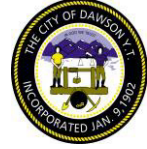


THE CITY OF DAWSON



COMMITTEE OF THE WHOLE MEETING #CW23-14

DATE: Tuesday November 7, 2023

TIME: 7:00 PM

LOCATION: City of Dawson Council Chambers

Join Zoom Meeting

<https://us02web.zoom.us/j/81454035163?pwd=UEtxRXRkbWd0dTI2OXFTYmNOY3pUdz09>

Meeting ID: **814 5403 5163**

Passcode: **400847**

- 1. CALL TO ORDER**
- 2. ACCEPTANCE OF ADDENDUM & ADOPTION OF AGENDA**
 1. Committee of the Whole Meeting CW23-14
- 3. DELEGATIONS**
 1. Poppy Presentation
 2. Gerard Dinn, Emergency Medical Services, Yukon Government Re: EMS Update
 3. Lester Balsillie, Yukon Housing Corp. RE: Korbo Apartment Complex
- 4. BUSINESS ARISING FROM DELEGATIONS & GUESTS**
- 5. MINUTES**
 1. Committee of the Whole Meeting Minutes CW23-11 of August 30, 2023
 2. Committee of the Whole Meeting Minutes CW23-12 of September 13, 2023
 3. Committee of the Whole Meeting Minutes CW23-13 of October 25, 2023
- 6. BUSINESS ARISING FROM MINUTES**
- 7. SPECIAL MEETING, COMMITTEE, AND DEPARTMENTAL REPORTS**
 1. Recycling & Solid Waste Recommendations
 2. Dredge Pond II Master Plan
 3. Official Community Plan Comprehensive Review
 4. Zoning Amendment – Fifth Avenue C1 to R1 Rezoning
- 8. CORRESPONDENCE**
 1. Minister Silver RE: Five-Year Review of the Cannabis Legislation
- 9. BUSINESS ARISING FROM CORRESPONDENCE**
- 10. PUBLIC QUESTIONS**
- 11. IN CAMERA-LAND RELATED MATTER**
- 12. ADJOURNMENT**



Yukon EMS – Dawson City



Presentation to Mayor & Council

Yukon EMS – Dawson City

- Call Volume:-avg. 150 (911) 150 Medevac (DCH)
 - i.e. Carcross 200 WL 450
 - 2% call Echo
- 911 Available 24/7-EMS Dispatch (ERCC)
- Local Coverage-Fully crewed ambulance 85 %
- 2022 86%
- EMS system 100%
- Primary Care Paramedics – 0800 to 1630 Monday to Friday (2FT, 3 AOC)
- Community Responders – 1630 to 0800 (5 Active, 5-onboarding)

Calling 911 in Dawson City

- Initially answered by RCMP & transferred to the Emergency Response Communication Center (ERCC)
- Geolocated by the Emergency Response Communication Officer (ERCO)
- Medical Priority Dispatch Systems- determine scene safety and resource allocation (RCMP, Fire)
- Dispatch Life Support is provided to the caller
- Resource is dispatched
- Alternative transport options



Yukon EMS Community Responder Program

1) Responder Safety- Mandatory

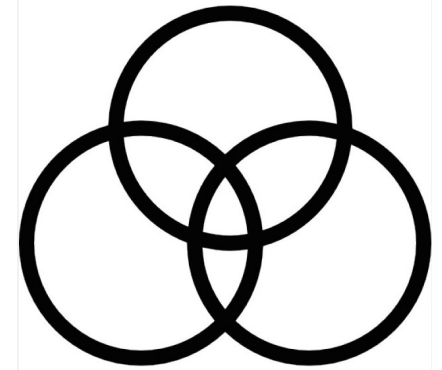
- On-boarding program-Orientation
- HIPPA, OHS
- Continuing educational and training
- Orientation Shifts x3

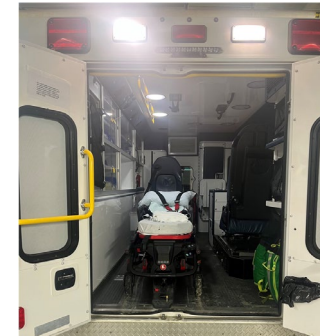
2) Patient Safety- Mandatory

- Stretcher & equipment utilization
- Safe driving practices, Class 4
- Standard First Aid
- 3xshifts
- 72 hrs. (1wk – 3months, individual dependent)

3) Health Safety – Patient- non-Mandatory

- Emergency Medical Responder Scope of Practice
- 80 hr. course





Community Responders

- Becoming a Community Responder is a rewarding and meaningful experience.
- Serve your community and contribute to overall community wellbeing.
- Learn new skills and gain confidence in emergency situations.
- Take part in paid and flexible training.
- Make your own on call schedule that works around your schedule and lifestyle

Supports/ Training with Yukon EMS

- Honoraria when on call - \$3.71
- \$1000 retention bonus after completion of 250 on call hrs.
- Call out Honoraria - \$21.20-30.74
- All training paid- \$19.08/hr. (travel expenses covered)
- Top of the line equipment and medical protocols
- Dedicated Clinical Educator to Communities
- Mobile Training unit- high fidelity simulation
- Dedicated training center in Whitehorse
- Career advancement to Primary Care Paramedic
- Paid opportunities to gain experience in Whitehorse
- When responding access to:
 - Peer Support
 - FSEAP
 - WCB



How Do I Sign Up

- Contact Yukon EMS (867)456-6505
- Talk to a member of the Yukon EMS team in Dawson City
- HSS-EMS-ResponderRecruitment-email@yukon.ca



Questions




Yukon





YUKON HOUSING CORPORATION
DAWSON CITY MULTI-FAMILY RESIDENTIAL HOUSING PROJECT

954 Sixth Avenue

by Kobayashi + Zedda Architects

PROJECT DATA:

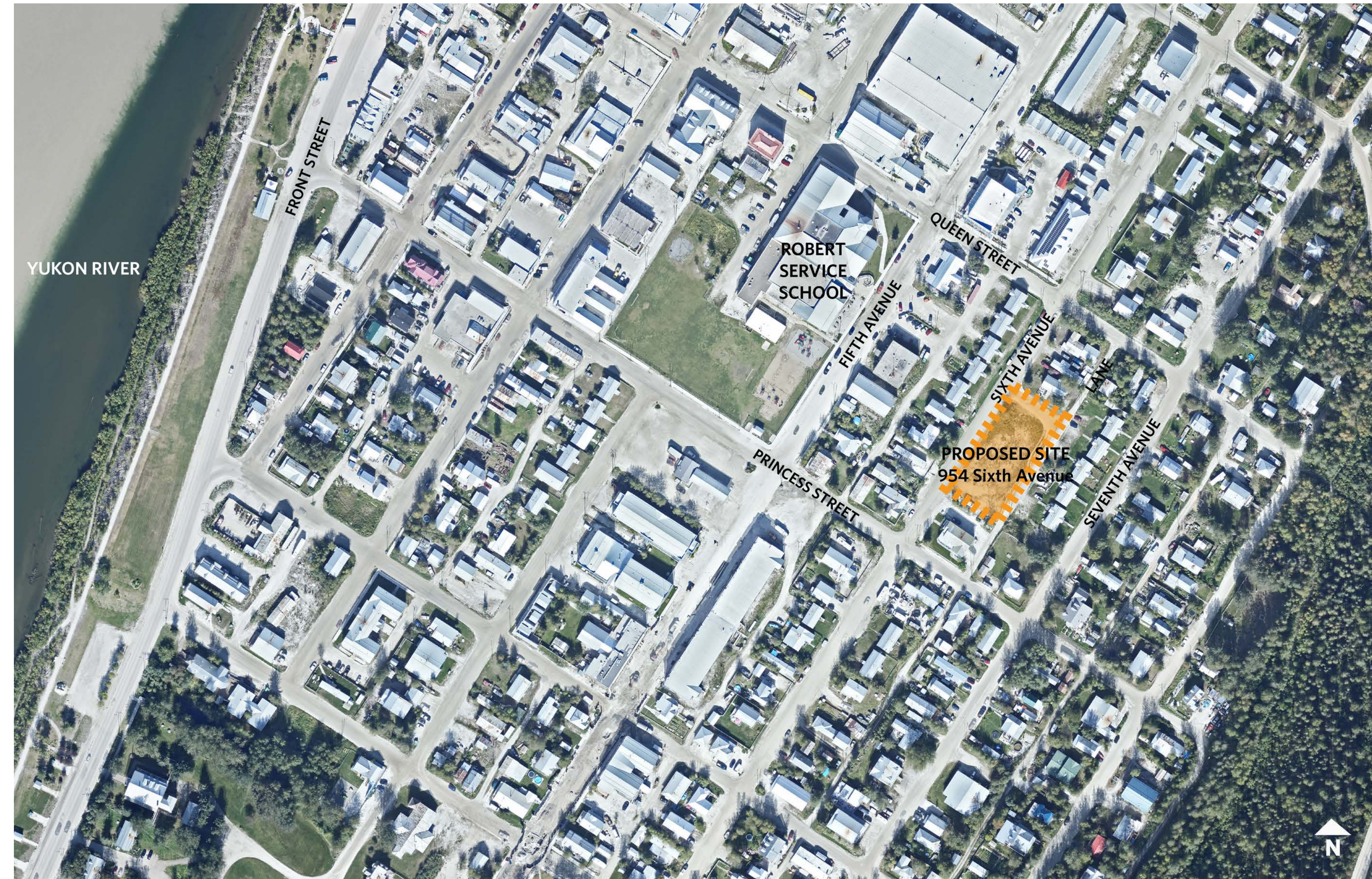
Address: 954 6th Avenue
 Lot: Lot 22, Block LD, Plan 8338A, CLSR, 8338A LTO
 Zoning: R2 -Multi-Unit Residential
 Fronted Streets: 6th Avenue
 Minimum Lot Area: 464.5 m2 (Currently 2,320.4 m2)
 Permitted Use: Apartment
 Setbacks: 3.05m Front Parcel setback
 1.52m Rear Parcel setback
 1.52m Internal side Parcel Setback
 Building Height: 10.67m (Proposed 10.67m)
 Parking: 1 stall per dwelling unit
 With a total 34 units, the total required parking is 34 stalls.
 34 parking stalls are provided.
 Loading Area: Not required
 Recreation Space: 446.45 m² is required. Total of 449 m² is provided.

FLOOR AREA

	Area (m ²)	Area (ft ²)
Ground Floor	990	10,656
Second Floor	990	10,656
Third Floor	990	10,656
Total	2,970	31,968

UNIT DISTRIBUTION

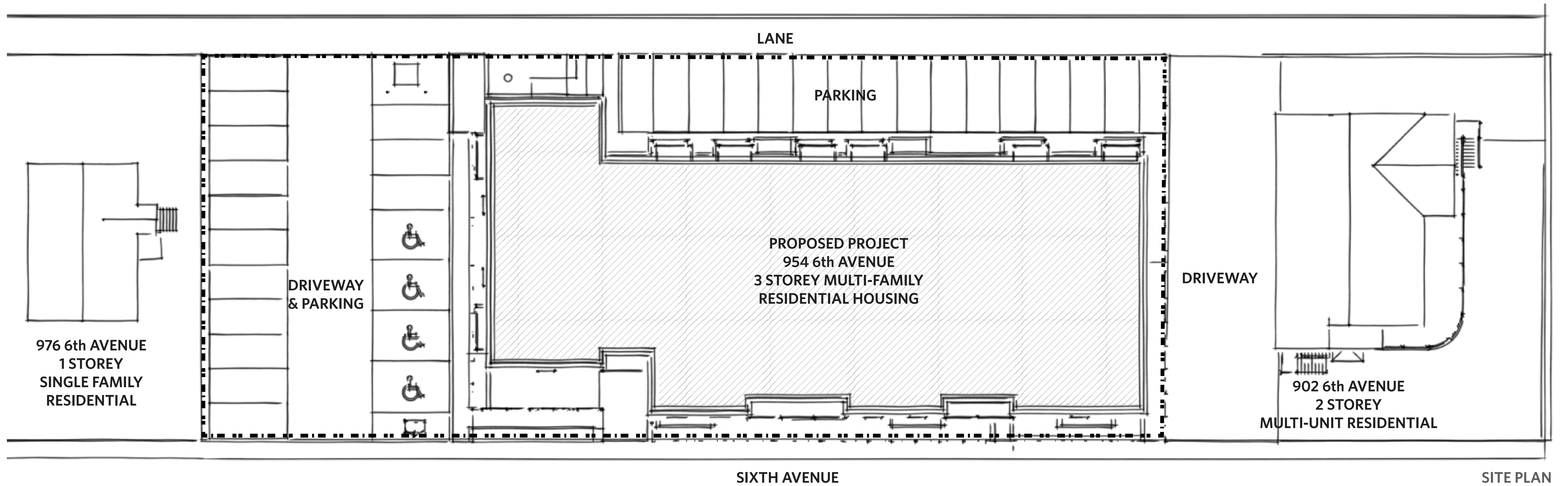
	Area (sm)	Area (sf)	Level 1	Level 2	Level 3	Total	
A1 - Studio (Accessible)	43	463	1			1	9
A2 - Studio	37	398		4	4	8	
B1 - 1 Bed (Accessible)	68	732	1			1	13
B2 - 1 Bed (Accessible)	55	592	2			2	
B3a -1 Bed	55	592		2	2	4	
B3b - 1 Bed	61	657		1	1	2	
B3c - 1 Bed	61	657		1	1	2	
B3d - 1 Bed	58	624		1	1	2	
C1a - 2 Bed (Accessible)	76	818	2			2	12
C1b - 2 Bed (Accessible)	82	883	1			1	
C1c - 2 Bed (Accessible)	85	915	1			1	
C2a - 2 Bed (Accessible)	74	797		1	1	2	
C2b - 2 Bed (Accessible)				1	1	2	
C3a - 2 Bed	76	818		1		1	
C3b - 2 Bed	85	915			1	1	
C4 - 2 Bed	81	872		1	1	2	
Total			8	13	13	34	



AERIAL MAP OF SITE

YHC DAWSON CITY MULTI-FAMILY RESIDENTIAL HOUSING

DAWSON CITY, YUKON



YHC DAWSON CITY MULTI-FAMILY RESIDENTIAL HOUSING

DAWSON CITY, YUKON

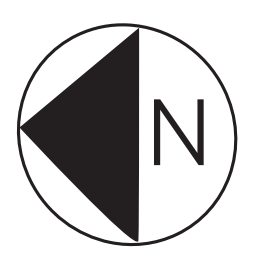
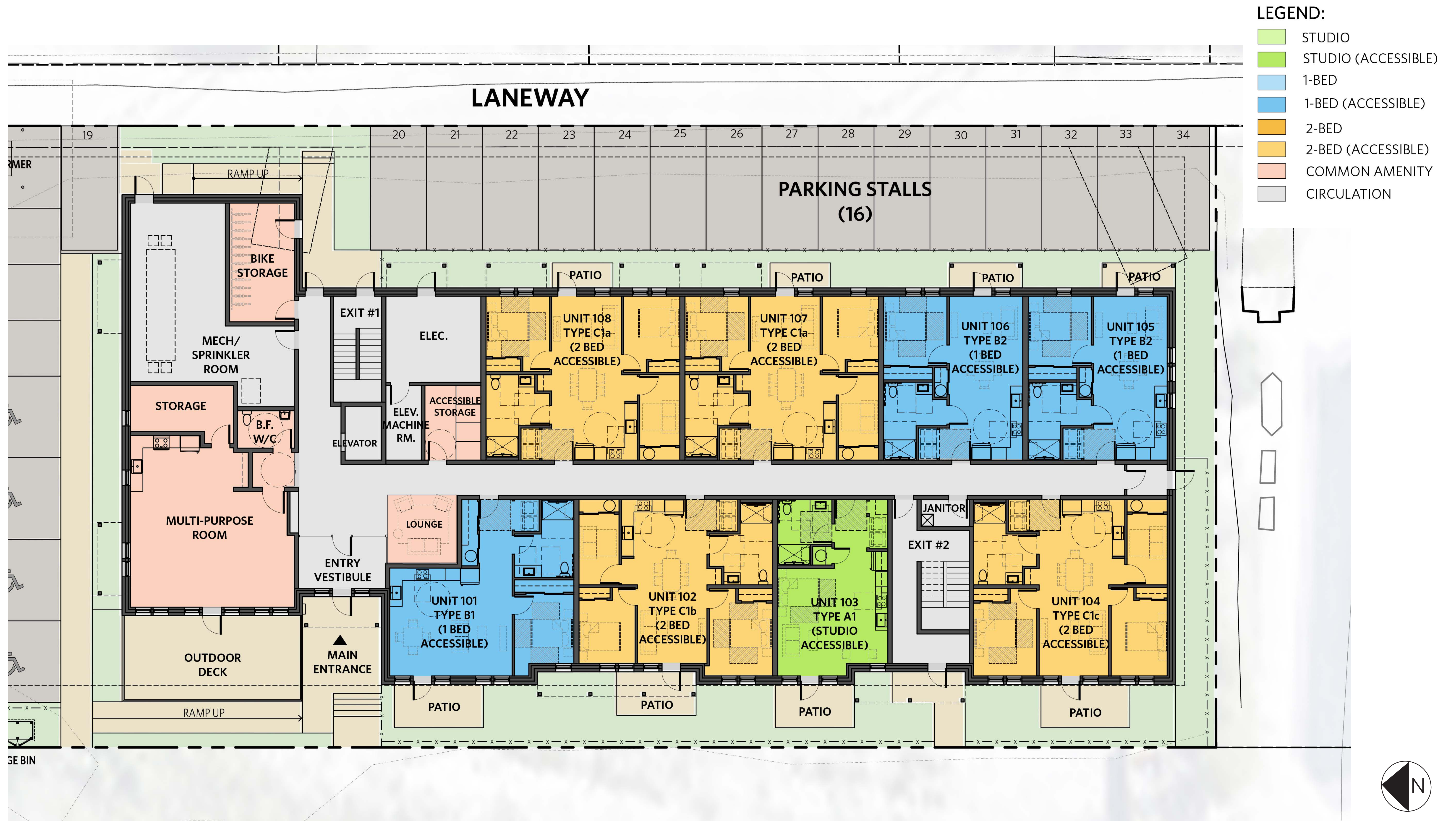


YHC DAWSON CITY MULTI-FAMILY RESIDENTIAL HOUSING

DAWSON CITY, YUKON



kobayashi + zedda
architectural planning | urban design



YHC DAWSON CITY MULTI-FAMILY RESIDENTIAL HOUSING

DAWSON CITY, YUKON

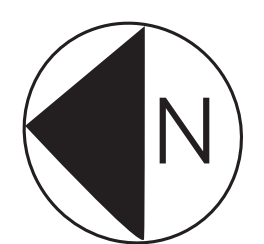


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SECOND FLOOR PLAN

LEGEND:

- STUDIO
- STUDIO (ACCESSIBLE)
- 1-BED
- 1-BED (ACCESSIBLE)
- 2-BED
- 2-BED (ACCESSIBLE)
- COMMON AMENITY
- CIRCULATION



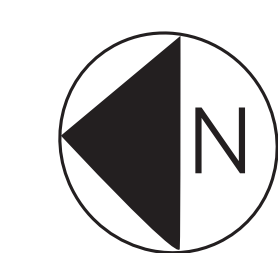
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- LEGEND:**
- STUDIO
 - STUDIO (ACCESSIBLE)
 - 1-BED
 - 1-BED (ACCESSIBLE)
 - 2-BED
 - 2-BED (ACCESSIBLE)
 - COMMON AMENITY
 - CIRCULATION



YHC DAWSON CITY MULTI-FAMILY RESIDENTIAL HOUSING

DAWSON CITY, YUKON



AXIS RELATION: The facade above the ground floor is symmetrical. Symmetry is applied to the ground floor where possible, but modified based on the space functional space behind.

PROPORTION: Each facade is rectangular in form. Due to the zoning height limit at 35', the width to height ratio of 1:1.2 and 1:1.4.

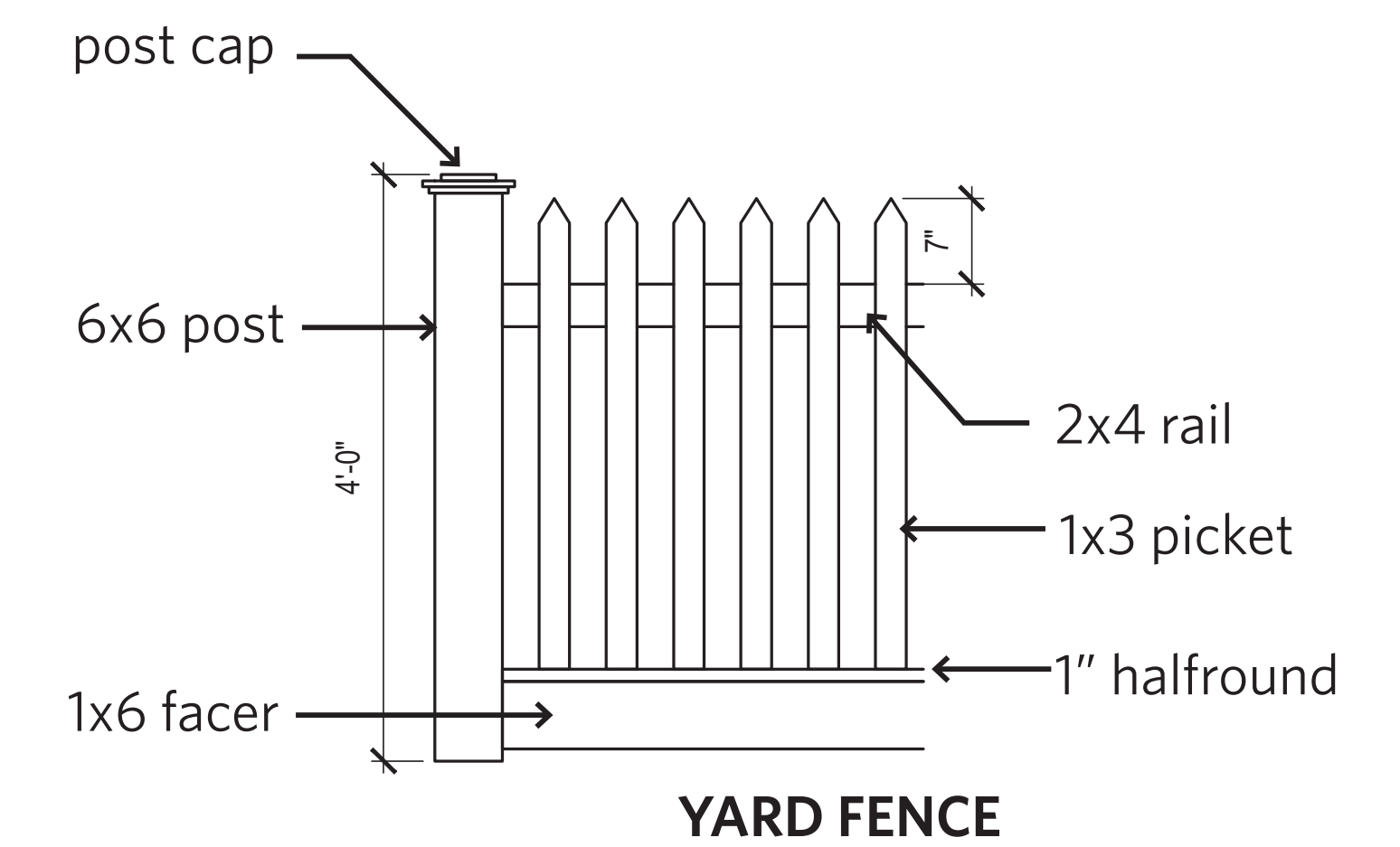
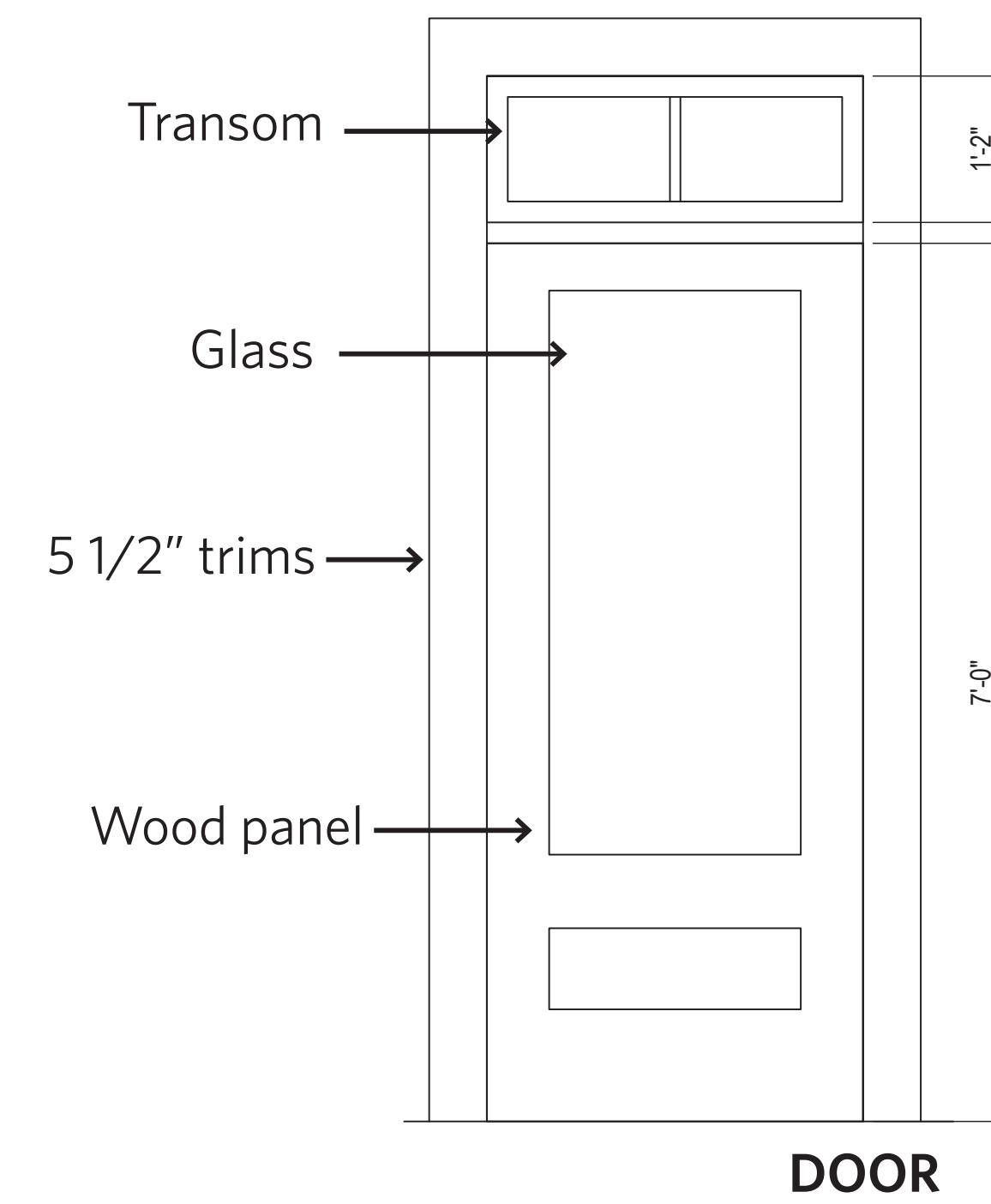
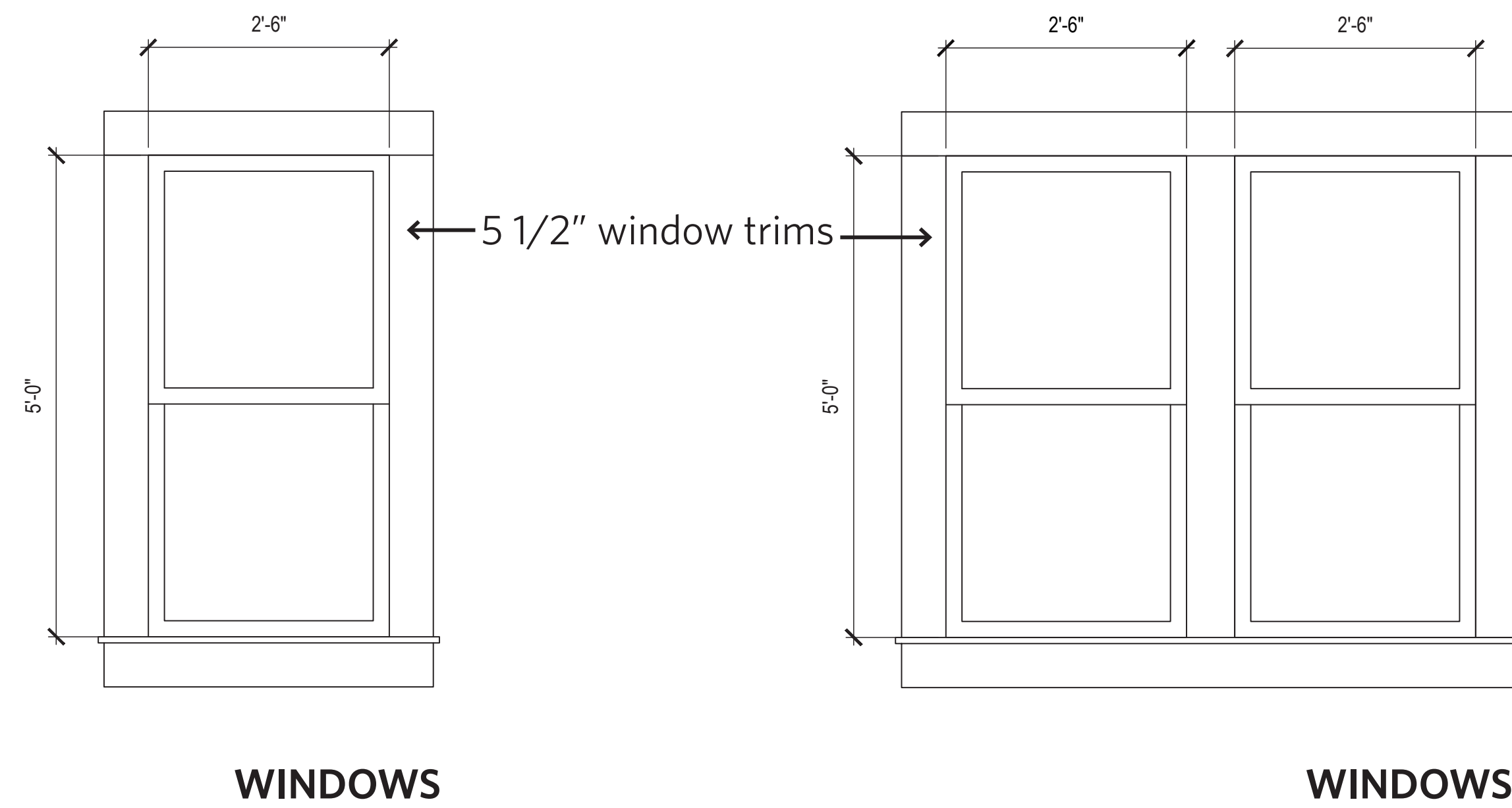
FACADE SECTIONS: The front facade is divided into 3 main formal sections. The ground floor, though not commercial use in this case, was treated with more openings and separated by a horizontal line from the upper floors. The upper floors are enclosed by a frame composed of white painted corner boards and cornices.

