested micro-terrain located between C-15B, Mountainview Drive, Range Road, and Whistle Bend Way for City non-motorized designation;
- The development of a new formal non-motorized singletrack trail connection and pedestrian crossing of McIntyre Creek from C-15B escarpment to replace an ad hoc route (pending KDFN approval); and,
- The non-motorized designation of the network of informal roads/ATV trails in the wetland area between Eagle Bay Park and McIntyre Creek, with significant investments in trail hardening to make these routes more sustainable and enjoyable year-round.

The City's trail crew has made progress on the overall plan over the past several years, the Range Point-specific improvements have yet to occur and there is still no trail signage in the area.



**City of Whitehorse Trail Improvements in the McIntyre Creek area**  
(Credit: City of Whitehorse)

### 3.5 Resident and Stakeholder Input to Date

KDFN citizens identified C-15B as having wildlife and heritage values during the Community Lands Plan process; more broadly, they also indicated support for developing C Lands for revenue and recognized the need to make money from Settlement Land in Whitehorse. During the 2014 Range Road North planning process, some area residents expressed opposition to development. Suggestions included retention of natural areas (particularly along Mountain View Drive), housing diversity, retention of key trails, and trailhead improvements. Stakeholder and landowner input emphasized a preference for more diverse housing types, particularly higher quality, more sustainable affordable housing.

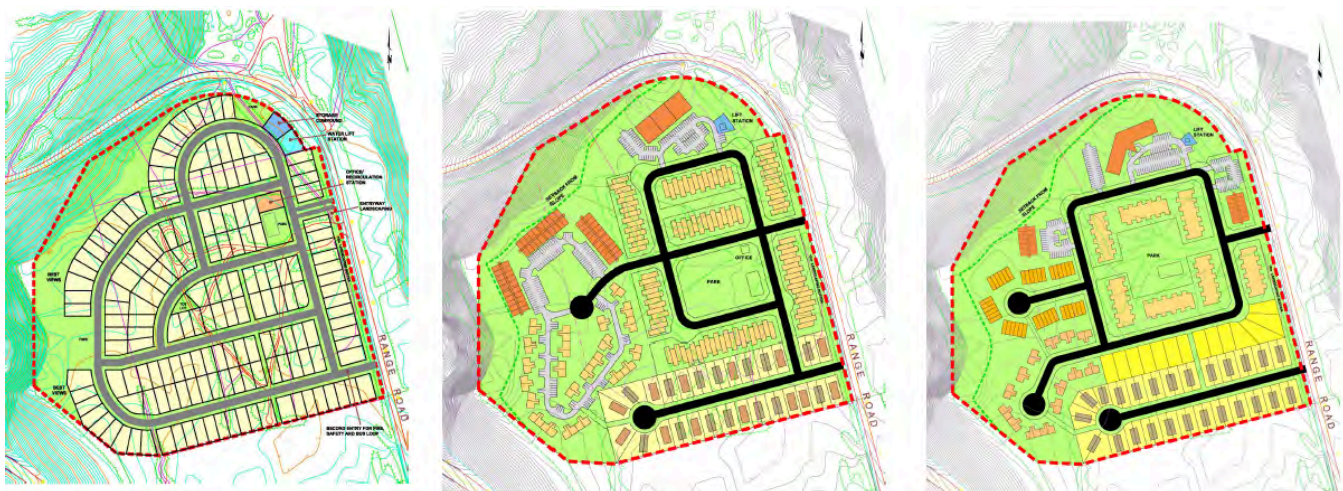
### 3.6 Other Plans, Studies and Initiatives

#### 2007 C-15B Housing Conceptual Design

C-15B has been recognized by KDFN as a logical starting point for residential development for several decades, largely because of the absence of historical or citizen interests on the parcel. In 2007, KDFN Economic Development retained Inukshuk Planning and Development to develop a concept for a mobile home park on C-15B. The project expanded beyond the original mobile home park concept to include two additional mixed housing concepts of high and medium density.

Preliminary costing and comparison of the three concepts found that the lowest density, mobile home park option cost almost 20% more than the highest density option and generated the lowest revenues. The “compromise” medium density concept cost slightly less than the high density concept. Refer to Figure 7 below and Appendix C for the concepts.

**Figure 7. 2007 housing concepts for C-15B** (Source: Inukshuk Planning and Development)



Original Concept	Concept 1	Concept 2
164 mobile home units	434 units – mixed high density	360 units – mixed medium density
\$10m capital cost	\$8.2m capital cost	\$7.75m capital cost
Lowest revenue/tax generation	Highest revenue/tax generation	Moderate revenue/tax generation



## Point Park Feasibility Study (2016)

In response to strong resident interest in more parks and playgrounds, the City committed to undertaking a feasibility study into developing the Point as a park in the 2014 Range Road Neighbourhood Plan. The study concluded that development of a park at the Point would allow the City and its partners to implement management measures, proactively shift behavior away from unwanted uses, and limit the potential effects of a growing residential population. Furthermore, the traditional significance of the site and its high value to First Nations, local residents, and stakeholder groups was felt to present a unique opportunity to co-create, interpret and care for a special place in a manner that reflects both its significant ecological and human-ascribed values.



**Figure 8. Point Park concept** (Source: Jane of all Trades Consulting)

The study team developed a concept for a city-level park centering around four main park functions:

- Community gathering and leisure;
- Connection to other areas;
- Nature and heritage on display; and
- Destination for visitors and special events.

The conceptual plan includes a picnic area with shelters and power, cantilevered lookout, grass field for play and events, interpretive/ natural play areas, loop trails, prospective McIntyre Creek bridge crossing, and parking for 20+ vehicles.

A preliminary budget range for separate elements was included in the study. The total budget for the concept would likely exceed \$1 million dollars.

## New Playground (2021)

The City has indicated plans to install a natural playground on the PR zoned parcel immediately south of Northland Park in 2021. This investment will help address the deficit of public amenities in Range Point.

## 4.0 Site Infrastructure

### 4.1 Roads

Range Road North, the only road connection to the planning area, is designated a Minor Collector Road (AECOM, 2006) with a posted speed of 50 km/h. While Mountain View Drive is located nearby, a new connection from the planning area is considered impractical due to the road's geometry and the steep topography between the road and subject parcels.

The southernmost section of Range Road North (between Takhini mobile home park and Crow Street) was rebuilt in 2012/13. The upgraded section is a paved two lane road with landscaped medians, turning lanes, crosswalks, and paved multi-use paths on either side. North of Crow Street, the road was resurfaced with an interim bituminous surface treatment until a full reconstruction could be undertaken. A conceptual design was completed in 2016 for the section between Crow Street and C-15B.

During consultation for the 2014 neighbourhood plan, residents and stakeholders identified speeding on Range Road North as a recurring issue and expressed interest in traffic calming measures. The conceptual design proposes a traffic circle at River Ridge Lane, which may help to reduce speeding issues. The design includes two proposed access locations for C-15B, but does not specify intersection designs.

The City's Capital Budget 2021-2024 indicates the detailed design is scheduled for 2022 and reconstruction in 2023. The City's Engineering department commented that the master planning process may influence the design. Ideally, preliminary site work for the planning area, such as the installation of watermain crossings, would coincide with road construction to avoid subsequent disturbances to a newly constructed roadway.

The location of new accesses from the development to Range Road should follow the Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads, which provides standards for minimum intersection spacing and sight distances. Based on our review of the past concepts and interpretation of the standards, the following considerations should be kept in mind through the site planning:

- The minimum spacing between adjacent intersections on minor collector roads is 60 metres; and,
- The posted speed limit is 50 km/h. Assuming a design speed of 60 km/h, the minimum sight distance for turning movements is 110 m.

Based on a desktop review and site visit, the existing bus loop access location (approximately where the 2007 Concept 1/2 northern access is located) meets this minimum sight distance. A location 60 metres to the north of the bus loop access was also assessed and found to not meet the minimum sight distance due to trees and brush near the road. An access could likely be placed between the bus loop and the beginning of the curve in Range Road with some clearing. Locating the access along the curve on Range Road (if desired) would require further analysis.

The Team recommends constructing two intersections to service the entire planning area. Locating one intersection on each parcel would ensure access to each is unaffected by future redevelopment of the other. For the same reason, all subdivided lots would ideally have access to Range Road North from the lot on which they are located (although this may prove difficult in practice).

One or more additional traffic circles should be considered, along with other traffic calming measures, in the design of the access to the planning area. The Team recommends revisiting the inclusion of on-street cycling lanes in the road design. Without physical separation from vehicle lanes, on-street cycling lane demarcation in Whitehorse quickly becomes worn off or covered with snow. This essentially creates widened vehicle lanes that encourage faster vehicle speeds. Alternatively, the paved paths proposed in the boulevards could be designed to accommodate pedestrians and cyclists and a narrower road surface could be constructed.

The well-used escarpment trail on the western and northern perimeter of C-15B connects back to Range Road directly across from the Point and is likely to become a frequent pedestrian crossing location for future residents. This situation will be unsafe due to poor sight lines resulting from the steep western approach from McIntyre Creek and the curve on Range Road coming from the south. A raised intersection may be an effective way to curb vehicle speeds and facilitate safer pedestrian movement here.

The planning area is located approximately 5 kilometres from the downtown core. There are several major destinations within a 20-minute bike ride, and Yukon University is approximately a 30-minute walk. This suggests there is moderate potential for future residents to use active transportation. Distances and travel times to major destinations are shown below, in Table 3.

**Table 3. Active transportation distances and travel times from planning area**

Destination	Distance	Walking time	Cycling time
<i>Yukon University</i>	2.5 km	30 minutes	12 minutes
<i>Keno Way (future commercial area)</i>	3.0 km	38 minutes	12 minutes
<i>Canada Games Centre / Whitehorse X-Country Ski Club</i>	4.0 km	53 minutes	18 minutes
<i>WalMart / Save-On-Foods</i>	3.8 km	47 minutes	14 minutes
<i>Main St</i>	5.7 km	70 minutes	20 minutes

There is potential for increased traffic volumes resulting from site development to impact off-site transportation infrastructure beyond the intersections with Range Road North. Any anticipated impacts of the development should be considered in the context of other impacts associated with ongoing development in Whistle Bend. Congestion along Copper and Quartz roads, the major arterial roads connecting the planning area and downtown, was already identified as a priority issue requiring attention in the 2018 Maxwell Plan; the situation will only worsen as new phases of Whistle Bend are built out. The situation is already having a “spill over” effect on Range Road North, which is serving as an alternative to Mountain View Drive for some Whistle Bend residents.

The City initiated a city-wide transportation study late in 2020. The study includes a review of current conditions along Mountain View Drive as far south as Range Road and is slated to provide recommendations in early 2022. It is possible that transportation infrastructure upgrades identified due to increasing traffic volume from Whistle Bend, if undertaken, will also accommodate traffic originating from the planning area. A transportation impact

assessment could quantify the traffic volumes and impacts on local road and intersection levels of service. Such an assessment may be requested by the City at the development review stage. Further analysis will be required after the projected population for the development is determined.

## 4.2 Water

There is a 450mm ductile iron (DI) watermain that connects the watermain on Range Road with the watermain in Whistle Bend. This connection was identified as a servicing requirement for Whistle Bend in the City's 2003 Water and Sewer Plan and constructed in 2012. Refer to Figure 9.

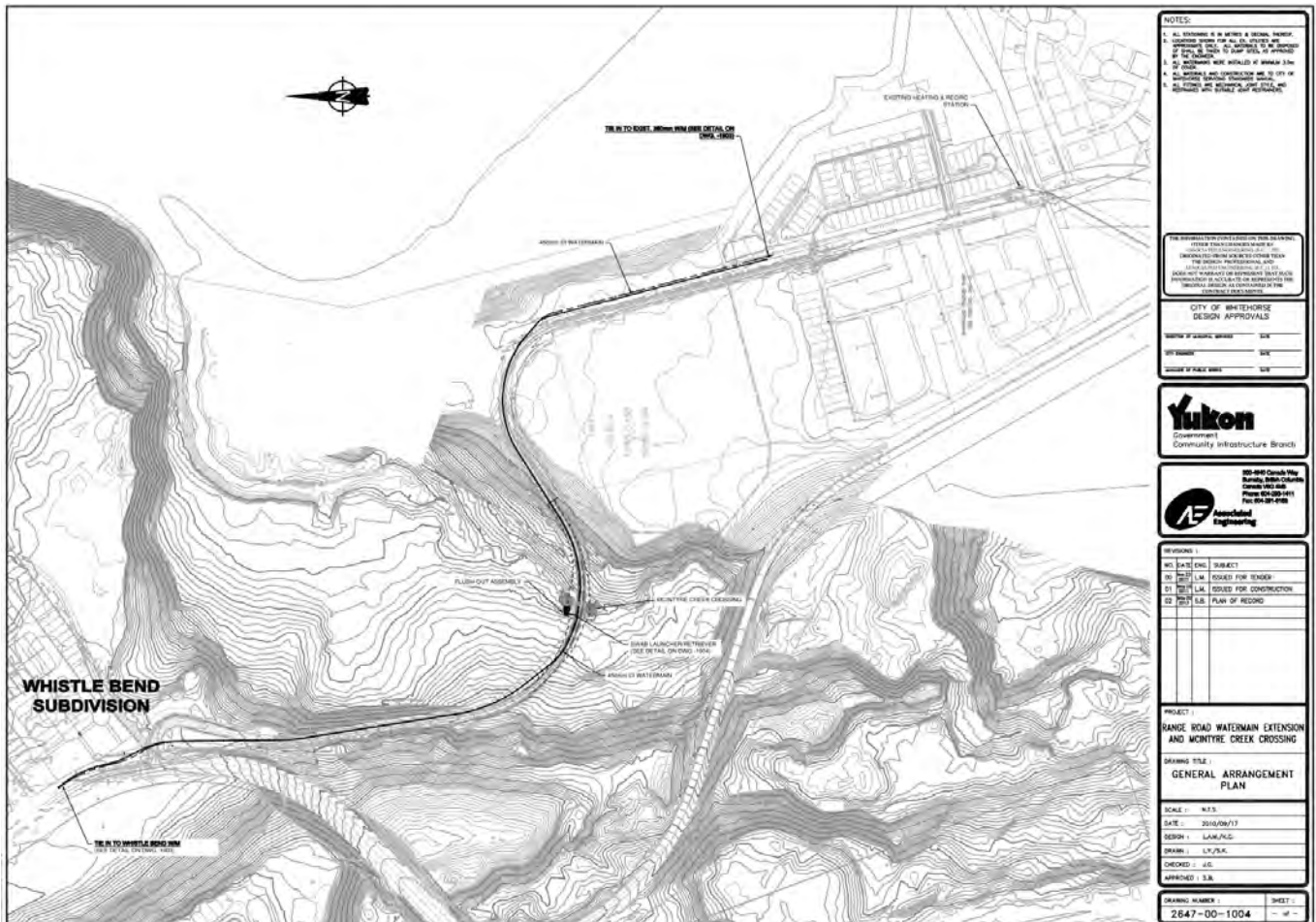


Figure 9. Range Road 2012 watermain alignment (Source: Associated Engineering)

The watermain on Range Road are connected to the Valleyview Reservoir through the Range Road Pressure Reducing Valve (PRV) Station and supply Whistle Bend with water. The Whistle Bend development is also connected to the Porter Creek reservoirs through a series of PRV stations. Figure 10 provides an overview of how the study area will be connected to the water system (note that the 2003 Water and Sewer Study is out of date and imminently due for an update).

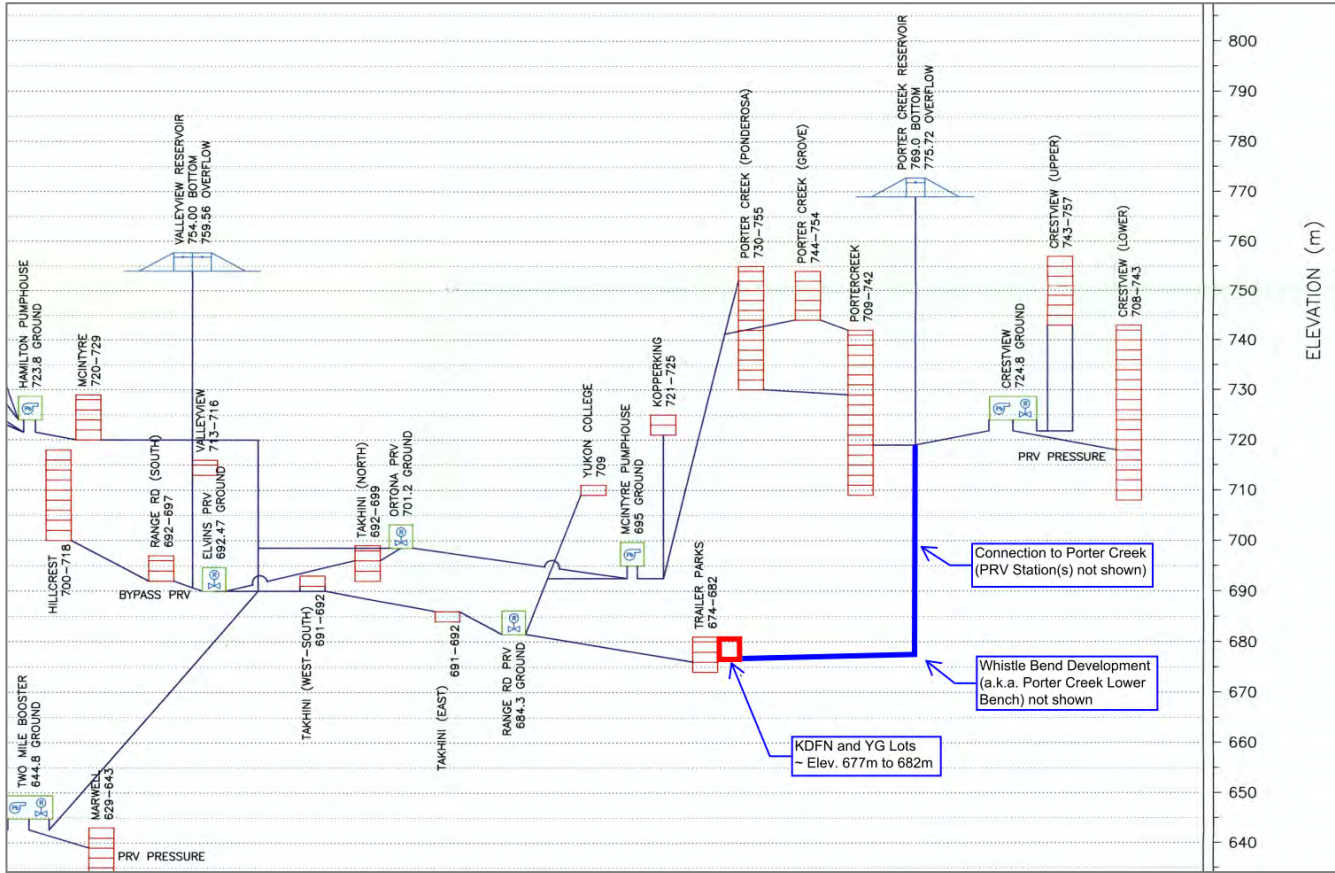


Figure 10. Marked-up water system schematic profile (Source: 2003 City of Whitehorse Water and Sewer Study)

The available fire flow for the watermain on Range Road was calculated at between 150 and 250 L/s during the 2003 Water and Sewer Study (refer to Figure 11). However, the 2012 watermain connection to Whistle Bend created a looped water supply (replacing the previous dead end) and the available fire flow is now likely greater than 250 L/s. Given the moderate size of the development area and the fact that the Range Road watermain is the main water supply to the significantly larger Whistle Bend development, the water supply to C-15B and Lot 262-6 should be very reliable and adequate for the site’s needs.