DESIGN ELEMENT: Design elements are illustrated below including entablature, window and door trims, corner boards and bay windows.

YHC DAWSON CITY MULTI-FAMILY RESIDENTIAL HOUSING

DAWSON CITY, YUKON

BUILDING DESIGN: The overall building design takes the heritage design principles of symmetry and proportion and applies them to the overall building facade design. The recessed volume and balconies help reduce the overall building mass and create visual variation along 6th Avenue.



FRONT ELEVATION (6TH AVENUE ELEVATION)

YHC DAWSON CITY MULTI-FAMILY RESIDENTIAL HOUSING

DAWSON CITY, YUKON



PROPOSED PARKING & DRIVEWAY

MAIN ENTRANCE

6th AVENUE

BIRD'S EYE VIEW FROM NORTH OF 6th AVENUE

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DAWSON CITY, YUKON



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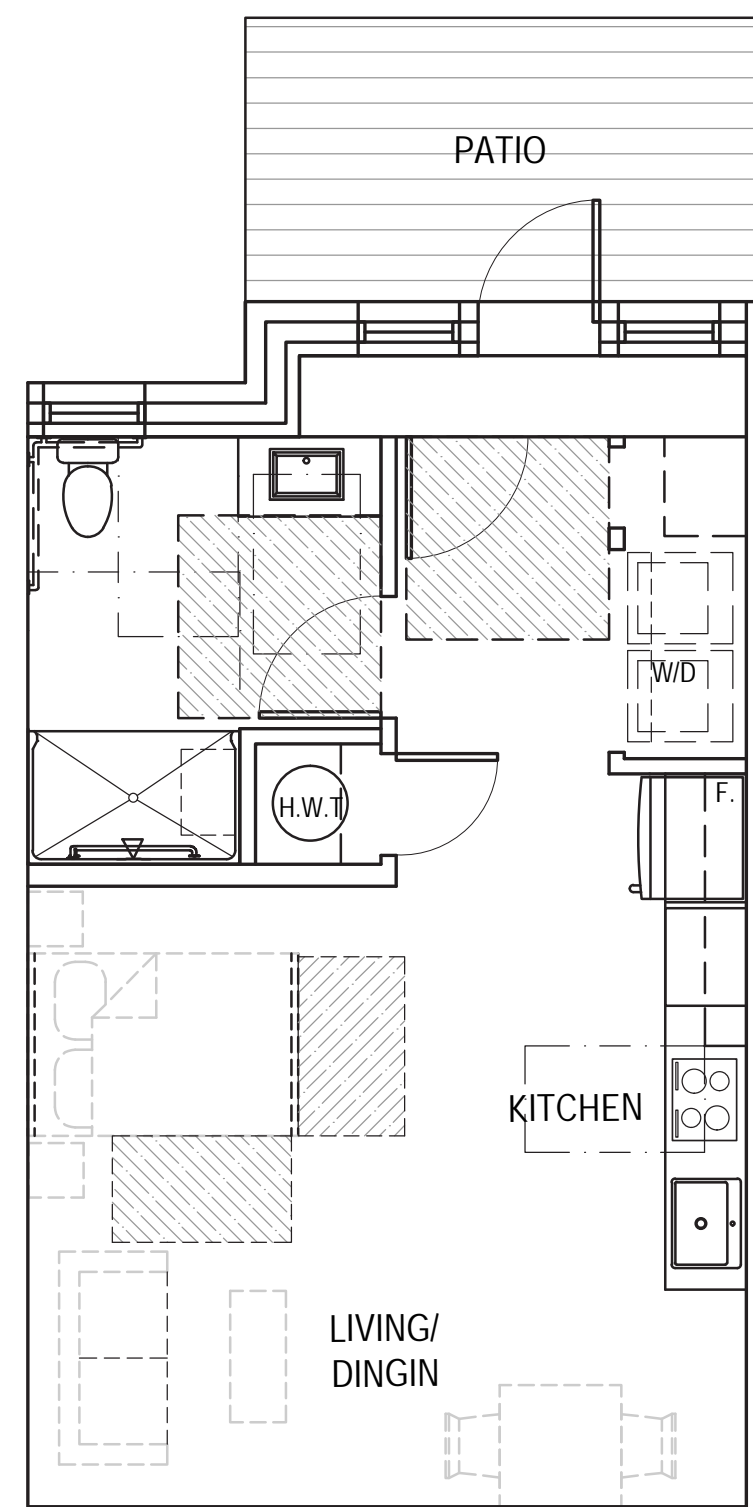
BIRD'S EYE VIEW FROM SOUTH OF 6th AVENUE

YHC DAWSON CITY MULTI-FAMILY RESIDENTIAL HOUSING

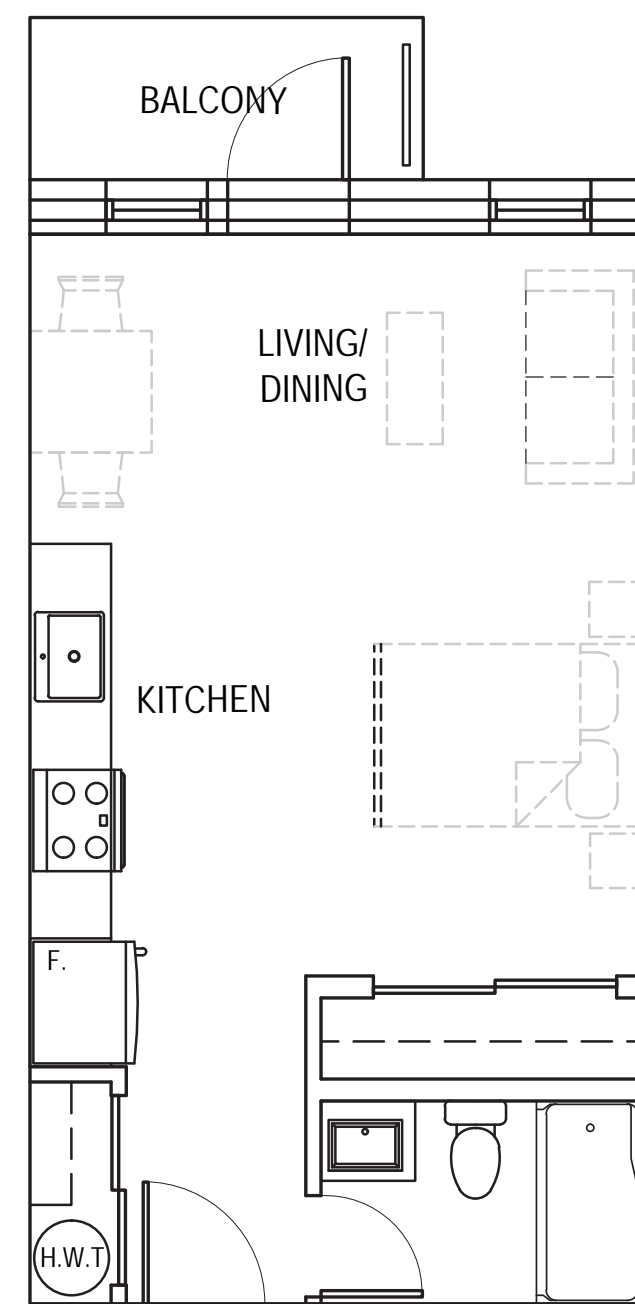
DAWSON CITY, YUKON



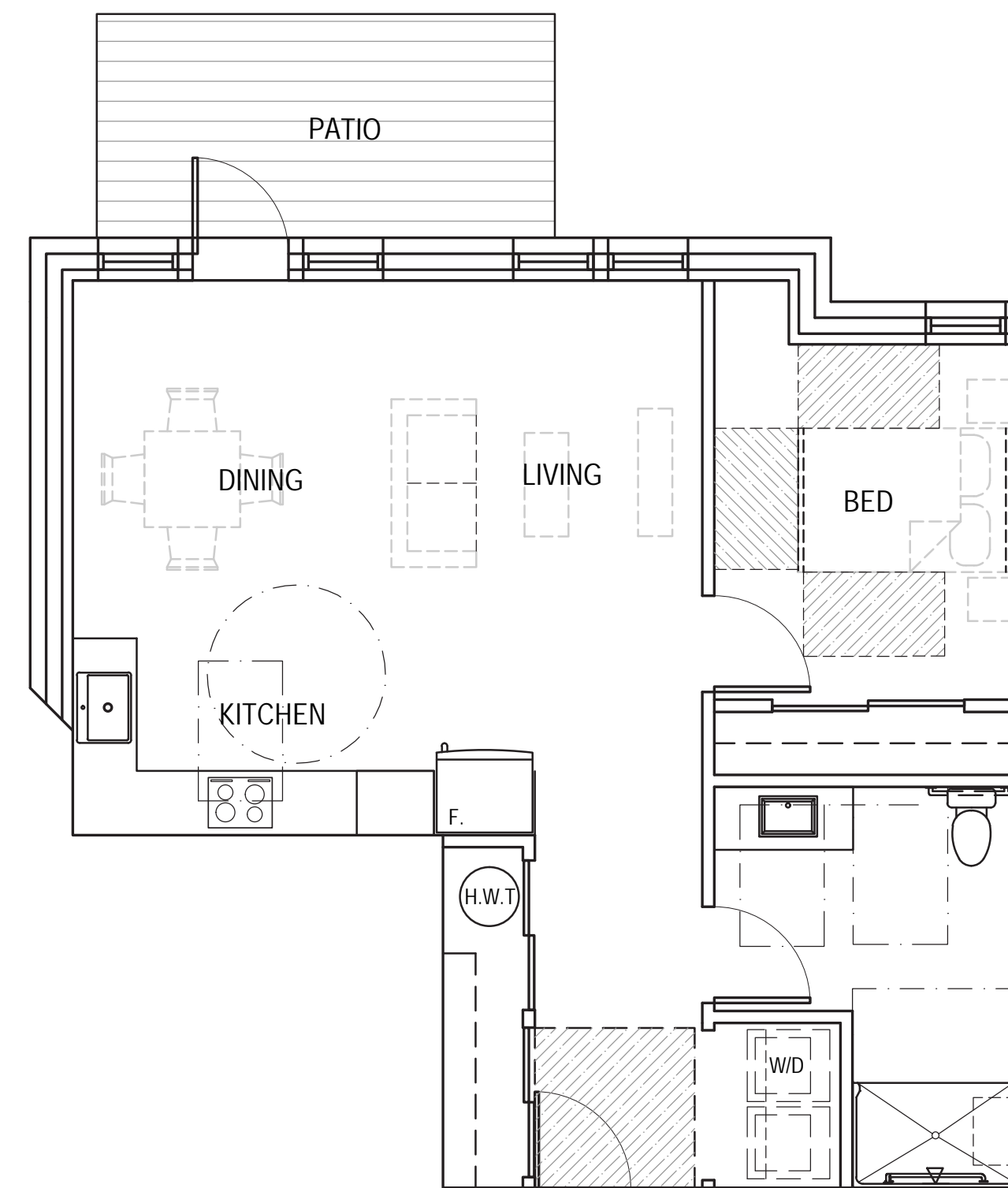
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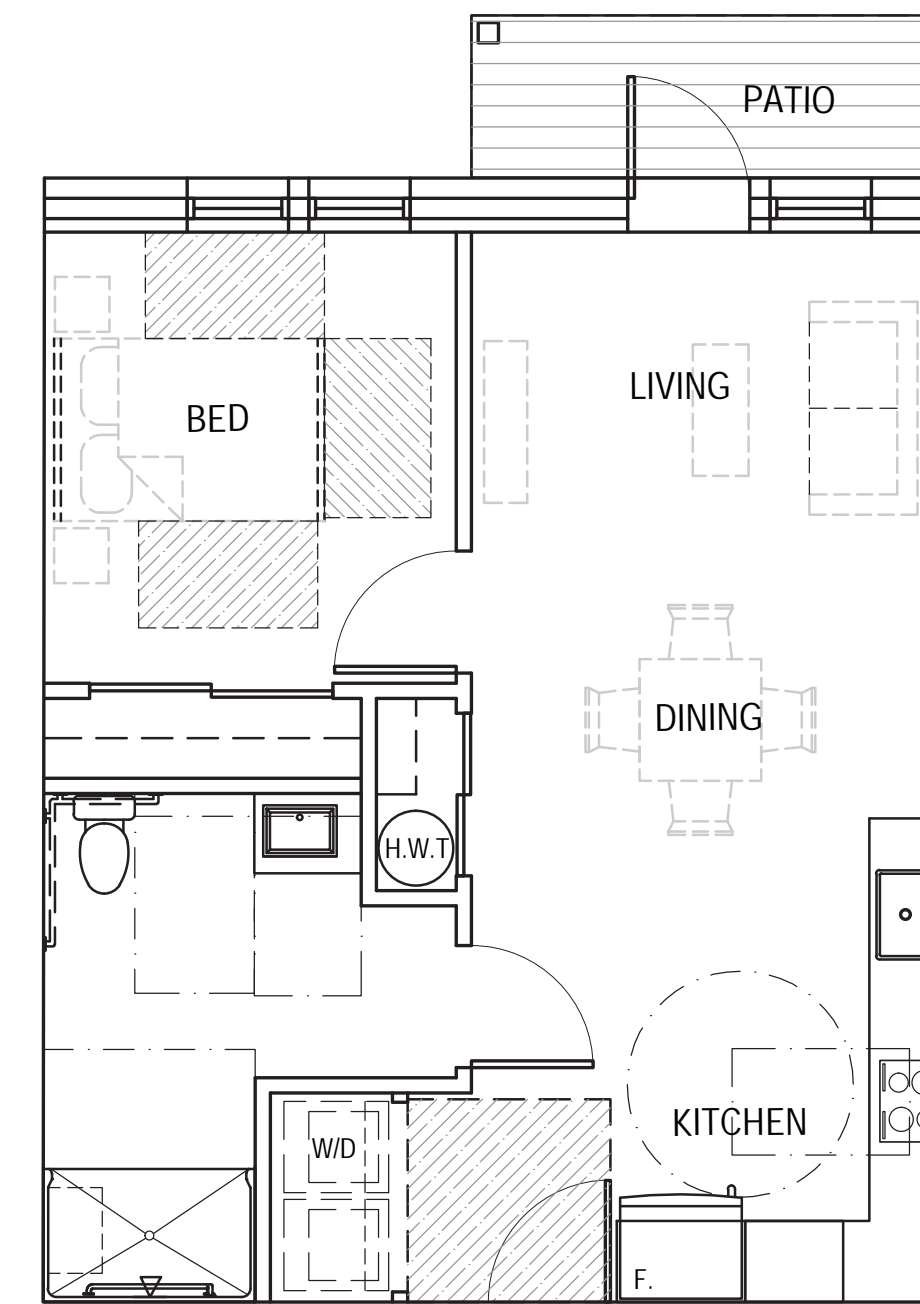
TYPE A1 - (STUDIO ACCESSIBLE)
43 sm (462 sf)



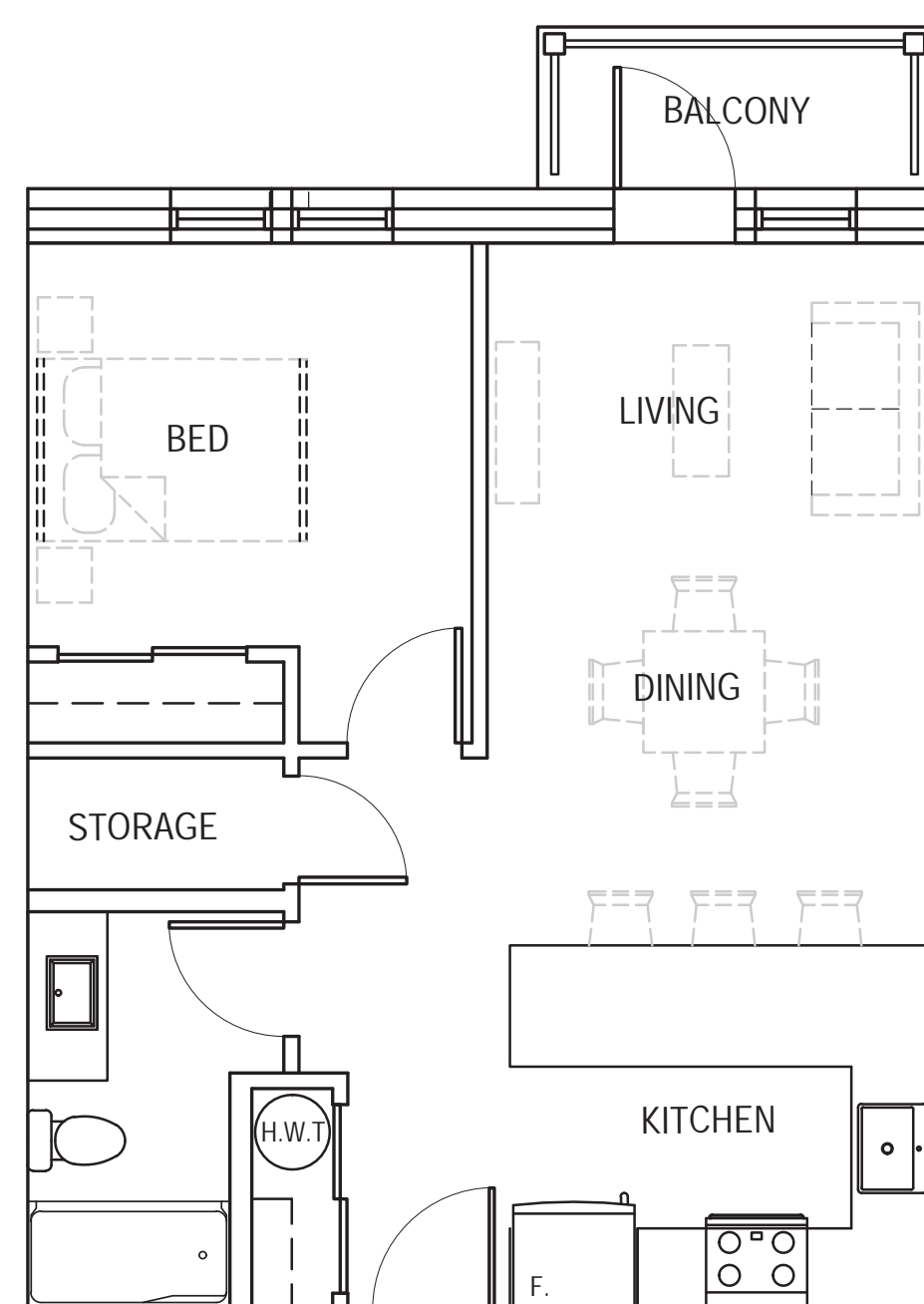
TYPE A2 - STUDIO
37 sm (398 sf)



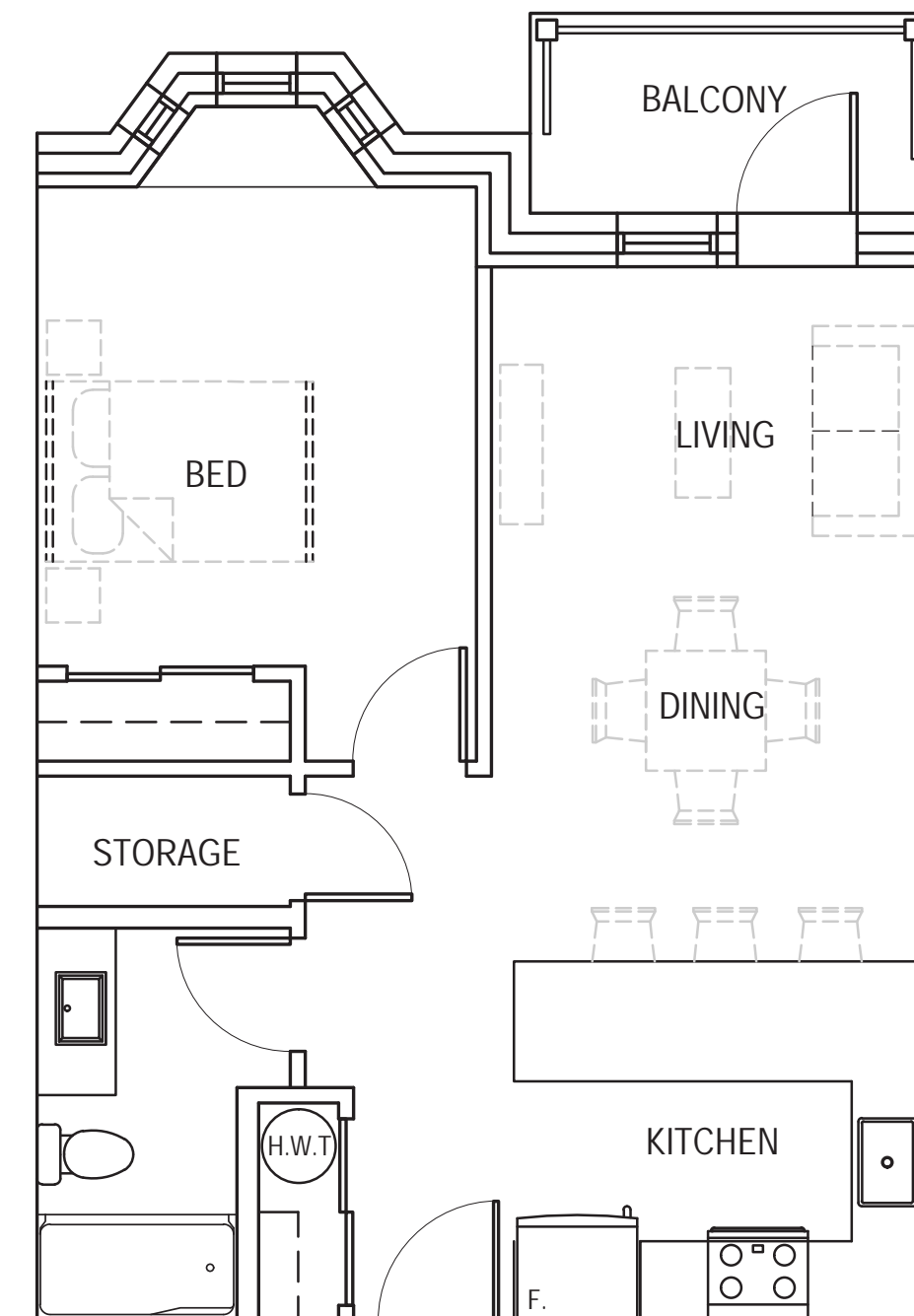
TYPE B1 - 1 BED ACCESSIBLE
68 sm (731 sf)



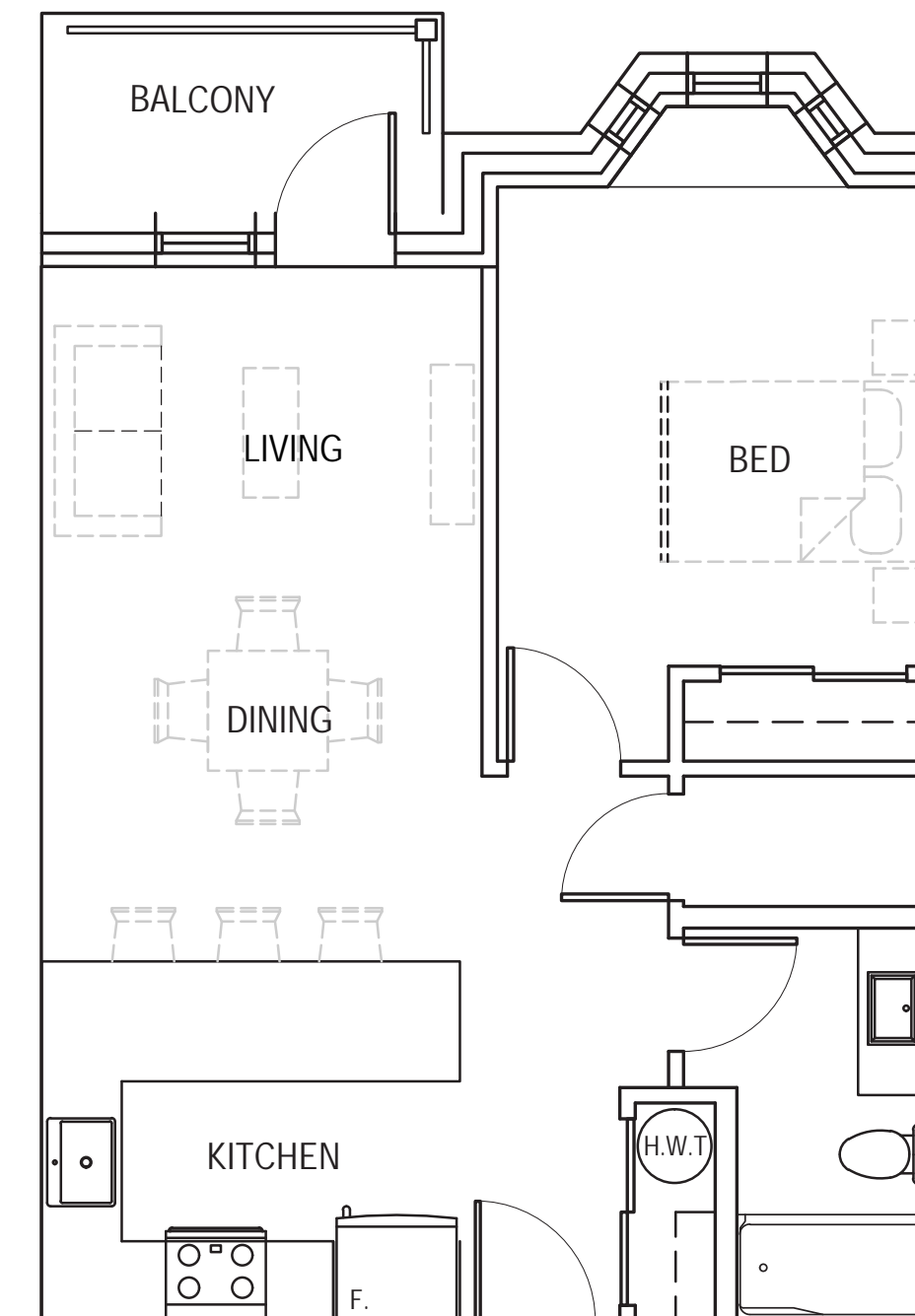
TYPE B2 - 1 BED ACCESSIBLE
55 sm (592 sf)



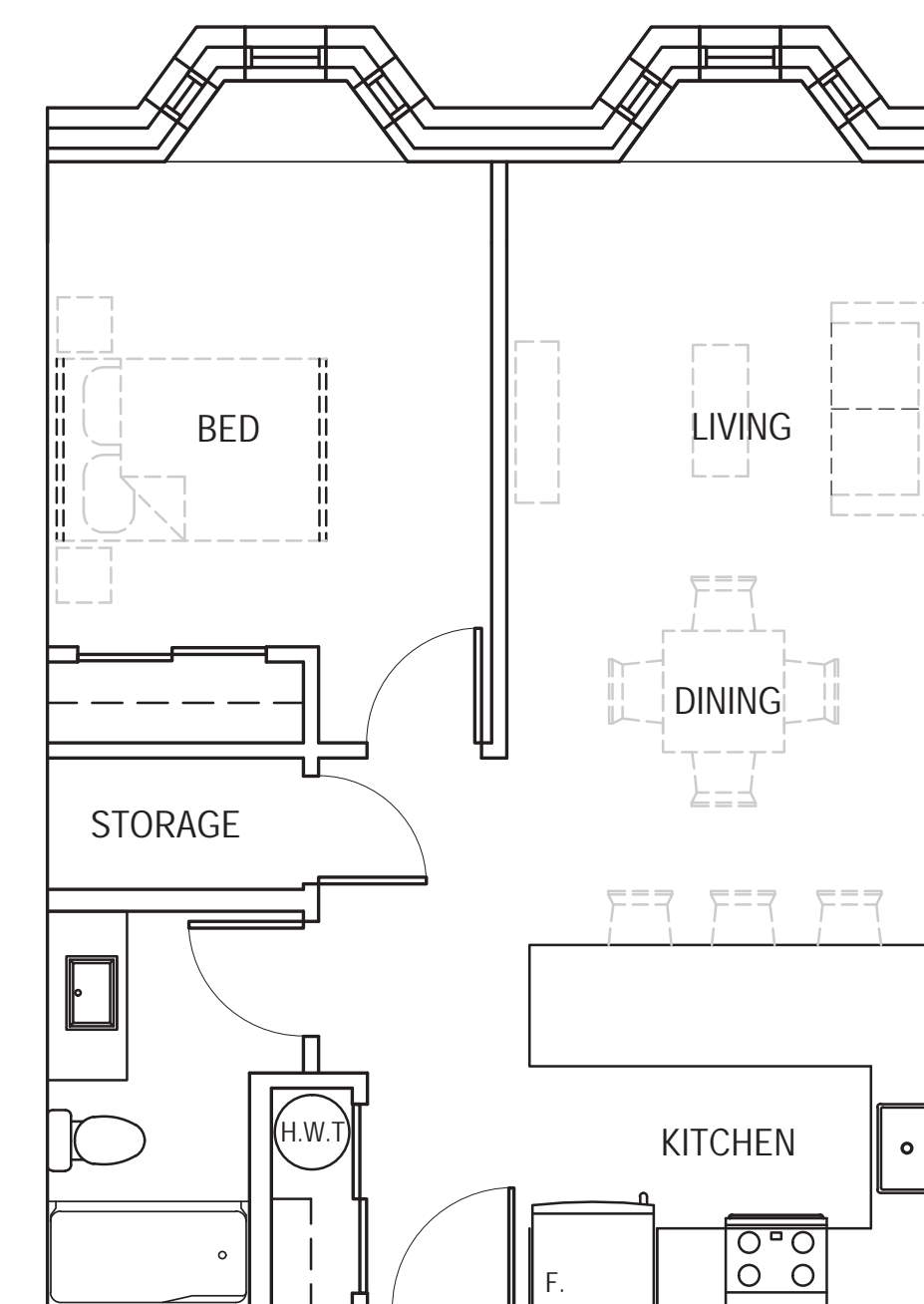
TYPE B3a - 1 BED
55 sm (592 sf)



TYPE B3b - 1 BED
58 sm (624 sf)



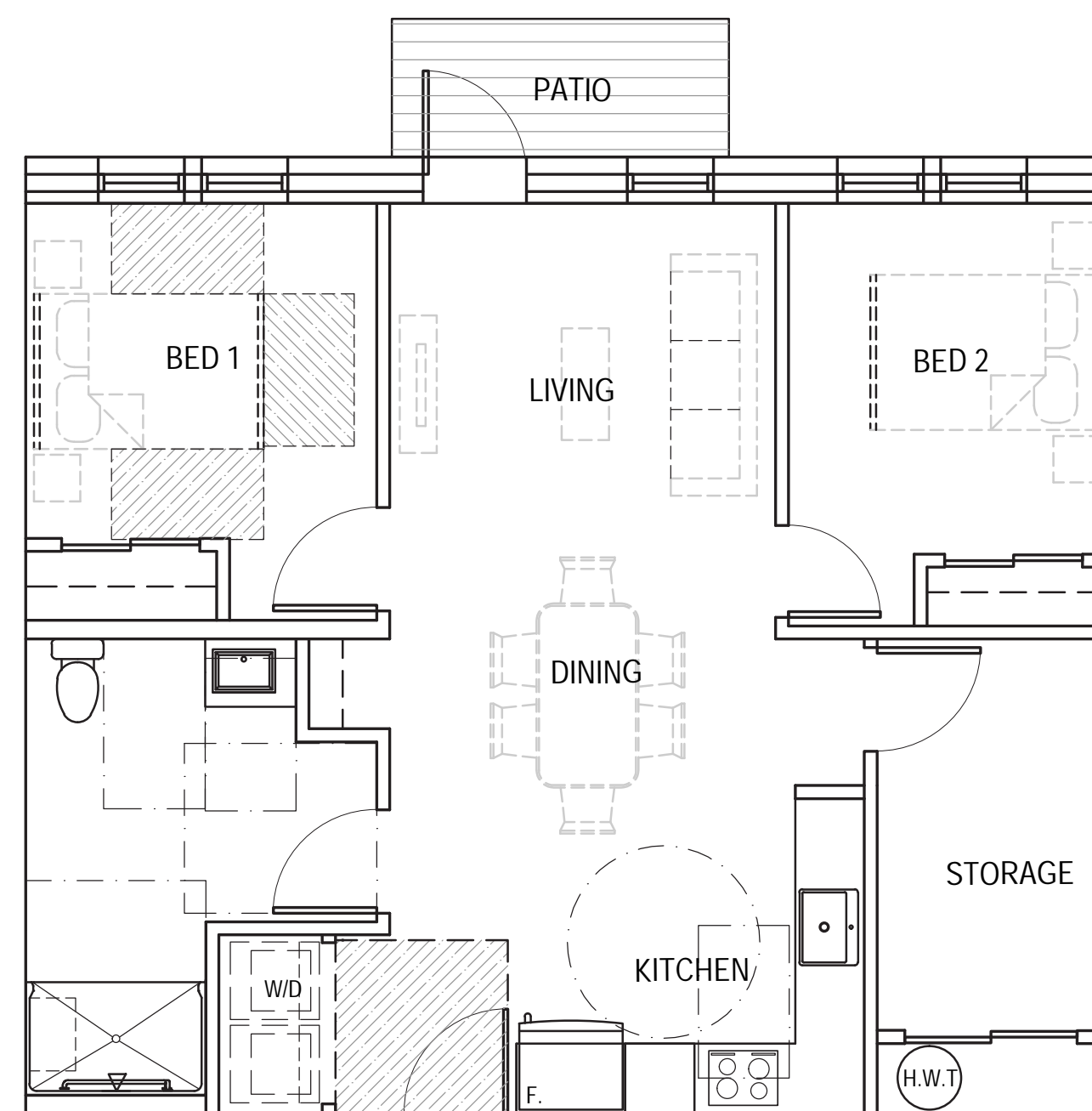
TYPE B3c - 1 BED
61 sm (646 sf)



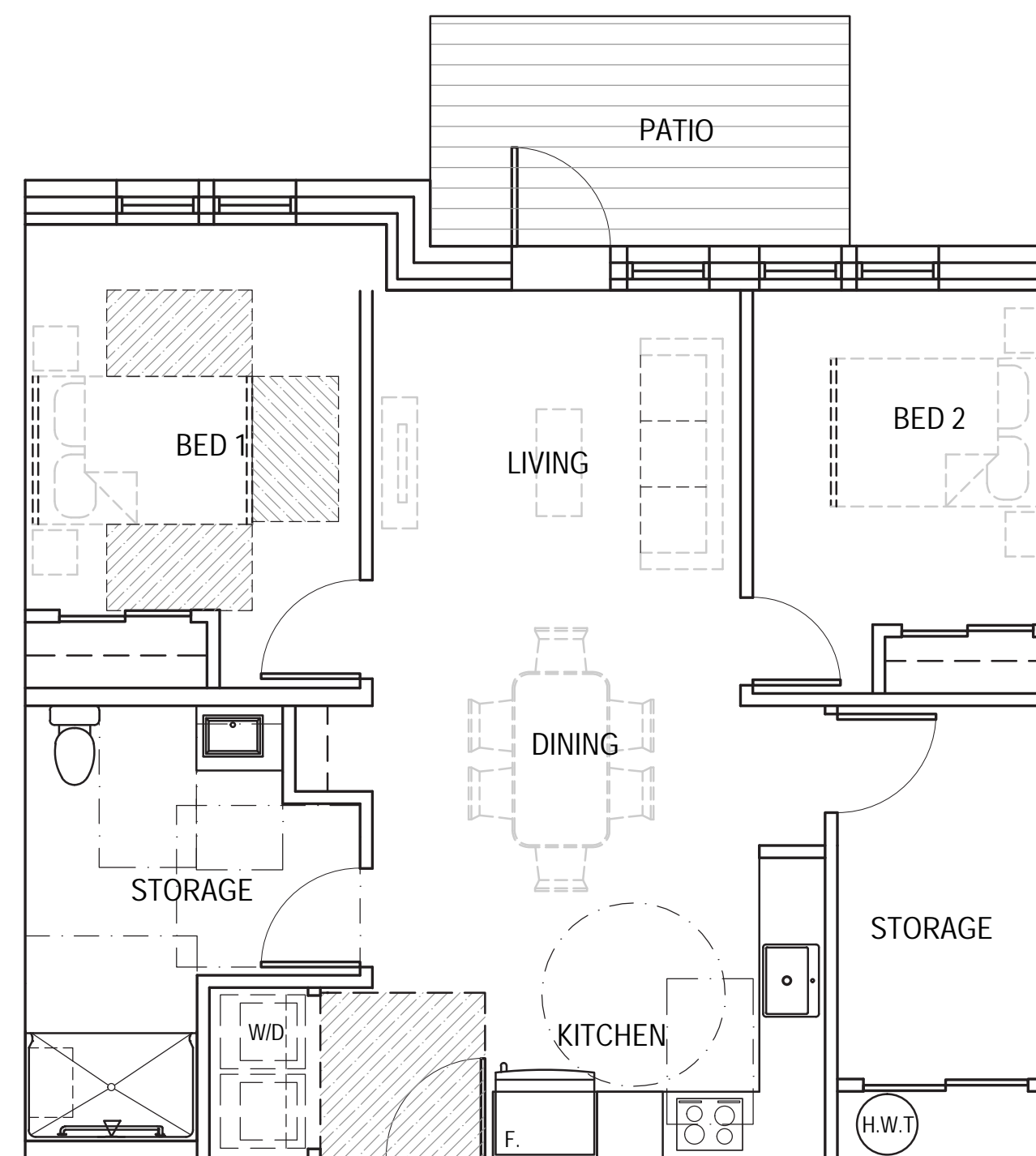
TYPE B3d - 1 BED
61 sm (646 sf)

YHC DAWSON CITY MULTI-FAMILY RESIDENTIAL HOUSING

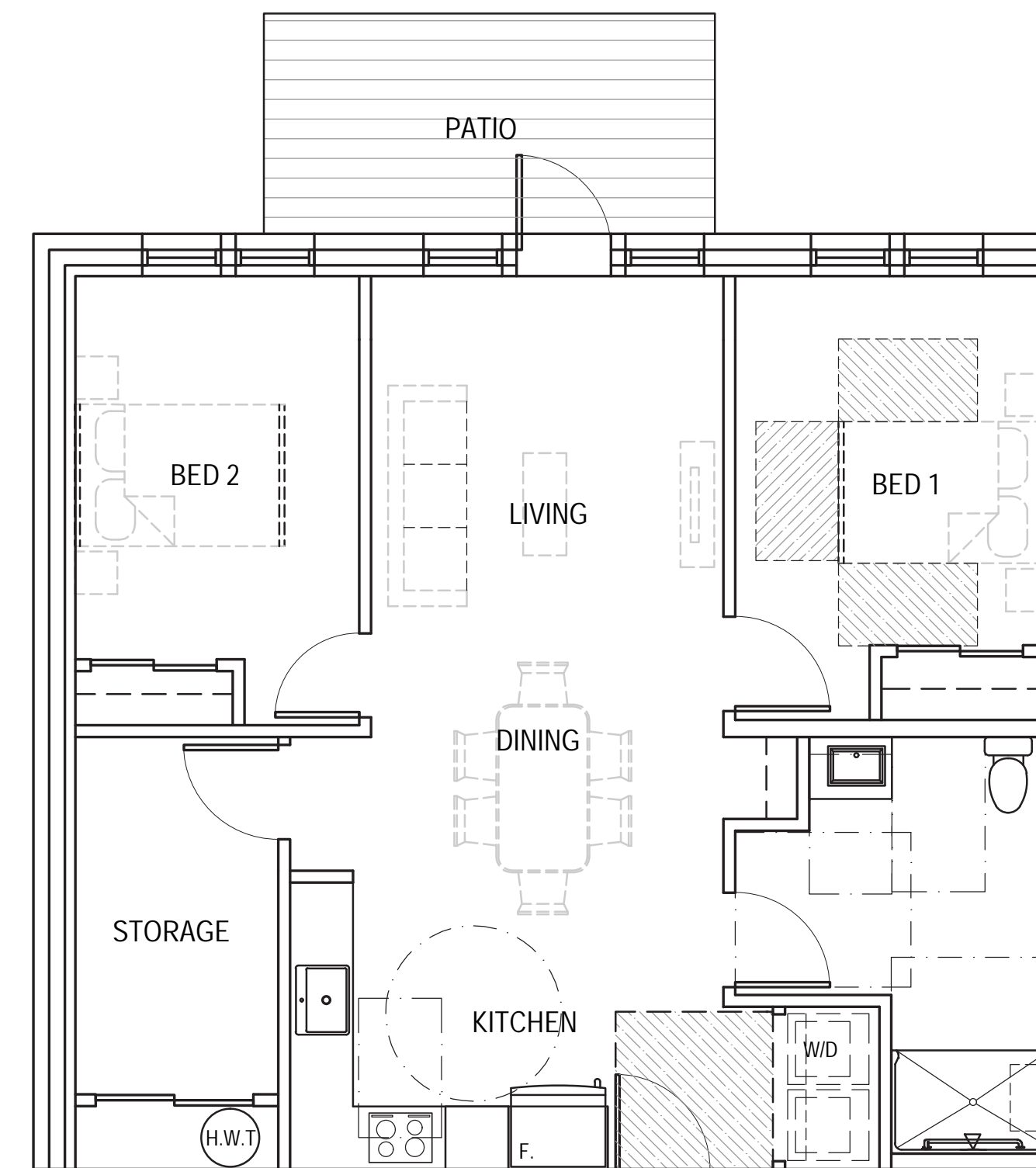
DAWSON CITY, YUKON



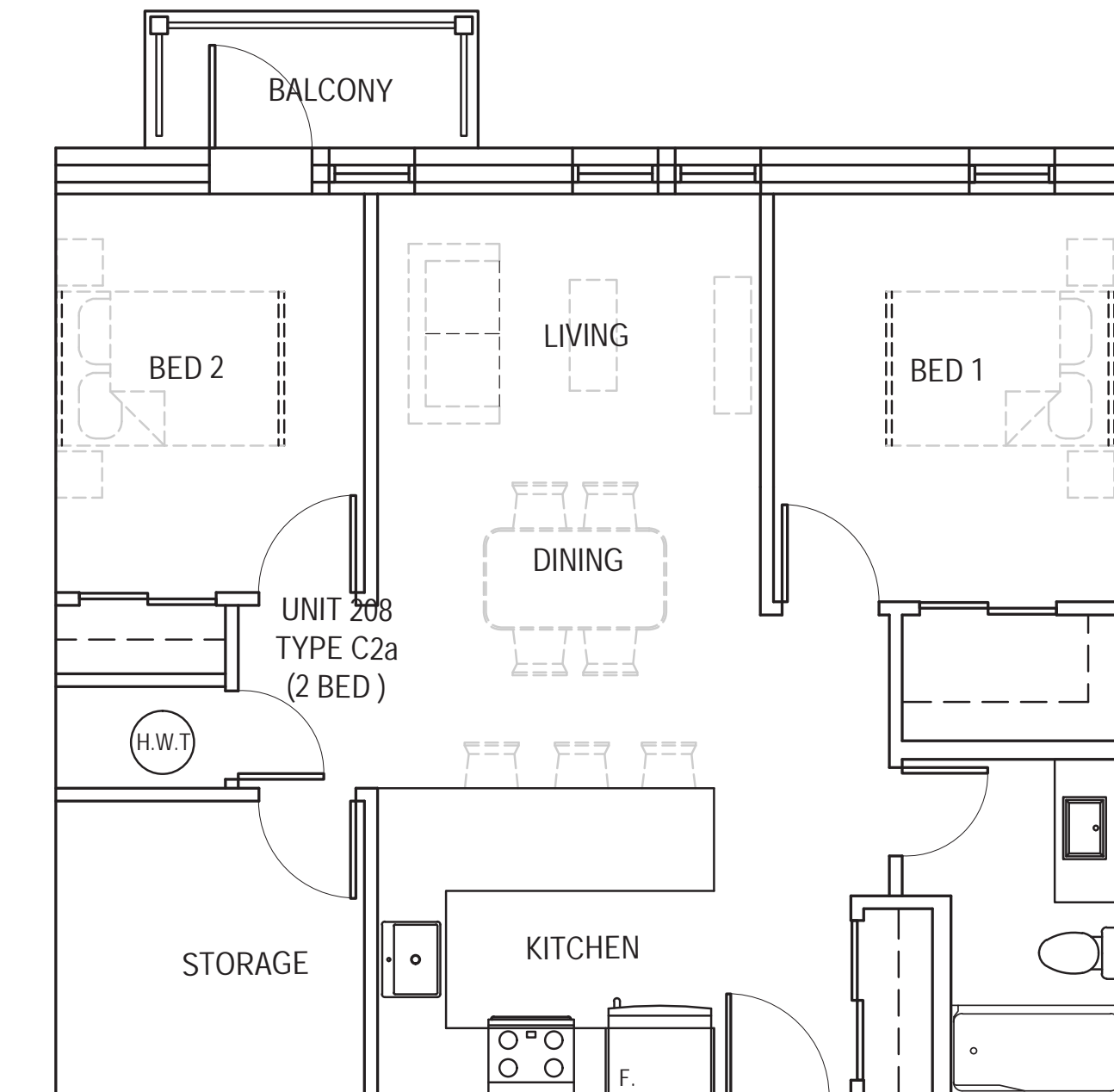
TYPE C1a - (2 BED ACCESSIBLE)
76 sm (818 sf)



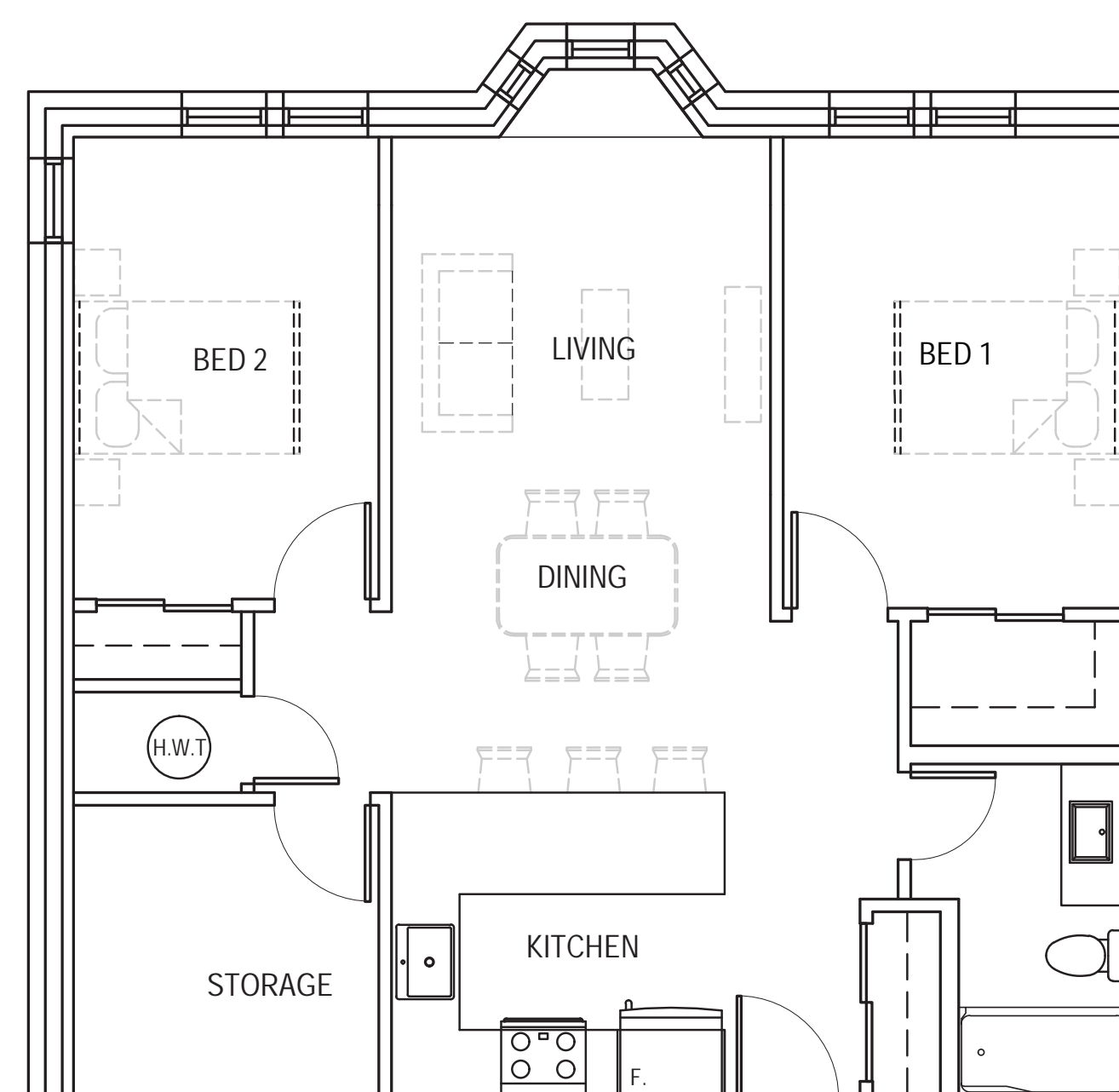
TYPE C1b - (2 BED ACCESSIBLE)
78 sm (840 sf)



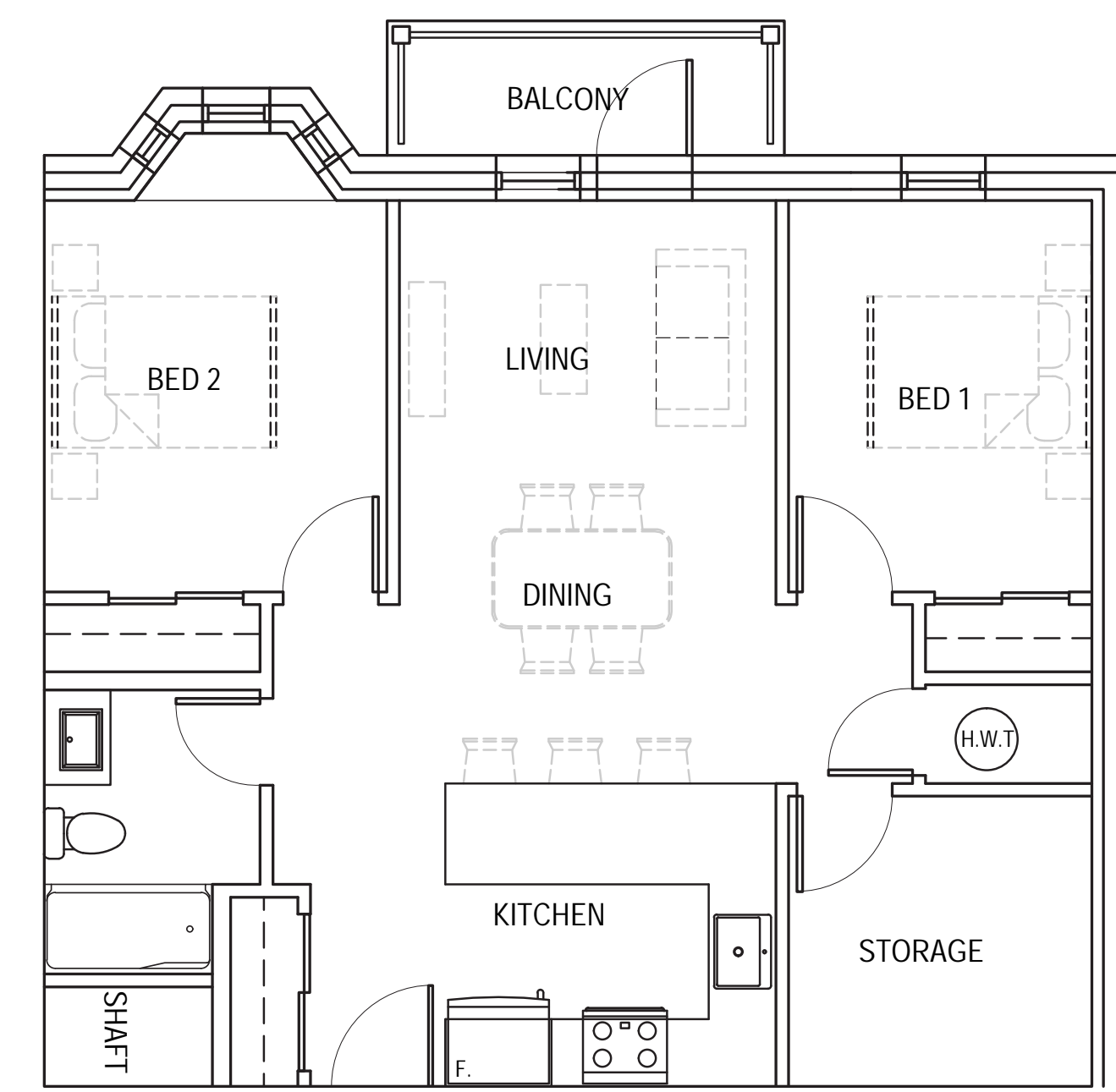
TYPE C1c - (2 BED ACCESSIBLE)
85 sm (914 sf)



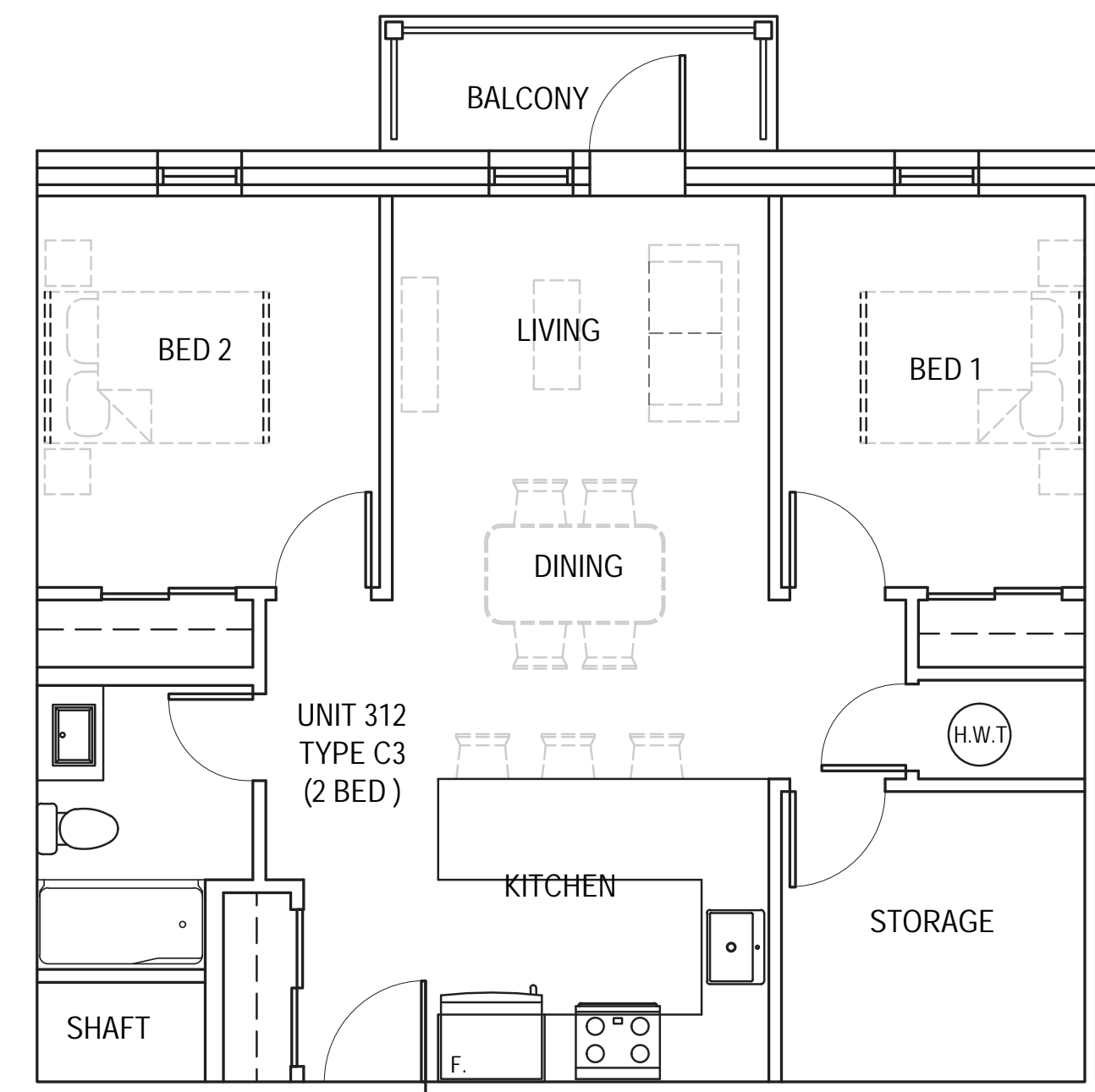
TYPE C2a - 2 BED
76 sm (818 sf)