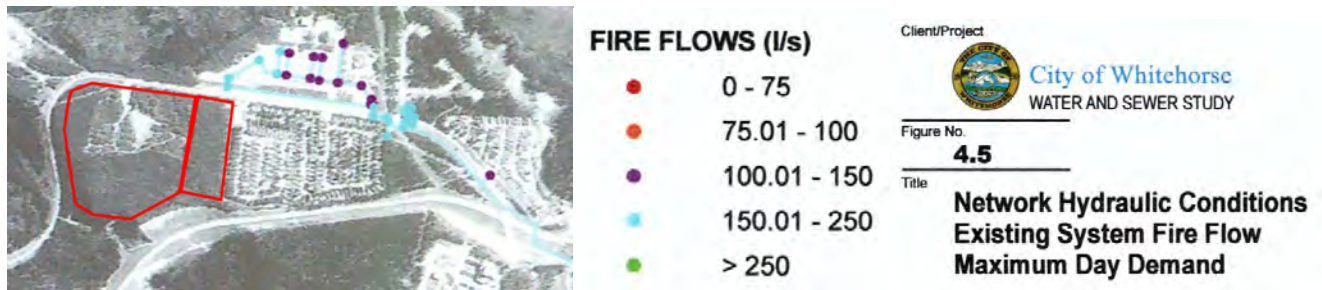


Figure 11. Available fire flow on Range Road (Source: 2003 City of Whitehorse Water and Sewer Study)

The water supply needs for the planning area will be calculated to meet design criteria set out in the *City of Whitehorse Servicing Standards Manual* (see inset). The water demands and fire flow calculated using those design criteria will then be inputted into the current version of the City's water model to ensure the following conditions are met:

- The operating water pressure is not greater than 550 kPa (80 psi);
- The system is capable of providing sufficient fire flow to the hydrants onsite;
- Peak Hour Demand maintains a minimum operating pressure of 280 kPa (40 psi) throughout the water system; and
- Maximum Daily Demand plus Fire Flow maintains a minimum pressure of 140 kPa (20 psi) throughout the water system.

### **City of Whitehorse Water Supply Design Criteria**

- Average Daily Demand = 500 L/person/day
- Maximum Daily Demand = 2 x Average Daily Demand
- Peak Hour Demand = 3 x Average Daily Demand
- Fire Flow (flow and duration of flow) for the development shall be calculated using the latest version of the Insurance Advisory Organization (now known as the Fire Underwriters Survey).

In the event any of the design criteria are not met, the associated water system improvements will need to be identified and completed as part of the development. It is not anticipated that any offsite upgrades will be required; however, the water modeling exercise required by the City will confirm this assumption.

Water service to the planning area is expected to be provided via a new watermain looping through the two parcels, with one connection from each site to the Range Road watermain. Each connection would be made by excavating to the existing main, temporarily shutting off the water, cutting the main, and installing a new tee. Such connections are shown in the City of Whitehorse preliminary design for the Range Road improvements and it would be ideal to undertake them at the time of the road reconstruction. This would avoid the need to trench across and restore the existing road in the two tie-in locations.

Onsite water supply needs will be dictated by housing type. Larger parcels containing multi-residential units and commercial services will require water meters. Single family dwelling lots will require a separate service but not meters. The layout of the water piping will be configured to provide adequate fire protection, including a maximum fire hydrant spacing of 90m. The water system layout and servicing will ultimately need approval from the City's Engineer.

## **4.3 Wastewater**

Range Point is part of the Marwell Collection System, which flows into the Marwell Lift Station and is subsequently pumped to the Livingstone Trail Environmental Control Facility (i.e., City's sewage lagoons) for treatment. A sewer forcemain runs along Range Road and three separate lift stations pump gravity collection from adjacent developments into the forcemain, which connects into Trunk 1. The three lift stations are located at the north end of Northland Park, east end of River Ridge Lane, and the east end of Crow Street. Refer to Figure 12.

Neither C-15B or Lot 262-6 are currently connected to the City's gravity collection system. The long-standing assumption has been that C-15 would be integrated into the system via the extension of the sewer forcemain along Range Road. This assumption formed the basis of the Yukon Asset Construction Agreement (YACA) signed

between YG and KDFN in KDFN's Final Agreement. A lift station was similarly assumed as being a mandatory precursor to future development due to the site's lower elevation (relative to the gravity collection system).

In 2007, Quest Engineering completed a conceptual servicing layout for C-15B that included the construction of a new lift station and extension of the Range Road forcemain to connect to the City's gravity collection system at manhole S-9A (the nearest connection point to C-15B). Refer to Figure 13.



Figure 12. Range Point wastewater collection system (Source: City of Whitehorse 2003 Water and Sewer Study)

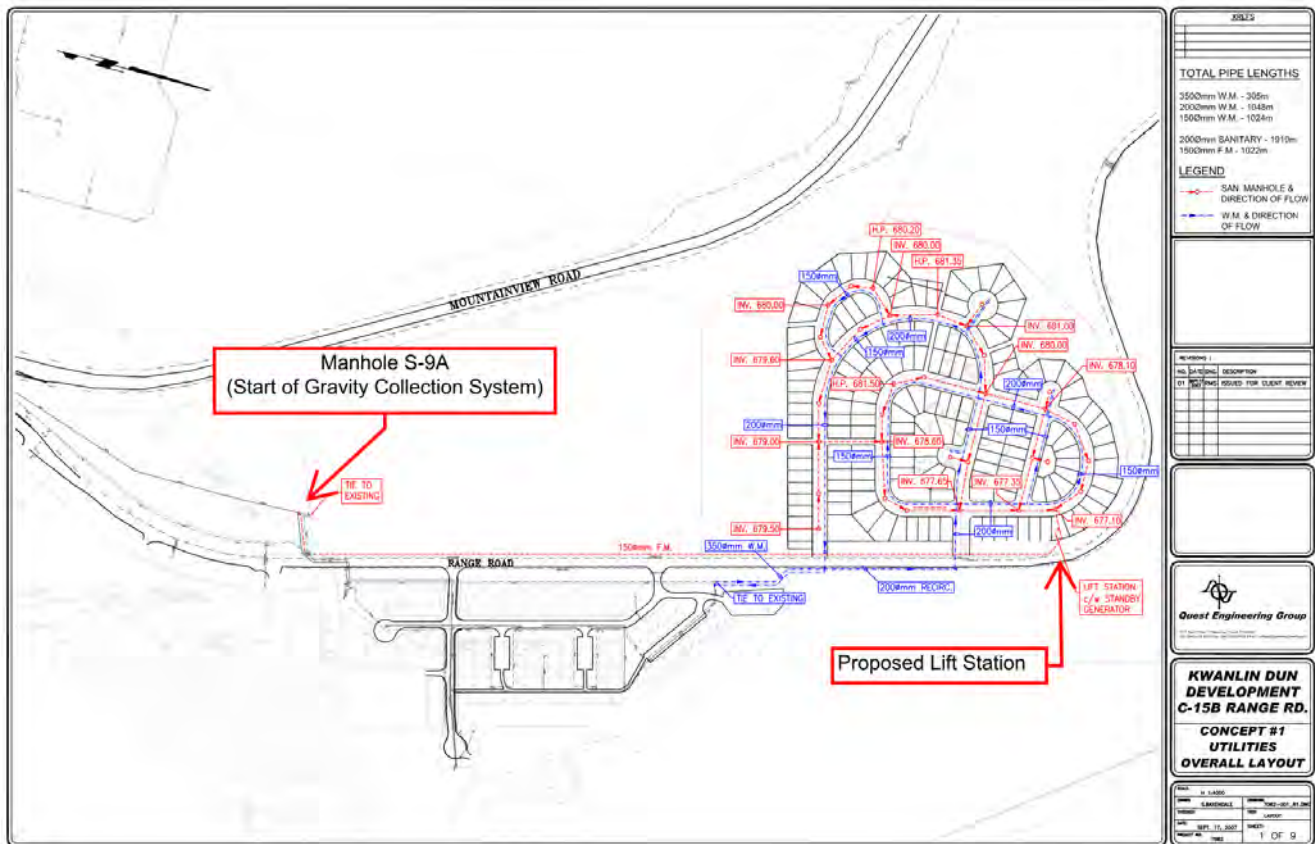
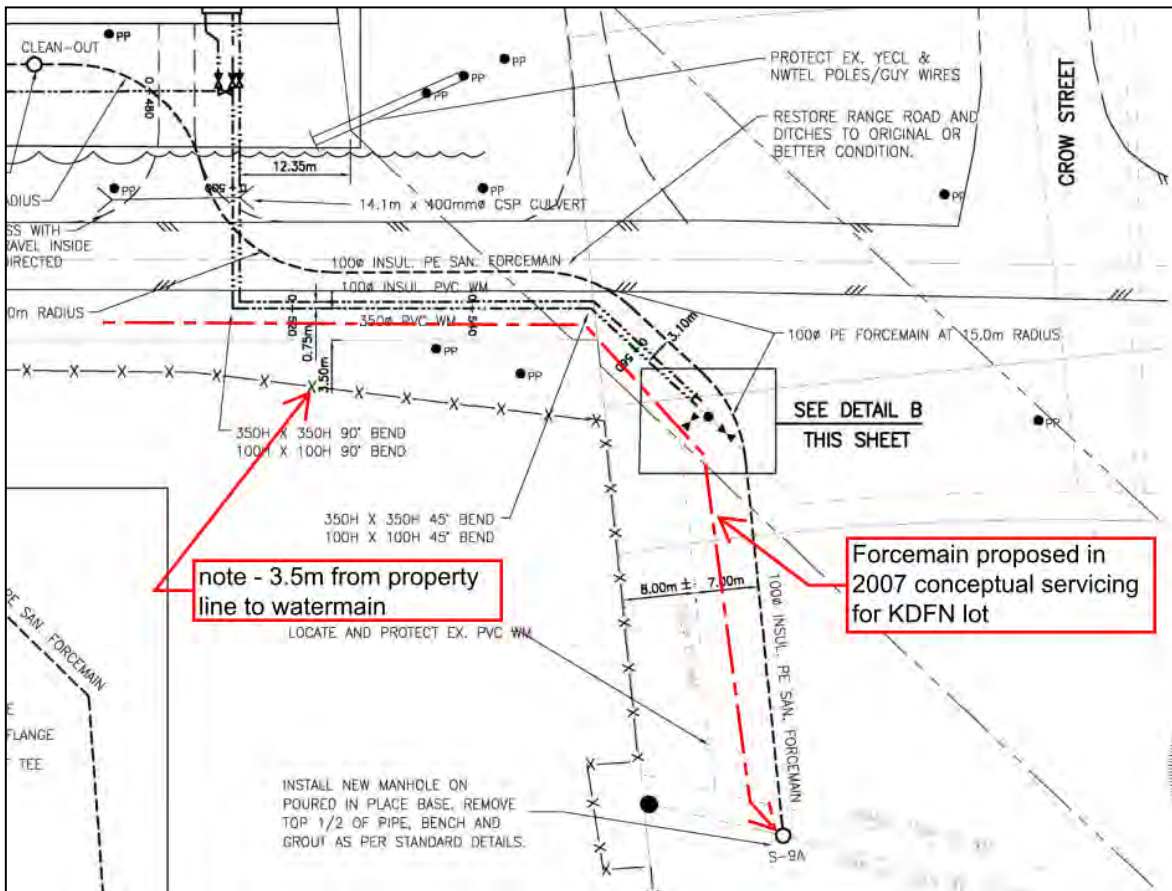


Figure 13. Marked-up 2007 water and sewer conceptual design for C-15B (Source: Inukshuk Planning & Development)

On review of this conceptual design, the Team predicts that it will be quite challenging to execute due to the existing buried water and sewer infrastructure in the vicinity of the tie-in location, which may be exacerbated by the pending playground on the City's lot. The City's servicing standards require a minimum 3.0m horizontal spacing between watermains and any sewermain, and a minimum 1.5m distance to the property line. Currently there is only a 3.5m spacing between the property line and existing watermain, meaning that the proposed forcemain alignment cannot meet the City's standards. Refer to Figure 14.



**Figure 14. Marked-up 2001 Range Road mobile home development record drawings**

(Source:

Sanitary servicing of the planning area is further complicated by the fragmented nature of wastewater servicing in the broader Range Point neighbourhood. Normally sewer system design seeks to minimize the number of lift stations to avoid both additional costs – from energy use, operations, and capital replacement – and the risk of station failures and corresponding discharge of untreated sewage into the environment. In the case of Range Point, the presence of three lift stations in a relatively small geographic area is the likely result of separate private developments not considering how other areas were being serviced over the long term.

Of the three stations, only the River Ridge Lane one is owned or operated by the City. Similarly, only the infrastructure within the right-of-ways of Range Road and River Ridge Lane appear to be the responsibility of the City; the three condo corporations are responsible for the operation, maintenance and replacement of the rest of the infrastructure connecting to it.



In light of these issues, the Team submits that there are two broad approaches the sanitary servicing of C-15B and Lot 262-6: continuing the established pattern of independent servicing design for the sake of expediency, or a more holistic approach that considers how to best manage the wastewater flows from the planning area in conjunction with the existing collection and lift station infrastructure. The Team has identified two main options that reflect these approaches, described below and summarized in Table 4.

## Option 1 – New Lift Station and Forcemain

This option would see the construction of a new lift station in the planning area and connection of the lift station to connect to the gravity collection system via a forcemain along either Range Road or Mountain View Drive. Refer to Figure 15.

Option 1A most closely resembles previous development plans and assumptions for the planning area. A new lift station would be installed and a forcemain constructed down Range Road to connect to the gravity sewer system manhole on the south side of Northland Park (manhole S-9A). The main challenge with this option is the tight spacing and numerous watermain crossings (which should be avoided to the extent possible). The watermain could be relocated to reduce the number of crossings and maintain the appropriate separation between water and sanitary infrastructure (note that this work could coincide with pending Range Road North reconstruction). Alternately, an easement could be registered along the southeast corner of Northland Park.

The right-of-way along Mountain View offers ample space for a new forcemain routing (Option 1B) as compared to Range Road. The length of the forcemain would increase but there would be limited conflict with existing subsurface infrastructure and the surface restoration would be much simpler. The work would also limit disruption to traffic on Range Road and allow upgrades to Range Road to proceed without fear of future damage. Note that the design of the forcemain alignment along Mountain View Drive may be able to transition from a forcemain to a gravity sewer sooner than the tie-in location indicated. The preferred alignment should be confirmed as part of subsequent design and collaboration with the City.

## Option 2 – Gravity to River Ridge Lane Lift Station

The second approach would be to avoid creating a new lift station in the planning area and instead send all of the wastewater to the River Ridge Lane lift station, either “piggybacking” on the existing sewermain routing through Mountain View Place (2A) or via the greenbelt to the east of the development (2B). Either scenario would require the sewer mains in the planning area to be slightly deeper to facilitate flow in the opposite direction of the natural grade (i.e., north to south); 2A would further require that the sewer mains in East View Place be lowered by several metres. The existing River Ridge Lane lift station is over 20 years old and the Team assumes that it would need upgrades/additional capacity.

Option 2A was originally conceived of early in the project, when the Team heard from a realtor and lawyer familiar with the Mountain View development that its sewer infrastructure needs to be rehabilitated and that some discussions have taken place with the City. To date, the Team has not been able to confirm any of this information and is still waiting to hear back from the condo corporation directly (City Engineering had no knowledge of such discussions).

Based on this information, the Team recommends exploring this option further on the basis of its potential benefits. The logical next step would be to complete a more detailed assessment of the existing lift station and Mountain View sanitary infrastructure to inform how feasible either 2A or 2B actually is.

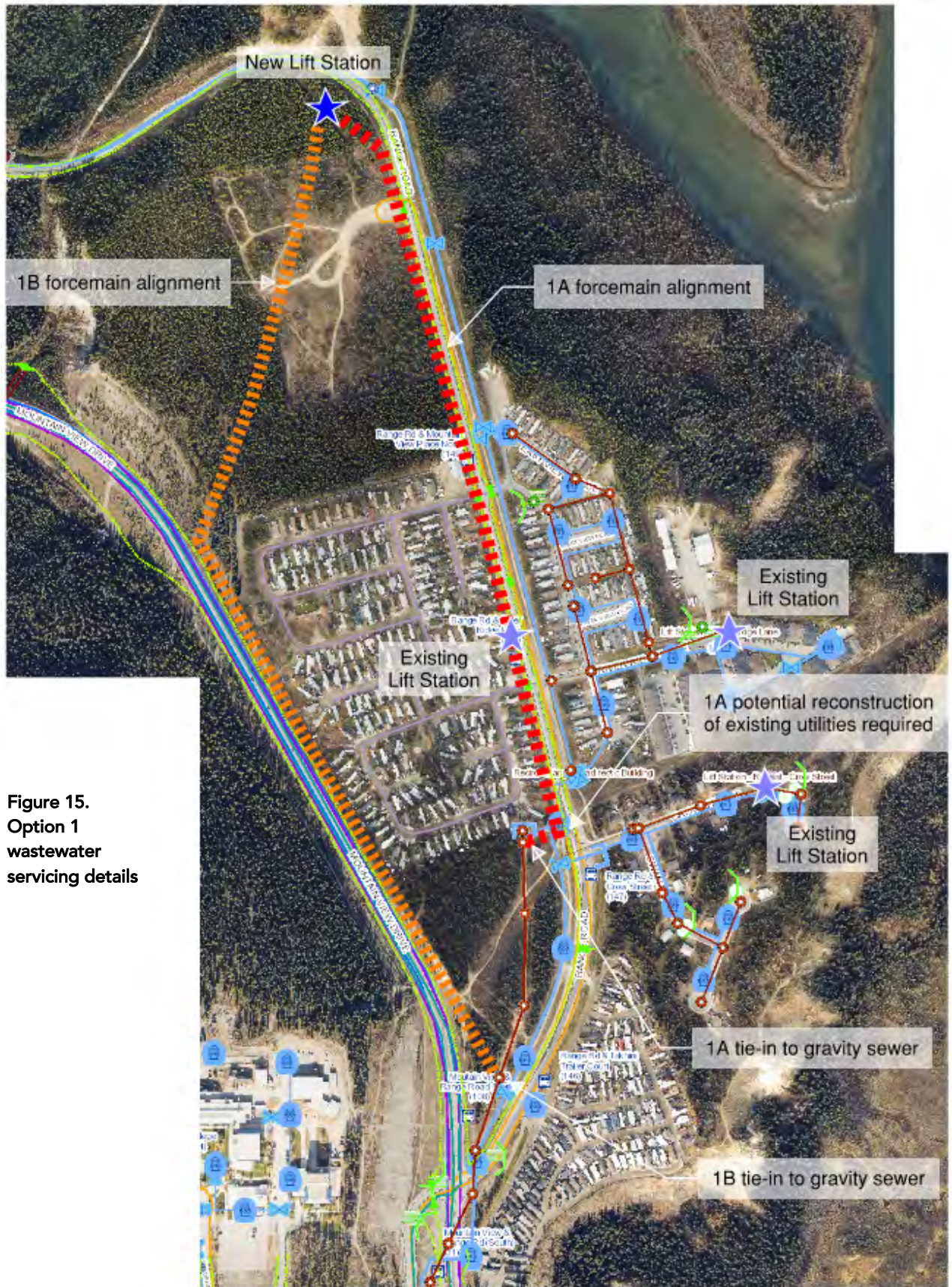


Figure 15. Option 1 wastewater servicing details

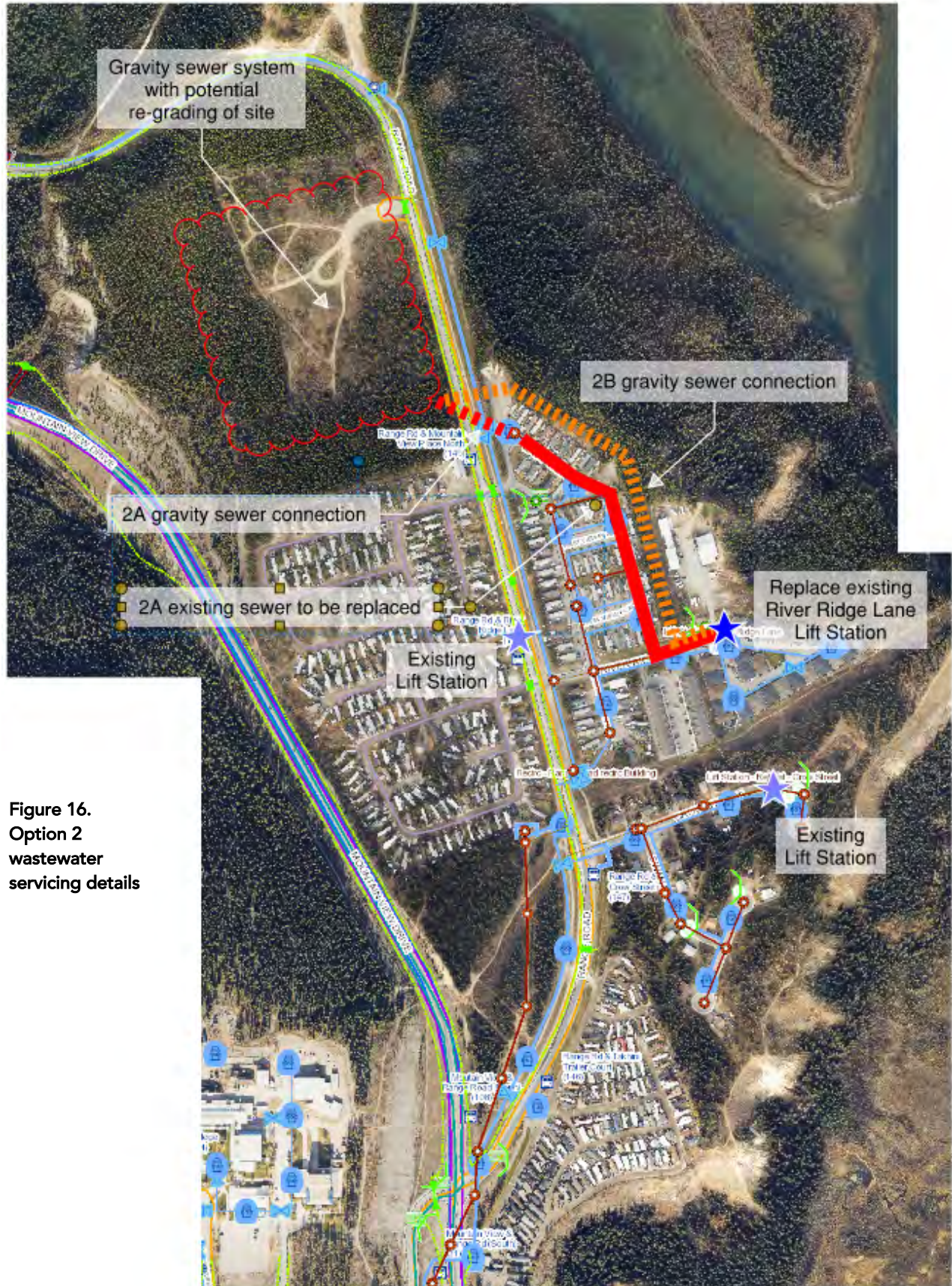


Figure 16.  
Option 2  
wastewater  
servicing details

Option	Alternatives/Description	Pros	Cons
<b>Option 1</b>  New on-site lift station and forcemain to gravity sewer near Range Road & Mountain View Drive intersection	A) Alignment following Range Road	<ul style="list-style-type: none"> <li>Minimal coordination with existing lift stations and private developments</li> <li>Consistent with previous conceptual designs</li> <li>Potential for future Northland Park tie-in</li> </ul>	<ul style="list-style-type: none"> <li>Adds a fourth lift station to the Range Point area, resulting in higher O&amp;M costs and long-term environmental risks</li> <li>May require modifications to existing buried utilities near Crow Street (as part of Range Road reconstruction)</li> </ul>
	B) Alignment following Mountain View Drive	<ul style="list-style-type: none"> <li>Greatest ease of construction</li> <li>Minimal coordination with existing lift stations and private developments</li> <li>Avoids impact on constrained utilities near Crow Street</li> <li>Potential for future Northland Park tie-in</li> </ul>	<ul style="list-style-type: none"> <li>Adds a fourth lift station to the Range Point area, resulting in higher O&amp;M costs and long-term environmental risks</li> <li>Longer routing could add to costs</li> </ul>
<b>Option 2</b>  Gravity sewer system connecting to Mountain View Place combined with new lift station at River Ridge Lane	A) Gravity sewer system connecting to East View Place; replacement (lowering) of sewer from tie-in to River Ridge Lane lift station; new lift station at River Ridge Lane	<ul style="list-style-type: none"> <li>Lower O&amp;M costs and long-term environmental risks</li> <li>Allows potential future tie-in from Northland Park, potentially reducing the number of future lift stations in Range Point from four to two</li> </ul>	<ul style="list-style-type: none"> <li>Requires coordination with Mountain View Place condo corporation</li> <li>Requires feasibility analysis to confirm constructability</li> <li>Business case and cost-sharing opportunities dependent on existing conditions of Mountain View Place sewer and River Ridge Lane lift station</li> </ul>
	B) Gravity sewer system extending through vacant land (greenbelt) behind Mountain View Place; new lift station at River Ridge Lane		
<b>Option 3</b>  Variations of Options 1 & 2 New on-site lift station and forcemain connecting to Mountain View Place	A) New forcemain ties in to existing forcemain at River Ridge Lane & Range Road; communications and controls upgrade required for River Ridge Lane lift station to ensure lift stations alternate/coordinate pumping operations	<ul style="list-style-type: none"> <li>Uses Range Road alignment while avoiding impact on constrained utilities near Crow Street</li> </ul>	<ul style="list-style-type: none"> <li>Adds a fourth lift station to the Range Point area, resulting in higher O&amp;M costs and long-term environmental risks</li> <li>Requires coordination with Mountain View Place condo corporation</li> <li>Requires existing lift station upgrades in addition to new lift station</li> </ul>
	B) New forcemain ties into gravity sewer on East View Place; communications and capacity upgrade required for River Ridge Lane lift station		

**Table 4. Summary of sanitary servicing options for planning area**

A third option could theoretically be considered as a backup to Options 1 or 2.

### Option 3 – New lift station and forcemain to Mountain View Place

The third option is a variation of both Options 1 and 2 and would involve the construction of an onsite lift station and forcemain (as per Option 1) but with the goal of connecting to Mountain View Place sanitary infrastructure (as per Option 2). Option 3A would involve tying in the new forcemain along Range Road to the existing forcemain at River Ridge Lane and Range Road. This would require an upgrade to the River Ridge Lane lift station to ensure the two stations' pumping operations would be coordinated. Alternately, the new forcemain could tie into the gravity sewer at the northwest end of East View Place (3B); this option would also require upgrades to the River Ridge Lane station. Refer to Figure 17 and Table 4.



**River Ridge lift station**

Because Option 3 carries the disadvantages of both Options 1 (additional lift station) and 2 (added complexity of coordination), the Team generally doesn't recommend pursuing it further.

## 4.4 Stormwater

Most of the site is very flat with grades less than 5% with moderately steep slopes on the western perimeter and very steep slopes along the northern perimeter above McIntyre Creek. Soil conditions are consistent throughout the site and include a thin layer of organic soils overlying 0.2m to 1.0m of silty sand, which is in turn underlain by glaciolacustrine silt which extends to an undetermined depth. The 2007 geotechnical report for C-15B notes that site conditions are not conducive to the use of rock pits for the collection and disposal of stormwater.

The glaciolacustrine escarpment slopes overlooking McIntyre Creek are susceptible to mass movement processes such as mud slides and other shallow landslides. Changing the drainage regime through the development of the sites will increase the chances of further slope instability and movement. The stormwater design for the development will need to be designed to direct away surface flows away from the escarpment and direct them towards McIntyre Creek, either using the drainage ditches on Mountain View Drive or Range Road. In addition, the development will need to include the appropriate retention ponds and/or energy dissipating structures to control runoff events.



Figure 17.  
 Option 3  
 wastewater  
 servicing details

Stormwater should not be directed from one lot onto an adjacent lot, if possible. If directing stormwater through an adjacent lot is required, it would be preferable to include an easement for this infrastructure around the parcel boundary, rather than through its centre.

## 4.5 Power

There is currently an overhead three-phase power line located along the Range Road North corridor. The Team discussed the project with ATCO engineering staff to identify any potential development constraints, and no major off-site upgrades were identified as being necessary. ATCO has provided order-of-magnitude site servicing costs based on an amalgamated 2007 C-15B concept (#2) and 2014 Lot 262-6 concept (see Appendix C and Figure 5 on page 9).

The need for three-phase power is generally dependent on zoning, with more intense uses such as multi-family residential and heavy industrial often requiring three-phase power. However, other factors can play a role, such as the use of electric heating systems or if an electric vehicle charging station is planned. Three-phase power infrastructure costs more, though there is an obvious trade off with higher density it enables. Based on the order-of-magnitude estimates provided by ATCO, the servicing cost per unit for C-15B is anticipated to be about 40% less than for Lot 262-6 (based on the concepts noted above). ATCO servicing costs can also be reduced somewhat by concentrating more intense uses within a lot or two, which may allow the remainder of the area to be serviced with single-phase power.

A shallow utility corridor will be required to throughout the site to service individual lots. ATCO should be engaged early in the design to ensure their infrastructure can be accommodated.

## 4.6 Communications

Northwestel infrastructure in the Range Road North corridor consists of cable Internet (copper coaxial cables). Fibre optic line is apparently situated several kilometres away. New development would trigger the need to extend fibre optic line into Range Point, which could ultimately benefit the broader area.

Northwestel staff reviewed the concepts to provide order-of-magnitude servicing cost estimates. Based on the need for off-site fibre upgrades, a high cost per unit was initially provided as a conservative estimate. However, in follow-up discussions, it was clarified that recent phases of Whistle Bend had significantly lower per unit costs for similar size development areas. Northwestel staff indicated that it is difficult to provide a more specific estimate of their servicing costs without seeing an ATCO servicing design (as Northwestel typically follows the same alignments).

Staff at Northwestel indicated that the site servicing is highly dependent on the approximate number of lots and uses planned in the development. Northwestel should be re-engaged once these details are available. Northwestel and ATCO utilities can likely be located within the same shallow utility corridor.

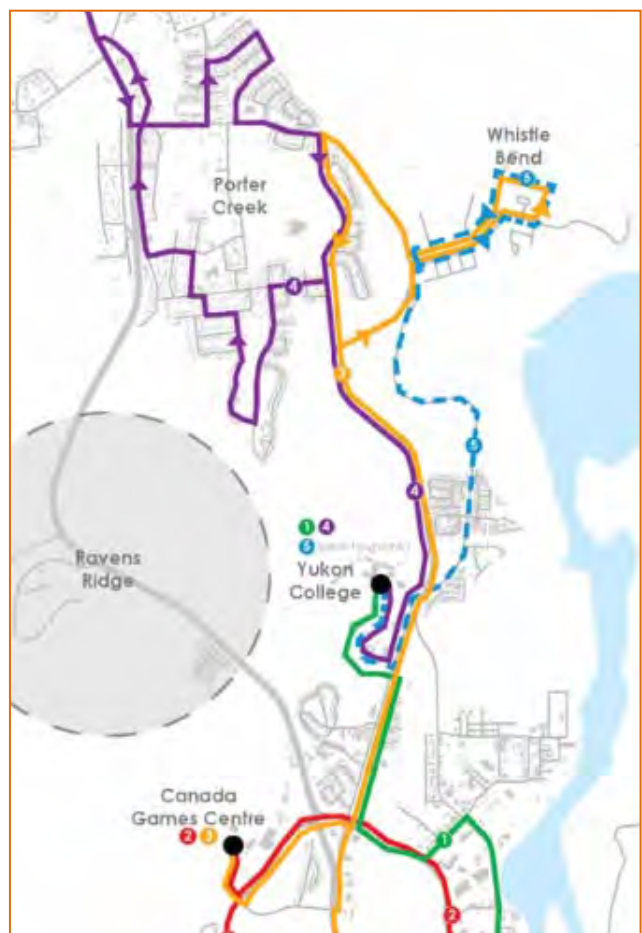
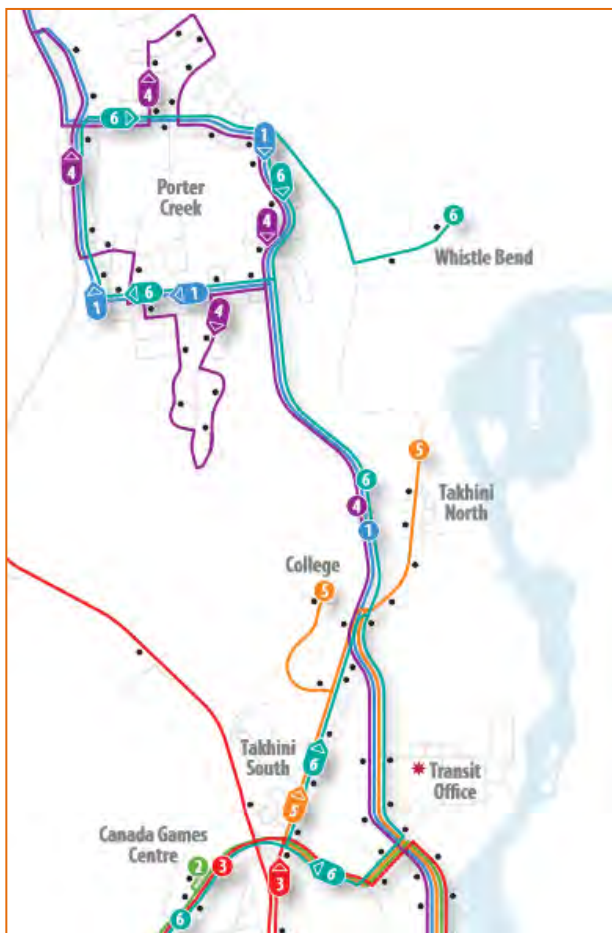
## 4.7 Transit Service and Infrastructure

There is currently transit service to the Range Point neighbourhood. The gravel pull-out on C-15B was previously used as a bus turnaround for routes terminating nearby; however, a turnaround area was added near Vista View

Place to reduce the distance/time required. Under the existing service structure, the #5 transit route could be extended to turn around within the new development as its northern terminus. Refer to Figure 18.

A Modernized Transit Route Plan is currently under development by the City. Under this plan, service on Range Road North would connect between Yukon College (a new transit route hub) and Whistle Bend. If the new plan is adopted, a detour through the new development would add to travel times and potential for delays. It would likely be more preferable from a transit service perspective to serve the site from Range Road, either at an established pedestrian crossing or with a bus bay/turnaround off Range Road. Refer to Figure 19.

The Transit Route Modernization Plan is still in development and may be finalized over the course of the master plan development. Whitehorse Transit should be engaged during concept development to seek confirmation of future service plans and discuss opportunities to support transit service to the planning area.



**Figures 18 and 19. Current (left) and potential future (right) transit service through Range Point**  
(Source: City of Whitehorse)



## 5.0 Market Conditions

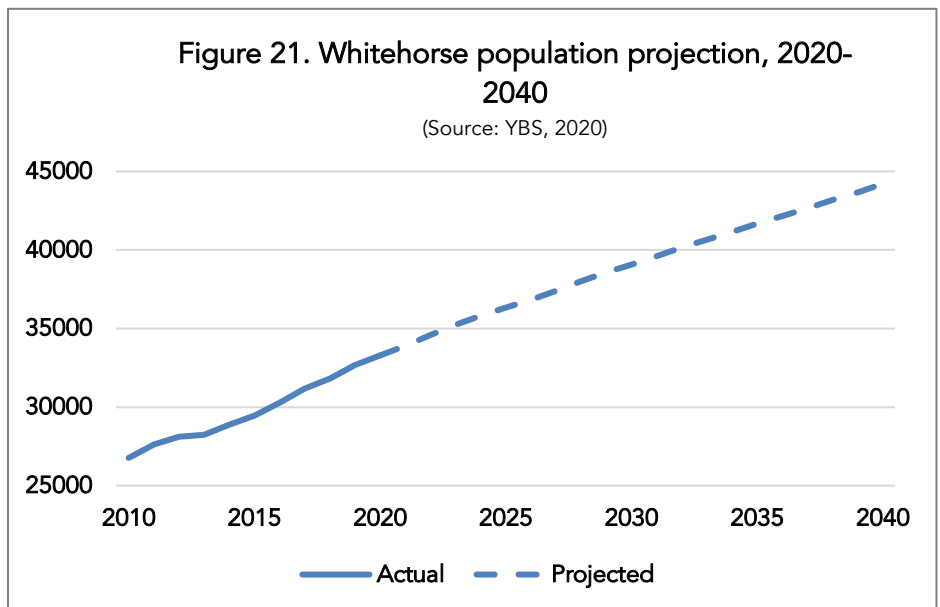
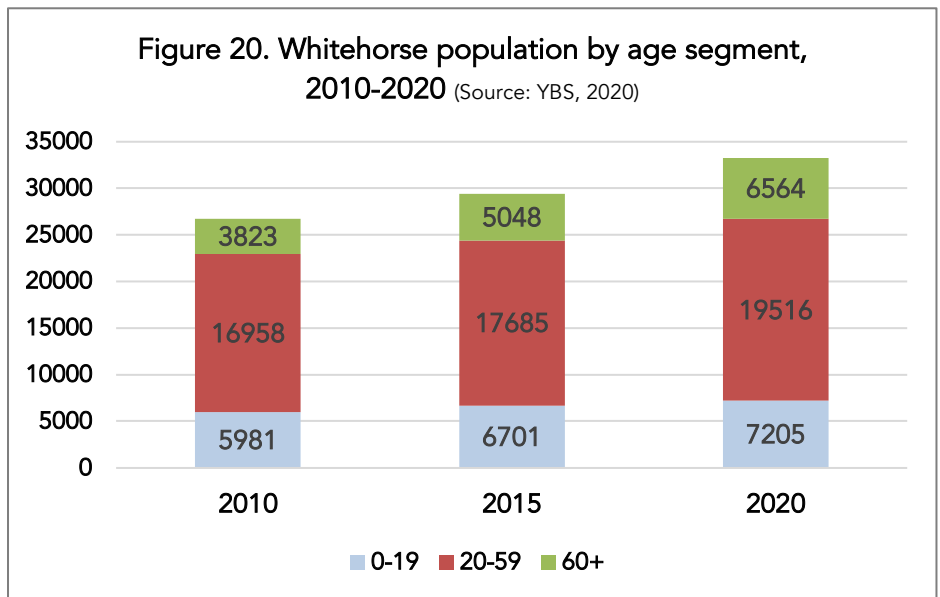
The following section provides both quantitative and qualitative insights into the market context for development in the Range Point area. Note that some data may have been updated as part of the City of Whitehorse Official Community Plan.

### 5.1 Population and Demographic Drivers

The Whitehorse population has increased significantly since 2010, from 26,761 to 33,285 in September 2020 (YBS, 2020). This total 24.4% increase represents a remarkably steady annual rate of 2.2%. Refer to Figure 20.