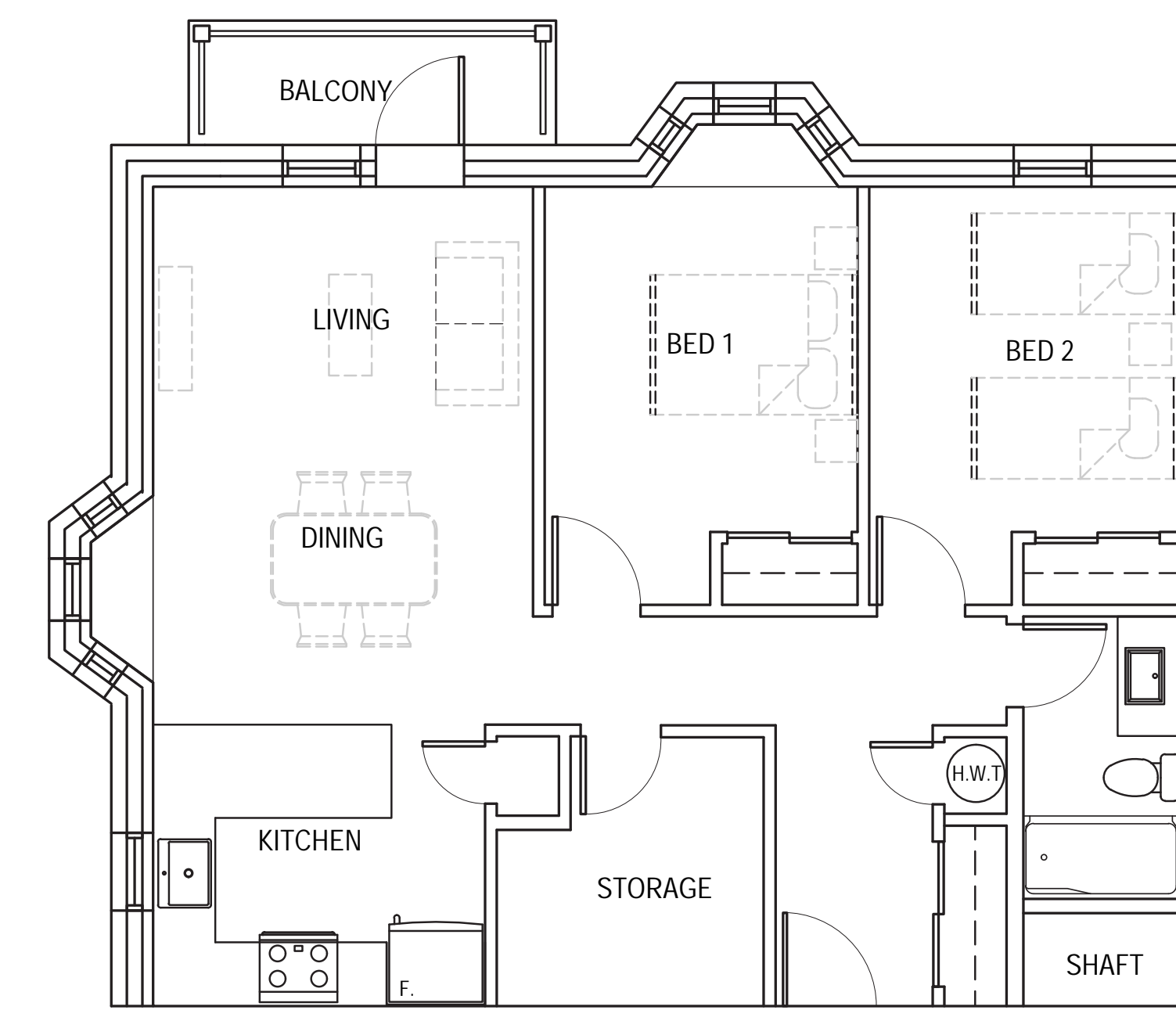
TYPE C2b - 2 BED
85 sm (914 sf)



TYPE C3a - 2 BED
77 sm (828 sf)



TYPE C3b - 2 BED
76 sm (818 sf)



TYPE C4 - 2 BED
82 sm (882 sf)

MINUTES OF COMMITTEE OF THE WHOLE MEETING CW23-11 of the Council of the City of Dawson held on Wednesday, August 30, 2023 at 7:00 p.m. via City of Dawson Council Chambers

PRESENT:

Mayor Kendrick
Councillor Somerville
Councillor Pikálek
Councillor Spriggs
Councillor Lister

REGRETS:

ALSO PRESENT:

CAO: David Henderson
A/MC: Kim McMynn
HRO: Shelly Musyj
RECM: Paul Robitaille

	1	Call To Order	The Chair, Mayor Kendrick called Committee of the Whole meeting CW23-11 to order at 7:00 p.m.
CW23-11-01	2	Acceptance of Addendum & Adoption of Agenda Moved By: Councillor Spriggs Seconded By: Councillor Pikálek	That the amended agenda for Committee of the Whole meeting CW23-11 of August 30, 2023 be accepted as presented. CARRIED 5-0 Budget Process Report removed from agenda.
		Motion: Delegation of Chair Moved By: Mayor Kendrick	That Council delegate Deputy Mayor Pikalek to chair Committee of the Whole Meeting CW23-12 until the Public Question portion of the meeting. Motion died due to lack of a seconder.
	3	Delegations & Guests	
	3.1	Mike Palma RE: Water & Sewer Rates	Mike Palma had questions for Council regarding his water and sewer billing.
	4	Minutes	
CW23-11-02	4.1	Committee of the Whole Meeting Minutes CW23-10 of July 26, 2023 Moved By: Councillor Somerville Seconded By: Councillor Spriggs	That the minutes of Committee of the Whole Meeting CW23-10 of July 26, 2023 be approved as presented. CARRIED 5-0

	5	Budget & Financial Reports
	5.1	Budget Process Report Was removed from the agenda.
	6	Special Meeting, Committee, and Departmental Reports
CW23-11-03	6.1	AMFRC- Concession Services Lease Agreement Moved By: Councillor Somerville Seconded By: Councillor Spriggs That Committee of the Whole direct Administration to enter into a lease agreement with Tr'ondëk Hwëch'in (TH) for the provision of their Nutrition Program at the Art & Margaret Fry Recreation Centre for a monthly lease rate of \$950/month, plus propane cost for a term commencing September 1, 2023, and expiring August 31, 2024. CARRIED 5-0
CW23-11-04	6.2	Procedural Amendments Moved By: Councillor Somerville Seconded By: Councillor Spriggs That Committee of the Whole recommends to Council to adopt the Procedural Bylaw Amendments as amended. CARRIED 4-1
CW23-11-05	6.2.1	Amendment #1 Moved By: Councillor Somerville Seconded By: Councillor Spriggs That Committee of the Whole approve an amendment to change Section 5 from 180.1b to 180. CARRIED 5-0
CW23-11-06	6.2.2	Amendment #2 Moved By: Councillor Somerville Seconded By: Councillor Spriggs That Committee of the Whole approve an amendment to change Section 9.5 and 9.6; changing the reference from councillor to member. CARRIED 5-0
CW23-11-07	6.3	Cable System Update Moved By: Mayor Kendrick Seconded By: Councillor Somerville That Committee of the Whole accept the Cable System Update Report for informational purposes. CARRIED 5-0
CW23-11-08	7	Correspondence Moved By: Mayor Kendrick Seconded By: Councillor Somerville That Council acknowledge receipt of the following correspondence: 1. RCMP Monthly Policing Report-July 2. Heritage Advisory Committee Meeting Minutes: HAC#23-11, HAC#23-12, HAC#23-13, for informational purposes. CARRIED 5-0

	8	Public Questions Kim Biernaskie had questions regarding a follow-up from the flood.
	9	In Camera
CW23-11-09	9.1	Move to In Camera Moved By: Mayor Kendrick Seconded By: Councillor Somerville That Committee of the Whole move into a closed session of Committee of the Whole, as authorized by Section 213(3) of the Municipal Act, for the purposes of discussing a legal and land related matter. CARRIED 5-0
CW23-11-10	9.1.1	Recess Moved By: Mayor Kendrick Seconded By: Councillor Spriggs That Committee of the Whole take a five-minute recess. CARRIED 5-0
CW23-11-11	9.2	Revert to Open Session Moved By: Councillor Somerville Seconded By: Councillor Pikálek That Committee of the Whole revert to an open session of Committee of the Whole to proceed with the agenda. CARRIED 5-0
CW23-11-12	9.3	Gold Rush Campground Moved By: Mayor Kendrick Seconded By: Councillor Somerville Council directs the CAO to authorize the assignment of the existing Gold Rush Lease Agreement for the duration of the existing lease. CARRIED 5-0
CW23-11-13	10	Adjournment That Committee of the Whole meeting CW23-11 be adjourned at 10:00 p.m. with the next regular meeting of Committee of the Whole being September 13, 2023. CARRIED 5-0

THE MINUTES OF COMMITTEE OF THE WHOLE MEETING CW23-11 WERE APPROVED BY COMMITTEE OF THE WHOLE RESOLUTION #CW23-13-XX AT COMMITTEE OF THE WHOLE MEETING CW23-13 OF NOVEMBER 7, 2023.

William Kendrick, Chair

David Henderson, CAO

MINUTES OF COMMITTEE OF THE WHOLE MEETING CW23-12 of the Council of the City of Dawson held on Wednesday, September 13, 2023 at 7:00 p.m. via City of Dawson Council Chambers

PRESENT:

Mayor Kendrick
Councillor Somerville
Councillor Pikálek
Councillor Spriggs
Councillor Lister

ALSO PRESENT:

CAO: David Henderson
A/MC: Shelly Musyj
PDM: Farzad Zarringhalam
PJM: Owen Kemp-Griffin

	1	Call To Order	The Chair, Mayor Kenrick called Committee of the Whole meeting CW23-12 to order at 7:00 p.m.
CW23-12-01	2	Acceptance of Addendum & Adoption of Agenda Moved By: Mayor Kendrick Seconded By: Councillor Somerville	That the agenda for Committee of the Whole meeting CW23-12 of be amended to: 1. Remove minutes 2. Add in camera session for legal and confidential matters CARRIED 5-0
CW23-12-02	2.1	Acceptance of Addendum & Adoption of Agenda Moved By: Mayor Kendrick Seconded By: Councillor Spriggs	That the agenda for Committee of the Whole meeting CW23-12, September 13, 2023 be accepted as amended. CARRIED 5-0
	3	Budget & Financial Reports	
CW23-12-03	3.1	Report on 2024 Budget Process Moved By: Councillor Spriggs Seconded By: Councillor Pikálek	That Committee receive the budget plan for the preparation and adoption of the 2024 Operating and Capital budgets and direct administration to proceed. CARRIED 5-0
	4	Special Meeting, Committee, and Departmental Reports	
CW23-12-04	4.1	Public works – Admin Building HVAC Upgrade Moved By: Councillor Somerville Seconded By: Councillor Spriggs	

That Committee of the Whole recommends that Council award the Administration Building HVAC Upgrade contract to Borealis Fuels & Logistics for \$480,585.00 plus GST as per their submitted bid.

CARRIED 5-0

CW23-12-05	4.2	Public Works – Boiler Servicing Contract
		Moved By: Councillor Somerville Seconded By: Councillor Spriggs
		That Committee of the Whole recommends that Council award the annual Boiler Service 3-year contract to CCI Combustion Control Inc for \$125,198.00 as per their submitted bid
		CARRIED 5-0
CW23-12-06	4.3	Planning – Rezoning North End Lots Recommendation
		Moved By: Councillor Somerville Seconded By: Councillor Pikálek
		That Committee of the Whole recommends that Council endorses Administrations plan to rezone Block B, Smith Addition (North End project) to R2 (multi-unit residential) and to publish a Request for Proposals (RFP) for the construction of multi-unit dwellings on this block.
		CARRIED 3-2
	4.3.1	Split the Motion
		Moved By: Councillor Somerville Seconded By: Councillor Spriggs
		That Committee of the Whole split the motion regarding the rezoning of Block B, Smith Addition and publishing a Request for Proposal into separate motions.
		DEFEATED 1-4
CW23-12-07	4.4	From member through Committee - Report on Sister City MOU
		Moved By: Mayor Kendrick Seconded By: Councillor Somerville
		That Committee of the Whole endorse the attached MOU establishing a sister city relationship with the Czech Republic Town of Zabreh na Morave for Council adoption.
		CARRIED 5-0
CW23-12-08	4.4.1	Recess
		Moved By: Councillor Pikálek Seconded By: Councillor Somerville
		That Committee of the Whole take a five-minute recess.
		CARRIED 5-0
CW23-12-09	4.5	Administration – Meeting Scheduling Recommendation
		Moved By: Councillor Somerville Seconded By: Councillor Spriggs

That Committee of the Whole recommends that Council change, by resolution, the meeting day for council and committee of the whole meetings from Wednesday to Tuesday.

And that Council Change, by resolution, the meeting schedule for Council committee meetings and committee of the whole meetings, effective October 2023 or immediately following the passing of such resolution by council, to the following:

- Committee of the Whole meetings will be scheduled for the first Tuesday of the Month excepting the months of July, August, and January.
- Council Meeting will be scheduled for the 3rd Tuesday of the month.

CARRIED 5-0

5 In Camera-Land and Legal Related Matters

CW23-12-10

5.1 Move to In Camera

Moved By: Mayor Kendrick

Seconded By: Councillor Pikálek

That Committee of the Whole move into a closed session of Committee of the Whole, as authorized by Section 213(3) of the Municipal Act, for the purposes of legal and confidential matters.

CARRIED 5-0

Councillor Somerville declared a conflict of interest and left the meeting.

CW23-12-11

5.2 Extend Meeting

Moved By: Mayor Kendrick

Seconded By: Councillor Spriggs

That Committee of the Whole Meeting CW23-12 be extended not to exceed one hour.

CARRIED 4-1

Councillor Somerville returned to the meeting.

CW23-12-12

6 Adjournment

Moved By: Mayor Kendrick

Seconded By: Councillor Spriggs

That Committee of the Whole Meeting CW23-12 be adjourned at 10:22 p.m. with the next regular meeting of Committee of the Whole being November 7, 2023.

CARRIED 5-0

THE MINUTES OF COMMITTEE OF THE WHOLE MEETING CW23-12 WERE APPROVED BY COMMITTEE OF THE WHOLE RESOLUTION #CW23-13-XX AT COMMITTEE OF THE WHOLE MEETING CW23-13 OF NOVEMBER 7, 2023.

William Kendrick, Mayor

David Henderson, CAO

MINUTES OF COMMITTEE OF THE WHOLE MEETING CW23-13 of the Council of the City of Dawson held on Wednesday, October 25, 2023 at 7:00 p.m. via City of Dawson Council Chambers

PRESENT:

Mayor Kendrick
Councillor Somerville
Councillor Pikálek
Councillor Lister

REGRETS:

Councillor Spriggs

ALSO PRESENT:

CAO: David Henderson
MC: Elizabeth Grenon
PDM: Farzad Zarringhalam
HRO: Shelly Musyj
PWM: Jonathan Howe

	1	<p>Call To Order The Chair, Mayor Kendrick called Committee of the Whole meeting CW23-13 to order at 7:00 p.m.</p>
CW23-13-01	2	<p>Acceptance of Addendum & Adoption of Agenda Moved By: Councillor Somerville Seconded By: Councillor Pikálek</p> <p>That the agenda for Committee of the Whole meeting CW23-13 of October 25, 2023 be adopted as presented. CARRIED 4-0</p>
	3	<p>Budget & Financial Reports</p>
	3.1	<p>Budget Presentation CAO Henderson gave a presentation on the budget and process.</p>
	4	<p>Public Questions Diana Andrew had questions regarding the biomass building, tipping fees, commercial/institutional garbage collection, and wages of city employees. Kim Biernaskie had a question regarding tipping fees.</p>
CW23-13-02	5	<p>Adjournment Moved By: Councillor Somerville Seconded By: Councillor Pikálek</p> <p>That Committee of the Whole Meeting CW23-13 be adjourned at 8:36 p.m. with the next regular meeting of Committee of the Whole being November 7, 2023. CARRIED 4-0</p>

THE MINUTES OF COMMITTEE OF THE WHOLE MEETING CW23-13 WERE APPROVED BY COMMITTEE OF THE WHOLE RESOLUTION #CW23-14-XX AT COMMITTEE OF THE WHOLE MEETING CW23-14 OF NOVEMBER 7, 2023.

William Kendrick, Chair

David Henderson, CAO



City of Dawson Report to Council

Agenda Item	Recycling & Solid Waste Recommendations
Prepared By	Public Works Department
Meeting Date	November 7th, 2023
References (Bylaws, Policy, Leg.)	"Garbage Bylaw" Environment Act
Attachments	City of Dawson Waste Management Planning Report

	Council Decision
X	Council Direction
X	Council Information
	Closed Meeting

Recommendation

That Council move forward with the following Solid waste collection recommendations:

1. That the Municipality discontinue Commercial, Institutional, and Multi-residential property solid waste and recycling collection services.
2. That the Municipality move to a bi-weekly Residential solid waste and recycling pickup service.
3. That the municipality adopt a 1 bag of solid waste per household per week limit with the option to buy additional bag tags.
4. That the Municipality entertain increasing the collection route to include the Dredge Pond, C4, and the Dome subdivisions.

Executive Summary

City of Dawson staff considered three options to address recycling collection and increase the level of service with regards to recycling.

1. Weekly waste and recycling curbside services.
2. Bi-weekly waste and recycling services.
3. 24/7 community drop-off locations.

City of Dawson staff recommend removing waste collection service to Commercial, Institutional, and multi-residential Properties with a corresponding elimination of the annual waste fee for these properties.

City of Dawson staff recommend introducing a one bag per week limit on residential garbage with an option to buy bag tags for additional bags.

Background

In 2020, the City of Dawson took over waste collection services. The following year, the City of Dawson took over waste diversion services. The diversion center became operational on May 19th, 2023.

The most up-to-date bylaw that governs waste in the municipality named "Garbage Bylaw" is from 1971. Updating this bylaw should be prioritized to encompass the new services and regulations.

Municipalities commonly do not offer Commercial, Institutional, or multi residential Solid Waste services because the volume of waste is not controllable and thus costs cannot be controlled nor can good practices in solid waste management be encouraged. These business costs are then shifted to the residential property tax base.

Solid Waste and recyclable pickup services for these property categories are commonly covered by private sector suppliers with charges for pickup negotiated and paid directly between these property owners and the commercial enterprise.

Municipalities utilize Residential property Garbage Bag limits and additional Bag charges to ensure that residential properties receive solid waste pickup while encouraging household to separate out recyclables – Residential Recycling pickups or drop offs under such systems have no limits.

The City is currently moving towards Weigh scales and full tipping fees at the Quigley Landfill under negotiations with the Yukon Government Regional Landfill agreement. Under this format a commercial pickup service will pay landfill tipping fees which must be included in pickup fees. The current commercial waste charge paid to the city would be discontinued.

Discussion / Analysis

Please refer to the attached report – *City of Dawson Waste Management Planning Report* for a full analysis of the three Curbside Recycling Service options.

Of the 3 service models reviewed, biweekly curbside pickup with a 1 garbage bag per week adds curbside recycling services at the lowest additional cost to the municipality.

Under current negotiations between the City and the Yukon Government weigh scales are under review for installation at the Quigly landfill – once installed tipping fees for all drop offs at the landfill site will be charged to both residents and non residents, based on weight. This will encourage diversion from the landfill site to the recycling centre, extending the life of the landfill site and saving the municipality and residents money.

Non-Residents will pay for their usage of the landfill site through direct tipping fees and through a subsidy from the Yukon Government on their behalf. Residents of Dawson will pay for their usage of the Landfill through direct tipping fees if they drop waste off at the site and through the current annual residential waste fee which covers a portion of the collection services.

Commercial, Institutional, and multi residential property owners, if staff recommendations are adopted, will no longer pay an annual waste fee to the municipality but will pay a commercial operator for pickup and disposal of solid waste and recyclables. Doing so will mean full cost recovery for collection and disposal from non residential properties and will encourage diversion from the landfill.

Removing Commercial, Institutional, and Multi residential properties from the collection route will reduce the fees associated with collection. Estimated at \$25,000 er year, this will reduce available funds for operations. This will also increase the waste collection crews pickup locations to include C4, the dredge ponds, the Dome, and the planned development expansions. This will remove the need for bin rentals which currently cost the Public Works department \$85,680 per year.

The Net costs of waste pickup and disposal and recycling services will continue to be covered by the City of Dawson Tax Base.

Other items to consider:

- Adding curbside recycling services will increases cost to the City's annual budget.
- Removing Commercial, Institutional, and multi residential properties from the collection system will mitigate cost increases on the annual budget, encourage recycling, and save on landfill costs.
- Full Landfill tipping fees and non resident subsidies will mitigate increasing collection costs.
- Increased flow through the recycling centre may require additional staffing and equipment.

As these measures are adopted an increased vigilance will be required in the enforcement of anti-dumping measures during the transition period to ensure that tipping fees and solid waste bag limits do not encourage illegal dumping

Fiscal Impact

Please refer to the report for analysis of the fiscal impact specific to the recycling collection options reviewed.

Alternatives Considered

1. Weekly Waste and Recycling residential pickup services – Cost analysis is prohibitive in attached report.
2. 24/7 drop off services – Wildlife and surveillance restrictions make this not workable.
3. Maintain the status quo for the time being allowing for:
 - a. Recruitment of the Solid Waste Supervisor currently underway
 - b. Finalization of regional waste management agreement with Yukon government and the establishment of weigh scales and full tipping fees.

- c. Complete the operational startup of the diversion centre including installation and optimization of all equipment and systems considering the rapid increase in volume over the first 5 months of operation.
 - d. The determination of the Yukon’s new Producer Pay legislation for waste material.
4. Maintain the status quo with regards residential collection and amend the “garbage bylaw” to remove commercial waste collection from municipal service. (recommended by staff should no additional curbside recycling collection measures be adopted)

Next Steps

If council adopts the recommendations as presented, the next steps will be taken:

- 1. Full fiscal analysis of chosen option and incorporation into 2024 Budget
- 2. Full development of recycling plan and implementation plan
- 3. Discussions with commercial businesses regarding removing waste collection services.
- 4. Updating governing waste bylaw to encompass current services and regulations plus changes approved herein.

Approved by	Signature	Position	Date
Paul Robitaille	<i>Paul Robitaille</i>	A/CAO	November 3, 2023



City of Dawson

Report to Council

Agenda Item	Dredge Pond II Master Plan
Prepared By	Planning and Development
Meeting Date	November 7, 2023
References (Bylaws, Policy, Leg.)	OCP, Zoning Bylaw, Municipal Act, Heritage Management Plan
Attachments	Dredge Pond II Master Plan, Preliminary Design Report

	Council Decision
	Council Direction
x	Council Information
	Closed Meeting

Recommendation

That Council forward Dredge Pond II Master Plan to the next council meeting for adoption.

Executive Summary

The Dredge Pond II Master Plan, prepared by 3Pikas ('the consultant'), is a significant step towards a multi-phase residential development in Dawson City. The planning area covers 143 hectares and is located 8 km east of downtown Dawson City along the Klondike River. The development is taking place on vacant Commissioner's Land.

Background

Council approved the Project Charter between the City of Dawson and the Government of Yukon Land Development Branch on April 28, 2021. Prior to planning, the Land Development Branch completed feasibility work in the area, including geotechnical, environmental, heritage, and flood assessments. Late in 2021, the planning consultant began working on the project. Community engagement occurred between the years 2021 and 2022. The process of public engagement included three surveys and one webinar. City of Dawson, Yukon government, and Tr'ondëk Hwëch'in staff have reviewed and provided feedback on the proposed plan. The consultant delivered the final draft of the Master Plan on October 20, 2023.

Discussion / Analysis

Master Plan Highlights

- The final buildout of the Dredge Pond II Subdivision is 40 country residential lots which equates to approximately 88 people.
- The Dredge Pond II is intended to incorporate extant natural areas and to respond to natural features.
- The development concept is based on a development pattern comparable to the adjacent Dredge Pond Subdivision and other existing developments along the Klondike River valley.
- The layout and design of the lots complies with municipal and environmental regulations including minimum zoning setbacks and Environmental Health setbacks. Standard single detached dwellings with or without a garden suite can be built on the lots.
- Dredge Pond II covers an area of 143 hectares (353 acres). A little less than one-third of the area is devoted to housing. The 40 residential lots are divided into three residential clusters. These clusters provide infrastructure, services, and cost advantages.
- Roads would be either gravel or BST. All lots would be serviced with overhead power. Lot owners would be responsible for installing private water and sanitary servicing.
- Roughly 50% of the total developable area is reserved as open space for recreation, habitat, and flood protection. In addition, less than a quarter of the land is designated for heritage use and protection of dredge tailings, cultural landscape, and heritage resources. Much of this area cannot be developed as residential lots as they are either adjacent to the river, are low-lying, or have geotechnical constraints.
- The Master Plan includes a central playground, walkways that facilitate non-motorized trail use in the neighbourhood, and a historic park that safeguards one of the last remaining sections of dredge tailings within the municipal boundary.

Land Use

The allocation of land to various uses is consistent with the objectives of the Official Community Plan, the Heritage Management Plan, and the public engagement feedback. It makes sense to dedicate half of the developable area to open space for recreation, particularly since this reduces the risk of flooding. Conforming to the Heritage Management Plan, the area designated for heritage use contributes to the preservation of dredge tailings and heritage resources.

Due to the area's natural conditions and municipal and environmental regulations, it was impractical to offer a range of lot sizes, as suggested by the public. According to the Zoning Bylaw, the minimum lot size for country residential developments is one acre. Given the restrictions on each parcel's buildable area, proximity to various water bodies, and the YG Environmental Health regulations, parcels larger than one acre are preferable. However, parcel sizes greater than two acres are undesirable due to the possibility of subdivision. Therefore, the optimal lot size is between one and two acres.

Open Space

The Parks and Recreation Manager for the City of Dawson indicated that, in general, the concepts for this plan align with the goals of the Parks and Recreation Master Plan. However, there are some concerns regarding the plan's implementation that should be considered during the design phase:

- The swimming components of the plan should be clarified to help the city's stance on it (from a liability standpoint and the expectations it may cause).
- Additional services will result in increased maintenance and responsibilities for Recreation Department, necessitating additional funding and personnel.
- Considering the size and scope of the historic park, the Recreation Manager recommends that the Yukon Government participate in the plan's implementation.

Access

The proposed lots will have appropriate highway access. Internal subdivision roads will be either gravel or BST, depending on detailed design discussions between YG and the City.

TH Considerations

The planning area is adjacent to two TH Settlement Parcels, C-5B and C-14B. It is also located across the highway from C-3B. The subdivision design has been planned to integrate with C-5B and C-14B, including enabling future road access to these parcels. The planning team worked with TH staff throughout the planning process and also briefed TH Council at key stages of the project.

Official Community Plan

Dredge Pond II is currently designated FRP – Future Residential Planning (FRP). An OCP amendment will be required to redesignate the areas to Country Residential and Parks and Natural Space.

Zoning Bylaw

The planning area is currently zoned FP – Future Planning. A zoning amendment will be required to redesignate the area to Country Residential and Parks and Natural Space.

The proposed changes are consistent with the content of the zoning bylaw as specified in the Municipal Act.

It is important to note that the Plan is a guide for future development and will be refined as the project and development progress through subsequent Council decision points such as OCP and zoning amendments and subdivision applications. However, the Master Plan establishes guidelines for the main components of the development, including servicing, lot types, recreation areas, road network, and trails.

Fiscal Impact

Road operations and maintenance, maintenance of open spaces, and enforcement of bylaws will increase the municipal expenses. Greater number of residential lots will result in greater annual taxation.

Next Steps

Future steps include YESAB, OCP/Zoning amendments, other regulatory authorizations including Fisheries and Oceans Canada and water licenses, detailed design, and construction phase following the adoption of the Plan. This is a multi-phase development and depending on the regulatory approvals, the first phase could be released as soon as 2025.

Approved by	Name	Position	Date
Paul Robitaille	<i>Paul Robitaille</i>	A/CAO	November 3, 2023

October 19, 2023

REVISION 1

Preliminary Design Report - Dredge Pond II Master Plan

Government of Yukon / City of Dawson

PREPARED FOR

Simon Lapointe, 3 Pikas

Suite 203, 100 Main Street, Whitehorse, YT

PREPARED BY

Greenwood Engineering Solutions

Suite 203, 100 Main Street, Whitehorse, YT



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1 Introduction

3Pikas is working with the Government of Yukon (YG) and City of Dawson (City) on the development of a masterplan for Dredge Pond II. Dredge Pond II is located along the Klondike River between Trondëk Hwech'in First Nation (TH) Parcels C-5B and C-14B. 3Pikas retained Greenwood Engineering Solutions (GES) to assess the study area and develop a preliminary design outlining the grading and servicing for the proposed country residential subdivision and prepare a high level order of magnitude cost estimate to develop this area. The intent of this report is to assist YG and the CoD determine the feasibility of developing a residential subdivision at Dredge Pond II.

1.1 Background

Dawson City is surrounded by rivers, mines, steep hills, and historic sites, making it difficult to find land suitable for development. As demand for increased residential development continues, the Dredge Pond II location was identified as a potential residential development in 2012 by Yukon Engineering Services (YES). Dredge Pond II is located 8 kilometers east of Dawson City between km 706 and 708 and is located adjacent to the existing Dredge Pond 1 Subdivision and the Klondike River. The area is currently an un-developed region consisting of large piles of dredge tailings (crushed rock) and fish bearing waterbodies supplied by the Klondike River. Due to the site's close proximity to Klondike River, the entire site is within the river's floodplain. There are no water or sewer utilities provided for this region, but electricity, internet and communication lines are provided along the Klondike Highway up to the Dawson City Airport. From 2012 to the present date multiple studies have been completed for this area to determine the suitability of a residential development. A list of the documents reviewed are summarized below.

1. Heritage Resource Impact Assessment: Dawson Dredge Ponds II Final Report, Ecofor, Sept. 20, 2021

Conducted a HRIA of the Dredge Pond II area in 2021 and identified 10 historic rock features on top of tailings piles and were marked by field personnel with yellow "No work Zone" high visibility tape. In addition to that approximately 50 gold rush era historic items were located. No precontact archaeological materials noted. Ecofor recommended at least 1 historic rock structure is to be avoided from development.

2. Geotechnical Feasibility Assessment, Proposed Dredge Pond II Subdivision, Chilkoote Geological Engineers Ltd, July 26, 2021

The assessment indicated that portions of Dredge Pond II is suitable for country residential development. They also highlight the risk to any development as Dredge Pond II is fully within the Klondike River flood plain. All dredge tailings are anticipated to be generally suitable for road construction, however granular subbase and base course materials will need to be imported or manufactured onsite. Chilkoote Geological Engineers (CGE) indicates that building foundation should be constructed using conventional shallow footing or monolithic slab types. Cribbing type foundations would also be acceptable. Building should not be constructed in regions where tailings ponds have been infilled due to anticipated settlement.