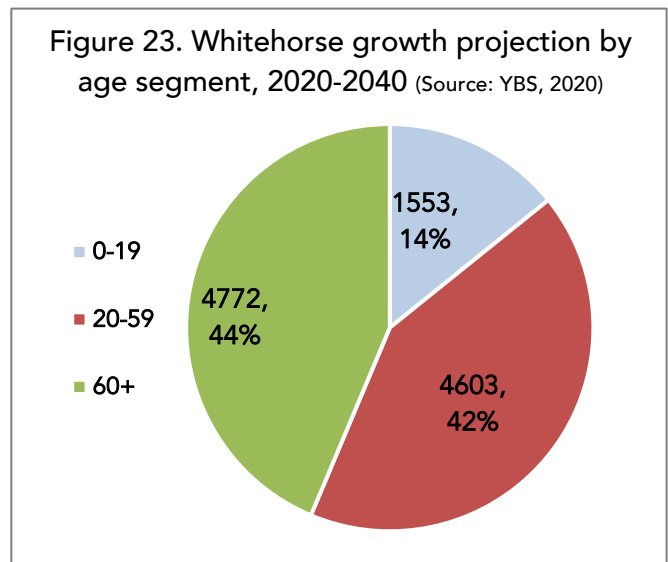
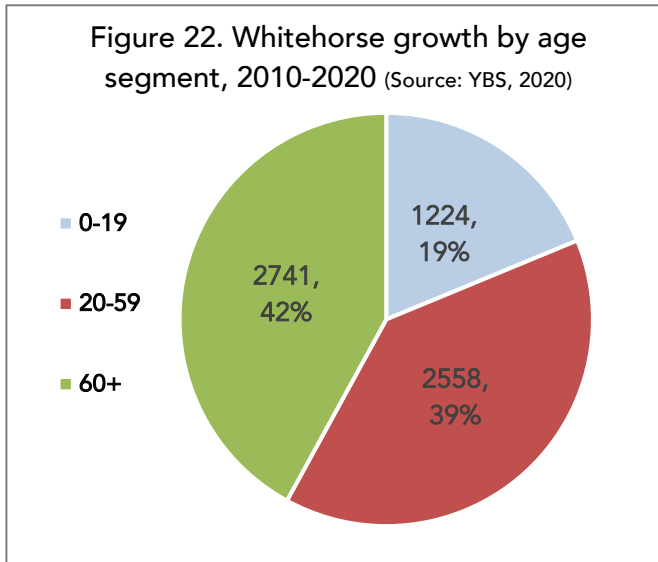
A continuation of this high rate over the next 20 years would theoretically grow Whitehorse by over 18,000 people to 51,492 by 2040. There may be cause to doubt that this growth, driven in part by increased public employment over the last 10-20 years, will continue.

The Yukon Bureau of Statistics (YBS) published more conservative growth numbers for Yukon in September 2020 which, given that Whitehorse houses almost 80% of Yukon residents, can be used as a reasonable proxy for the capital city. The projection sees a return to modest annual growth of 1.2% by the 2030s and implies that Whitehorse will grow by 10,928 people, to 44,213, by 2040 – an increase of 33% compared to the current size. Refer to Figure 21. Importantly, this growth is not

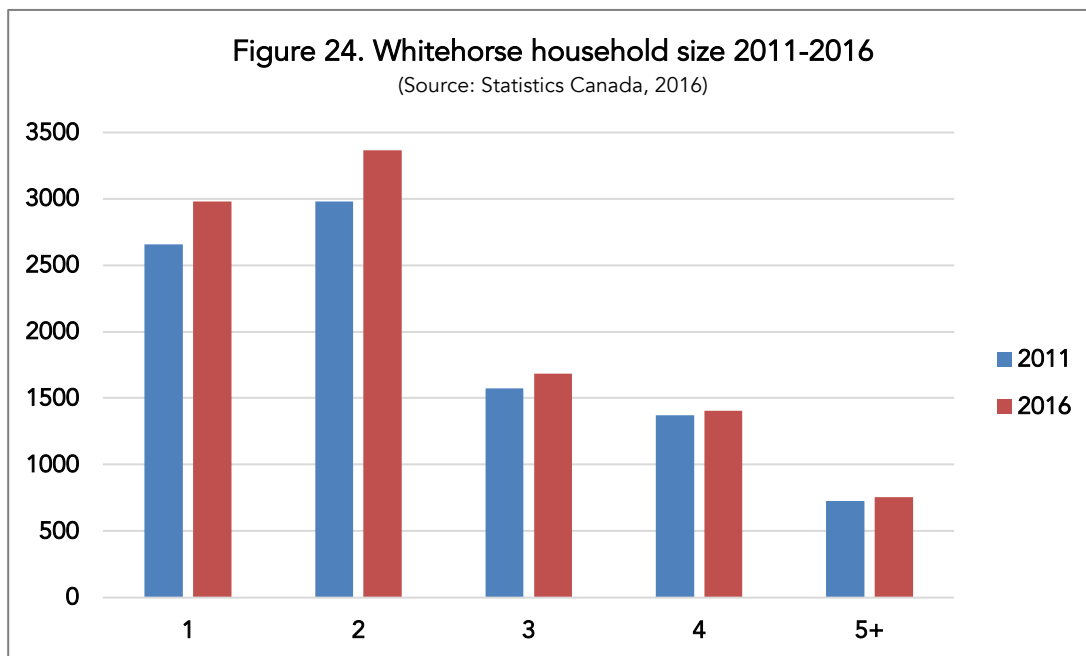


uniform across age segments. The over-60 age segment has increased by 42% since 2010, as compared to 20% for children (under 19). In fact, the over 60s have actually grown by more than the classic working age segment of 20-60 and have been responsible for the greatest share of growth of the three segments. Refer to Figure 22.

According to the YBS projections for Yukon, this trend is expected to continue, with fully 44% of the growth over the next 20 years in the over-60 segment. Refer to Figure 23.



Household size fell slightly from 2.5 to 2.4 between 2011 and 2016, the latest census data from Statistics



Canada. Over 60% of population growth in this period was in single and two person households. Refer to Figure 24.

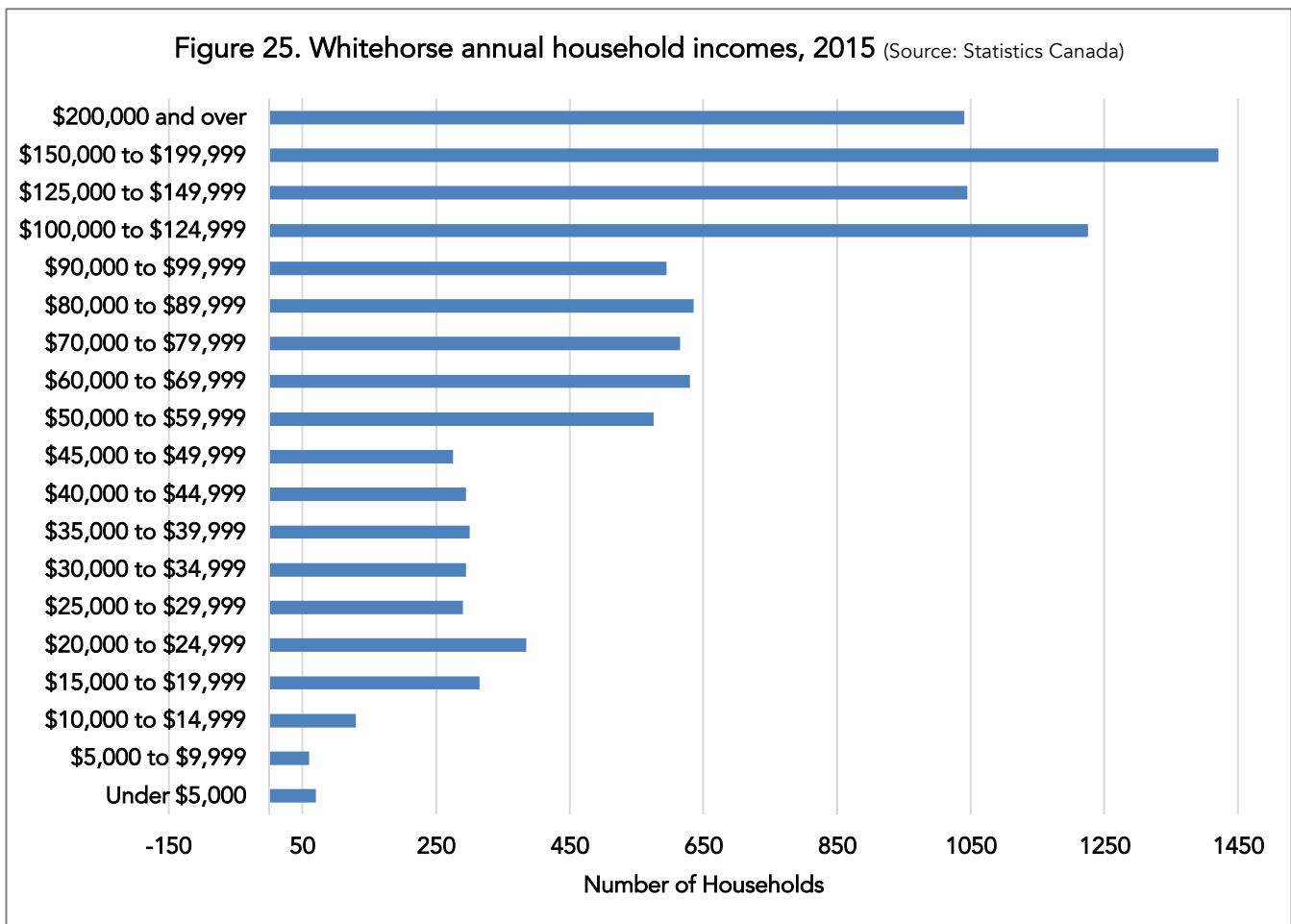
## 5.2 Household Financial Capacity

The last annual report from YBS recorded the average individual annual income in Whitehorse for 2017 as \$60,178, up 25% since 2008, a healthy annual increase of 2.5%. This report is from Canada Revenue Agency (CRA) filings and therefore does not record total household incomes or by household size. The latest Census Canada data is for 2015, which reported average annual income of \$57,236. This aligns with the CRA data from 2017, and allowed the Team to project to 2021 for households, type and income profile, by applying the long-term 2.5% income growth rate. Refer to Table 5.

**Table 5. Estimated 2021 median income for Whitehorse households** (Source Data: YBS)

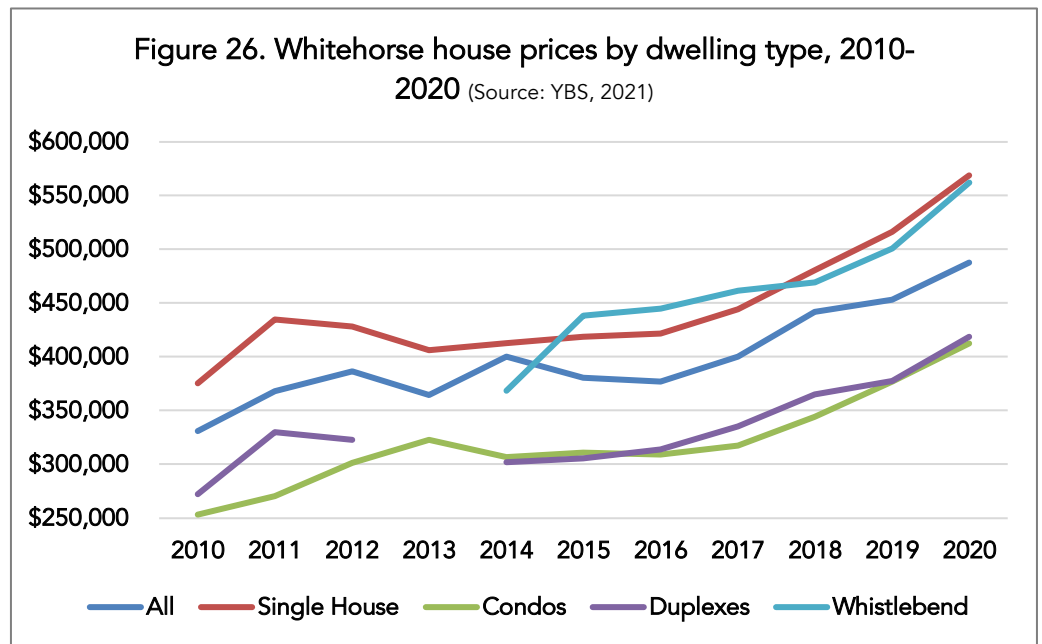
Household Type	Median Income, 2015	Median Income, 2021 (est.)
All	\$93,652	\$108,823
Single-Person	\$47,019	\$54,636
Two or More Persons	\$199,430	\$138,777

Whitehorse household incomes spread over a large range but over 55% now likely exceed \$100,000 in gross annual income. Refer to Figure 25.

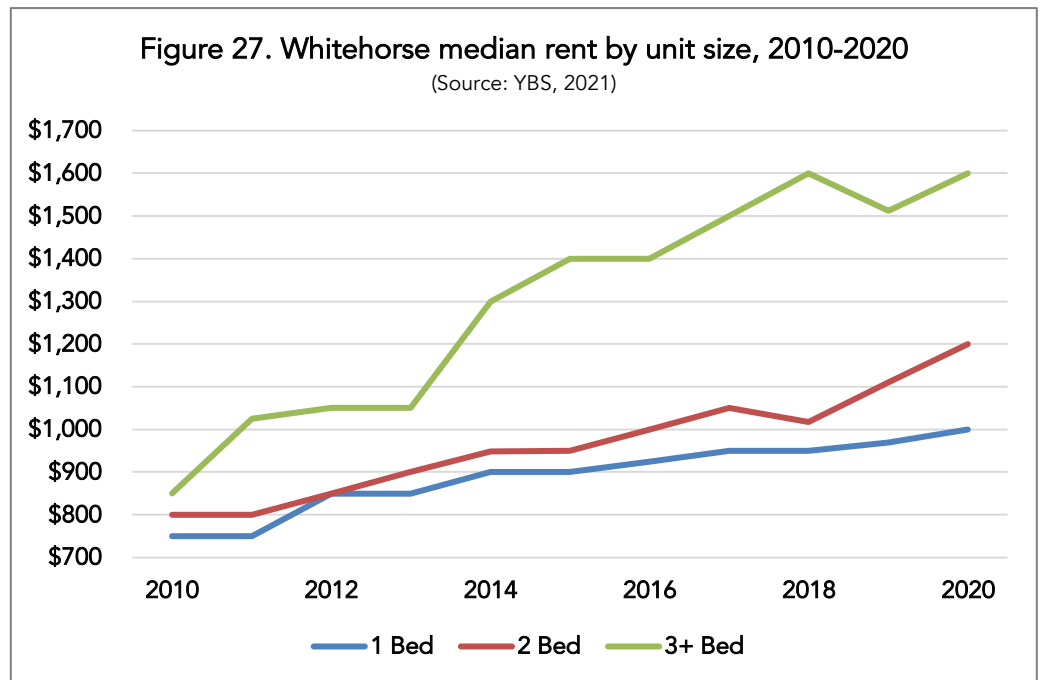


### 5.3 Housing Prices

After a period of calm early in the previous decade, the prices of Whitehorse houses of all types have risen significantly over the last 4 years, with single homes increasing by 35% since 2016 to an average of \$568,900 (YBS, 2021). Condos average at \$412,600 and duplexes very similarly at \$418,800. A large share of new housing builds have been in Whistle Bend, where new home pieces have mirrored the rise across the market. Refer to Figure 26.

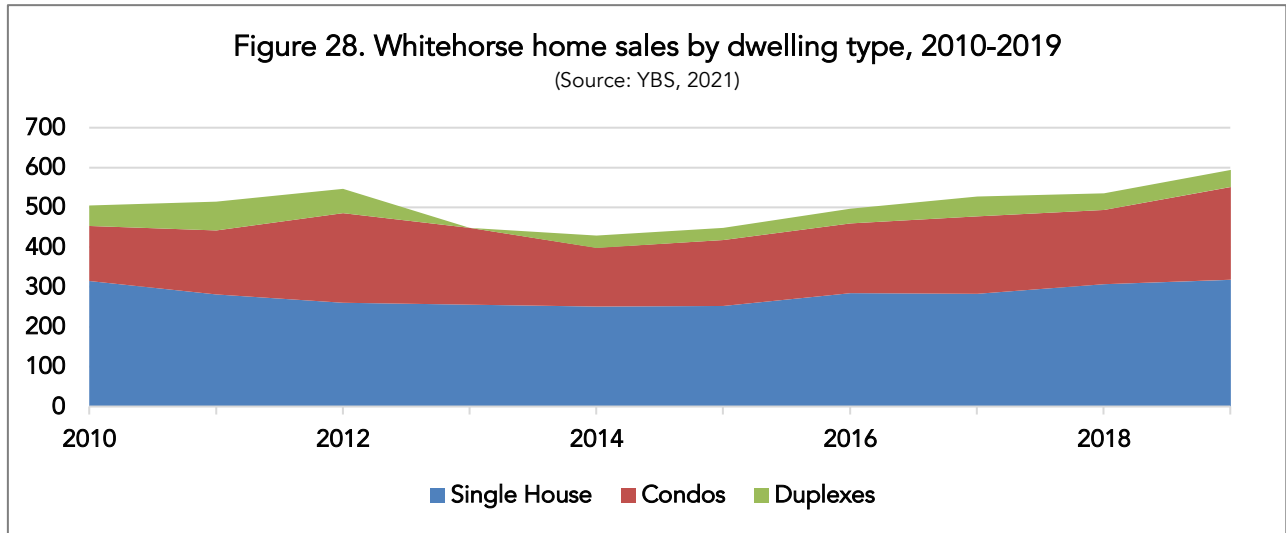


Rents have similarly increased between 2010 and 2020. This is especially true of family-size homes, which now cost 88% more than in 2010 – representing an annual hike of over 6% (YBS, 2021). The rent increases for 1-bedroom units have held at just 2.9% per year, a little more than the rate of income growth for the same period. Refer to Figure 27.



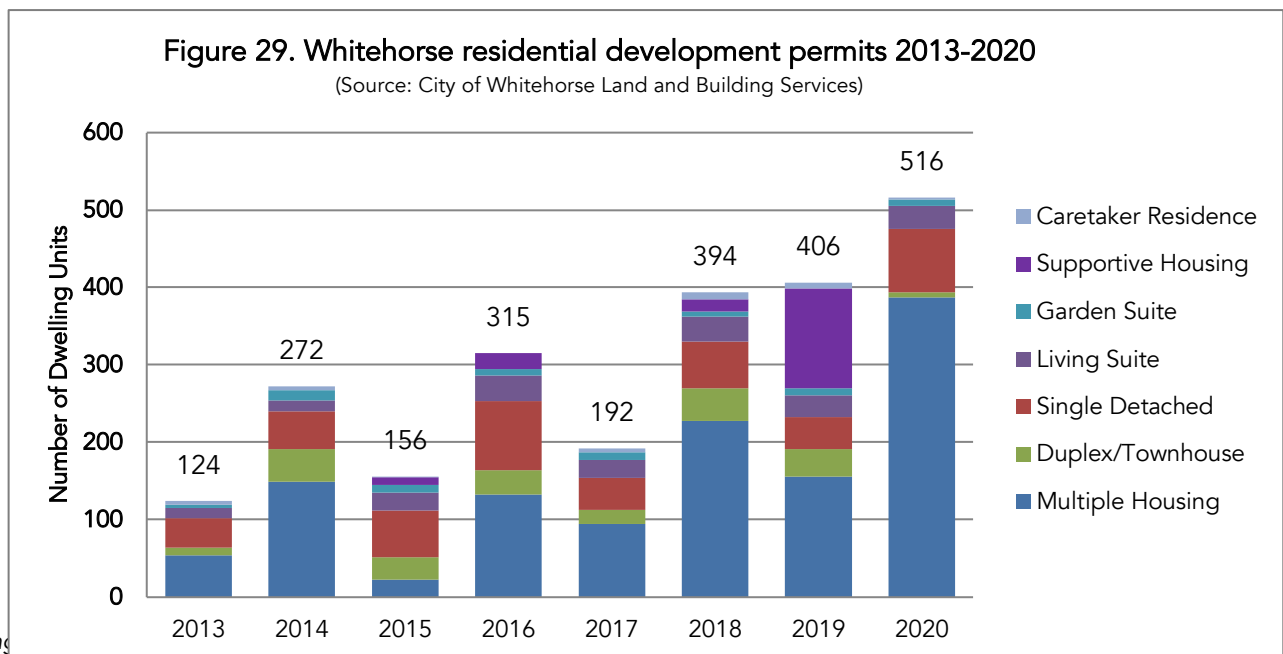
## 5.4 Housing Sales and Starts

Home sales volumes have picked up by 17% since the market prices began to rise in 2016. This increase has been particularly pronounced in the condo market, which includes the townhomes that have been prevalent in



the Whistle Bend neighbourhood; condo sales volumes were up 34% between 2016 and 2019 (YBS, 2021). Refer to Figure 28.