3. Phase I Environmental Site Assessment, Proposed Dredge Pond II Subdivision, Chilkoote Geological Engineers Ltd, July 27, 2021

The Phase 1 ESA conducted by CGE did not reveal any evidence that historical or current site usage involved the storage, use or disposal of hazardous substances on the subject property. Additionally, the assessment did not identify any environmental concerns which have been generated by the sites use or actives which occurred on adjacent properties. CGE did identify site specific items such as large barrels, and discarded batteries and oil filters.

4. Preliminary Cut Fill Analysis, Proposed Dredge Pond II Subdivision, Chilkoote Geological Engineers Ltd, August 27, 2021

CGE recommended that the overall road elevations should be established at elevations lower than lot elevations and access roads should be rounded along edges of waterbodies in order to reduce fill volumes. Additionally, CGE recommended that a bathymetric survey should be conducted to better quantify cut/fill analysis of the area.

5. Klondike Residential Reserve Fisheries Baseline Study, EDI Environmental Dynamics Inc, December 2013

Of the 61 water bodies located in the Dredge Pond II area, 40 of these were found to be fish bearing. 17 of these contained fish considered to be part of a potential fishery while the other 23 only a single sculpin was captures which are not considered part of a CRA fishery and are likely not given the same protections under the Fisheries Act. Fish distribution was concentrated around the boundary with the Klondike River.

6. Site Investigation and Remediation, Proposed Dredge Pond II Subdivision, Core Geoscience Services, November 8, 2021

Core Geoscience was retained by YG to perform a site investigation in response to the site specific contaminate items identified in the 2021 Environmental Site Assessment by CGE. From the assessment only one issue was found, that being at the location with the oil filter. One exceedance of lead was found, and Core Geoscience recommended a small excavation and sampling plan be established prior to remediation. Since production of this report all issues found in this report have been remediated as determined by discussions with YG.

7. Preliminary Assessment of Flood Exposure for Future Development Areas in Dawson City and Carmacks, Yukon University, December 2021

Yukon University evaluated the flood risks for future development areas in Carmacks and Dawson City. In this report, the 200-year water levels were developed from 3 different ice jam scenarios.

8. Klondike River (Trondëk) at Dawson, Flooding Information Form, Yukon University, June 1, 2023

Yukon University updated the flood level return periods at the Klondike Highway bridge using the 2023 data.

9. Dawson Dredge Pond No. 2 Rural Residential Subdivision Concept Design, Yukon Engineering Services, December 5, 2012

Yukon Engineering Services (YES) completed a conceptual design in partnership with Inukshuk Planning and Development. The concept and design considerations for the development was based on a much lower design elevation compared to the recent flood elevation model results from the 2021 flood water assessment completed by Yukon University. Aside from the flood elevations, the conceptual design prepared YES was reviewed in the context of the higher flood elevations.

1.2 Project Scope

This preliminary design report considers the previous analysis of this development site and provides a conceptual design for the grading and site servicing for the proposed subdivision development. An overview of the site considerations that should be advanced during subsequent design are outlined below.

2 Site Challenges

2.1 Existing Tailing Piles and Water Bodies

Dredge Pond II is made up of scattered water bodies and dredge tailings composed of large, crushed rock as a result of historical gold mining operations occurring up until the 1960s. These tailings piles vary in size and are separated by fish bearing waterbodies scattered throughout the site. An example of one of these waterbodies is shown in Image 1.



Image 1: Dredge Tailings from CGE Geotechnical Feasibility Assessment

Since bathymetry was not completed for this site, accurately determining fill volumes for waterbodies will not be possible as the 2019 lidar data available for the site picks up the water surface rather than the depth. The Geotechnical Feasibility Assessment completed in 2021 estimated the depths of the waterbodies to range between

0.75m and 5.1m. This is a very significant range in depths and therefore a proper bathymetric survey should be completed as part of subsequent design to confirm fill volumes required for these waterbodies.

2.2 Use of Native Material

According to CGE the site is suitable for country residential development where there are suitable concentrations of mine tailings to attain finished design elevations. The existing tailings are anticipated to be suitable for road construction, however additional granular subbase and base course materials would need to be imported or manufactured on site. Building foundations should be built on cribbing or on structural fill and shall not be placed on regions where tailings ponds have been infilled due to anticipated settlement. The quantities of granular fill requirements to be determined during detailed design.

2.3 Flood Elevations

Flood elevations developed by Yukon University for the Klondike River, including the proposed Dredge Pond II development area. An excerpt from their analysis is shown in Figure 1 and highlights the flood elevations for the proposed development. The green line in Figure 1 presents that design elevations used in the grading design presented in this preliminary design report. With reference to Figure 1, the ice jam flood elevations are higher than the open water flood elevation. Further thought should be put to establishing spillways along the river to allow for the river to stay within the main river channel to reduce the risk of the ice jam flood events affecting the proposed development area. Climate change continues to result in changing weather patterns, increasing the risks related to flooding events and ongoing analysis and the implementation of preventative measures should be defined as part of the subsequent detailed design for the development area. For the purposes of this preliminary design, the design elevation for the proposed development (roads and permanent structure) are located above the 200-year flood level and a minimum setback of 60m from the riverbank is recommended.

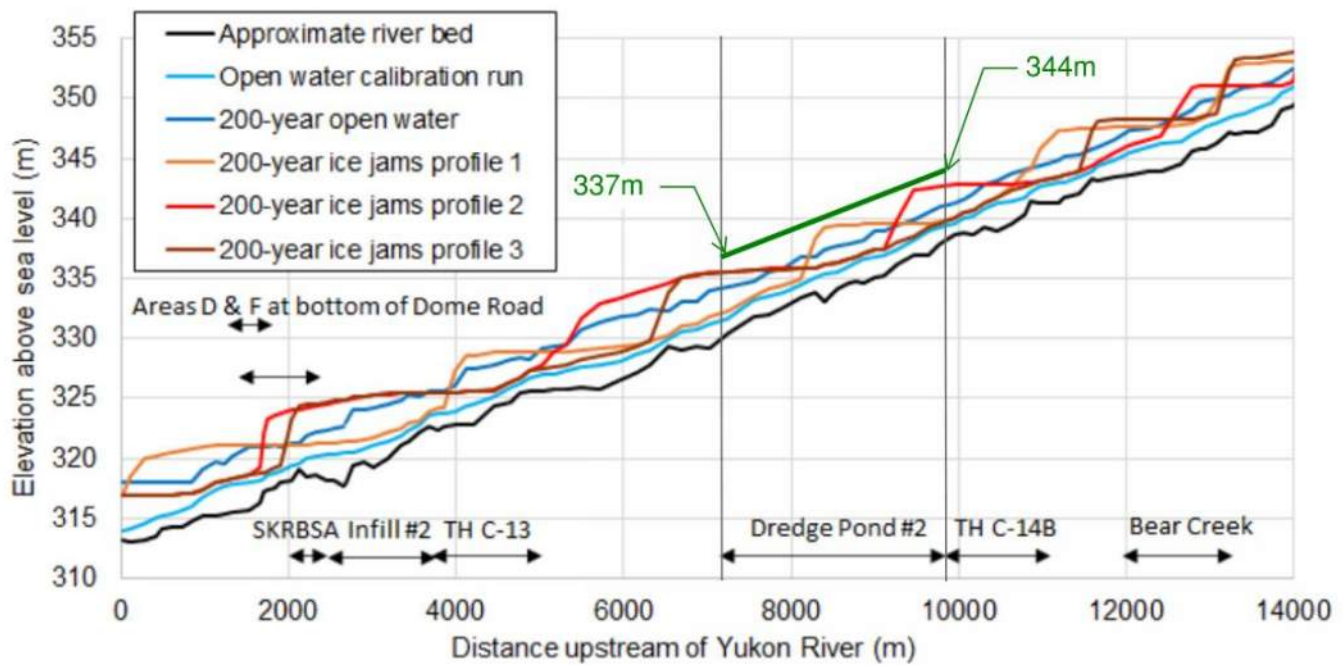


Figure 1 – 200 Year Water Elevations – Yukon University 2021

2.4 Fish Bearing Ponds

The waterbodies located in the proposed Dredge Pond II subdivision are hydraulically tied to the Klondike River with many of these waterbodies having direct access to the Klondike River. The 2021 EDI study documented fish in 40 of the 61 waterbodies within the development area and are defined as CRA Fisheries Species (Commercial, Recreational or Aboriginal value and include Chinook salmon, burbot and round whitefish). These fish bearing ponds are mainly concentrated around the boundary with the Klondike River. Disturbance to these areas is to be avoided.

3 Site Design

3Pikas developed a conceptual subdivision layout in consultation with GES identifying the desired alignment of the roadways and layout of the country residential lots. The conceptual subdivision plan is included in Appendix A. A preliminary grading plan was then developed for the area and is included in Appendix B. An overview of the design criteria and considerations for the development area is described below.

3.1 Flood Mitigation

As this site is adjacent to the Klondike River the risk of flooding due to ice jams is significant. According to the Yukon University Report the estimated 200-year water level due to ice jams varies from 335m – 343m from west to east respectively outlined in Figure 1. For the purposes of this design a linear approach is used to determine the 200-year flood elevation throughout the Dredge Pond II site. Elevations are then raised to provide 1m of “freeboard” to ensure

that buildings and roadways are operational in the event of a 200-year water level. This raised minimum elevation is shown as the green line in Figure 1. The finished grade of all roads, driveways and the permanent building location were graded to achieve the design elevation (green line in Figure 1).

3.2 Zoning Requirements

From the conceptual subdivision layout provided by 3 Pikas, country residential lots vary in size from 0.4 – 0.8 hectares. To minimize the cut fill volumes GES recommends only raising the portion of the lot that includes the driveway, septic holding tank and permanent building above the 200-year flow elevation. The minimum lot size described in the City of Dawson Zoning Bylaw is used to determine this minimum pre-graded region. From the City of Dawson Zoning Bylaw all R3 Country Residential lots are to have the following minimum dimensions:

Table 1 - Minimum Parcel Requirements

Min Parcel Size	0.4 Ha
Building Setback to Property Lines	4.57 m
Min Floor Area	83.61 m ²
Estimated Building Length and Width	9.14 m x 9.14 m

3.3 Water and Sanitary Servicing

There is currently no water or sewer infrastructure near the development area. Typically, it is cost prohibitive to service rural residential developments with piped servicing. This is true for Dawson City and therefore all septic and water servicing for the development area will utilise onsite systems. Given the granular native material onsite, and the high hydraulic conductivity of the soils to the Klondike River discussed in the Geotechnical Feasibility Assessment, there is a higher risk of septic disposal systems contaminating the river and therefore trucked sewage servicing is recommended. For trucked sewage servicing, an onsite holding septic tank will be required. The tank sizing and setbacks to align with the Yukon Government design standards. A brief overview of the key setbacks and typical tank sizing for a 3-bedroom dwelling is listed in Table 2.

Table 2 - Septic Tank Sizing and Setback

Minimum Volume for 3-bedroom home	3,640 L
Building Setback to Septic Tank	1.5 m
Waterbody Setback to Septic Tank (200-year flood design elevation)	15 m

For water onsite water servicing, a well can be developed, however, the additional cost for the fill required to achieve the appropriate setback to the septic tank and to the 200-year flood elevation will likely be cost prohibitive for the majority of the lots within the proposed subdivision. For this reason, it is recommended that water servicing to the proposed development utilize trucked water within above ground water storage tanks (cisterns) at all houses.

Additional analysis, including a hydrogeological investigation, should be undertaken to determine the feasibility of developing wells within the proposed development area, however, this is outside the scope of this assignment and can ultimately be left up to the property owners.

3.4 Minimum Graded Portion of Parcel

Based on the zoning requirements for the development area and the septic tank setback requirements, the minimum elevated area required for each lot is outlined in Figure 2. This area is governed by a 15m setback from the septic holding tank to the 200-year flood elevation. This area was used to develop a preliminary grading plan for the proposed development. All inhabited buildings shall also be constructed above the 200-year flood elevation. Other buildings, such as sheds and greenhouses as well as landscaping can be located below the 200-year water level.

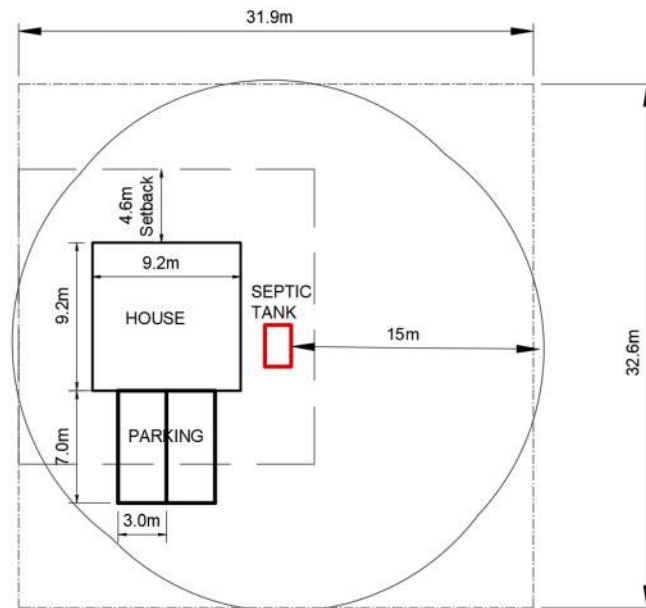


Figure 2 – Minimum Pre-Graded Region

3.5 Roads and Driveways

Access to the proposed subdivision will be provided by an 8m wide, 2-lane gravel access road with a 25m right of way from the Klondike Highway across from Molison Drive. A secondary access to the subdivision is provided 400m west

of the Dawson Highway Maintenance Compound. All highway intersections are to be 400m away from any other intersections. All internal access roads inside the subdivision will also be 8m wide, 2-lane gravel access road with a 25m right of way. Driveways to all lots will be provided by a minimum 3.5m wide gravel access road. All roadways and driveways will have a 3% crossfall with the crown located 1m above the 200-year water level. Given the porous nature of the soils and the fact that the area will be built up with extensive depressions throughout the development, culverts will not be required at all road crossings and driveways and further review of any culvert requirements to manage drainage should be reviewed as part of subsequent design.

3.6 Power and Telecommunications

Dawson City is not part of the main power grid connecting the southern portion of the Yukon. All electricity in Dawson City is provided and distributed by Yukon Energy Corporation (YEC). There is currently no existing electrical infrastructure in the Dredge Pond II region however 3-phase power is provided along the Klondike Highway between Dawson City and the Airport. YEC has indicated that they currently do not have capacity to support the proposed 40 residential units in the Dredge Pond II area but are expecting to be able to supply this proposed development by November 2025 as they are in the process of procuring additional power generation equipment. All electrical services for the Dredge Pond II region would be provided via overhead power. Northwestel has not provided input on the development of the site. It is assumed that telecommunication lines will be installed on the powerlines.

4 Capital Costs

The estimated cost for the proposed development as outlined in the preliminary design drawings is Appendix B is \$10.9 million as outlined in Table 3. Refer to Appendix C for a breakdown of the various unit rates used in Table 2. The high cost is mainly attributed to the large volumes required to raise the elevation of the site above the flood elevation. For this cost estimate, we assumed that imported fill material will cost \$36/m³ however this cost will depend on the availability and trucking distance of the source material to the site. We understand there are a number of sites nearby that may be utilised given the abundance of tailings piles in the area, however, the source and cost of this material should be confirmed as part of subsequent design.

Table 3 – Class D Cost Estimate

Item	Description	Unit	Quantity	Unit Rate	Cost Estimate
1	Earthworks				
1.1	Road Construction STA 0-000 - 1-860 (8m Wide)	l.m	1,860	\$568	\$1,056,480
1.2	Road Construction STA 2-000 - 2-428 (8m Wide)	l.m	428	\$568	\$243,104
1.3	Road Construction STA 3-000 - 3-486 (8m Wide)	l.m	486	\$568	\$276,048
1.4	Driveways (3.5m Wide)	l.m	1,969	\$56	\$110,261
1.5	Common Fill	m ³	151,000	\$12	\$1,812,000
1.6	Imported Fill	m ³	90,000	\$36	\$3,240,000
1.7	Highway Intersections	ea	2	\$75,000	\$150,000
2	Power and Communication				
2.1	Overhead Powerpoles with Allowance for Transformers	ea	46	\$12,000	\$552,000
3	Leisure				
3.1	Playground	ea	1	\$120,000	\$120,000
Subtotal					\$7,559,893
Contingency and Engineering (50%)					\$3,779,946
TOTAL					\$11,400,000
Cost Per Residential Lot					\$285,000

An alternative approach to reduce construction costs for the initial development would be to only construct the road above the 200-year flood elevation and leave the fill requirements for onsite development up to the property owners. The lot owner would then be required to either import materials to bring the inhabited buildings above the 200-year flood elevation. The use of triodetic foundation or other means to develop the site above the 200-year flood elevation can also be explored by the homeowner. If lot grading is left to the responsibility of the landowner, the costs for just constructing the road and installing power servicing is estimated to be approximately \$ 7.1 million as outlined in Table 4.

Although there are some cost savings of proceeding with only raising the roads for the development, it would be beneficial to complete the rough site grading for all the lots and reduce the risk of property owners having trouble sourcing and paying for the additional costs of completing the onsite grading for their development.

Table 4 – Class D Cost Estimate for Roads Only

Item	Description	Unit	Quantity	Unit Rate	Cost Estimate
1	Roadways				
1.1	Road Construction STA 0-000 - 1-860 (8m Wide)	l.m	1,860	\$568	\$1,056,480
1.2	Road Construction STA 2-000 - 2-428 (8m Wide)	l.m	428	\$568	\$243,104
1.3	Road Construction STA 3-000 - 3-486 (8m Wide)	l.m	486	\$568	\$276,048
1.4	Common Fill	m ³	146,000	\$12	\$1,752,000
1.5	Imported Fill	m ³	63,000	\$36	\$2,268,000
1.6	Highway Intersections	ea	2	\$75,000	\$150,000
2	Power and Communication				
2.1	Overhead Powerpoles with Allowance for Transformers	ea	46	\$12,000	\$552,000
3	Leisure				
3.1	Playground	ea	1	\$120,000	\$120,000
Subtotal					\$6,417,632
Contingency and Engineering (50%)					\$3,208,816
TOTAL					\$9,700,000
Cost Per Residential Lot					\$242,500

5 Closing

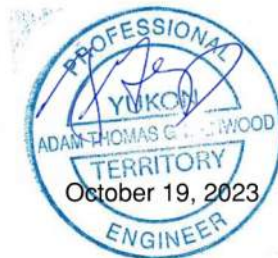
The intent of this report was to identify the challenges to the proposed residential development and provide a conceptual design and cost estimate for the grading and site servicing. It is important to understand that costing is heavily dependant on the cost for imported fill to raise the site and therefore it is recommended that a source of material is identified as part of subsequent design.

Please contact the undersigned if you have any questions or would like to discuss the content of this report in more detail.

Sincerely,

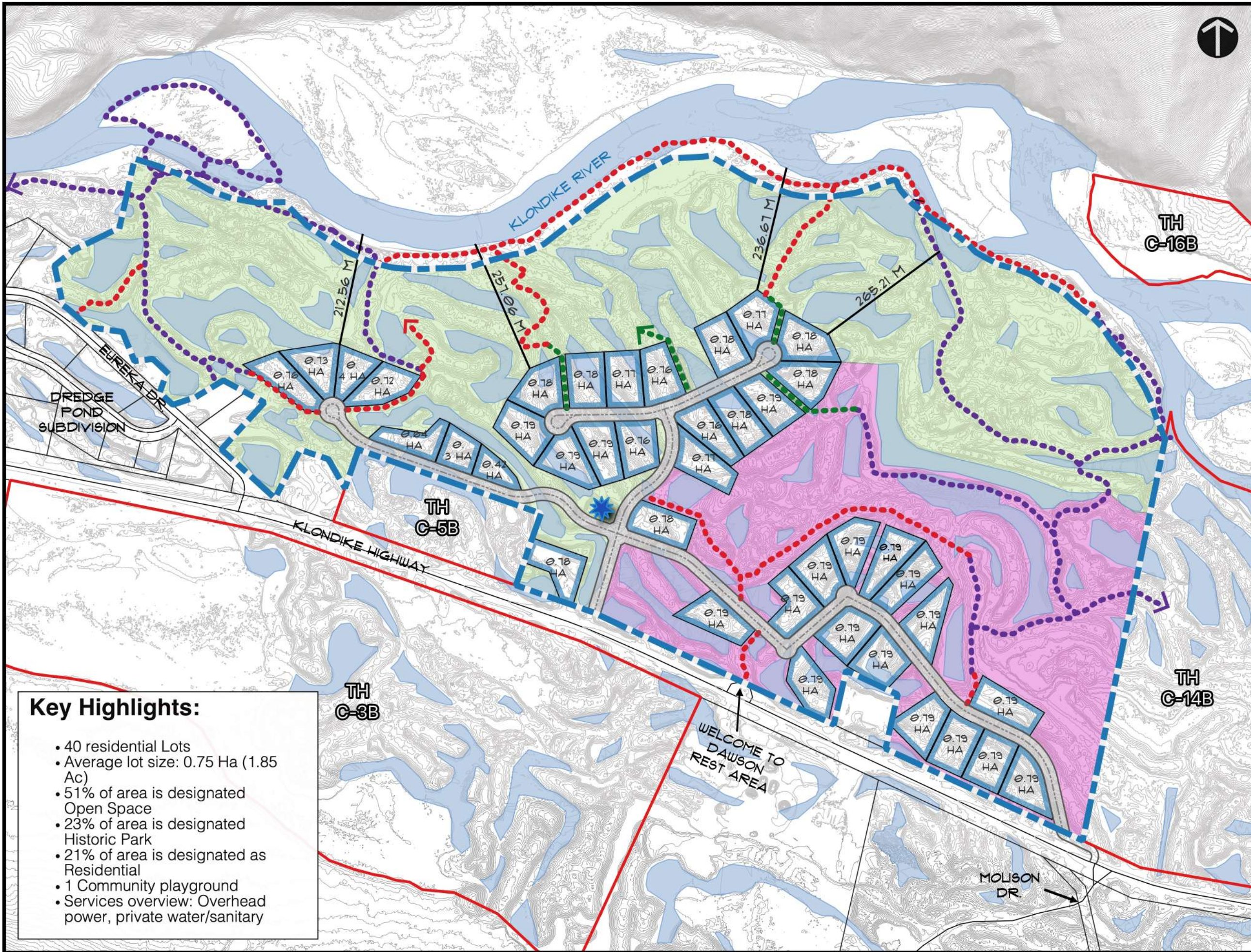


Mark Verhalle, EIT
 Project Engineer



Adam Greenwood P.Eng
 Project Manager

APPENDIX A – Conceptual Subdivision Plan



CLIENT:



PROJECT TITLE:

DREDGE POND II MASTER PLAN

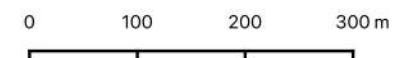
MAP TITLE:

LAND USE PLAN NEW OPTION

LEGEND:

- - - Study Boundary: Dredge Pond 2
- - - TH Settlement Lands
- Surveyed Parcels
- Waterbodies
- 1m Contours
- Land Uses**
- Residential Lots
- Open Space
- Dredge Tailings Historic Park
- ★ Community Playground
- Trails**
- - - Existing Trail
- - - Trail Connection
- - - Potential New Trail

1:7,000



REVISIONS:

2	2022/08/03	SUBMITTED TO COUNCIL
3	2022/11/26	FINAL SUBMITTED TO COUNCIL
4	2023/02/28	FINAL

PREPARED BY:
SL

REVIEWED BY:

DATE:
2022 / 07 / 14

FIGURE:

Key Highlights:

- 40 residential Lots
- Average lot size: 0.75 Ha (1.85 Ac)
- 51% of area is designated Open Space
- 23% of area is designated Historic Park
- 21% of area is designated as Residential
- 1 Community playground
- Services overview: Overhead power, private water/sanitary



APPENDIX B – Preliminary Design Drawings

PRELIMINARY DESIGN



NOT FOR CONSTRUCTION
ISSUED FOR PRELIMINARY
ENGINEERING REVIEW ONLY

3Pikas Dawson Dredge II October 19, 2023

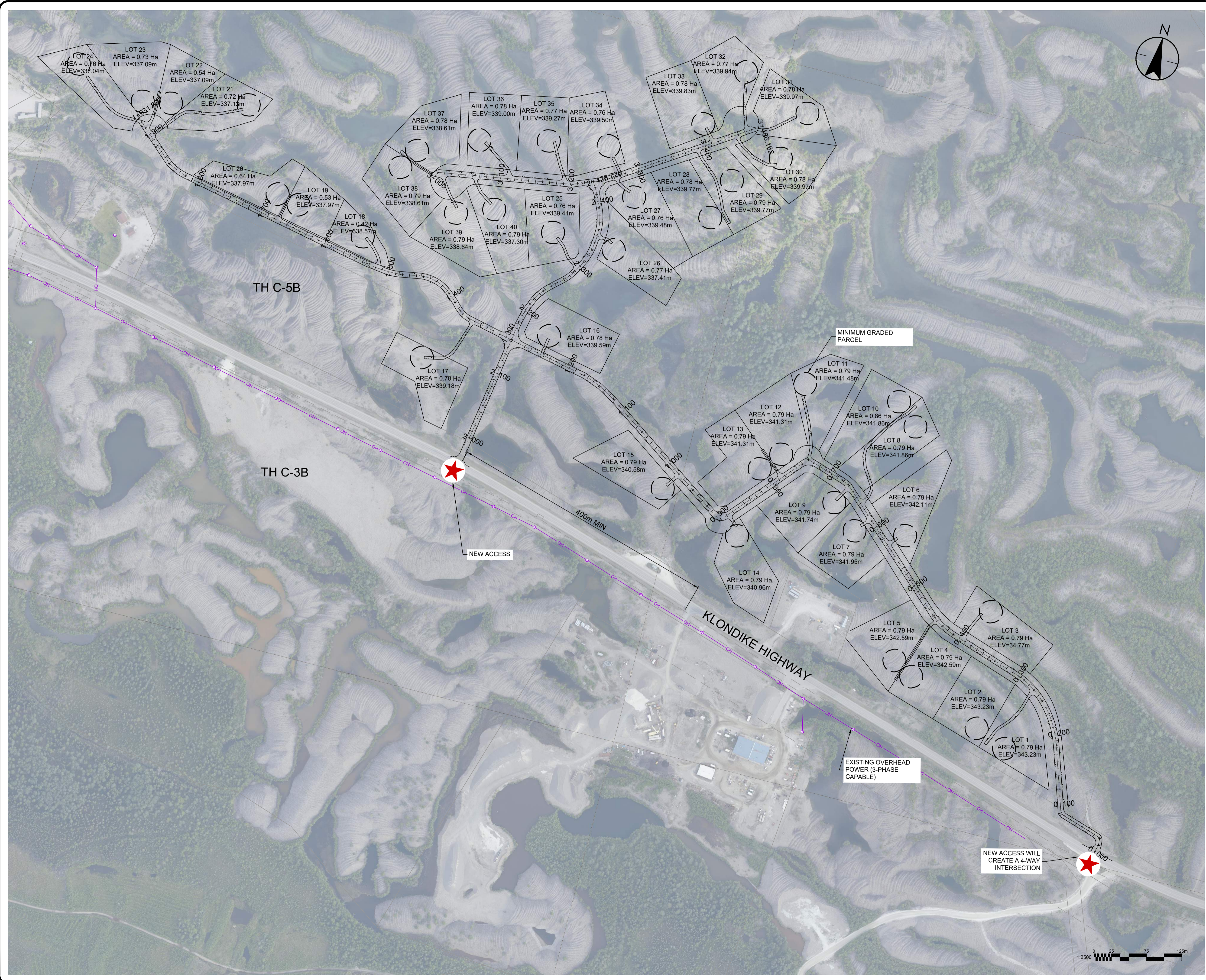
Project 12 - 06

DRAWING LIST

- C100 - PROPOSED SITE LAYOUT
- C200 - PRELIMINARY GRADING PLAN
- C500 - ROAD PROFILES AND SECTIONS

LOCATION PLAN
NTS





Notes:

1. See Drawing C500.
2. Any Deviation Or Inconsistencies From This Plan Shall Be Reported To The Engineer Immediately.
3. The Dimensions Shown On This Plan Take Precedence Over Scaled Dimensions.
4. All Dimensions Are In Meters, And Decimals Thereof Unless Otherwise Noted.
5. The Access Roads and Circles Shown On Each Lot are the Minimum Area to Develop for a dwelling. The Development Area can be Much Larger. Refer to the Design Report for Additional Information.