New construction, as measured by the number of new dwelling units permitted, has seen very significant investment growth in recent years, especially in supportive and multiple housing (although these figures can be skewed by a small number of large projects). Single detached permits have oscillated around a 5-year annual average of 58 homes and duplex/townhouses have been built at an average of 31 per year (City of Whitehorse, 2021). The total number of new dwellings permitted has averaged 293 per year, with 40% of these in multiple housing developments. Refer to Figure 29.



## 5.5 Lot Supply and Demand

### 5-Year Trends

Undeveloped land sales have been dominated by Whistle Bend lot releases since 2013. While there is often a few smaller, private developments and subdivisions and occasional infill releases of surplus properties by the City and YG, Whistle Bend can be considered a fair proxy for trends in residential land demand.

Results of Whistle Bend land lotteries over the past five years would indicate that demand has met and vastly exceeded supply levels. There was a record high 460 applicants for the 2020/21 lottery of single family lots (YG Land Management Branch, 2021), although multiple applications from some families may exaggerate true demand. Table 6 below shows the lot release and sales profile over the 2017-2021 period. It should be noted that the finalization of lottery and over-the-counter agreements for sale continues apace and current numbers may be different.

**Table 6. Whitehorse land lottery results, 2017-2021** (Source: YG Land Management Branch)

Lot Type	Year	Location	# of Lots	Size (m <sup>2</sup> )	Total Price	Price (per m <sup>2</sup> )	# of Bids	# Sold	Sales Rate	Overbid Rate
<i>Single Residential</i>	2018	Whistle Bend	57	680	\$143,325	\$211	103	57	100%	81%
	2019		44	385	\$89,576	\$233	240	44	100%	445%
	2020		55	448	\$104,262	\$233	244	55	100%	344%
	2021		142	466	\$109,510	\$235	692	142	100%	387%
<i>Duplex</i>	2019	Whistle Bend	5	349	\$81,084	\$232	5	5	100%	n/a
	2021		1	392	\$85,571	\$218		2	200%	n/a
<i>Townhouse</i>	2017	Whistle Bend	8	251	\$66,895	\$267	8	8	100%	0%
	2019		3	243	\$57,878	\$238	25	3	100%	733%
	2021		20	252	\$68,220	\$271	77	20	100%	285%
<i>Multi-Residential</i>	2017	Ingram	1	5850	\$292,840	\$50	0	0	0%	
	2019	Whistle Bend	9	4330	\$617,675	\$143	7	7	78%	-22%
	2021		11	5900	\$729,235	\$124	11	11	100%	0%

At the time of writing only two properties – both multi-residential - were available for sale over-the-counter under 3-year (20% down) financing and building commitments:

- Lot 825 - 1.24 ha @ \$1,485,600 (\$120/m<sup>2</sup> or \$1.2 million/ha)
- Lot 508 - 0.76 ha @ \$1,145,250 (\$150/m<sup>2</sup> or \$1.5 million/ha)

While lot demand has significantly increased in recent years, pricing has remained relatively consistent. 2021 lot prices were not significantly higher than the 2013 prices for duplex (about \$75,000) and single-detached lots (about \$110,000), respectively. Refer to Table 7.

**Table 7. Sample 2021 Whistle Bend residential lot prices** (Source: YG Land Management Branch)

Lot Type	Size (m <sup>2</sup> )	Price (exc. GST)	Price (per m <sup>2</sup> )
Small single-detached	383	\$90,005	\$235
Medium single-detached	447	\$105,280	\$235
Large single-detached	585	\$137,475	\$235
Duplex	-	\$85,571	-
Townhouse (6 homes)	1,516	\$409,320	\$270

### Future Lot Supply vs. Demand

Residential building lot sales will continue to be dominated by the Whistle Bend neighbourhood over the next decade. Over the next ten years, an estimated 1235 lots will be released in Whistle Bend, housing an estimated population of 5271 individuals (WSP, 2019). However, it must be noted that while Area C (Phases 8-10) is progressing through the regulatory system at City of Whitehorse and elsewhere, progress of the remaining phases is uncertain and subject to government policy direction. Refer to Table 8.

**Table 8. Projected Whistle Bend lot supply, 2021-2031** (Source: WSP, YG Land Development Branch)

Year of Release	Whistle Bend Phase	Estimated Lot Release				Estimated Population
		TOTAL LOTS	Single/Duplex	Town house	Multi Residential	
2021/22	Phases 3E2 & Phase 6 (future)	171 + 27	102	65	4	630
2022/23	Phase 7 & 8 (Area C)	90 + 50	90 + 50	0	0	
2023/24	Phase 9 (Area C)	200	200	20	4	2,679
2024-2031	Phase 10 (Area C)	374	350	20	4	
	Area A	60	0	10	50	1,017
	Area B	263	250	5	8	945
	<b>Total Estimated Release</b>	<b>1,235</b>	<b>1,042</b>	<b>120</b>	<b>97</b>	<b>5,271</b>
	<b>Annual Estimated Release</b>	<b>137</b>	<b>115</b>	<b>13</b>	<b>11</b>	<b>585</b>

YBS' moderate growth scenario for Whitehorse projects another 6,310 residents within the 9-year timeframe of the complete expanded Whistle Bend lot release. These residents would comprise over 2,600 households and corresponding dwelling units at the average household size of 2.4. Combined with 5th & Rogers and other smaller public and private developments that can be anticipated, an efficient annual build and release of all the expanded Whistle Bend areas aligns with the moderate population growth scenario. However, if growth does

not moderate or there are delays to Whistle Bend program then demand will exceed supply, and the market would likely tip towards residential leasing on the basis of scarcity of fee simple supply.

The broader benefit of developing First Nation Settlement Lands to Whitehorse residents extends beyond increased land and housing supply. The reality is that numerous KDFN parcels are situated within the City's Urban Containment Boundary, closer to existing infrastructure and services, whereas YG's post-Whistle Bend options for larger scale residential development are limited to more wilderness areas such as Long Lake Road. Increasing the supply of urban-situated First Nation residential lands is a key tactic in a broader growth strategy that seeks to protect the peripheral wilderness that is integral to quality of life for Whitehorse residents. The City's pending OCP and growth strategy will shed further light in this regard.

## 5.6 Target Markets and Affordability

A 2018 marketing strategy developed for Chu Niikwan Development Corporation (CNDC) identified three target markets for residential leases (in order of importance):

- 1) "need more space-ers" (dual income with kids households);
- 2) "need less space-ers" (older or single parent households); and
- 3) "need a space-ers" (first time home buyers).

This assessment was not founded in quantitative market research, but rather focus groups and interviews. The data would strongly suggest that housing need and demand is so high across all income and housing segments that specific target markets for either C-15B or entire the planning area may be difficult to pinpoint on a quantitative basis. Rather, those markets are better identified through a combination of industry intuition around what might sell (see Section 5.9) and the policy objectives of participating governments – which effectively means a determination of which of the many housing segments currently underserved should be prioritized.

Both governments have identified affordability as a policy objective to explore through master planning. A high-level analysis of housing affordability conducted by the Team suggests that a 20% reduction from market price for 1-2 bedroom units could make home ownership feasible for a "lost" income segment comprising around 1000 Whitehorse households (see Appendix D). Industry precedent elsewhere would suggest that First Nation residential leaseholds in Whitehorse will be of lesser value (in the 10-15% discounted range) as compared to their fee simple counterparts. Improved affordability could be a key motivator for Whitehorse residents to choose a residential lease instead of a fee simple lot or home purchase (assuming adequate supply of both).

But how direct is the pathway between First Nation leaseholds and housing affordability? A scan of Spring 2021 listings in Whistle Bend would indicate that the lot cost accounts for 10-15% of the listing price (Refer to Table 9).

Even if ready-to-develop land parcels or lots can be issued to the building community at a 10-15% discount over Whistle Bend supply (while presumably achieving cost recovery for KDFN), the land savings may be insufficient to bridge the 20% overall home price gap needed to facilitate affordable home ownership. KDFN's decision to require the full lease value upfront from leaseholders (see Section 6.1), versus an annual lease fee, further constrains affordability. Without additional policy or financial incentives to builders, the more realistic version of affordability for the planning area may be housing that caters to the lower end of an *unaffordable* market housing spectrum.



**Table 9. Lot price as percentage of sale price, 2021** (Source Data: YG Land Development Branch)

Spring 2021 Listing (Whistle Bend)	Lot Size (m <sup>2</sup> )	Sale Price	Estimated Lot Price (m <sup>2</sup> )	Lot Cost as % of Sale Price
3 bed/bath row house	234	\$579,700	\$63,100	11%
3 bed/bath row house	326	\$589,900	\$88,020	15%
4 bed/3 bath single family dwelling	449	\$699,800	\$105,515	15%

Ultimately, the projected development costs may largely dictate which housing forms – and indirectly, target markets – are accommodated on the site. The single-family dwellings sought after by the dual income household market (identified as the top priority in CNDC’s strategy) may not achieve sufficient density to recover infrastructure costs – effectively tipping the development towards the CNDC’s other two markets. Of course, the “end game” for KDFN is revenue generation from the income taxes of residents on C-15B; in this regard, a balance may need to be struck between accommodating “need less space-ers” (i.e., seniors) on the basis of their market size and gearing the offer towards “need a space-ers” who are at the start of their prime earning years.

The relationship between infrastructure costs, density, and target markets will be more clearly delineated as the Team begins to formulate initial design responses to the site.

## 5.7 Commercial Potential

The Range Point area’s Residential designation under the OCP allows for neighbourhood service commercial uses. Accordingly, the Team ran a high-level analysis to pinpoint the potential types and floor area for commercial development.

This expected residential and population growth, both on the subject C-15B property and in adjacent neighbourhoods, will generate additional annual spending potential on a range of retail, restaurant and service categories. The Range Point neighbourhood and nearby Yukon University are currently underserved. However, given the subject property’s proximity to both Downtown and Marwell to the south, and the planned commercial amenities anticipated in the Whistle Bend Town Square to the north, this increased spending will need to be tempered by realistic market capture rates.

Given the site’s proximity to larger retail-commercial concentrations in neighbouring areas, the Team recommends that the market focus for C15-B should be on the following key categories:

1. Specialty foods (e.g., baked goods, confections);
2. Restaurant food (e.g., specialty café); and
3. Health/personal services (e.g., pharmacy).

The Team created a suite of assumptions around current and future trade area populations and inflow day visitors to Range Point, and leveraged household spending estimates provided by Statistics Canada via Environics at the local community level. On the basis of those calculations, it projects that the planning area (at

full build-out population of 1000 people) could potentially support a micro-commercial village of over 8100 ft<sup>2</sup>. Were the envisioned Point Park to be built, the warranted floor area could increase to just over 10,000 ft<sup>2</sup>. Refer to Table 9 and Appendix D for detailed calculations and assumptions.

Critical target markets for these types of on-site goods and services will include: future C-15B/Lot 262-6 residents, neighbouring Range Point residents, residents (current and future) of Porter Creek and Whistle Bend, and day visitors beyond these areas. A city-level park at the Point could generate increased volumes of day visitors to the immediate area, in turn increasing the extent of potential inflow spending and corresponding support for future on-site commercial uses.

**Table 10. Estimates of warranted commercial floor area for C-15B/Lot 262-6**

Commercial Category	Warranted Floor Area (No Park)		Warranted Floor Area (City Park)	
	Present Market Conditions	At Build-Out	Present Market Conditions	At Build-Out
<i>Specialty Food</i>	1267 sq. ft.	2505 sq. ft.	1629 sq. ft.	3220 sq. ft.
<i>Restaurant Food &amp; Beverage</i>	1451 sq. ft.	2335 sq. ft.	2297 sq. ft.	3013 sq. ft.
<i>Pharmacy/Health</i>	1062 sq. ft.	1689 sq. ft.	1156 sq. ft.	1839 sq. ft.
<i>Retail Sub-Totals</i>	3780 sq. ft.	6529 sq. ft.	5082 sq. ft.	8072 sq. ft.
<i>Service Commercial/Local Office (25% of retail)</i>	945 sq. ft.	1632 sq. ft.	1271 sq. ft.	2018 sq. ft.
<b><i>Commercial Node Totals</i></b>	<b>4725 sq. ft.</b>	<b>8161 sq. ft.</b>	<b>6353 sq. ft.</b>	<b>10,090 sq. ft.</b>

At full build-out, and in the absence of a new city park to the north, C-15B could nevertheless support a micro commercial village focused on specialty foods (e.g. baked goods, confectionery), restaurant (café/diner) and personal health (e.g. small pharmacy, convenience goods).

### 5.8 Development Community Perspectives

The Team supplemented its baseline market research with interviews with select members of the local development community – namely construction companies, builders, developers and real estate brokers. A total of seven interviews were held with nine individuals (see list at end of report). Each interviewee was provided with background information about the planning area, project, and First Nation residential leasehold title to inform discussion.

#### Market Acceptance of Leasehold Title

Generally speaking, there is little industry concern over market acceptance. The industry acknowledges this as the necessary future of land development in Whitehorse and full First Nation economic participation is welcomed. The success of CNDC’s “test” of the enabling financial and legal mechanisms, as well as the local market, with its four-unit leasehold condominium on Jarvis Street was familiar to most, and they are generally eager to proceed.

That said, interviewees shared an expectation that governments would undertake a significant public education exercise as planning proceeds, and not leave this solely to the private sector risk taker. They noted that a phased approach to C-15B would enable market confidence to grow in line with the build-out.

The real estate professionals interviewed did not share a common view of how leasehold properties or land should be priced in comparison to fee simple title. One felt that they should be at par, while the other felt strongly that leaseholds should be priced around 15% lower to optimize market uptake. This aligns with the Team's understanding of leasehold market conditions in British Columbia<sup>1</sup>.

One interviewee issued a word of caution in regards to the issue of broader community acceptance of residential leases. They felt that there could be a risk of public "backlash" if YG channels resources (financial or otherwise) into the development of First Nation, instead of Crown, lands. They felt that the resulting perception could be that YG is "forcing" Whitehorse residents into leasehold tenure instead of preparing more fee simple land for housing.

## Kwanlin Dün Joint Ventures

There is a very strong interest in joint ventures with KDFN, CNDC, Canyon City Construction or any KDFN or other First Nation business; most interviewees already had experience with such partnerships. Indeed, this is preferred for the comfort of everybody as all parties retain an interest in success and KDFN may have the option to choose to retain an appropriate level of involvement in decision-making.

## Preference for Larger Parcels

Multiple players are interested in acquiring larger parcels of land (e.g., 1-2 ha or slightly larger) to develop as mini-neighbourhoods, including the installation of all necessary on-site infrastructure. Several companies have done this before, and this is their strong preference over the historical norm of much smaller, build-ready lots with prescriptive zoning regulations and building requirements. These leave little room for innovation and flexible business development to meet fast evolving market demands.

One interviewee did express strong interest in acquiring the entire planning area and developing it in a close joint venture with KDFN (or other related entity); however, it was understood that this approach would still involve a phased development in which 1-2 ha (or smaller) parcels are built out at a time.

## Types of Housing and Density

There is some acknowledgement that the industry, along with government policy makers, need to deliver a more market affordable home ownership options to lower income households. However, developers repeatedly requested that the planning area not be a place to mix in market affordable rentals and social housing projects, as the uncertainty will raise the risk of selling the new title structure and will make it difficult to brand and sell a new neighbourhood and its homes.

Interviewees felt that, broadly, the market is supportive of higher density housing forms, including townhouses and condominiums. Classic single detached housing is seen as being wasteful of public infrastructure investment dollars and some interviewees felt there are better areas for such housing, including KDFN's Copper Ridge Settlement Land parcels off Falcon Drive. They noted that higher density is more typical in this area of Whitehorse, including both Range Road and in neighbouring Whistle Bend. One interviewee shared a concern

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<sup>1</sup> In the Lower Mainland (a high demand, low supply market) the price differences between leasehold and fee simple properties for town homes and similar medium/higher density housing forms is around 10% (Bell, pers. comm). KDFN has learned from cross-jurisdictional research that the difference is around 15% in West Kelowna (Kent, pers. comm).

that the townhouse market may have strong demand in the absence of alternatives rather than a true desire for these homes.

One developer spoke of creating a 'resort' character on the site, fostering a distinct living experience and clearly differentiating the feel and character of the place from other generic developments (e.g., Whistle Bend). In their view, the site would include more (if not all) low footprint multi-storey condominiums and leave larger natural and landscaped public spaces for more shared amenities and recreation. These units could still be pitched at a wide range of sizes, household types and incomes within each building and the site. A moderate amount of commercial space and mixed-use zoning should also be considered, they felt.

The realtors interviewed recommended that at least 50% of the housing in the planning area be in town/row housing form for market alignment, with the remainder divided between single family dwellings and higher density forms as suits other planning objectives. However, they were sceptical that multi-storey condominiums would be suitable for this area, noting that the target markets for these units place a high value on close access to services and walkability – neither of which is satisfied well in Range Point.

## Development Incentives

Two primary tools by which government regulators and policy makers could influence private developers to assume development risk on C-15B are zoning regulations and financing. The Team explored industry perspectives around both.

### *Zoning Regulations*

Across the board, developers reported overly prescriptive zoning, including density restrictions, detailed building design guidelines, parking regulations and public amenity requirements, as being the greatest challenge to bringing homes to market. The less room to manoeuvre, innovate, respond to market demands shifting over time, and differentiate from other offers in Whitehorse, the higher the business risk, they felt.

Developers would prefer a density target range for each building parcel released, which could change as each phase is completed and allow the developer to design to meet both target and market demand. Good design and construction methodologies can meet density and economies of scale with single detached as well as townhouses in some circumstances; however, interviewees felt this is best left to industry (versus regulators) to determine.

### *Financing*

The industry is less concerned with parcel pricing than financing conditions. The potential high profitability margin of these sites in the current market is not in doubt, but cash flow is always a limiting factor. Interviewees requested financing models involving down payments and progressive payment as parcels are developed and sold. Under some joint venture models, profit participation could also be used to pay for parcel costs.

## Other Market Advice

Several interviewees offered additional advice and insight into the development and selling opportunities of the planning area. Northland Park was considered a major selling constraint; in fact, one felt that KDFN's parcel could be more effectively sold with Lot 262-6 left undeveloped and serving as a buffer from the mobile home development and greenspace. The other major selling constraint identified was heavy traffic along Range Road

and congestion between Range Point and Downtown. In fact, one interviewee commented that the creation of a City-level park at the Point may not be viewed favourably by all prospective buyers due to the potential for increased traffic. On-site parks and playgrounds would have considerably more value to families considering a purchase (particularly because of the need to cross Range Road to access the Point).