Data Sources:

Site Contours - Government of Yukon LiDAR. Acquisition Date: 2023-05-08. Project Area: Dawson City, YT

Aerial Imagery - Government of Yukon, GeoYukon. Acquisition Date: 2023-05-08. Project Area: Dawson City, YT

Land Use Plan - 3Pikas, Dredge Pond II Master Plan. Acquisition Date: 2023-08-03

Legend:

- Existing Gravel Road
- Proposed Gravel Road
- Overhead Powerline - Existing
- Existing Powerpole

PRELIMINARY
NOT FOR CONSTRUCTION

1	2023-10-19 PRELIMINARY DESIGN

STAMP	PERMIT TO PRACTICE



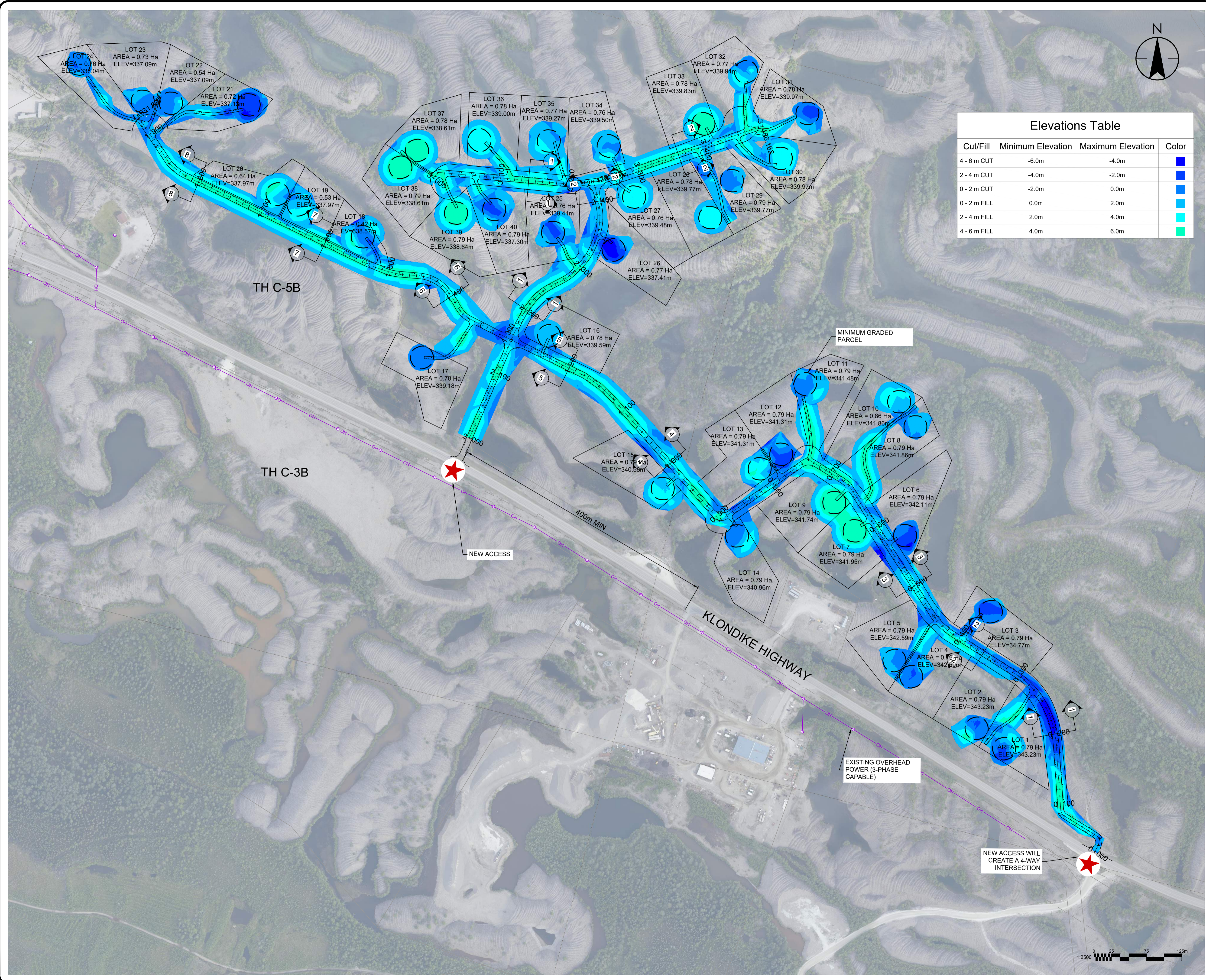
PROJECT

DREDGE POND II

DRAWING

PROPOSED SITE LAYOUT

DESIGN	DATE	SCALE
MV/AG	October 19, 2023	AS NOTED
DRAWN	PROJECT NO.	
MV	12-06	
CHECKED	DRAWING NO.	VERSION
AG	C100	1
APPROVED		
AG		



Cut/Fill	Minimum Elevation	Maximum Elevation	Color
4 - 6 m CUT	-6.0m	-4.0m	Dark Blue
2 - 4 m CUT	-4.0m	-2.0m	Medium Blue
0 - 2 m CUT	-2.0m	0.0m	Light Blue
0 - 2 m FILL	0.0m	2.0m	Light Cyan
2 - 4 m FILL	2.0m	4.0m	Medium Cyan
4 - 6 m FILL	4.0m	6.0m	Dark Cyan

- Notes:**
- The Contractor Is Responsible For Locating All Existing Structures And Utilities Prior To Construction.
 - Any Deviation Or Inconsistencies From This Plan Shall Be Reported To The Engineer Immediately.
 - The Dimensions Shown On This Plan Take Precedence Over Scaled Dimensions.
 - All Dimensions Are In Meters, And Decimals Thereof Unless Otherwise Noted.

Data Sources:

Site Contours - Government of Yukon LIDAR. Acquisition Date: 2023-05-08. Project Area: Dawson City, YT

Aerial Imagery - Government of Yukon, GeoYukon. Acquisition Date: 2023-05-08. Project Area: Dawson City, YT

Land Use Plan - 3Pikas, Dredge Pond II Master Plan. Acquisition Date: 2023-08-03

- Legend:**
- Existing Gravel Road
 - Proposed Gravel Road
 - OH - Overhead Powerline - Existing
 - Existing Powerpole

**PRELIMINARY
NOT FOR CONSTRUCTION**

1	2023-10-19 PRELIMINARY DESIGN

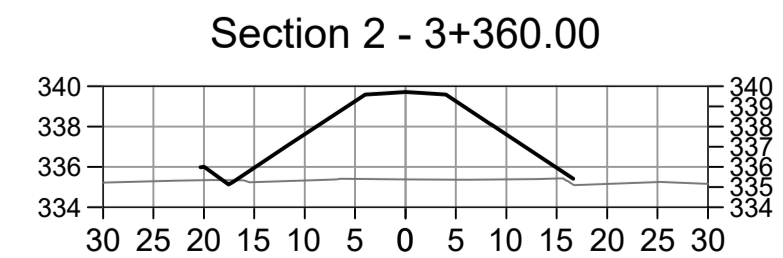
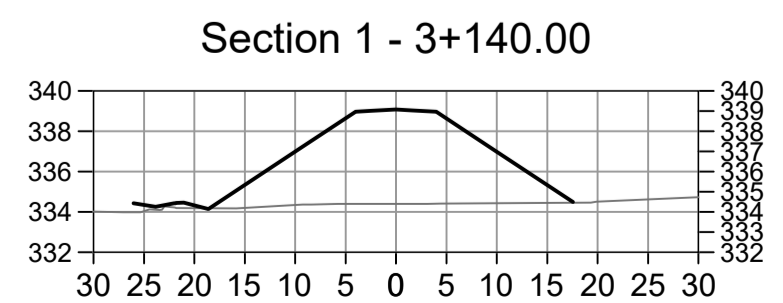
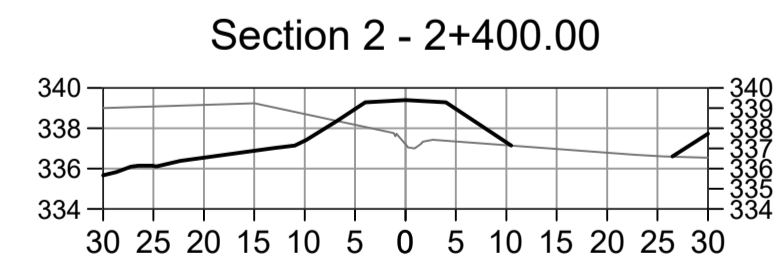
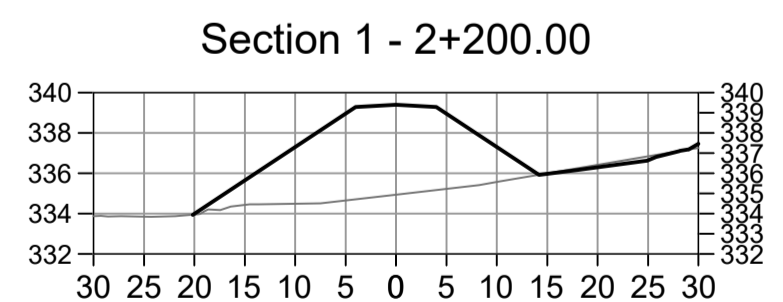
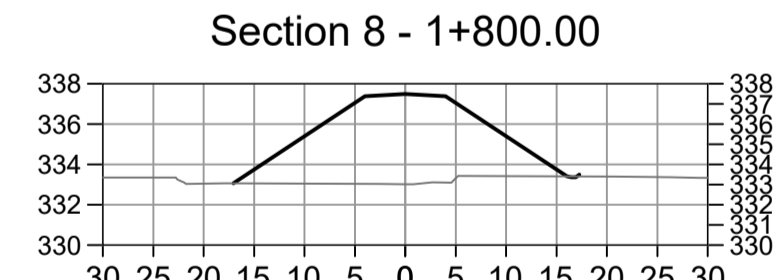
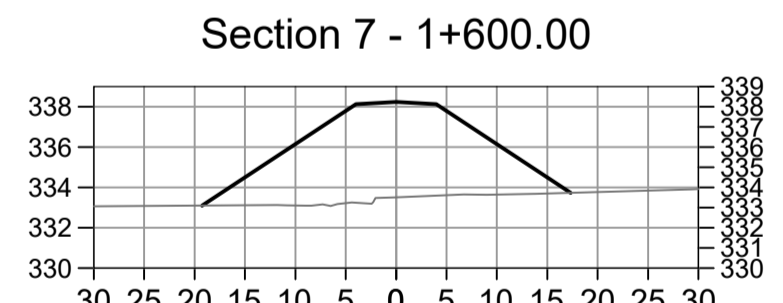
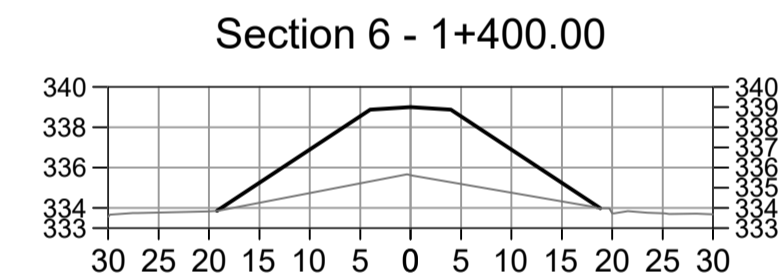
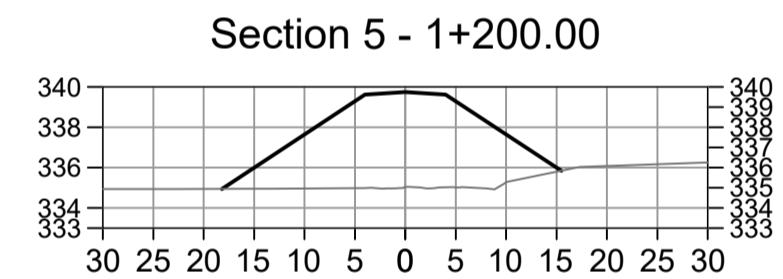
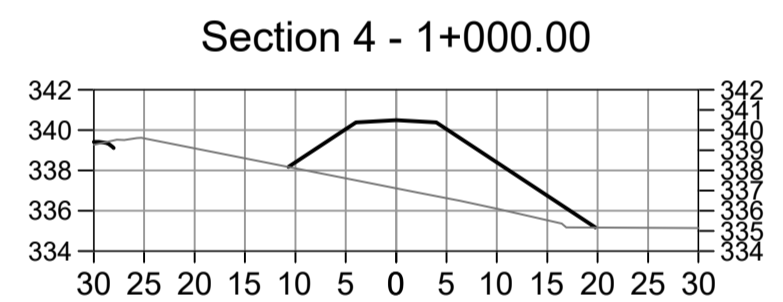
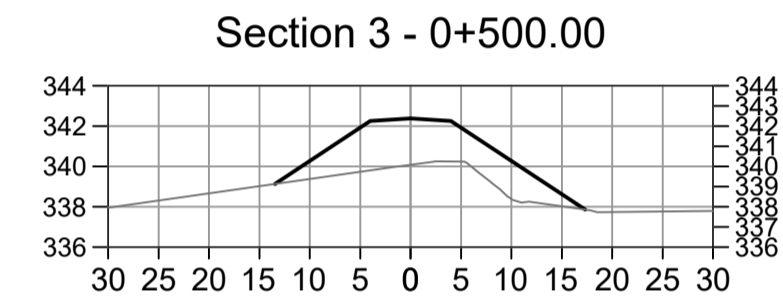
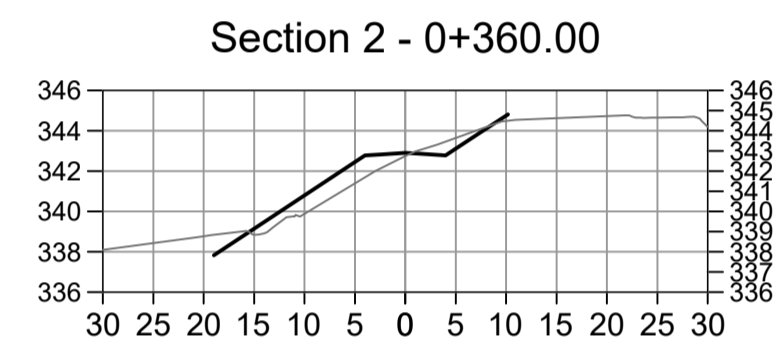
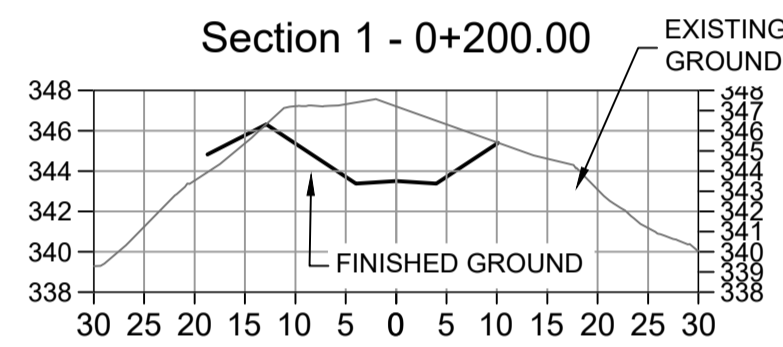
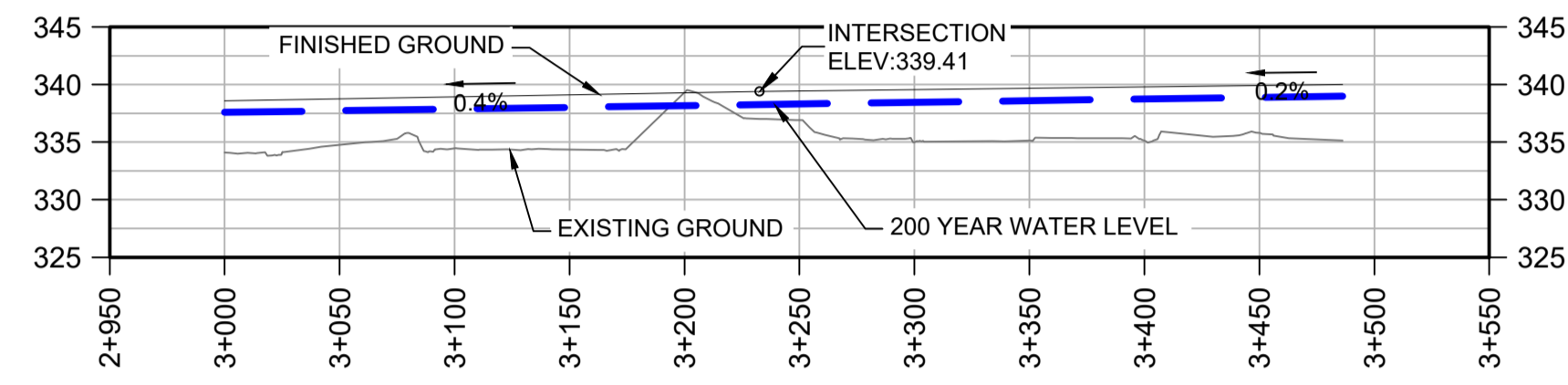
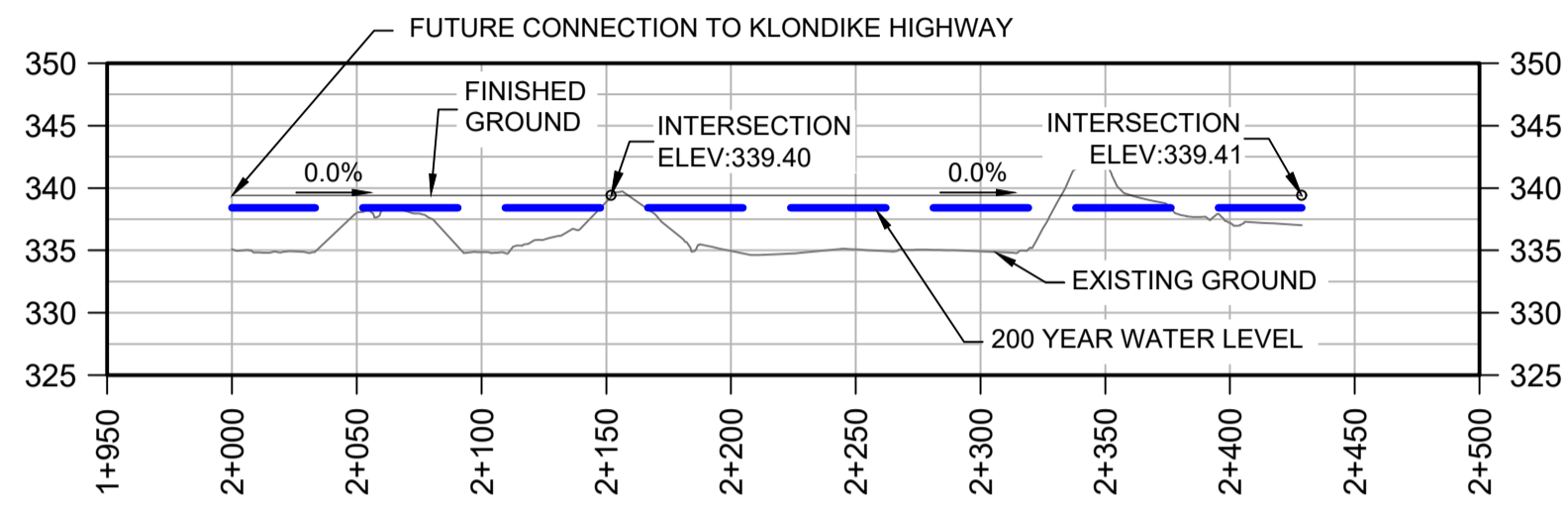
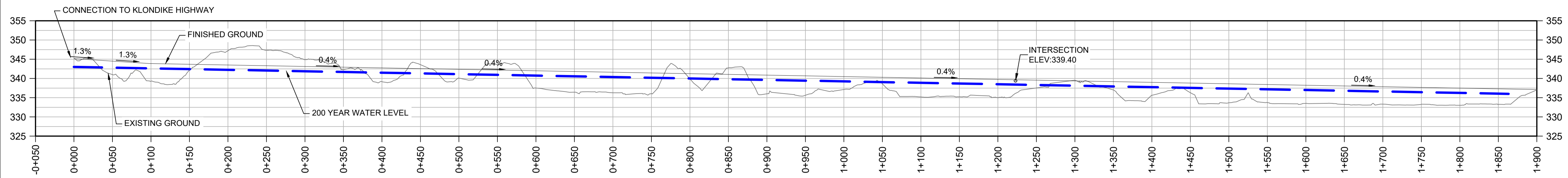
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PROJECT
DREDGE POND II

DRAWING
PRELIMINARY GRADING PLAN

DESIGN MV/AG	DATE October 19, 2023	SCALE AS NOTED
DRAWN MV	PROJECT NO. 12-06	
CHECKED AG	DRAWING NO. C200	VERSION 1
APPROVED AG		



200 YEAR FLOOD DESIGN ELEVATIONS

LOT NUMBER	LOT AREA (Ha)	DESIGN ELEVATION (m)
1	0.79	343.23
2	0.79	343.23
3	0.79	342.77
4	0.79	342.59
5	0.79	342.59
6	0.79	342.11
7	0.79	341.95
8	0.79	341.86
9	0.79	341.74
10	0.86	341.86
11	0.79	341.48
12	0.79	341.31
13	0.79	341.31
14	0.79	340.96
15	0.79	340.58
16	0.78	339.59
17	0.78	339.18
18	0.42	338.57
19	0.53	337.97
20	0.64	337.97
21	0.72	337.13
22	0.54	337.09
23	0.73	337.09
24	0.76	337.04
25	0.76	339.41
26	0.77	337.41
27	0.76	339.48
28	0.78	339.77
29	0.79	339.77
30	0.78	339.97
31	0.78	339.97
32	0.77	339.94
33	0.78	339.83
34	0.76	339.50
35	0.77	339.27
36	0.78	339.00
37	0.78	338.61
38	0.79	338.61
39	0.79	338.64
40	0.79	337.30

NOTE
 1. DESIGN ELEVATIONS IS THE 200 YEAR FLOOD DESIGN ELEVATION PLUS A 1.0m FREEBOARD CALCULATED BASED ON THE DECEMBER 2021 PRELIMINARY ASSESSMENT OF FLOOD EXPOSURE FOR FUTURE DEVELOPMENT AREAS IN DAWSON CITY AND CARMACKS REPORT COMPLETED BY YUKON UNIVERSITY. IT IS RECOMMENDED THAT THE ACCESS ROAD AND UNDERSIDE OF A WOODEN FLOOR SYSTEM OR TOP OF A CONCRETE SLAB FOR HABITAT BUILDINGS BE BUILT AT A MINIMUM, TO THESE ELEVATIONS.

- Notes:**
- The Information Contained in These Drawings is to Assist With Decisions Related to the Development of the Dredge Pond II Subdivision. The Detailed Design of the Subdivision, Including a Review of Additional Flood Mitigation Measures must be Completed Prior to Construction.
 - Any Deviation Or Inconsistencies From This Plan Shall Be Reported To The Engineer Immediately.
 - The Dimensions Shown On This Plan Take Precedence Over Scaled Dimensions.
 - All Dimensions Are in Meters, And Decimals Thereof Unless Otherwise Noted.

Data Sources:
 Site Contours - Government of Yukon, LiDAR. Acquisition Date: 2023-05-08. Project Area: Dawson City, YT
 Aerial Imagery - Government of Yukon, GeoYukon. Acquisition Date: 2023-05-08. Project Area: Dawson City, YT
 Land Use Plan - 3Pikas, Dredge Pond II Master Plan. Acquisition Date: 2023-08-03

PRELIMINARY
NOT FOR CONSTRUCTION

1	2023-10-19	PRELIMINARY DESIGN
	YYYY-MM-DD	SUBMISSION INFORMATION

STAMP PERMIT TO PRACTICE



PROJECT
DREDGE POND II

DRAWING
ROAD PROFILES AND SECTIONS

DESIGN MV/AG	DATE October 19, 2023	SCALE AS NOTED
DRAWN MV	PROJECT NO. 12-06	VERSION 1
CHECKED AG	DRAWING NO. C500	
APPROVED AG		

APPENDIX C – Cost Estimate Information

Dredge Pond II - Cost Estimate - Lot Grading

Item	Description	Unit	Quantity	Unit Rate	Cost Estimate
1	Earthworks				
1.1	Road Construction STA 0-000 - 1-860 (8m Wide)	l.m	1,860	\$568	\$1,056,480
1.2	Road Construction STA 2-000 - 2-428 (8m Wide)	l.m	428	\$568	\$243,104
1.3	Road Construction STA 3-000 - 3-486 (8m Wide)	l.m	486	\$568	\$276,048
1.4	Driveways (3.5m Wide)	l.m	1,969	\$56	\$110,261
1.5	Common Fill	m ³	151,000	\$12	\$1,812,000
1.6	Imported Fill	m ³	90,000	\$36	\$3,240,000
1.7	Highway Intersections	ea	2	\$75,000	\$150,000
2	Power and Communication				
2.1	Overhead Powerpoles with Allowance for Transformers	ea	46	\$12,000	\$552,000
3	Leisure				
3.1	Playground	ea	1	\$120,000	\$120,000
Subtotal					\$7,559,893
Contingency and Engineering (50%)					\$3,779,946
TOTAL					\$11,400,000
Cost Per Residential Lot					\$285,000

Dredge Pond II - Cost Estimate - No Lot Grading

Item	Description	Unit	Quantity	Unit Rate	Cost Estimate
1	Roadways				
1.1	Road Construction STA 0-000 - 1-860 (8m Wide)	l.m	1,860	\$568	\$1,056,480
1.2	Road Construction STA 2-000 - 2-428 (8m Wide)	l.m	428	\$568	\$243,104
1.3	Road Construction STA 3-000 - 3-486 (8m Wide)	l.m	486	\$568	\$276,048
1.4	Common Fill	m ³	146,000	\$12	\$1,752,000
1.5	Imported Fill	m ³	63,000	\$36	\$2,268,000
1.6	Highway Intersections	ea	2	\$75,000	\$150,000
2	Power and Communication				
2.1	Overhead Powerpoles with Allowance for Transformers	ea	46	\$12,000	\$552,000
3	Leisure				
3.1	Playground	ea	1	\$120,000	\$120,000
Subtotal					\$6,417,632
Contingency and Engineering (50%)					\$3,208,816
TOTAL					\$9,700,000
Cost Per Residential Lot					\$242,500

Road Dimensions		
Description	Unit	Quantity
Road Width	m	8
Road Right of Way	m	25
Driveway Width	m	3.5
Driveway Right of Way	m	3.5

New Gravel Road Ways				
Item	Units	Quantity	Unit Price	Cost
GRUBBING, STRIPPING AND DISPOSAL	m ²	25	\$ 3.00	\$ 75.00
CLEARING, SALVAGE, AND DECKING	m ²	25	\$ 2.00	\$ 50.00
SUBGRADE PREPARATION	m ²	8	\$ 7.00	\$ 56.00
100 mm PIT RUN GRANULAR SUB-BASE - 450mm	m ³	3.6	\$ 60.00	\$ 216.00
50 mm CRUSH GRAVEL SUB-BASE - 150 mm DEPTH	m ³	1.2	\$ 80.00	\$ 96.00
Ditching and Culverts	l.m	1	\$ 75.00	\$ 75.00
TOTAL (\$/L.m)				\$ 568.00

New Driveways				
Item	Units	Quantity	Unit Price	Cost
GRUBBING, STRIPPING AND DISPOSAL	m ²	3.5	\$ 3.00	\$ 10.50
CLEARING, SALVAGE, AND DECKING	m ²	3.5	\$ 2.00	\$ 7.00
SUBGRADE PREPARATION	m ²	3.5	\$ 7.00	\$ 24.50
50 mm CRUSH GRAVEL SUB-BASE - 100 mm DEPTH	m ³	0.35	\$ 40.00	\$ 14.00
TOTAL (\$/L.m)				\$ 56.00



DREDGE POND II MASTER PLAN

GOVERNMENT OF YUKON
CITY OF DAWSON

FINAL

October 20, 2023

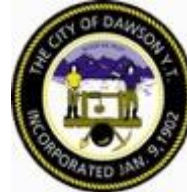


DREDGE POND II MASTER PLAN

PREPARED FOR:



GOVERNMENT OF YUKON
Community Services
Land Development Branch C-14
Box 2703
Whitehorse, YT
Y1A 2C6



CITY OF DAWSON
1336 Front Street
Box 308
Dawson City, YT
Y0B 1G0

SUBMITTED TO:

Ben Campbell, Project Manager
Government of Yukon
Community Services
Ben.Campbell@yukon.ca

Farzad Zarringhalam
Planning and Development Manager
City of Dawson
Planningmanager@cityofdawson.ca

PREPARED BY:

A handwritten signature in blue ink, appearing to read "Matthias Purdon".

Matthias Purdon, M.A.
Planner
3PIKAS

A handwritten signature in blue ink, appearing to read "Simon Lapointe".

Simon Lapointe, RPP, MCIP
Principal + Senior Planner
3PIKAS



I. VERSION HISTORY

VERSION	DATE	DESCRIPTION
1	2023/07/10	First Draft
2	2023/08/17	Second Draft
3	2023/10/20	Final

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1 INTRODUCTION

3PIKAS is pleased to present the Dredge Pond II Master Plan (‘Master Plan’) for a new country residential neighbourhood in Dawson City. The Master Plan was completed under the joint direction of the City of Dawson and the Government of Yukon – Land Development Branch (LDB).

We recognize that this project is creating residential opportunities for people to live, work and play on the traditional territory of the Tr’ondëk Hwëch’in (TH).

The Master Plan represents a major milestone toward a multi-phase residential development to accommodate a portion of the City of Dawson’s expected growth. Residential land use is supported by an extended road network, parks and greenspace areas, trails, power, and telecommunications. The Master Plan establishes the framework for this future neighbourhood by articulating the vision and framework for how the Dredge Pond II subdivision should grow over time.

1.1 PLANNING AREA

The Dredge Pond II Planning Area (‘planning area’) is approximately 143 hectares (353 acres) located 8 km east of downtown Dawson City along the Klondike River (see Figure 1). The planning area abuts the Klondike Highway to the south and lies within the City of Dawson’s municipal boundary.

The planning area is vacant, previously the site of dredge placer gold resource extraction. Today the planning area is characterized by dredge tailings piles (disturbed riverbed material) with small to medium ponds scattered throughout.

The tailing piles and ponds are the result of historical dredge gold mining in the area. Some of the ponds are connected to the Klondike River. As such, the height of the tailings piles varies based on fluctuation in the Klondike River and is estimated to be around six metres above the observed high water mark (OHWM).