The realtors recommended a graduated approach to housing forms (and corresponding value) across the planning area, with less expensive forms situated closest to Northland Park and the most expensive forms situated on the greenspace/perimeter (particularly along the west-facing aspect paralleling Mountain View Drive). One equated the upper end of housing suitable for the site to the low-to-mid range of housing in Copper Ridge.



## 6.0 Policy and Financial Context

The unique tenure context of the planning area necessitates the consideration of a range of policy, political and financial issues that could influence the development pathway as much, if not more so, than market or technical aspects. The following section outlines the key issues and shares the responses of both partner governments, as well as the City of Whitehorse, to a set of policy-related questions posed by the Team in early March 2021.

### 6.1 KDFN Residential Leasing Model

KDFN's *Lands Act* is the enabling legislation for residential leases on C-15B. The newly developed KDFN policy is that residential leasehold interests on KDFN land will be for a longer term, generally 125 years. Most residential leases will require that "rent" be paid in full at the beginning of the lease term. Most leasehold purchasers will seek a mortgage with a financial institution, just as they would with a freehold title purchase. Refer to Appendix E for more information.

KDFN's *Lands Act* implementation team is still working through various policy and operational details associated with residential leasing. One of those details relates to Section 27 of the Act, which states: "*The director must offer beneficiaries and citizens the opportunity to apply for an interest in respect of a planned development parcel prior to offering the opportunity to non-beneficiaries and non-citizens.*"

Theoretically speaking, citizens and beneficiaries may have to be offered an interest in any type of C-15B opportunity first – including the issuance of large parcels intended for subdivision into housing developments or lots. Given the low likelihood of individual citizens and beneficiaries being suitably positioned to respond to larger land offerings, the more realistic application of this provision would be individual lots and/or dwelling units developed by third parties. The latter scenario would require a contractual or other agreement between KDFN and the developer. In either scenario, an advance lottery for citizens (30 days was suggested as a target timeframe) is envisioned.

KDFN staff shared that the government does not wish to profit from citizens through private housing development. The intention is that the government would issue a cash grant to developers that covers the profit portion of any units sold, in effect giving citizens and beneficiaries access to units at cost. The potential demand from citizens for either lots and/or units on C-15B is an unknown. KDFN staff predicts that citizen demand may account for about 10% of the lots on offer. Lots will not be preferentially priced for citizens (assuming lot pricing is geared to cost recovery and there is no profit margin built in).

These low expectations around profitability extend to land development in general. In fact, one staff member noted the possibility that KDFN leasehold land may need to be valued at below development cost. This was not seen as a barrier to development, however, as KDFN's land development revenues will be generated through the net 47.5% of resident income tax over the many decades following development.

### 6.2 Lot 262-6 Tenure Options

Pursuant to KDFN's Final Agreement, there is no flexibility around the type of tenure possible on C-15B. This leaves the question of how, or whether, different tenures on Lot 262-6 should be pursued in the interests of a more compatible joint development and/or eventual neighbourhood.

The *Territorial Lands Act* is the governing legislation for Crown land dispositions in Yukon. Currently, leases are the main form of alternative private land tenure on Crown lands (aside from reservations and/or licenses associated with natural resource rights). Leases are generally limited to a small number of recreational leases, which are issued in 10-year increments, with the option to renew at Year 10. At the end of the initial 20 years (assuming renewal), the lessee may enter into a brand new lease and the “clock” starts back at 0. Under current policy, the maximum lease term is 30 years. The annual lease fee is set at a minimum 10% of market value, and rent is reviewed every five years. At the beginning of the lease term, “opinions of lease value” are executed by YG Property Assessment and Taxation Branch. Generally speaking, the value of leases runs around 50% of equivalent fee simple parcels (Antpoebler, pers. comm).

A maximum 30-year lease could offer too short a timeframe for both lending institutions and lot buyers. YG Land Management Branch staff shared that a Management Board submission could be made and a longer lease potentially issued subject to the *Financial Administration Act*. However, a longer-term solution may not be far off with the pending update to the *Lands Act*, which may be tabled to Cabinet as early as 2022. The length of lease terms is already identified as a potential change, and other jurisdictions with more generous terms may be a model for Yukon to follow<sup>2</sup>.

YG has also set aside and/or directly transferred developed (i.e., serviced) land for non-profit sector housing through Management Board in recent years. This process has applied to Whistle Bend lots for Habitat for Humanity and the Vimy Heritage Housing Society’s independent living for seniors initiative (land transfer subject to the project proceeding). YG could potentially set aside a portion of Lot 262-6 for a non-profit housing initiative.

The 2021 territorial election provided some indication of how government policy and priorities could potentially intersect with Lot 262-6 over the term of the new government. Housing supply and affordability was a major element of all three parties’ platforms, and a continued push on the housing innovation front is expected (Cameron, pers. comm). The now-governing Liberal party made a commitment to “support a new Community Land Trust through a land parcel grant, which will create permanently affordable housing through a rent-to-own or facilitated ownership model” (Yukon Liberal Party, 2021). Further, it committed to “work with First Nations and private sector partners in Whitehorse to investigate the development of a new, bare land condominium mobile home park” (Ibid). The Range Point neighbourhood, and Lot 262-6 in particular, could be a suitable site on which to honour both commitments.

Conventional fee simple lots are of course another option available to YG. The most significant disadvantage to this option is the potential for Lot 262-6 to effectively “compete” with neighbouring residential leases on C-15B. However, this issue could be addressed by developing Lot 262-6 after C-15B build-out is well progressed, or even complete (leaving the highly valued greenspace behind Northland intact for as long as possible).

YG staff indicated a preference for advancing the planning project as a typical cost recoverable project (i.e., Whistle Bend, etc.) and tackling specific housing initiatives as they emerge.

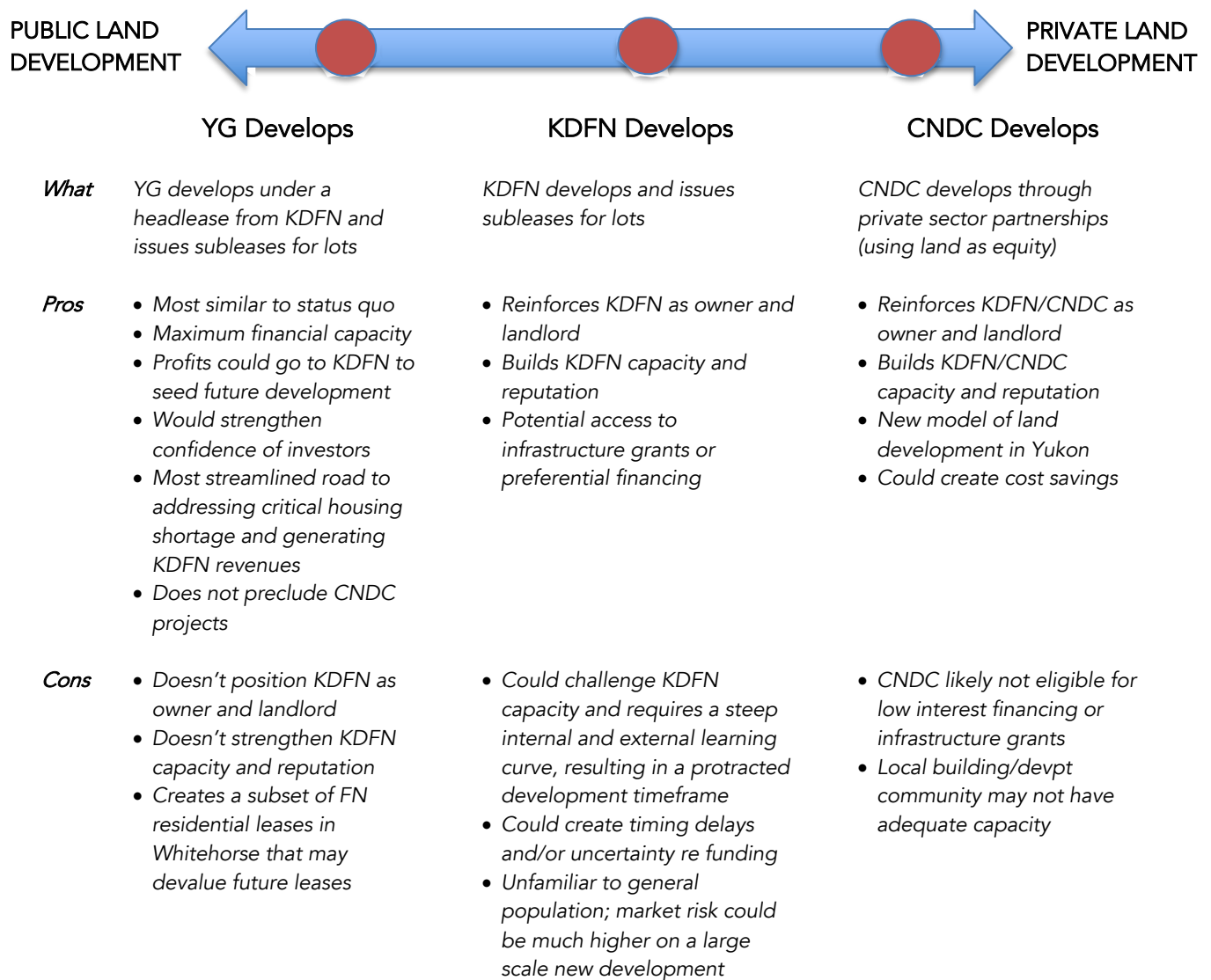
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<sup>2</sup> The Northwest Territories may allow for 100-year leases (Antpoebler, pers. comm).

## 6.3 C-15B Development Model

While the master plan is focused on spatial planning, the development model for C-15B has considerable influence over what is, or should be, incorporated into the neighbourhood’s design. (Note that in this context, “development” means financial and administrative responsibility for installing infrastructure and selling leasehold interests to either builders and/or individual homeowners). This is not to say that the development model for Lot 262-6 is irrelevant, only that C-15B accounts for the bulk of the development opportunity and challenge in terms of both size and complexity.

To facilitate thinking and discussion around the potential development model, the Team created a spectrum of development scenarios based around Yukon’s current model of land development (public) and the model typically employed by First Nations in British Columbia (private). Refer to Figure 30 (note that pros/cons were developed by both Team and steering committee).



**Figure 30. Conceptual spectrum of development options for KDFN C-15B**



The development model has direct implications for master planning. For example, if CNDC is envisioned as the developer, then master planning would be geared more towards minimizing infrastructure costs and risk capital. Single detached dwelling lots (which are more expensive to service) may be avoided in favour of larger multi-residential parcels that developers would install infrastructure on and build out. If governments are the land developer, then the physical planning may need to respond more to broader policy and political objectives. In practice, the “sweet spot” may reside somewhere between those defined points on the spectrum.

Of the three development options, KDFN’s preference is that YG is the lead developer. KDFN has little financial or organizational capacity or expertise to undertake the servicing of C-15B, or further finance the eventual purchasers of subdivided parcels until build out is complete (as YG currently does).

YG staff did not rule out the “YG Develops” scenario, but noted that it posed significant complexity on legal, financial and policy fronts and would require a thorough review. The criteria of minimal risk to YG and cost recovery would have to be applied to any direct development and/or financing arrangement (a funding grant was ruled out but a loan was not). New policy would have to be developed that would apply to future development initiatives with all Yukon First Nations so as to create a level playing field. A separate YG interviewee noted the importance of replicable policy.

The issue of political risk to YG in either a “YG develops” or “YG finances” scenario was discussed during several interviews conducted by the Team, partly in response to media around the project in mid-May<sup>3</sup>. One interviewee stressed that

<sup>3</sup> A May 18<sup>th</sup> Whitehorse Star article on the project solicited a range of public comments, mostly along the lines of territorial versus KDFN government responsibilities to fund Settlement Land development. The most supported comment (by a significant margin) suggested that KDFN should be responsible for these costs.



Photo by Vince Fedoroff

A TEAM APPROACH - Premier Darrell Pasloski (left) and Chief Rick O'Brien of the Kwanlin Dun First Nation speak at last Friday's held a news conference. They plan to work co-operatively on Kwanlin Dun's desire to provide new housing opportunities on leased land.

### Subdivision may sprout from First Nation's land

The Yukon government is open to the idea of financing subdivisions on aboriginal settlement lands, says Premier Darrell Pasloski.

By Chuck Tobin on September 6, 2011

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The Yukon government is open to the idea of financing subdivisions on aboriginal settlement lands, says Premier Darrell Pasloski.

Pasloski and Chief Rick O'Brien of the Kwanlin Dun First Nation held a news conference last Friday to announce their intention to work co-operatively on Kwanlin Dun's desire to provide new housing opportunities in Whitehorse on leased land.

**September 2011 Whitehorse Star article (note the lead-in sentence)**

partnership approaches should reflect government’s role in the housing market, which is effectively to fill gaps that the private market can’t. In the context of C-15B, that could theoretically include financing infrastructure development if doing so achieves a downstream win on private market barriers, such as affordable housing. One potential model to explore in this respect is a BC Housing program that provides a financial “backstop” for private developers of affordable housing, effectively tipping the private market towards these builds instead of market-proof higher end housing.

One consideration for the future is the possibility that YG Land Development may eventually become a development corporation, which could provide more flexibility on land development options through an “arms length” relationship to the government.

## 6.4 Infrastructure Financing and Lifecycle Responsibility

With conventional fee simple land development in Whitehorse, YG installs the infrastructure and the City of Whitehorse assumes responsibility (to private property lines) and recovers associated operating and replacement costs through property taxes, water/sewer fees, etc. The Team explored preferred (or assumed) infrastructure lifecycle scenarios from the perspectives of the City and KDFN.

Both governments envision a similar arrangement to the status quo moving forward. For liability reasons, the City wishes to maintain water/sewer/storm infrastructure within its boundary whenever practical. Other services, such as waste collection, can be private. The City envisions the specific servicing responsibilities being outlined in a service agreement to be negotiated between City and KDFN and respecting the principles within the SGA and the municipal services and infrastructure agreement. There is already precedent for this with the McIntyre subdivision.

Infrastructure costs, whether assumed by YG and/or KDFN, could potentially be eligible for federal funding. YG staff note that federal infrastructure funding for off-site infrastructure costs in particular could be explored; however, there generally needs to be an overall public benefit (i.e., repairing existing infrastructure) versus solely new infrastructure for new development. The more system-wide sanitary servicing approaches outlined in Section 4.0 may meet this test.

One long-established aspect of infrastructure financing may warrant a closer look, depending on the sanitary servicing option pursued. YG committed to constructing a

<p><b>2.2.2 Water &amp; Sewer Service Connection to KDFN Settlement Land Parcel C-15B</b></p> <p>2.2.2.1 CS will construct &amp; install a sanitary sewer main extension and tie-in along Range Road to the property line of KDFN Settlement Land Parcel C-15B; and</p> <p>2.2.2.2 CS will provide a recirculating water service connection to the property line of KDFN Settlement Land Parcel C-15B;</p> <p>2.2.2.3 This service installation will be done in conjunction with the extension of the water force main service to Whistle Bend Subdivision;</p> <p>2.2.2.4 The exact location of the water and sanitary tie-in along the lot line of Parcel C-15B will be determined in consultation with KDFN, and shall be confirmed in advance of the scheduled commencement of the Range Road water force main installation component of the Project;</p> <p>2.2.2.5 The water and sanitary service to KDFN Settlement Land Parcel C-15B will include engineering, design, inspection, survey, project management and installation of the sanitary and water service;</p> <p>2.2.2.6 The estimated value of this benefit is \$650,000.</p>
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**Figure 31. C-15B YACA provisions**

forcemain to access C-15B through the YACA for Whistle Bend. Interestingly, that commitment specified both routing and estimated a corresponding construction value (\$650,000). Refer to Figure 31.

Should a different approach than the Range Road forcemain be employed, both governments may need to revisit the original intent behind these provisions. Was it the connection of C-15B to the City's gravity collection system, regardless of cost or routing, or connection of C-15B to the City's system up to a maximum budget ceiling?

## 6.5 Off-Site Infrastructure and Public Realm Improvements

The Team explored government perspectives around off-site infrastructure and public realm improvements, the former pertaining mostly to KDFN and YG and the latter to the City and the commitments it has made in the Range Road North Neighbourhood Plan (i.e., Range Road linear park, Point Park).

City staff shared that off-site contributions are typically confirmed through development agreement negotiations. In the case of the planning area, the need for an off-site amenity and subsequent contribution may depend on the conceptual design and projected population estimate. The City expects further discussions with KDFN and YG to confirm whether an off-site contribution requirement for public realm infrastructure applies after the master planning process has concluded.

YG indicated that contributions to off-site infrastructure or public realm improvements were a possibility, but any of these costs would need to be offset through higher lot pricing on Lot 262-6 to achieve YG's principle of cost recovery. The importance of neighbourhood amenities and public spaces is understood by YG, but it notes the need for a balance and notes that the area provides a wealth of passive off-site recreational features already. YG prefers a clear and early delineation of what offsite infrastructure and improvements should be considered as development costs by the developers (YG, KDFN and/or CNDC). It would like to see clearer City policy on this so that all developers - whether they are City, YG, First Nations, or First Nation development corporations – have more certainty and are treated consistently.

KDFN similarly indicated that there may be a role for it in contributing to off-site public realm improvements, such as a walkway along Range Road to C-15B. Its expectation is that these will be negotiated as part of the development agreement.

## 6.6 Other Considerations

### Bylaws

Similar to the desired infrastructure stewardship model, both the City and KDFN prefer that Lot 262-6 and C-15B are treated consistently when it comes to other land use regulations, such as the City's Maintenance Bylaw. KDFN staff in particular stressed the importance of a strong KDFN "brand" and that the City's active enforcement of bylaws on C-15B would be key to the marketability of residential leases there.

### Land Dedication

The *Subdivision Act* requires that 10% of a subdivided parcel be reserved for public utilities, accesses, greenspace or other. Due to KDFN's inability to transfer ownership of Settlement Lands, flexibility will be

required around the typical 10% land dedication to the City. KDFN believes that an easement will likely be the best way around this technicality.

## Municipal Approvals

In order for housing on either parcel to be built, zoning, subdivision and development agreement approvals will be required from City Council. While there are no other required approvals, City staff noted that it may be advisable to request that Council adopt the master plan as a guiding document. This would allow the project team to get a sense of Council buy-in prior to a rezoning process. Should YG and/or KDFN wish to proceed with this step, City staff would lead the process by first briefing at a Council and Administration Roundtable meeting and subsequently bringing forward an Administrative Report (including recommendation) to Council, for consideration.

## Social License

As set out in Section 3.0, previous KDFN and City plans have established the expectation that new housing is the likely future of Lot 262-6 and C-15B. The “whether” of development has been largely addressed, leaving the question of social license residing in the realm of “how”.

The KDFN Community Lands Plan establishes a requirement for KDFN development to be “socially responsible.” Staff shared their ideas for what that might look like in the context of C-15B development as follows:

- Cultural or value representation, a distinct “look” that represents KDFN
- Accommodation of first-time homebuyers
- An accessible, safe neighbourhoods
- Range of housing options that cater to a range of incomes
- Good access to public transportation
- Potentially affordable housing

One KDFN staff member further commented that the success of C-15B development will be measured by the number of citizens living there and the growth of home ownership levels in the area over time. Both governments should have a clearer idea of what social license looks like for the project when the initial citizen and public engagement concludes on May 30.

YG staff view the fulfillment of its commitment to support First Nation land development as a central part of success. This support can take many forms – including education, marketing, process, policy development, risk management and upfront funding. Staff note that a public education and awareness campaign will be critical to garnering public interest and confidence in the lots. This aligns with what the Team heard from the development community.

## 6.0 Summary of Project Opportunities & Constraints

Planning Parameter	Opportunity	Constraint
<i>Site Conditions</i>	<ul style="list-style-type: none"> <li>Favourable soils, flat</li> <li>Views</li> <li>Proximity to McIntyre Creek, greenspace and trails</li> <li>No known environmental (i.e., contamination) or heritage constraints</li> </ul>	<ul style="list-style-type: none"> <li>Soils necessitate careful stormwater management</li> <li>Steep escarpment with mass movement; 30m setback from top-of-bank</li> </ul>
<i>Broader Planning Context</i>	<ul style="list-style-type: none"> <li>City and KDFN plans are aligned with development</li> <li>2014 Range Road planning process lay the groundwork for future development</li> <li>Public realm improvements such as the linear park and Point Park could vastly increase the appeal of planning area</li> </ul>	<ul style="list-style-type: none"> <li>KDFN and YG are not leading implementation of public realm improvements</li> </ul>
<i>Servicing &amp; Infrastructure</i>	<ul style="list-style-type: none"> <li>Water and power infrastructure largely in place</li> <li>Site is on transit route and has moderate active transportation potential</li> <li>Range Road North reconstruction already planned and budgeted</li> <li>Potential for servicing synergies between C-15B and Lot 262-6</li> <li>Lot 262-6 and C-15B sanitary servicing approach could potentially improve the broader area's infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Sanitary system design is not as straightforward as previously assumed</li> <li>Range Point sanitary design is ad hoc and inefficient; further independent system additions from planning area compound the problem</li> </ul>
<i>Market Conditions</i>	<ul style="list-style-type: none"> <li>Demand is high across the entire housing spectrum</li> <li>Builders/developers are keen to partner with KDFN and want larger parcels</li> <li>Market acceptance of leasing is expected</li> <li>Views, greenspace, public realm improvements could enhance market appeal/uptake</li> <li>Projected Whistle Bend supply will be insufficient to meet latent and future demand</li> </ul>	<ul style="list-style-type: none"> <li>Builders/developers want maximum control over build outs and expect similar financing terms as current YG model</li> <li>Developers view mixing of public (i.e. social, rental) housing objectives as a serious risk to marketability of private units</li> <li>KDFN "upfront" lease payment and low impact of land costs on final dwelling prices pose challenges to affordable housing being built</li> </ul>
<i>Political &amp; Financial</i>	<ul style="list-style-type: none"> <li>Committed government partners</li> <li>Broad political commitment to housing innovation and solutions</li> <li>Opportunity for private sector land development</li> <li>YACA agreement covers some of KDFN's costs</li> <li>City/YG/KDFN in agreement on preferred infrastructure lifecycle and land use control approach</li> </ul>	<ul style="list-style-type: none"> <li>KDFN financial/organizational capacity pose serious impediments to advancing C-15B</li> <li>YG as financier or head lease holder poses policy challenges and political risk</li> <li>Infrastructure costs likely too high for a private land development model to work</li> <li>Lack of clear policy and understanding of partner financial contributions for off-site costs make cost recovery determination difficult</li> </ul>

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## Interviewees/Contacts

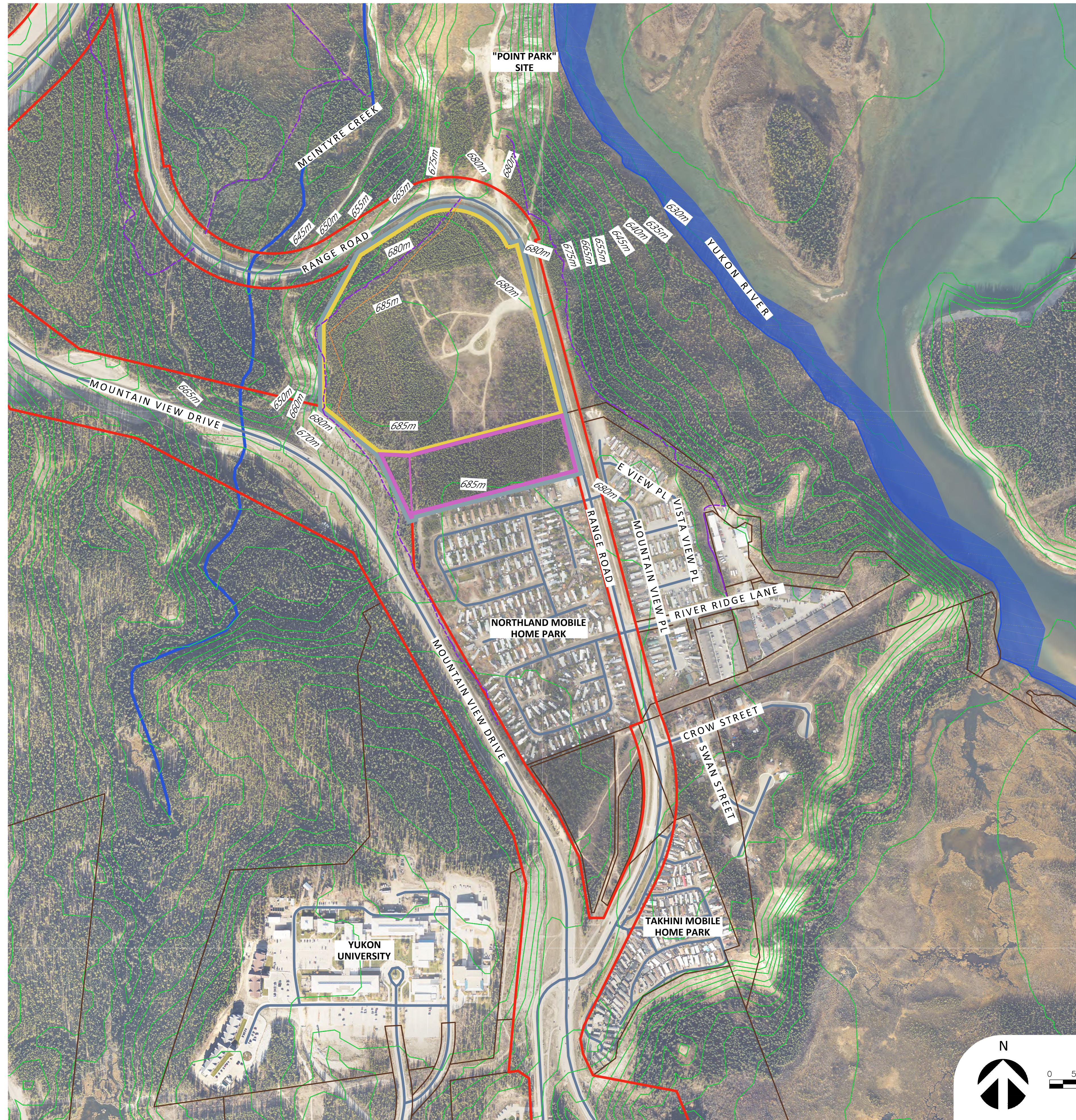
Susan Antpoebler	Yukon Land Management Branch
David Bell	Urban Systems
Blake Buckle	Ketza Construction Ltd.
Mary Cameron	Yukon Housing Corporation
Jerome Casanova	Northern Vision Development
Wayne Cunningham	Kareway Homes
Mike Evans	Wildstone Construction
Michael Hale	Northern Vision Development
Betty Holmes	Northwestel
Skyler Hougen	Wildstone Construction
Greg Kent	Kwanlin Dün First Nation
Krista McKinnon	ATCO Yukon Electric
Marc Perrault	REMAX Action Realty
Terence Tait	REMAX Action Realty
Greg Thompson	Kwanlin Dün First Nation
Les Wilson	Chu Niikwan Development Corporation



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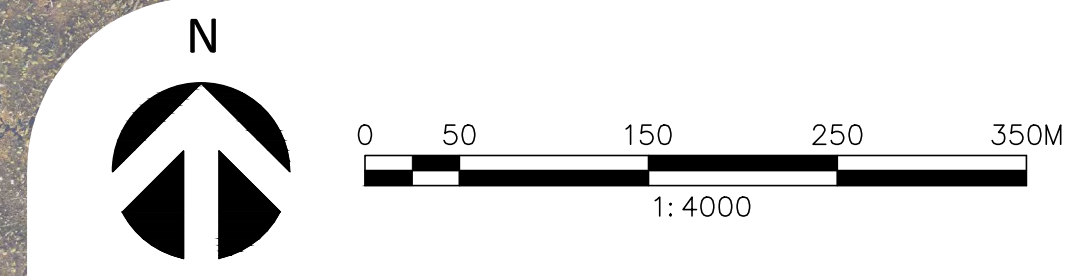
# APPENDIX A

## Site and Context Maps



**LEGEND**

- SITE AREA
- KDFN C-15B PARCEL
- LOT 262-6 GROUP 804 PARCEL
- LOT 262-6 / UNSURVEYED CROWN LAND
- CADASTRAL BOUNDARIES
- ARTERIAL ROAD ROWs
- ROADS
- CONTOUR (5m) INTERVALS
- WATER BODIES
- - - TRAILS
- - - 30m SET-BACK FROM TOP OF SLOPE



Prime Consultant



Subconsultants

Across the River Consulting



INUUKSHUK PLANNING & DEVELOPMENT

**kobayashi+zedda**



Revisions

No.	Date	Status	By
1	FEB. 09, 2021	DRAFT ISSUE	SD
2	FEB. 18, 2021	DRAFT ISSUE	SD
3	MAY 21, 2021	DRAFT ISSUE	SD

DRAWING PROJECTION  
nad83(CRS) / UTM zone 8N or EPSG: 3155 in metres

Client



Project



Drawing Title

**CONTEXT PLAN**

Date <b>FEBRUARY, 2021</b>	ELAC Project No. 20-539
Scale (On 22 x 34 Inch Sheet) <b>As Noted</b>	Drawing No. <b>1.0</b>
Drawn By SD	
Checked HR/JK	



- LEGEND**
- SITE AREA
  - KDFN C-15B PARCEL
  - LOT 262-6 GROUP 804 PARCEL
  - LOT 262-6 / UNSURVEYED CROWN LAND
  - CADASTRAL BOUNDARIES
  - ARTERIAL ROAD ROWs
  - ROADS
  - CONTOUR (1m) INTERVALS
  - WATER BODIES
  - - - TRAILS
  - - - 30m SET-BACK FROM TOP OF SLOPE

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**LEFS ASSOCIATES**  
Landscape Architects

Revisions

No.	Date	Status	By
1	FEB. 09, 2021	DRAFT ISSUE	SD
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3	MAY 21, 2021	DRAFT ISSUE	SD

DRAWING PROJECTION  
nad83(CRS) / UTM zone 8N or EPSG: 3155 in metres

Client

**Yukon**

Project

**RANGE POINT**  
JOINT MASTER PLAN

Drawing Title

# SITE PLAN

Date FEBRUARY, 2021	ELAC Project No. 20-539
Scale (On 22 x 34 Inch Sheet) 1:1500	Drawing No. <b>1.1</b>
Drawn By SD	
Checked HR/JK	

## APPENDIX B

# City of Whitehorse Neighbourhood Trail Plan

**PORTER CREEK • TAKHINI • WHISTLE BEND • RANGE POINT**

Including Key Areas: First Nation Settlement Lands, and Environmentally Sensitive Areas



# APPENDIX C

## 2007 C-15 NEIGHBOURHOOD CONCEPTS

## Original Concept (164 Units +/-)

### Single Family Mobile Home Park

**Objective:** High quality mobile homes to appeal to a mix of income levels in a conventional subdivision form.

#### Considerations:

- All manufactured housing ( single / double wide's )
- Most site coverage, least amount of open space
- Lowest density concept ( 164 Units )
- Estimated \$10 million infrastructure cost ( 2007 )
- Most expensive / per lot servicing cost.
- Generates lowest amount of long term revenue (lease fees/income taxes).
- Expected market absorption rate 24-30 units / yr = 6-7 years to build out at current market conditions.
- Could be built with manufactured home supplier partner.





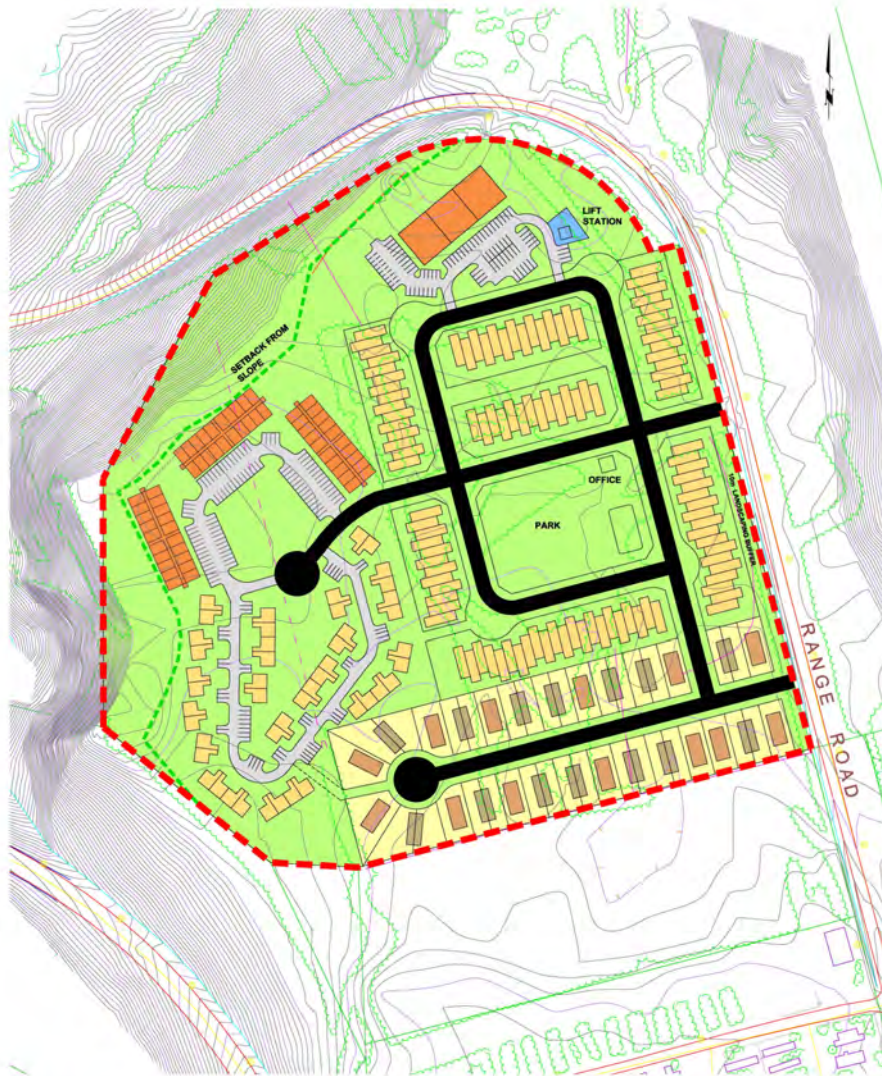
# Concept 1 ( 434 units +/-)

## Mixed Housing Project

**Objective:** Maximize density to lower per unit cost and increase affordability.

### Considerations:

- Six housing types
- More retained open space and central park
- Integrates mobile homes into neighbourhood
- Highest density concept ( 434 units )
- Least expensive / per lot servicing cost
- Most long term revenue potential (lease fees / income taxes )
- Infrastructure cost, estimated @ \$ 8.2 million ( 2007 pricing )
- Market acceptability unproven - requires more research
- Build-out period longest
- More partnership opportunities.



2007 Kwanlin Dun C-15B Range Road  
Concept 1 (434 units)  
October 2007  
For Discussion Only

INSIRA PLANNING & DEVELOPMENT

0 50 100m

#### LEGEND:

Apartments - Condominium (72 units)	Duplex Modular Home (14 units)
Apartments - Rentals (180 units)	Double Wide Modular Home (13 units)
Rowhouse Townhouse (109 units)	Parkland & Buffer
Duplex Townhouses (46 units)	Lift Station



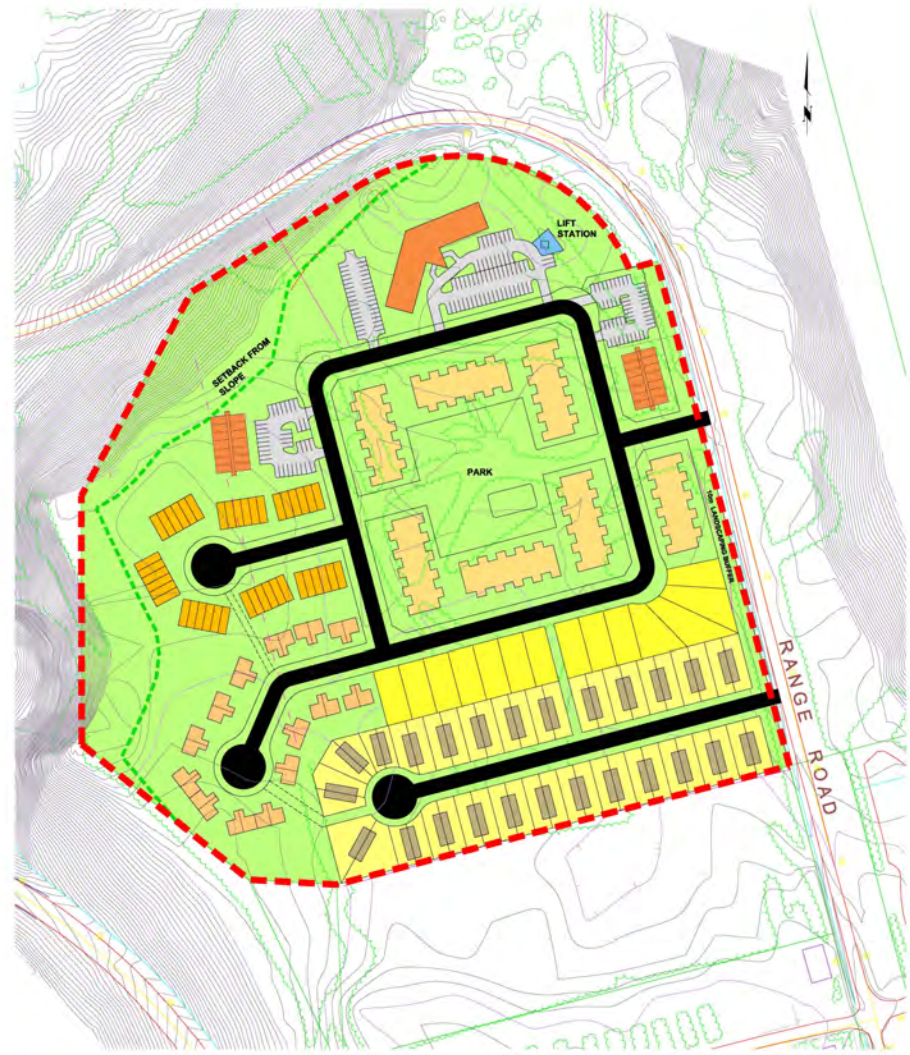
# Concept 2 (360 Units +/-)

## Sustainable Neighbourhood Project

**Objective:** Balance density / per unit servicing cost with housing form variety introducing sustainable feature options.

### Considerations:

- Seven housing types,
- 2<sup>nd</sup> highest density concept (360 units)
- Large areas of retained open space
- Mobile homes an independent development phase
- 2<sup>nd</sup> least expensive / per lot servicing cost
- 2<sup>nd</sup> greatest revenue generation potential
- Infrastructure cost estimated at \$7.75 million ( 2007 pricing )
- Introduces new housing style with district heating potential.
- More partnership opportunities.