PHOTO: DREDGE TAILINGS (DREDGE POND II)

The area is located in the Klondike River Valley, known for its history of gold dredging since the early 1900s. Gold dredges were used to extract placer gold from the gravel and rock substrate in the valley. These dredges created ponds as they excavated, leaving piles of larger materials such as gravel, cobble, and boulders. There are approximately sixty ponds located in the planning area. Most of the ponds are isolated from surface connections to the river and other ponds, surrounded by cobble and boulder deposits. However, a few ponds have either frequent or seasonal surface connectivity to the Klondike River, while there is also evidence of subsurface connectivity between ponds through water flow among the cobble and boulder dredge piles.

Some ponds have created fish habitats and contain species considered part of a potential Commercial, Recreational, or Aboriginal (CRA) fishery (e.g., Chinook salmon, round whitefish, and burbot).

1.2 LAND OWNERSHIP

All development associated with the Dredge Pond II Subdivision is occurring on vacant Commissioner's Land (Crown Land), with surrounding areas including a mix of Commissioner's Land, TH Settlement Lands, and privately held titled lands (Figure 2). TH's parcels C-3B, C-5B, and C-14B are adjacent to the Dredge Pond II Subdivision. The Master Plan has been designed to ensure that it does not have negative impacts on the TH parcels.

YG is the landowner and developer for the Dredge Pond II Subdivision. As the approving authority for the proposed land use, Dawson City will approve the Master Plan, Official Community Plan amendment, Zoning Bylaw amendments and future subdivision application.

1.3 SURROUNDING LAND USES

Existing land uses surrounding the Dredge Pond II Subdivision include country residential lots located west of Dredge Pond II in the existing Dredge Pond Subdivision. The subdivision provides a quiet rural lifestyle and character with easy access to nature and privacy.

There are commercial and industrial uses to the south along the Klondike Highway and various informal recreational trails and uses. Additionally, there is a utility easement along the Klondike Highway and industrial land dispositions to the south of the Dredge Pond II. Highways and Public Works operate a gravel pit to the south of the Dredge Pond II. TH parcel C-3B is subject to future planning and is intended for future residential use.

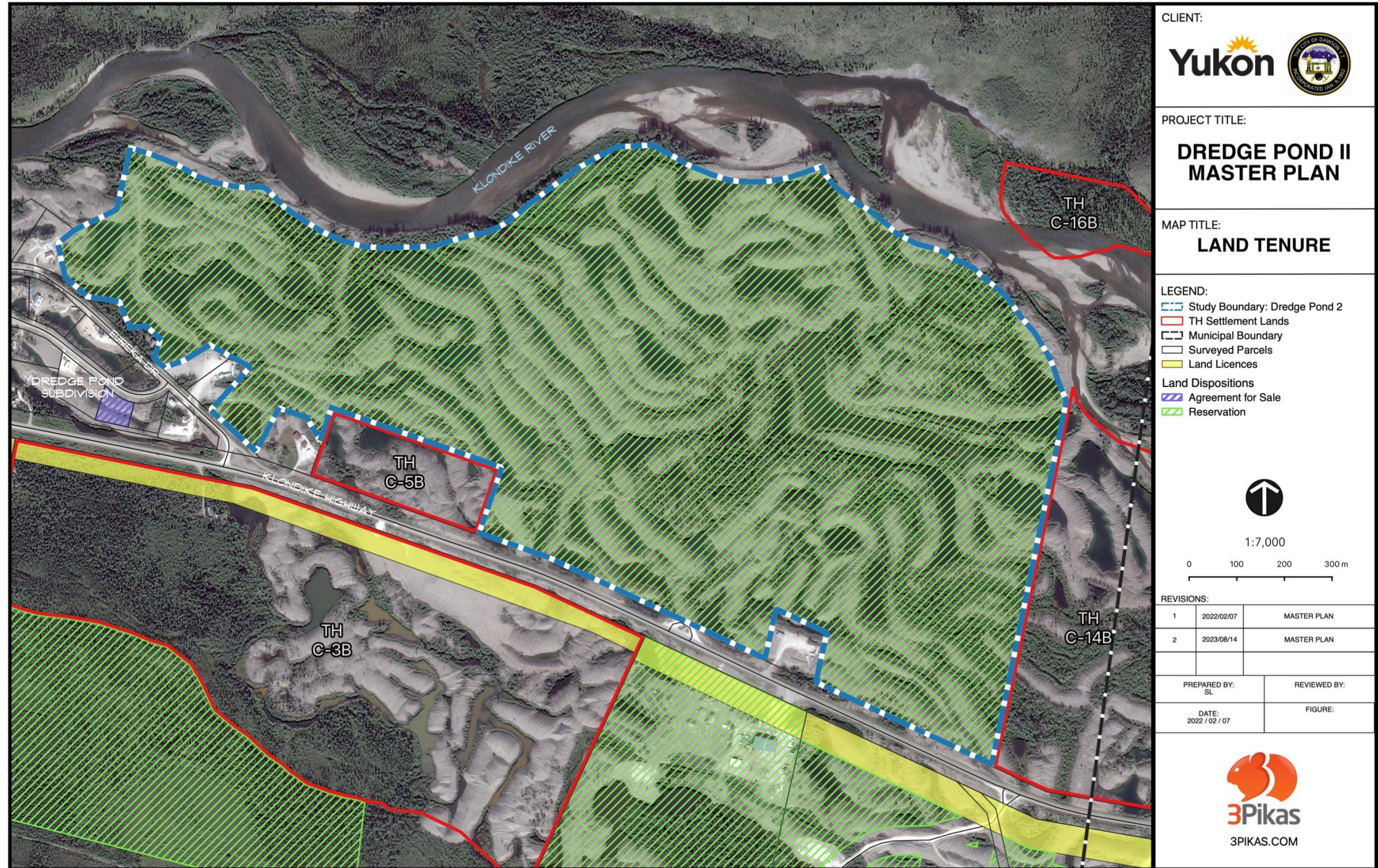
1.4 MINING CLAIMS

Some areas outside Dredge Pond II include mining claims though none of these claims have been developed. One inactive placer claim located within the planning area expired in October 2021.

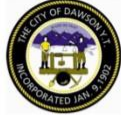
FIGURE 1: PLANNING AREA



FIGURE 2: LAND TENURE



CLIENT:

Yukon 






PROJECT TITLE:

**DREDGE POND II
MASTER PLAN**



MAP TITLE:

LAND TENURE

LEGEND:

-  Study Boundary: Dredge Pond 2
-  TH Settlement Lands
-  Municipal Boundary
-  Surveyed Parcels
-  Land Licences

Land Dispositions

-  Agreement for Sale
-  Reservation

0 100 200 300 m

1:7,000

REVISIONS:


1	2022/02/07	MASTER PLAN
2	2023/08/14	MASTER PLAN

PREPARED BY:
SL

REVIEWED BY:

DATE:
2022 / 02 / 07

FIGURE:


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2 PLANNING CONTEXT

2.1 OFFICIAL COMMUNITY PLAN CONTEXT

The City of Dawson’s 2018 Official Community Plan (OCP) is a comprehensive document that outlines the City’s long-term vision, goals, and policies for the development and growth of the municipality. It serves as a guiding framework for land use planning and decision-making.

The OCP addresses various aspects of community development, including land use, transportation, housing, infrastructure, environmental protection, economic development, and social well-being. The OCP was created through a process involving community engagement, input from residents and stakeholders, and coordination with relevant government agencies. It is an important tool for managing growth, preserving community character, and ensuring sustainable development of areas such as Dredge Pond II.

2.1.1 VISION, GOALS, DESIGNATION

The OCP vision statement is: “Honouring the Past, Sharing the Present, Embracing the Future”. Long-term goals pertaining to the Dredge Pond II Subdivision development include:

- Meet the full spectrum of housing needs in the community.
- Provide sufficient land available for residential development.

2.1.2 OCP DESIGNATION

Dredge Pond II is currently designated FRP – Future Residential Planning (FRP). An OCP amendment will be required to redesignate the areas to Country Residential and Parks and Natural Space.

2.2 ZONING

Development activities within the City must adhere to the Zoning Bylaw. The primary purpose of the Zoning Bylaw is to facilitate organized, efficient, and socially responsible development, while aligning with the goals and objectives set forth in the OCP. To achieve this, the Zoning Bylaw establishes specific land use zones and corresponding regulations that dictate the permissible use, location, type, and extent of development for each land parcel in Dawson City. It also includes guidelines to preserve and enhance the City’s distinctive character and historical significance.

2.2.1 ZONING BYLAW (2018-19)

The planning area is currently zoned FP – Future Planning (FP). The purpose of the FP zone is to maintain the land as open space until it is needed for development while also identifying potential areas for future growth in the community. These areas have the potential to accommodate various land use designations. A zoning amendment will be required to redesignate the area to Country Residential and Parks and Natural Space.

2.2.2 CITY HERITAGE MANAGEMENT PLAN (2008)

Dawson City boasts a wealth of distinctive heritage resources, shaped by its strategic location within the heart of the TH traditional territory and its historical ties to the gold rush era. The Heritage Management Plan establishes a framework for the preservation and management of cultural landscapes and divides the Klondike Valley Cultural Landscape into eight distinct Character Areas. The Klondike Valley Character Area encompasses the stretch of the Klondike River Valley extending from Hunker Creek to Bonanza Creek, encompassing the Dredge Pond II study area. The management recommendations and guidelines for this character area are rooted in the commitment to safeguard all elements of the natural and historic landscape that are valued by the community. This encompasses the preservation of notable features such as the dredge tailings and ponds.

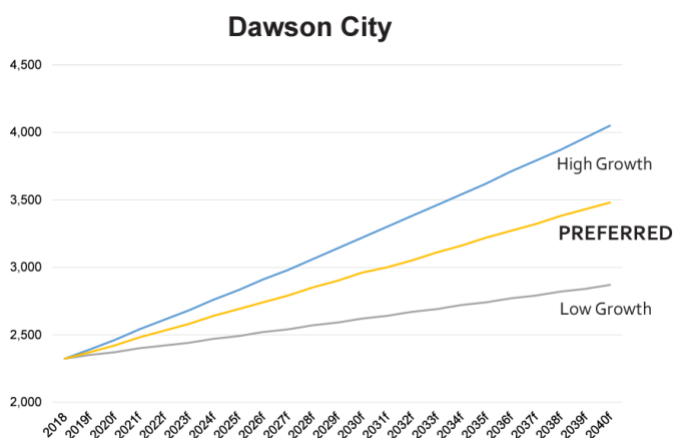
2.3 POPULATION & GROWTH

According to the Yukon Bureau of Statistics (Third Quarter, 2022), the estimated population of the Dawson City area was 2,331. The City of Dawson's OCP (2018) has identified a primary objective: to enhance the availability of diverse residential housing options. This objective aims to cater to individuals of different ages, income levels, and lifestyles, providing them with comfortable living arrangements in the community for the short and long term.

2.3.1 GROWTH PROJECTION

Over time, the population of Dawson City has steadily increased, leading to limitations in the housing and rental market in terms of supply and options. The Yukon Bureau of Statistics (YBS) collects population data for the entire territory and specific communities within Yukon. The YBS utilizes projection scenarios extending up to 2040 to provide insights into future population trends. In the most likely scenario, known as the Preferred Projection, Dawson City's population is projected to grow to 3,480 individuals by 2040. This represents an increase of 1,149 people compared to the population in 2022 (Figure 3). These projections offer valuable insights into the anticipated population growth within Dawson City over the coming years.

FIGURE 3: DAWSON CITY POPULATION PROJECTION (YBS, 2018)

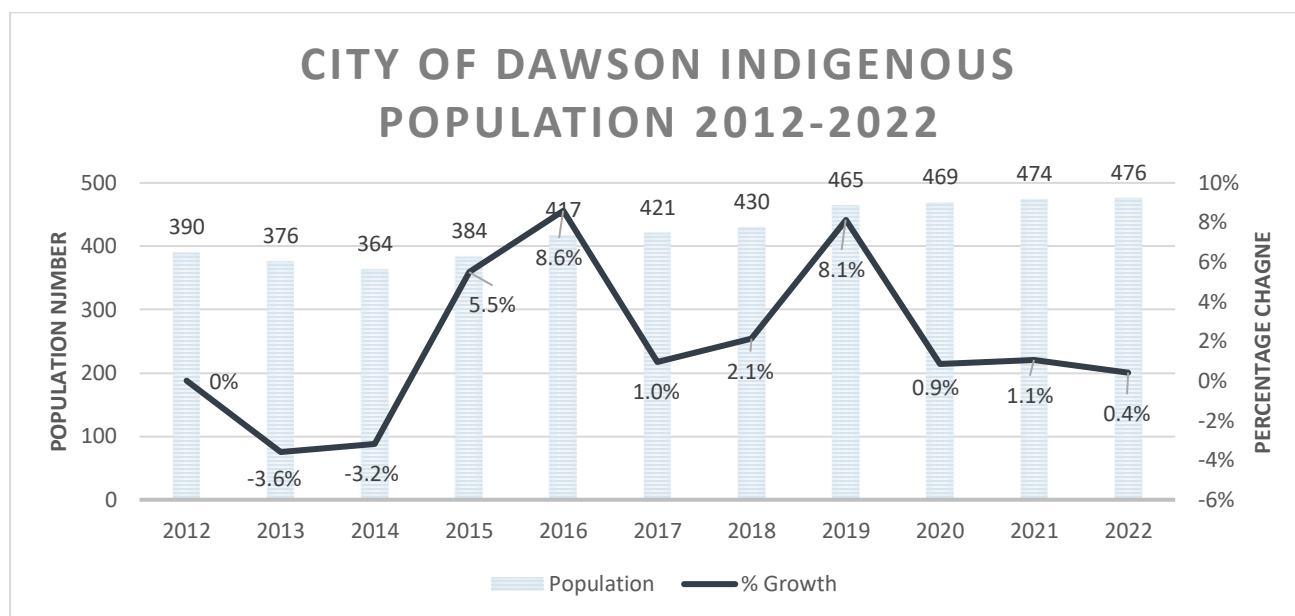


2.4 INDIGENOUS POPULATION: DAWSON CITY

Indigenous peoples play a significant role in the demographic makeup of Dawson City. As per the 2016 Census, the indigenous population accounted for 31.4% of the total population. The growth rate within the indigenous population in Dawson has been similar to that of the overall Yukon growth pattern. As shown in Figure 4, the indigenous population has steadily increased by approximately 2.1% annually (YBS, 2022).

Based on this growth rate, we can anticipate that the indigenous population in Dawson could expand by approximately 110 individuals, reaching a total of 586 by 2032.

FIGURE 4: INDIGENOUS POPULATION 2012-2022 – DAWSON CITY (YBS, 2022)



2.5 SITE CONDITIONS

2.5.1 ENVIRONMENTAL CONDITIONS

The planning area is characterized by relatively flat terrain with only minor changes in elevation due to tailing piles and ponds. The planning area underwent significant dredging, resulting in a landscape characterized by piles of rocks and boulders resting on compacted silty soil. Most of the tailings piles and peripheral deposits along the Klondike River shoreline are currently experiencing erosion, primarily caused by streambank erosion and seasonal flooding / channel migration.

Vegetation within the planning area is sparse. Mining disturbance removed organic soil horizons, so the ground conditions do not provide good conditions for vegetation growth. Nonetheless, there is evidence of vegetation communities returning slowly and re-generation of surface soils in some areas.

A Phase I Environmental Site Assessment (Phase I ESA) was completed during the pre-planning stage. The Phase I ESA did not reveal any evidence that historical or current site usage involving the storage,

use or disposal of hazardous substances on the subject property (Chilkoot, 2021). A subsequent Phase II Environmental Site Assessment (Phase II ESA) was conducted. One lead exceedance of the Yukon CSR standards was found at the location of an oil filter. During fieldwork, there were no visual or olfactory indications of contamination (no surface staining or odours). No other metals, VOCs, or hydrocarbon exceedances of the Yukon CSR standards were identified from the laboratory results. The area was cleaned up and remediated. No further environmental work is recommended.

2.5.2 FLOOD RISK

The Dredge Pond II Subdivision is located entirely within the Klondike River floodplain. As such, there is an increased risk of flooding from the Klondike River. YG hired YukonU Research Centre (YRC) to conduct a preliminary flood exposure assessment of the Dredge Pond II planning area.

According to YukonU, the water levels in the Klondike River are influenced by three primary factors:

- The quantity of water passing through the channel over a specific period typically measured in cubic meters per second (a higher flow rate corresponds to increased water levels).
- The water level downstream of a specific point. Similar to the impact of a dam, higher water levels downstream result in more water accumulating upstream, leading to increased water levels in that section of the river.
- The shape and roughness of the river channel also impact water levels. Obstacles such as large rocks, woody debris, and ice accumulations within the channel slow down the flow of water.

Understanding these dynamics is crucial for managing and predicting water levels. YukonU developed a model for the Klondike River using the Hydrological Engineering Centre's River Analysis System (HEC – RAS) program, developed by the United States Army Corps of Engineers. This widely used engineering tool is commonly used for designing hydraulic structures and developing flood maps. The topography of the Klondike River valley was obtained from a digital elevation model (DEM) provided by Yukon Geomatics, derived from LiDAR surveys. Bathymetry data for a small section near the Klondike Highway bridge came from a previous hydrodynamic model by Morrison Hershfield, while the rest of the sections used estimated bathymetry from aerial images during low-flow conditions.

According to YukonU, the calculated 200-year water surface elevation varies non-linearly between the upstream (342.5 m) and downstream (335.5 m) elevations. The study revealed a significant floodplain on the north side of the river and opposite the Dredge Pond II planning area, which serves for water evacuation at high flow or in the presence of ice jams.

Despite the significant room (i.e., freeboard) available for the river and land development, YukonU classified the area as Yellow (an area only partially available for development) for the following reason (Figure 5):

- As past satellite images reveal, the Klondike River remains mobile due to normal and climate-change-induced hydrological processes and in response to the placer mining legacy. This means that the bed elevation could continue to vary, that meanders, and gravel bars will keep adjusting, and that ice jam toe locations will change, all of which decrease certainty in characterizing the flood potential / risk.

FIGURE 5: AERIAL VIEW OF THE DREDGE POND II MASTER PLAN AREA



*with simulated 200-year water levels (YukonU Research Centre, Yukon University, 2021).

2.5.3 GEOTECHNICAL CONDITIONS

Chilkoot Geological Engineers Ltd completed a Geotechnical Feasibility Assessment in 2021. This assessment delineated regions within the planning area suitable for development (Figure 6). Overall, geotechnical conditions within the planning area are anticipated to be suitable for a country residential subdivision (Chilkoot, 2021). A total of 58.1 hectares have been identified as suitable for development or marginally suitable for development (Figure 6).

Given the planning area's proximity to the Klondike River and the floodplain, Chilkoot advises that cautions will need to be exercised throughout the development. Chilkoot suggested that the tailings piles could be utilized to fill designated ponds and low-lying areas in compacted layers. However, it is important to acknowledge that any alterations made to the tailings ponds could impact the existing drainage regime. Therefore, the infilling of each individual pond needs to be thoroughly evaluated on a case-by-case basis, considering the specific circumstances and potential implications.

2.5.3.1 ROAD DEVELOPMENT

Chilkoot suggests that the tailings should generally be suitable for use as road base and lot subgrade materials. Engineered civil works should be properly shaped to establish positive drainage which incorporates the use of ditches and culverts.

Importing granular subbase and base course materials may be necessary to establish the roadway structure if they are not produced onsite. In areas where roadways are constructed over fill (e.g., ponds or low lying areas), Chilkoot suggests that additional time will likely be required for stabilization, considering potential long-term settlement. As a result, these regions may initially require additional maintenance until sufficient consolidation occurs. It is recommended to delay the application of

bituminous surface treatment (BST) (if required) until the roadways have adequately stabilized. This approach ensures that the roadways are suitable for receiving BST and promotes long-term durability.

2.5.3.2 BUILDINGS AND SEPTIC FEASIBILITY

Buildings are anticipated to be able to use conventional shallow concrete foundations and or crib-type foundations, which would allow for releveling if necessary (Chilkoot, 2021).

When lots allow, septic fields are anticipated to be feasible. Septic fields will need to be located within areas with pre-existing mining tailings (Chilkoot, 2021). In addition, septic fields will need a 30m setback from any source of potable water, natural boundary or high-water level of any water body (Design Specifications for Sewage Disposal Systems, Yukon, 2022). However, should percolation rates be unsuitable, or areas of pre-existing tailings are not present within the lot, the option of using holding tanks may need to be explored. This option will need to be done in compliance with the Government of Yukon Environmental Health and Safety requirements.

2.5.4 RECREATION USE

The planning area offers valuable recreational opportunities to the residents, boasting an extensive network of informal trails spanning a total length of approximately 8.2 km. These trails serve as pathways for walking, accessing ponds for swimming, the Klondike River, and additional recreational areas within the planning area (see Figure 7).

The ponds within the planning area hold both aesthetic and recreational values. They contribute to the beauty of the surroundings and offer a range of activities for residents. Swimming is a popular activity during the warmer months, with five of the ponds providing local swimming areas. Fishing is also enjoyed by many, as the ponds are home to diverse fish species. Beyond their recreational significance, the ponds and tailings mounds are viewed as having historical importance as a visual touchstone from the post-goldrush dredge period.

2.5.5 HERITAGE

When considering the development of the area, it is crucial to evaluate the potential impact on heritage resources. To ensure the responsible development of a country residential area within the planning area, a Heritage Resource Impact Assessment (HRIA) was conducted in 2021 by Ecofor Consulting.

The field crew identified 10 historic rock stacked features on top of tailing piles. Additionally, field crews identified 29 anchor cable sites, 11 pole hole stone piles, seven dredge buckets, and several areas of scrap metal, cables, and insulators. No specific areas of pre-contact archaeological materials were noted. The HRIA recommended that at least one rock-stacked feature be avoided and materials be relocated to the proposed heritage park. No further heritage work is recommended. Ecofor identified certain areas of special interest.

2.5.6 FISHERY RESOURCES

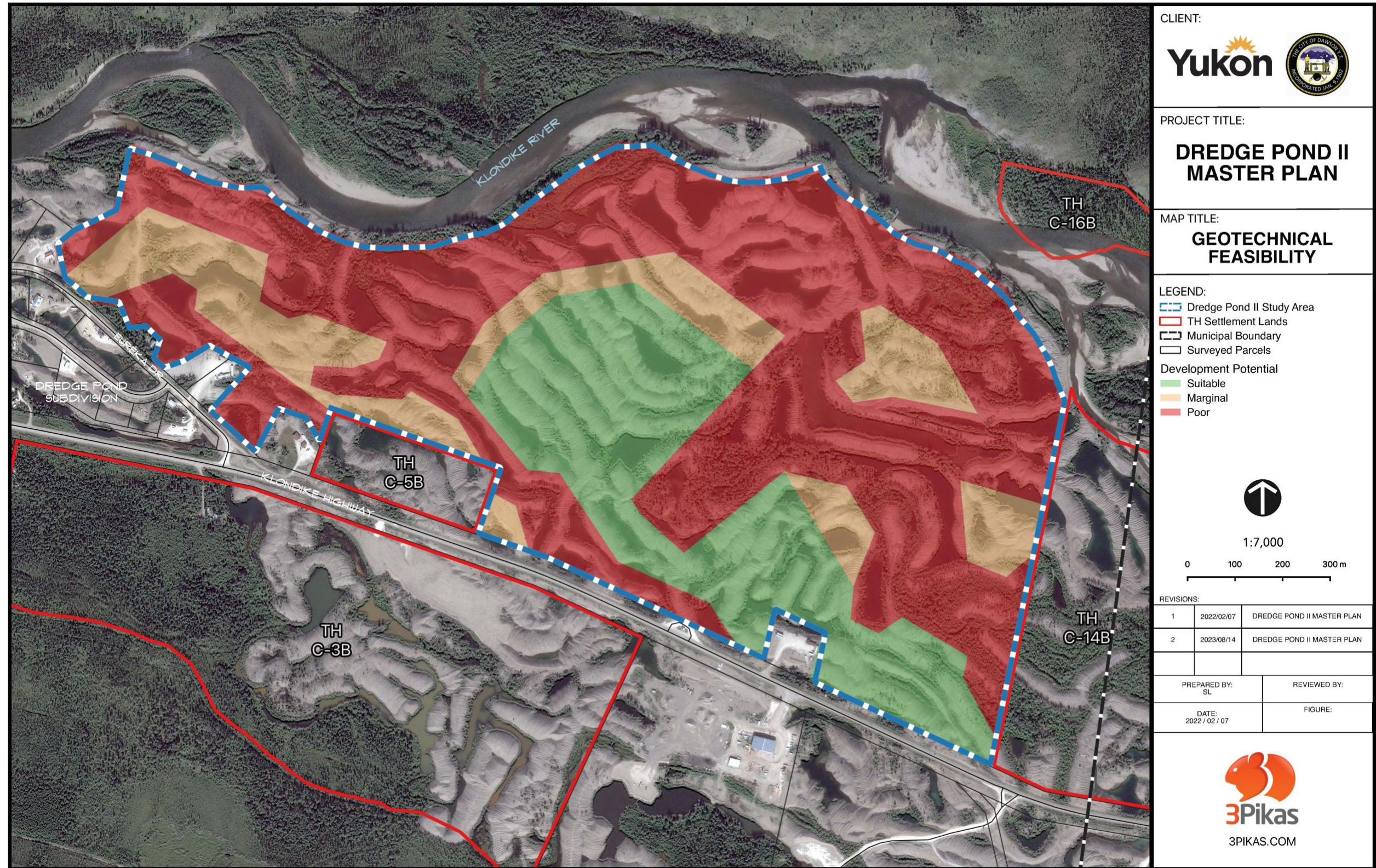
The planning area, located in the historic Klondike River Valley, has a significant legacy of gold dredging that dates back to the early 1900s, spanning over a century. As the gold dredges operated along the riverbanks to extract gold from the underlying deposits, they inadvertently left behind small ponds in

their wake. These ponds, created as a result of the dredging process, have been found to support fish populations.

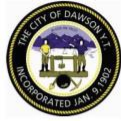
To gather information about the fish populations, a comprehensive field study was conducted in 2012 by Environmental Dynamics Inc (EDI). This study, known as fish mapping, aimed to assess the fish diversity and distribution within the 61 ponds surveyed and sampled. The findings revealed that out of the 61 ponds, 40 contained various fish species. Moreover, among these 40 ponds, 17 were identified as having fish species that are significant to the Commercial Recreational Access (CRA) fishery (EDI, 2012).

Typically, ponds that harbour fish, especially those with CRA fish species, are more commonly found in closer proximity to the Klondike River shoreline. However, it is worth noting that exceptions to this general pattern does exist, as illustrated in Figure 8. Fisheries Act Authorization will be required as well as a fish-habitat offsetting program as part of the implementation of this project.

FIGURE 6: GEOTECHNICAL DEVELOPMENT SUITABILITY



CLIENT:

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

PROJECT TITLE:

**DREDGE POND II
MASTER PLAN**




MAP TITLE:

**GEOTECHNICAL
FEASIBILITY**

LEGEND:

-  Dredge Pond II Study Area
-  TH Settlement Lands
-  Municipal Boundary
-  Surveyed Parcels

Development Potential

-  Suitable
-  Marginal
-  Poor

0 100 200 300 m

1:7,000

REVISIONS:

1	2022/02/07	DREDGE POND II MASTER PLAN
2	2023/08/14	DREDGE POND II MASTER PLAN

PREPARED BY: SL

REVIEWED BY:

DATE: 2022 / 02 / 07

FIGURE:


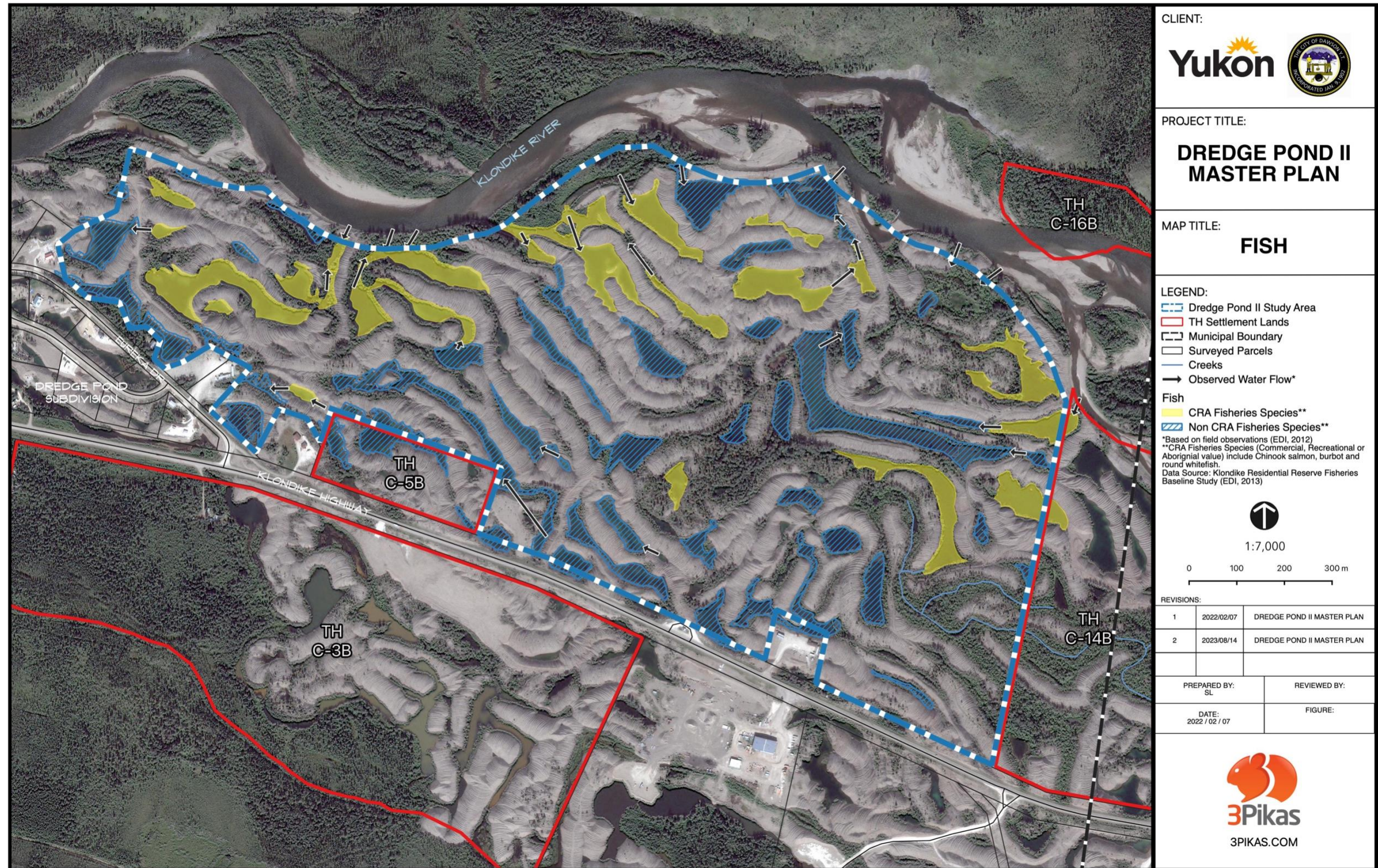

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FIGURE 7: RECREATION VALUES



FIGURE 8: FISH



3 COMMUNITY ENGAGEMENT

The Dredge Pond II project placed great importance on engaging Dawson City residents, stakeholders, and TH citizens. However, due to the increasing COVID-19 restrictions at the time, all originally planned in-person public engagement events had to be cancelled and transitioned to online platforms in late 2021 and early 2022. The public engagement process involved three surveys and one webinar.