**2007 Kwanlin Dun C-15B Range Road**  
**Concept 2 (360 units)**  
 October 2007  
 For Discussion Only

**LEGEND:**

- |  |  |  |                                |
|--|--|--|--------------------------------|
|  | Apartments - Condominium (72 units) - 3 storey |  | Single Family Homes (14 units) |
|  | Apartments - Rentals (84 units) - 3 storey     |  | Duplex Modular Home (50 units) |
|  | Rowhouse Townhouse (70 units) - 2 storey       |  | Parkland & Buffer              |
|  | 6 Plex Townhouses (42 units) - 2 storey        |  | Lift Station                   |
|  | Duplex Townhouses (28 units) - 1 1/2 storey    |  |                                |



# Option Comparison



**Original Concept ( 164 Mobile Home Units )**  
Lowest Density Option (11 units / ha)

- Most trees removed,
- Highest site coverage
- Less open space,
- Only 1 housing form (mobile homes)
- Highest servicing costs / per unit
- \$10 million / 164 units = \$60 K / PU
- Low Revenue / Tax Generation



**Concept #1 (434 Units – Mixed Density)**  
Highest Density Option ( 30 units / ha )

- Less trees / vegetation removed,
- 2<sup>nd</sup> Lowest site coverage,
- Large areas of open space retained
- Wide variety of housing forms
- Lowest servicing costs / per unit
- \$8.2 Million / 434 units = 19K / PU
- Highest Revenue / Tax Generation



**Concept #2 (360 Units – Mixed Density)**  
Medium Density Option ( 25 units / ha )

- Less trees / vegetation removed,
- Lowest site coverage,
- Most open space retained,
- Greatest variety / housing forms (7)
- 2<sup>nd</sup> Lowest servicing cost / per unit
- \$7.75 Million / 360 units = 22 K / PU
- 2<sup>nd</sup> Highest Revenue / Tax Generation



# APPENDIX D

## MARKET BACKGROUND INFORMATION

## WHITEHORSE HOUSING AFFORDABILITY PRIMER

### 1. What do incomes and house prices imply for affordability?

The proportion of home ownership in Whitehorse, 65.9%, is remarkably close to that for the whole of Canada, at 67.8%. Just another 200 households in ownership tenure would align the community. In addition, a significantly smaller proportion of Whitehorse households, 20%, spend more than 30% of income on shelter costs (a typical threshold of affordability) compared to across Canada, at 24%.

So where is the affordability issue? As the table below shows, even at the maximum Yukon social housing income thresholds, only a 3-bedroom family can potentially afford to purchase a market home instead of renting, IF they can save a \$19,000 cash down payment which is no easy task at that income level given other cost-of-living pressures.

	Income	Rent		Mortgage Payment		Home Buying Power			Market Price
		Social	Market	1.75%	3.25%	5% Down	Mortgage	Price	
1-Bed	\$49,500	\$1,031	\$1,000	\$963	\$1,138	\$12,500	\$234,000	\$246,500	\$325,000
2-Bed	\$58,500	\$1,219	\$1,258	\$1,162	\$1,373	\$15,000	\$282,500	\$297,500	\$363,000
3-Bed	\$72,500	\$1,510	\$1,750	\$1,473	\$1,740	\$19,000	\$358,000	\$377,000	\$365,000

A scan of the current market shows the lowest priced 1 and 2 bedroom units for sale to be \$325,000 and \$363,000 respectively, requiring minimum incomes of \$62,500 and \$68,000 for purchase.

	Market Price	5% Down	Mortgage	Mortgage Payment		Market Rent	Minimum Income
				1.75%	3.25%		
1-Bed	\$325,000	\$16,250	\$308,750	\$1,270	\$1,501	\$1,000	\$62,500
2-Bed	\$363,000	\$18,150	\$344,850	\$1,419	\$1,677	\$1,258	\$68,000

Clearly there is a significant gap between the maximum incomes for Yukon social housing eligibility (below which rents become more affordable than market due to the 25% rent-geared-to-income criterion) and the minimum currently required to purchase a market home.

If the price of an affordable-home could be reduced to enable purchase at the Yuko social housing incomes, mortgage payments would decrease from the market rent rate. More importantly though, considerable prosperity would accrue to the household through equity gain from the principal payments which normally accrues to the landlords when these households are forced to rent.

	Income	Target Price	Mortgage	Principal	Real Cost	Market Rent	Prosperity Gain (Year)
1-Bed	\$49,500	\$253,000	\$979	\$639	\$340	\$1,000	\$7,920
2-Bed	\$58,500	\$303,000	\$1,181	\$770	\$411	\$1,258	\$10,164

This is a simplified analysis as it does not consider other ownership costs such as taxes, insurance and maintenance, nor the responsibility for utilities that varies across rental units. However, it also does not include the considerable benefits of security of tenure, pride and self-determination.

**2. What would an affordable home ownership value proposition look like?**

Affordable home ownership models that can reduce prices of one and two bedroom units from market by up to \$60-\$70,000 or approximately 20% would open access to ownership for a lost income segment that is currently forced to rent and forego the considerable prosperity and life stability gains that would accrue from ownership.

	<b>Market Price</b>	<b>Target Price</b>	<b>Target Household Income</b>
1-bedroom	\$325,000	\$253,000	\$49,500 - \$62,500
2-bedroom	\$363,000	\$303,000	\$58,500 - \$68,000

We can estimate approximately 1,000 Whitehorse households are in this segment, and 3,400 individuals, but unfortunately Census data does not provide an income segment distribution specific to one and two-person households. That said, with the median income of one-person households being \$54,000, between the Yukon social housing threshold (\$49,500) and the minimum income to buy (\$62,500) it is fair to conclude there will be a high number of households in the target range for the value proposition.

While the home ownership affordability price reduction sounds daunting at first, for context it should be noted that this is only a reversal of the 2 most recent years of Whitehorse housing price gains.

## Range Point Commercial Micro Village - Base (No City Park)

### Projected Market Support

Market Factor	On-Site	Primary Trade Area	Whistle Bend	Porter Creek/ Crestview	
Current Estimated Population	0	1240	1897	5800	8937
Estimated Build-Out Population	1000	1240	8000	6000	
Average Household Size	2.50	2.16	2.79	2.6	

Household Spending		On-Site	Primary Trade Area	Whistle Bend	Porter Creek/ Crestview		
Retail Food		\$ 8,925	\$ 7,032	\$ 10,973	\$ 8,796	80552261	9013.344635
Specialty Food at % of Retail Food	25%	\$ 2,231	\$ 1,758	\$ 2,743	\$ 2,199		
Restaurant Food		\$ 4,250	\$ 3,115	\$ 5,169	\$ 4,234	38225393	4277.206333
Personal and Health Care		\$ 5,085	\$ 3,662	\$ 6,041	\$ 5,110		
Personal Care		\$ 1,765	\$ 1,250	\$ 2,087	\$ 1,779	15827239	1770.978964
Health Care		\$ 3,320	\$ 2,412	\$ 3,954	\$ 3,331	29811418	3335.729887

Per Capita Spending		On-Site	Primary Trade Area	Whistle Bend	Porter Creek/ Crestview
Specialty Food		\$ 893	\$ 814	\$ 983	\$ 846
Restaurant Food		\$ 1,700	\$ 1,442	\$ 1,853	\$ 1,628
Personal and Health Care*		\$ 2,034	\$ 1,695	\$ 2,165	\$ 1,965

Current Spending Potential		On-Site	Primary Trade Area	Whistle Bend	Porter Creek/ Crestview
Specialty Food		\$ -	\$ 1,009,222	\$ 1,865,213	\$ 4,905,462
Restaurant Food		\$ -	\$ 1,788,241	\$ 3,514,549	\$ 9,445,077
Personal and Health Care*		\$ -	\$ 2,102,259	\$ 4,107,447	\$ 11,399,231

### Market Captures - Current Population

Market Capture - Current Population	On-Site	Primary Trade Area	Whistle Bend	Porter Creek/ Crestview
Specialty Food	30%	25%	10%	5%
Restaurant Food	15%	10%	5%	5%
Personal and Health Care*	25%	15%	3%	3%

<b>On-Site Spending - Current Population</b>	<b>On-Site</b>	<b>Primary Trade Area</b>	<b>Whistle Bend</b>	<b>Porter Creek/ Crestview</b>	<b>TOTALS</b>	<b>INFLOW %</b>	<b>TOTALS</b>
Specialty Food	\$ -	\$ 252,306	\$ 186,521	\$ 245,273	\$ 684,100	10%	\$ 760,111
Restaurant Food	\$ -	\$ 178,824	\$ 175,727	\$ 472,254	\$ 826,805	5%	\$ 870,321
Personal and Health Care*	\$ -	\$ 315,339	\$ 123,223	\$ 341,977	\$ 780,539	2%	\$ 796,469

<b>Warranted Floor Area</b>	<b>\$/Sq. Ft.</b>	<b>Sq. Ft.</b>
Specialty Food	\$ 600	1,267
Restaurant Food	\$ 600	1,451
Personal and Health Care*	\$ 750	1,062

<b>Build Out Spending Potential</b>	<b>On-Site</b>	<b>Primary Trade Area</b>	<b>Whistle Bend</b>	<b>Porter Creek/ Crestview</b>
Specialty Food	\$ 892,500	\$ 1,009,222	\$ 7,865,950	\$ 5,074,615
Restaurant Food	\$ 1,700,000	\$ 1,788,241	\$ 14,821,505	\$ 9,770,769
Personal and Health Care*	\$ 2,034,000	\$ 2,102,259	\$ 17,321,864	\$ 11,792,308

<b>Market Capture at Build-Out</b>	<b>On-Site</b>	<b>Primary Trade Area</b>	<b>Whistle Bend</b>	<b>Porter Creek/ Crestview</b>
Specialty Food	30%	20%	8%	5%
Restaurant Food	12%	8%	4%	4%
Personal and Health Care*	20%	12%	2%	2%

<b>On-Site Spending - Build-Out Population</b>	<b>On-Site</b>	<b>Primary Trade Area</b>	<b>Whistle Bend</b>	<b>Porter Creek/ Crestview</b>	<b>TOTALS</b>	<b>INFLOW %</b>	<b>TOTALS</b>
Specialty Food	\$ 267,750	\$ 201,844	\$ 629,276	\$ 253,731	\$ 1,352,601	10%	\$ 1,502,890
Restaurant Food	\$ 204,000	\$ 143,059	\$ 592,860	\$ 390,831	\$ 1,330,750	5%	\$ 1,400,790
Personal and Health Care*	\$ 406,800	\$ 252,271	\$ 346,437	\$ 235,846	\$ 1,241,355	2%	\$ 1,266,688

<b>Warranted Floor Area</b>	<b>\$/Sq. Ft.</b>	<b>Sq. Ft.</b>
Specialty Food	\$ 600	2,505
Restaurant Food	\$ 600	2,335
Personal and Health Care*	\$ 750	1,689

**Source Data: SiteWise Online**

**ASSUMPTIONS:**

With no city park or related bridge connection to the Whistle Bend trail network, is close to nil in winter and ranges from 10-30/day in summer



## Range Point Commercial Micro Village - City Park

### Projected Market Support

Market Factor	On-Site	Primary Trade Area	Whistle Bend	Porter Creek/ Crestview	
Current Estimated Population	0	1240	1897	5800	8937
Estimated Build-Out Population	1000	1240	8000	6000	
Average Household Size	2.50	2.16	2.79	2.6	

Household Spending	On-Site	Primary Trade Area	Whistle Bend	Porter Creek/ Crestview		
Retail Food	\$ 8,925	\$ 7,032	\$ 10,973	\$ 8,796	80552261	9013.344635
Specialty Food at % of Retail F	25% \$ 2,231	\$ 1,758	\$ 2,743	\$ 2,199		
Restaurant Food	\$ 4,250	\$ 3,115	\$ 5,169	\$ 4,234	38225393	4277.206333
Personal and Health Care	\$ 5,085	\$ 3,662	\$ 6,041	\$ 5,110		
Personal Care	\$ 1,765	\$ 1,250	\$ 2,087	\$ 1,779	15827239	1770.978964
Health Care	\$ 3,320	\$ 2,412	\$ 3,954	\$ 3,331	29811418	3335.729887

Per Capita Spending	On-Site	Primary Trade Area	Whistle Bend	Porter Creek/ Crestview
Specialty Food	\$ 893	\$ 814	\$ 983	\$ 846
Restaurant Food	\$ 1,700	\$ 1,442	\$ 1,853	\$ 1,628
Personal and Health Care*	\$ 2,034	\$ 1,695	\$ 2,165	\$ 1,965

Current Spending Potential	On-Site	Primary Trade Area	Whistle Bend	Porter Creek/ Crestview
Specialty Food	\$ -	\$ 1,009,222	\$ 1,865,213	\$ 4,905,462
Restaurant Food	\$ -	\$ 1,788,241	\$ 3,514,549	\$ 9,445,077
Personal and Health Care*	\$ -	\$ 2,102,259	\$ 4,107,447	\$ 11,399,231

### Market Captures - Current Population

Market Capture - Current Population	On-Site	Primary Trade Area	Whistle Bend	Porter Creek/ Crestview
Specialty Food	30%	25%	10%	5%
Restaurant Food	15%	10%	5%	5%
Personal and Health Care*	25%	15%	3%	3%

<b>On-Site Spending - Current Population</b>	<b>On-Site</b>	<b>Primary</b>		<b>Porter Creek/</b>		<b>TOTALS</b>	<b>INFLOW %</b>	<b>TOTALS</b>
		<b>Trade Area</b>	<b>Whistle Bend</b>	<b>Crestview</b>				
Specialty Food	\$ -	\$ 252,306	\$ 186,521	\$ 245,273		\$ 684,100	30%	\$ 977,286
Restaurant Food	\$ -	\$ 178,824	\$ 175,727	\$ 472,254		\$ 826,805	40%	\$ 1,378,009
Personal and Health Care*	\$ -	\$ 315,339	\$ 123,223	\$ 341,977		\$ 780,539	10%	\$ 867,266

<b>Warranted Floor Area</b>	<b>\$/Sq. Ft.</b>	<b>Sq. Ft.</b>
Specialty Food	\$ 600	1,629
Restaurant Food	\$ 600	2,297
Personal and Health Care*	\$ 750	1,156

<b>Build Out Spending Potential</b>	<b>On-Site</b>	<b>Primary</b>		<b>Porter Creek/</b>	
		<b>Trade Area</b>	<b>Whistle Bend</b>	<b>Crestview</b>	
Specialty Food	\$ 892,500	\$ 1,009,222	\$ 7,865,950	\$ 5,074,615	
Restaurant Food	\$ 1,700,000	\$ 1,788,241	\$ 14,821,505	\$ 9,770,769	
Personal and Health Care*	\$ 2,034,000	\$ 2,102,259	\$ 17,321,864	\$ 11,792,308	

<b>Market Capture at Build-Out</b>	<b>On-Site</b>	<b>Primary</b>		<b>Porter Creek/</b>	
		<b>Trade Area</b>	<b>Whistle Bend</b>	<b>Crestview</b>	
Specialty Food	30%	20%	8%	5%	
Restaurant Food	12%	8%	3%	3%	
Personal and Health Care*	20%	12%	2%	2%	

<b>On-Site Spending - Build-Out Population</b>					<b>TOTALS</b>	<b>INFLOW %</b>	<b>TOTALS</b>
Specialty Food	\$ 267,750	\$ 201,844	\$ 629,276	\$ 253,731	\$ 1,352,601	30%	\$ 1,932,287
Restaurant Food	\$ 204,000	\$ 143,059	\$ 444,645	\$ 293,123	\$ 1,084,827	40%	\$ 1,808,046
Personal and Health Care*	\$ 406,800	\$ 252,271	\$ 346,437	\$ 235,846	\$ 1,241,355	10%	\$ 1,379,283

<b>Warranted Floor Area</b>	<b>\$/Sq. Ft.</b>	<b>Sq. Ft.</b>
Specialty Food	\$ 600	3,220
Restaurant Food	\$ 600	3,013
Personal and Health Care*	\$ 750	1,839

**Source Data: SiteWise Online**

**ASSUMPTIONS:**

With a new city park and related bridge connection to the Whistle Bend trail network, daily recreational visitation could reach 50 to 100 per day

# APPENDIX E

## RESIDENTIAL LEASING BACKGROUNDER



# SETTLEMENT LAND LEASE AND DEVELOPMENT

## Why is KDFN developing its settlement land now?

KDFN's *Lands Act* came into force in October 2020. The Act allows the First Nation to manage, develop, protect and enforce laws on settlement land.

Developing settlement land previously identified for revenue generation will allow KDFN to generate revenue for its Beneficiaries and Citizens.

## How will settlement land be developed?

Development of settlement land will be guided by KDFN's *Lands Act*, *Regulations* and land use plans.

In 2020, KDFN completed an extensive Community Lands Plan with its Beneficiaries and Citizens. The plan identifies parcels within the City of Whitehorse to be used for residential, conservation or revenue generation - through residential and commercial settlement land leases.

## What is a settlement land lease?

A lease guarantees a leaseholder exclusive rights to use and occupy the land for the term and conditions of the agreement.

## How will settlement land leases be issued?

KDFN is working with its Development Corporation, Chu Níikwän, to make residential and commercial lots available through a lottery or tender process, or through a real estate agent.

Under the *Lands Act*, KDFN is required to give its Beneficiaries and Citizens an opportunity to apply for lots, before opening the process to the general public.

## How secure are settlement land leases?

Leases will be issued with terms to maintain the value of the property, such as a clause to renew the terms of the agreement.

Banks and other financial institutions may require a Certificate of Leasehold Title to secure mortgage or other financing on the lease. KDFN can register a settlement land lot in the Yukon Land Titles Office (LTO) and provide a Certificate of Leasehold Title to the lessor.

All settlement land leases are required to be registered in KDFN's Land Registry or Yukon's LTO. However, registering the parcel under the LTO registry is guaranteed by the Yukon government, adding additional security to the lease.

## What's the difference between a Certificate of Leasehold Title and Fee Simple Title to property?

A Fee Simple Title gives the titleholder ownership of the property, indefinitely, while a Certificate of Leasehold Title gives the leaseholder exclusive rights to use and occupy the land for a set period of time. In the case of a KDFN residential lease, 125 years.

Under the KDFN Constitution, KDFN is unable to sell settlement land and must always retain ownership.

## What will settlement land lease terms and opportunity for financing look like?

Settlement land leases will be offered for up to a 125 year term, and may include terms to maintain the value of the property, such as a clause to renew the terms of the lease agreement.

Leaseholders may secure financing through a mortgage from a bank, sell the lease on the open market and hold long-term tenure of the property.

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**How are leaseholders' rights protected in a lease?**

Long-term leases are increasingly common in Canada with terms to protect both the lessor and lessee.

A lease will include a number of specific terms and conditions related to the responsibilities of the lessor and the lessee to protect both parties.

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**Can a settlement land lease be sold?**

Yes, a leaseholder can sell their lease on the open market for the remainder of its term.

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**Can condominiums be developed on settlement land?**

Yes. As long as the development follows KDFN and the City of Whitehorse planning and zoning, condominiums can be developed on settlement land.

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**Who is responsible for paying insurance, utilities and taxes on settlement land leases?**

A leaseholder is responsible to pay property taxes to the City of Whitehorse or the Yukon government, as well as utilities, insurance and building maintenance costs on their leasehold interest.

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**What land use plans apply to developments on settlement land?**

All development on settlement land within city limits needs follow KDFN and the City of Whitehorse land use plans and zoning bylaws, including:

- City of Whitehorse's Official City Plan (OCP);
- KDFN Traditional Territory Land Vision; and
- KDFN Community Lands Plan.

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**What authority does KDFN have over planning, zoning and development laws on settlement land?**

Under the Self-government Agreement, KDFN has broad authority to make planning, zoning and development laws on its settlement land. KDFN works closely with the City of Whitehorse and the Yukon government to ensure land use planning, zoning and development are consistent with overlapping land use plans.