The first survey was conducted for approximately one month and was made available on the City of Dawson's project website on December 21st, 2021. Physical copies of the survey were available at the City of Dawson Main Office building. The second survey was posted on the City of Dawson's project website from June 13th to July 3rd, 2022. A separate survey was designed specifically for TH citizens and was accessible online and in paper format. The survey was conducted for a two-week period in May 2022. Additionally, a mailout was sent to all TH citizens residing in the TH traditional territory to inform them about the project, invite their participation in the survey, and solicit input.

In total, 100 people completed the first survey, and 33 completed the second survey. All relevant information regarding the project was posted on the Dredge Pond II project page on the City's website.

On January 11th, 2022, a webinar was organized on Zoom, jointly hosted by the Government of Yukon, the City of Dawson, and 3Pikas. The Project Team delivered a presentation followed by a question-and-answer session. Approximately 22 individuals attended the webinar.

Furthermore, on January 20th, 2022, the Project Team delivered a presentation to the Heritage Advisory Committee (HAC) of the City of Dawson.

3.1 ENGAGEMENT GOALS

The goals of the public engagement were:

- To inform Dawson City residents and TH Citizens about the project;
- Gather input to help develop a vision for the future subdivision, inform neighbourhood principles, and identify key design considerations;
- Present the draft vision and principles; and
- Present options and gather input.

3.2 WHAT WE HEARD

The following provides a summary of the comments received during engagement that are related to the overall development. Comments about draft concept plans were used to produce the final concept plan.

Key Themes include (in no particular order):

- History and dredge tailings
- Partnership and collaboration with Tr'ondëk Hwëch'in
- Community and community spaces
- Recreation, trails and connections
- Housing and Affordability
- Klondike River and flood hazards
- Protecting sensitive areas and wildlife

3.2.1 WEBINAR

Participants provided comments on the following during the January 2022 webinar:

- Retaining a portion of the tailings.
- The area's heritage value includes artifacts and cultural resources.
- The area's recreation value includes trails, swimming, fishing, etc.
- The proposed mechanism for releasing the lots out onto the market. The lot release timing and the proposed lot sizes.
- The Klondike River: The interplay between the Klondike River and the flood zone and the need for flood mitigations.
- The potential for the planning exercise to consider the provision for shared septic systems.
- The need to consider adjacent land uses and the future development plans on TH C-14B.

3.2.2 FIRST SURVEY: DECEMBER 2021 / JANUARY 2022

The primary objective of the initial survey was to collect feedback from the community, which would then be used to shape the subdivision's vision, principles, and other essential values that would serve as guiding principles for the design process. 100 people completed the first survey.

Survey respondents provided comments on the following:

- A large portion of respondents (75) identified the Klondike River as a high-priority area to be considered in the plan.
- Other special areas or features identified by respondents include:
 - Tailing piles
 - Trails
 - Water

- Natural areas
- Wildlife areas
- 88 respondents identified establishing trail linkages to connect Dredge Pond II with existing nearby subdivisions and other parcels as a medium to high priority.
- 83 respondents identified protecting trails as a medium to high priority.
- 88 respondents identified establishing trails to connect Dredge Pond II with the Klondike River as a medium to high priority.
- While 20 respondents identified preserving the character of the dredge tailings as a high priority, 33 respondents identified preserving the character of the tailings as a low priority.
- 80 respondents assigned a medium to high priority ranking to neighbourhood parks.

In considering sustainability and resiliency, these were the common themes heard:

- Consider climate change and build climate change mitigations and adaptations
- Incorporate appropriate setbacks from the River to avoid flooding
- Include social and affordable housing
- Preserve a critical mass of historic dredge tailings
- Create appropriate lot sizes
- Partner with Tr'ondëk Hwëch'in
- Consider natural eco-systems and maintain publicly accessible greenspace along the Klondike River
- Create community space, community connection, and amenities
- Respect and retain the heritage character and resources
- Encourage revegetation to help increase ecological diversity

Finally, survey participants were asked about their big ideas for what would make Dredge Pond II a truly great subdivision? These were the common themes heard:

- Include space for children and youth
- Include a setback from the highway to reduce traffic noise
- Set aside lots and make them accessible to low-income and first-time buyers
- Provide a range of lot sizes
- Consider an innovative land lottery approach
- Create affordable lots
- Provide country residential housing with a shared central community space
- Include a section for higher-density residential
- Incorporate space for a large community garden
- Consider including a community park
- Consider houseboats on some of the ponds
- Consider setting aside some of the ponds for swimming

3.2.3 SECOND SURVEY: JUNE / JULY 2022

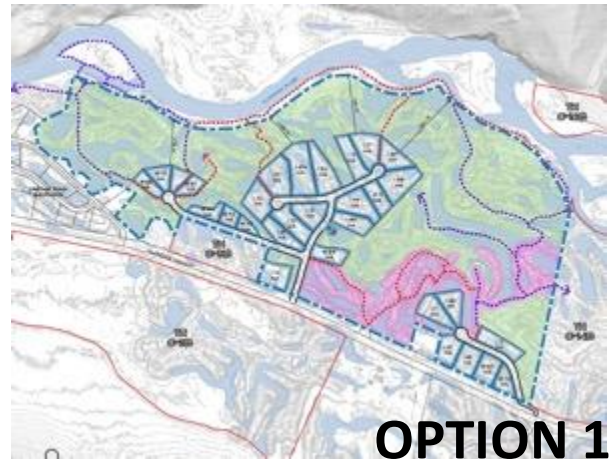
The primary aim of the subsequent survey was to solicit input from the community regarding draft vision and the two proposed draft options. Survey participants provided comments on the following:

- **Vision:**

- One person commented that the vision lacked an emphasis on affordability and access to land and housing.
- Another respondent noted that the vision could be improved by including a reference or statement on the need for all new infrastructure to be green and low carbon.

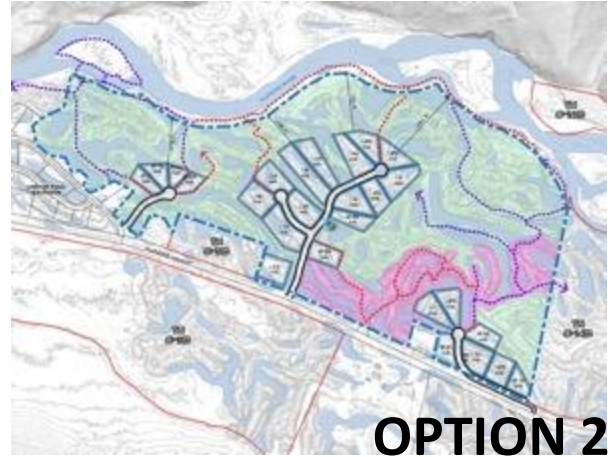
- **Option 1:**

- Respondents generally appeared favourable toward option 1. One respondent stated, "I believe option 1 is the best viable configuration. I do also think that we could reclaim some of the old dredge ponds and allow for expansion in the future."
- Another respondent mentioned being in support of the clusters approach "as they make a greater community vibe but I do think you need more lots added to some of these."
- One respondent inquired about the lot sizes and was concerned that some of the lots would be subdivided in the future.
- One respondent noted not being worried about the impacts on the tailings. They noted that there are many more in the region and many more in the Klondike valley. They went on to say that producing liveable space and retaining space needed to provide trails into and out of the subdivision is badly needed and is more important at this point.
- One respondent referred to the large green space area, the trail network, and the dredge tailings as favourable features and agreed with the level of protection placed on these features.
- Finally, one respondent commented on the need for more compact residential living.



- **Option 2:**

- Respondents appeared to be slightly less supportive of this option.
- The proposed number of lots was noted by one respondent as being less favourable than option 1.
- The configuration of the lots was also noted as being less favourable than option 1.
- One respondent mentioned that the elongated lot configuration was less useful and family friendly.
- One respondent mentioned not agreeing with the need for a historic tailings park as housing was more of a priority, while another noted that there wasn't enough dredge tailing protection.



4 VISION & PRINCIPLES

The following vision for the development was developed with input from City of Dawson residents and the Dawson City Council. It considers the broad demographic trends as well as the needs and goals of the City of Dawson looking towards the future.

“Dredge Pond II is a unique, livable, connected, and resilient subdivision. It protects the eclectic mix of historic resources and celebrates the diversity of cultures and the past. Dredge Pond II is designed to encourage a sense of community and interactions amongst residents and the public. It provides a number of residential lots to cater to a range of ages and incomes and family circumstances.

The Dredge Pond II subdivision is centered around an extensive maze of ponds and trails, which wind through the subdivision stretching from the Highway to the Klondike River connecting green space and providing access to natural amenities. It will be designed to integrate with nearby Tr'ondëk Hwëch'in C-5B and C-14B.”

4.1 DEVELOPMENT OBJECTIVES

The development objectives provide specific direction for how the vision will be carried through the Master Plan and subsequent development. These objectives will serve as a framework for various planning aspects, including lot layout, the design of greenspaces, trails, road networks, and supporting community infrastructure. The objectives also provide greater detail on the overall design intent for the neighbourhood.

4.1.1 NURTURE EXISTING NATURAL AREAS

The Dredge Pond II is designed to include existing natural areas and respond to natural features. This may include the Klondike River riparian area, ponds, watercourses, and native plant vegetation.

Intent:

- Identify and preserve significant environmental and ecological resources and natural areas within the Dredge Pond II area.
- Design the subdivision layout to avoid unnecessary disturbance of major natural areas or significant landscape features.
- Utilize existing natural areas as part of public green spaces and/or incorporate a trail network within these areas.
- If possible, connect natural areas with larger, ecological networks to allow for wildlife movement and improve ecosystem services.



PHOTO: TYPICAL DREDGE POND II VEGETATION

- Subdivision design should incorporate elements to protect and enhance the Klondike River riparian areas.

4.1.2 CONNECT TO THE RIVER

Public connections to the Klondike River should be provided where opportunities exist while respecting and acknowledging private spaces, the river, and the flood zones in the design of the subdivision.



PHOTO: KLONDIKE RIVER

Intent:

- Only low-vulnerability recreational uses should be retained along the river corridor to accommodate floodwaters.
- Connect trails with trail networks located in adjacent subdivisions.
- Connect open spaces with trails.
- Maintain and, where possible, provide access to the Klondike River for recreation.
- Maintain a riparian buffer along the Klondike River corridor.

4.1.3 FOSTER A DISTINCT HERITAGE AND CULTURAL IDENTITY

Distinct, yet connected land uses within Dredge Pond II, each with its own unique purpose and character, should be fostered. Features, focal points, natural elements, and heritage resources are integrated and represented in various locations within the subdivision. The subdivision retains a distinct ‘look and feel’ unique to the dredge tailings, including the piles, rock stacks, and other heritage resources.



PHOTO: ROCK STACKS

Intent:

- Preserve existing tailings and, where possible, create new viewpoints.
- Reflect and incorporate Dawson and Tr'ondek Hwëch'in natural or cultural features of the site in some of the following elements: Street names, signage design and materials (e.g., street signs, entrance signs, plaques), and trail elements (e.g., interpretive signage).
- Incorporate tailings features that signal arrival and departure from the Dredge Pond II subdivision.

4.1.4 CREATE A RESILIENT NEIGHBOURHOOD

The subdivision should be resilient and adapt to changing conditions such as climate change and changes in residents' needs and preferences. Resilient subdivisions are designed for efficient infrastructure and are able to respond and adapt to changes.

Intent:

- Incorporate a climate lens of resiliency in the design of new infrastructure.
- Minimize hard surface infrastructure requirements, optimize infrastructure use, and avoid duplication where possible.
- Seek out and create partnerships to deliver amenities and share in risk (e.g., co-locate complementary uses, share access and service areas, etc.).
- Where possible, restore and/or adapt existing tailings to preserve heritage features.
- Re-direct post-development flows away from ponds with CRA fish species where possible to maintain their habitat quality.
- Reduce community vulnerability to flooding by providing a large lateral setback from the river and locating residential uses in areas identified as suitable for development or marginally suitable for development.
- Only low-vulnerability recreational uses should be retained along the river corridor.

5 DEVELOPMENT CONCEPT

The concept plan illustrates the overall land uses, road, and proposed development fabric. This plan was designed to provide a range of places for people to live and recreate. The plan aims to develop the dredge tailings area while limiting the impact on aquatic life and areas of interest.

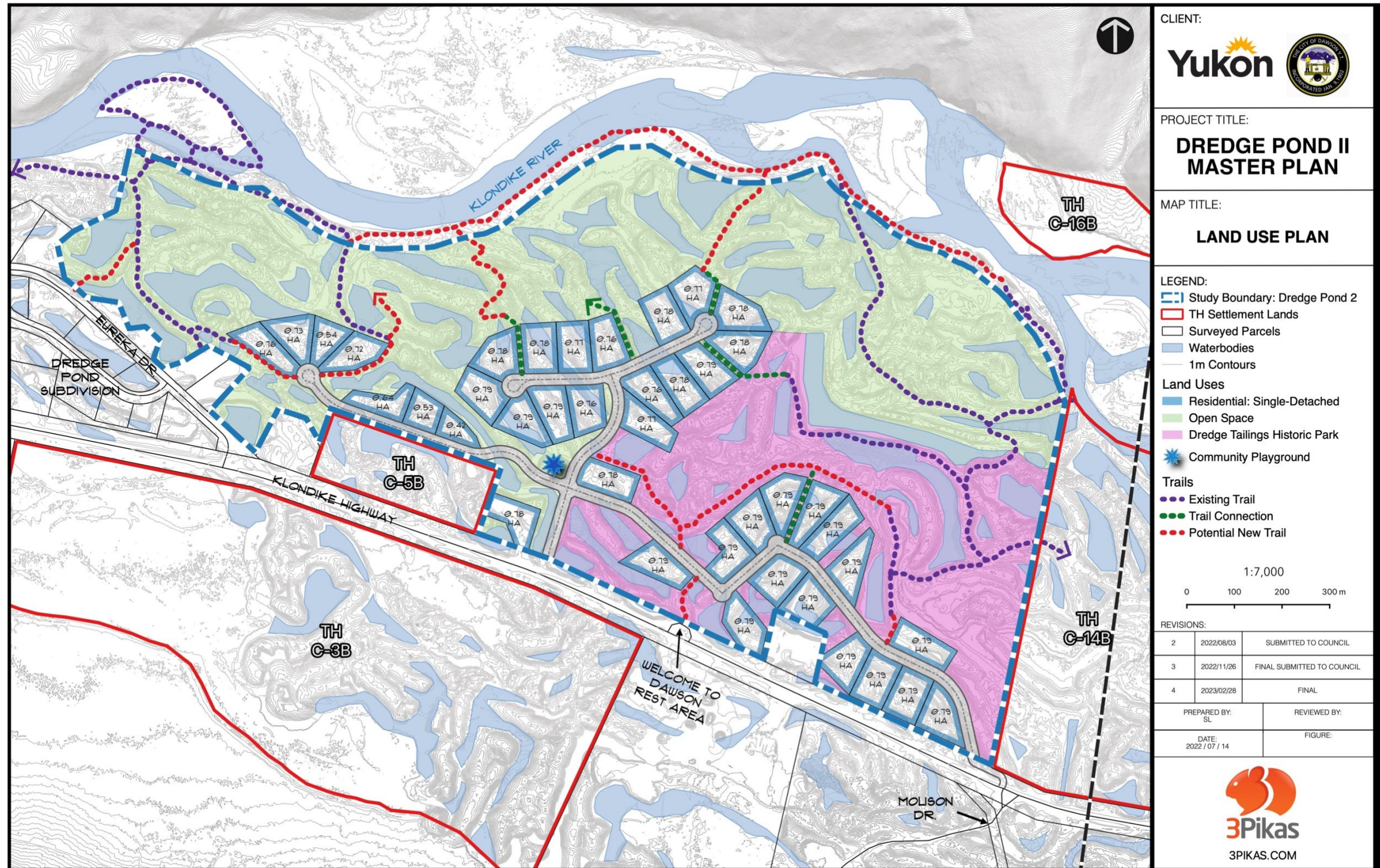
Overall, Dredge Pond II is designed to conserve and connect with its natural environment and honour its heritage. A vast open space network is integral to the subdivision concept, connecting the residential lots, community park, natural areas, and the Klondike River. More specifically, a large open space area was planned primarily for human use and enjoyment but also serves as a temporary water retention area during extreme flooding events. A historic park space fosters and encourages an active community while retaining the historic value of the tailing piles and ponds (Figure 9).

The proposed development concept provides a variety of residential lot sizes, allowing for country residential living, which requires relatively large lots to facilitate onsite services. The Master Plan also considers greenspace, land use, and its importance in building a community with a natural feel.

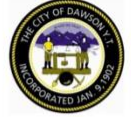
This development concept is based on a development pattern comparable to the adjacent Dredge Pond Subdivision and other existing developments along the Klondike River valley. This approach promotes “recycling” areas with a high concentration of tailing piles and avoids areas requiring a large amount of fill. It focuses on reusing and repositioning tailing piles where possible. This strategy helps in minimizing earthwork and regrading, even though large quantities will still be necessary.

The lot design and configuration took into account municipal and environmental regulations, which encompassed factors such as minimum zoning setbacks and Environmental Health setbacks. Ponds and open water create building siting challenges, and space is limited. Building on a lot constricted between a road, a pond, and the Klondike River increases vulnerability and reduces overall resilience. For this reason, additional development controls are recommended in Section 5.3. Finally, the irregular nature of the tailings creates potential access limitations and material requirements.

FIGURE 9: CONCEPT PLAN











CLIENT:







PROJECT TITLE:
DREDGE POND II MASTER PLAN

MAP TITLE:
LAND USE PLAN

LEGEND:
 Study Boundary: Dredge Pond 2
 TH Settlement Lands
 Surveyed Parcels
 Waterbodies
 1m Contours

Land Uses
 Residential: Single-Detached
 Open Space
 Dredge Tailings Historic Park
 Community Playground

Trails
 Existing Trail
 Trail Connection
 Potential New Trail

1:7,000



REVISIONS:		
2	2022/08/03	SUBMITTED TO COUNCIL
3	2022/11/26	FINAL SUBMITTED TO COUNCIL
4	2023/02/28	FINAL

PREPARED BY:
SL

REVIEWED BY:

DATE:
2022 / 07 / 14

FIGURE:


3Pikas
 3PIKAS.COM

5.1 LAND USE

The land use plan describes the location, density and type of housing, green space, and community use that will be developed. Land use designations are aligned with the Official Community Plan and are guided by the principles endorsed within this document.

Dredge Pond II is 143 hectares (353 acres). Just under a third of the area is dedicated to housing. The 40 residential lots are organized into three main residential clusters. These clusters offer an advantage in terms of infrastructure, services, and cost. The lots vary in shape, size, and dimension and are accessed via two new accesses on the Klondike Highway. The proposed accesses to the site at the Klondike Highway meet Yukon’s access spacing requirements. The lots were carefully designed to accommodate options for building sites, grading, and onsite holding tanks and arranged to take advantage of tailing piles and topography to create a more sustainable and resilient subdivision. Residential lots are set back from the main Klondike River channel. Based on available information, a 200m to 600m setback could provide flood protection, recreation space, and habitat function.

Approximately half of the total developable area is retained as open space for recreation, habitat function, and flood protection. It is envisioned that open spaces should be at a walkable distance to residential lots. Careful thought went into locating the neighbourhood park space to help facilitate access and to incorporate the wider open space and trail network. More importantly, open space areas provide much-needed space for engineered flood protection structures or physical measures, such as floodplain restoration, to allow flows to bypass potential ice jams while limiting the rise in upstream water levels.

Finally, just under a quarter of the area is dedicated to heritage use and to provide protection for the dredge tailings, cultural landscape, and heritage resources. Access to the Historic Park is provided through a rest area on the Klondike Highway and strategically positioned beside the main entrance to the subdivision. The area is envisioned to include an array of artifacts representative of the time period. Informative signage, plaques, or displays should be strategically placed throughout to provide historical context, stories, and explanations of the significance of various structures or areas.

TABLE 1: SUMMARY OF LAND USE

LAND USE	AREA (HA)	AREA (%)
LOW DENSITY RESIDENTIAL	30.18	21%
OPEN SPACE	72.45	51%
HERITAGE PARK	33.63	23%
ROAD	7.10	5%
TOTAL	143.36	100%

5.1.1 LOT SUMMARY AND ANTICIPATED POPULATION AT FULL BUILD-OUT

The table below summarizes the dwelling units by type and future population projections. The anticipated housing density of Dredge Pond II is 0.77 du/net ha, with a total housing stock of 44 units, and a population of 88 residents.

TABLE 2: SUMMARY OF NUMBER OF LOTS, UNITS, AND POPULATION CAPACITY

LAND USE / HOUSING TYPE	AREA (HA)	AREA (%)	# OF LOTS	ESTIMATED NUMBER OF SUITES	DU/NET HA	POPULATION**
RESIDENTIAL: SINGLE-DETACHED HOUSING	30.18	21%	40	4	1.46	88

*The estimate is based on 10% of lots having additional dwelling units (i.e., secondary and garden suites).

**The estimate is based on an average household of 2.0 people per household from the 2016 Stats Canada Census

5.2 RESIDENTIAL LAND USE

The essence of residential lots is envisioned to retain the area's natural character. Lot sizes support standard single-detached housing with or without a garden and/or living suites.

Lots vary in size to take advantage of the existing topography. Lot sizes and frontage range considerably from 1 acre (0.40 ha) to 2 acres (0.80 ha) and frontage from 15m to 136m width.

Intent: Provide low-density single-detached housing with a garden or living suite option.

Recommendations for low-density residential:

- Permitted residential use includes single-detached housing.
- All inhabited buildings must be constructed 1m above the 200-year flood elevation per the prescribed subdivision design elevations.
- A garden or living suite may be allowed where design elevations can be achieved in line with the overall grading plan.
- Apply flexible setbacks to reduce the need for cut / fill and reduce the risk of flooding.
- All new lots have buildable areas above the 200-year flood elevation.
- Shared driveways are permitted where there are no options for individual driveways or if residents agree to share driveway development costs.



PHOTO: COUNTRY RESIDENTIAL HOUSING FORM

5.2.1 OPEN SPACE

Creating natural green spaces and open spaces where folks can congregate and recreate is a key theme within the Master Plan. The primary intent of the open space concept is to preserve large areas of connected natural and existing vegetation as habitat, for recreational activities, and as flood prevention.

The open space concept supports a connected multi-use trail system. Where possible, existing trails were retained. These trail connections provide coherent access to future trails. The primary intent of the trails is to create low-impact recreation opportunities.

Recommendations for open space areas:

- Create gathering spaces for community and recreational use.
- Retain a natural look and feel that fits with adjacent development patterns.
- Provide green trails and recreation opportunities.
- Provide flood prevention.

5.2.1.1 PLAYGROUND

The Master Plan incorporates a central playground with access from the main entrance to the subdivision. Playgrounds provide a space where the communities can come together and where children can spend time outside playing and engaging in physical activity. Additionally, having a central playground can help promote active transportation, such as walking or biking, as families are more likely to walk or bike to the playground if it is easily accessible. This can further contribute to a healthy and sustainable community. The playground is intended to include play structures and equipment and could be fitted with roofing or enclosures to provide shelter from snow, wind, and cold temperatures. These covered areas would allow children to continue playing even during light snowfall or chilly weather. To ensure year-round accessibility, the design should account for snow removal and maintenance during the winter months. A successful playground would blend elements of play, safety, cultural appreciation, and environmental awareness while accommodating the unique challenges posed by cold weather and snow.



PHOTO: NEIGHBOURHOOD PLAYGROUND

5.2.1.2 WALKWAYS & TRAILS

Walkways accommodate non-motorized trail use within the neighbourhood and provide pedestrian connections to trails. When a walkway abuts private property, the primary goal is to foster unobstructed access and reduce the potential for encroachment. This is achieved by designing the walkway junction with appropriate signage and soft landscape treatment such as boulders, shrubs, trees, and plants. This signals that the area is a public space (Figure 10). Trails should augment and align with nearby trails, and should be 2 to 3 metres wide.

FIGURE 10: WALKWAY DESIGN & TREATMENT

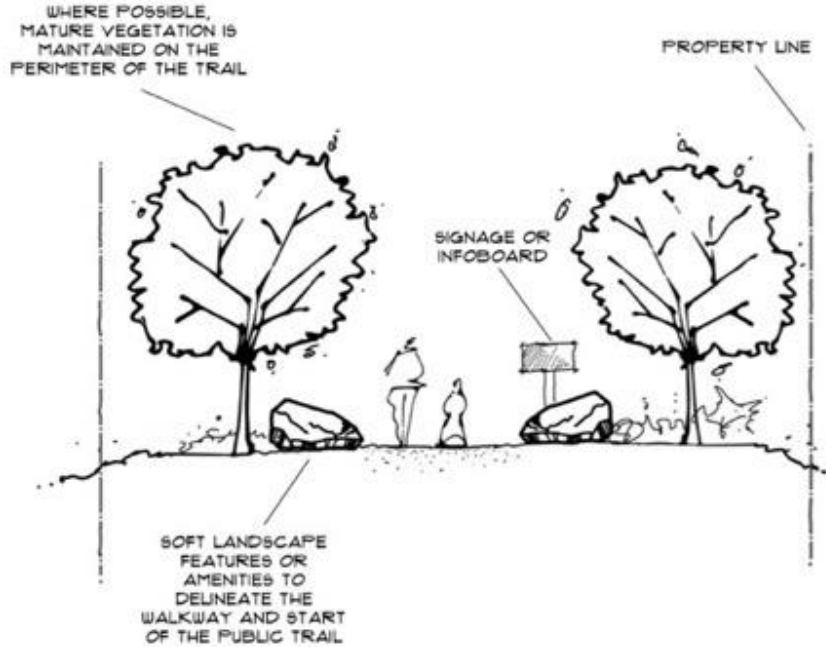


FIGURE 11: PROPOSED SURFACE MATERIAL FOR TRAIL CONSTRUCTION: COMPACT CRUSH



5.2.2 HISTORIC PARK

The City of Dawson historic park provides protection for one of the last remaining sections of dredge tailings within the municipal boundary. While much of Dawson surrounding area was once characterized by rolling tailings piles, the majority of the tailings have been altered by further mineral extraction or other activities and development. As such, the Master Plan incorporates a historic park which encompasses 33.63 ha of the planning area.

Intent: Moving forward through further planning, the City of Dawson should pay attention and respond to the protection of tailings piles, tailings ponds, and other historical assets such as, mining equipment and artifacts. Further, the historic park addresses the protection of these historical assets by promoting low-impact activities and discouraging most forms of development, especially those which may require extensive re-grading. The historic park includes information plaques to facilitate site visits, interpretive trails and boardwalks to guide visitors toward historical assets or areas, and picnic areas for visitors to enhance the visit. While the historic park space does not encompass the entire planning area, the Master Plan suggests that artifacts in the area slated for development and grading be moved to the historic park.

5.3 ZONING AND DEVELOPMENT REGULATIONS

The City of Dawson Zoning Bylaw 2018-19 regulates various aspects of land use and development within the municipality. Among other things, the City of Dawson Zoning Bylaw includes provisions and regulations related to the following: land use, density, building height, setbacks, parking requirements, and subdivision requirements. Overall, the zoning bylaw aims to ensure orderly and compatible development, protect the character of the neighbourhood, promote public safety, and balance the needs of different land uses within the municipality.

The following zones reflects the desired mix of land uses, density, and character for the Master Plan area. The proposed zoning for Dredge Pond II includes Country Residential (R3) and Parks and Natural Space (P1). While Table 3 provides a summary of the zoning proposed within the Master Plan, Figure 12 shows the proposed zoning districts within the plan.

The Country Residential (R3) regulations should be reviewed, and the following changes should be considered:

- The 200-year flood elevation plus a 1m of “freeboard” should be used to establish the elevation of the underside of a wooden floor system or the top of a concrete slab for habitable buildings.
- In the case of a manufactured home, the ground level or top of the concrete or asphalt pad on which it is located shall be equal to or higher than the above-described elevation.
- Buildings should not be constructed in regions where tailings ponds have been infilled due to anticipated settlement.

Low-vulnerability accessory structures such as sheds, greenhouses, and landscaping features are permitted to be situated below the 200-year water level.

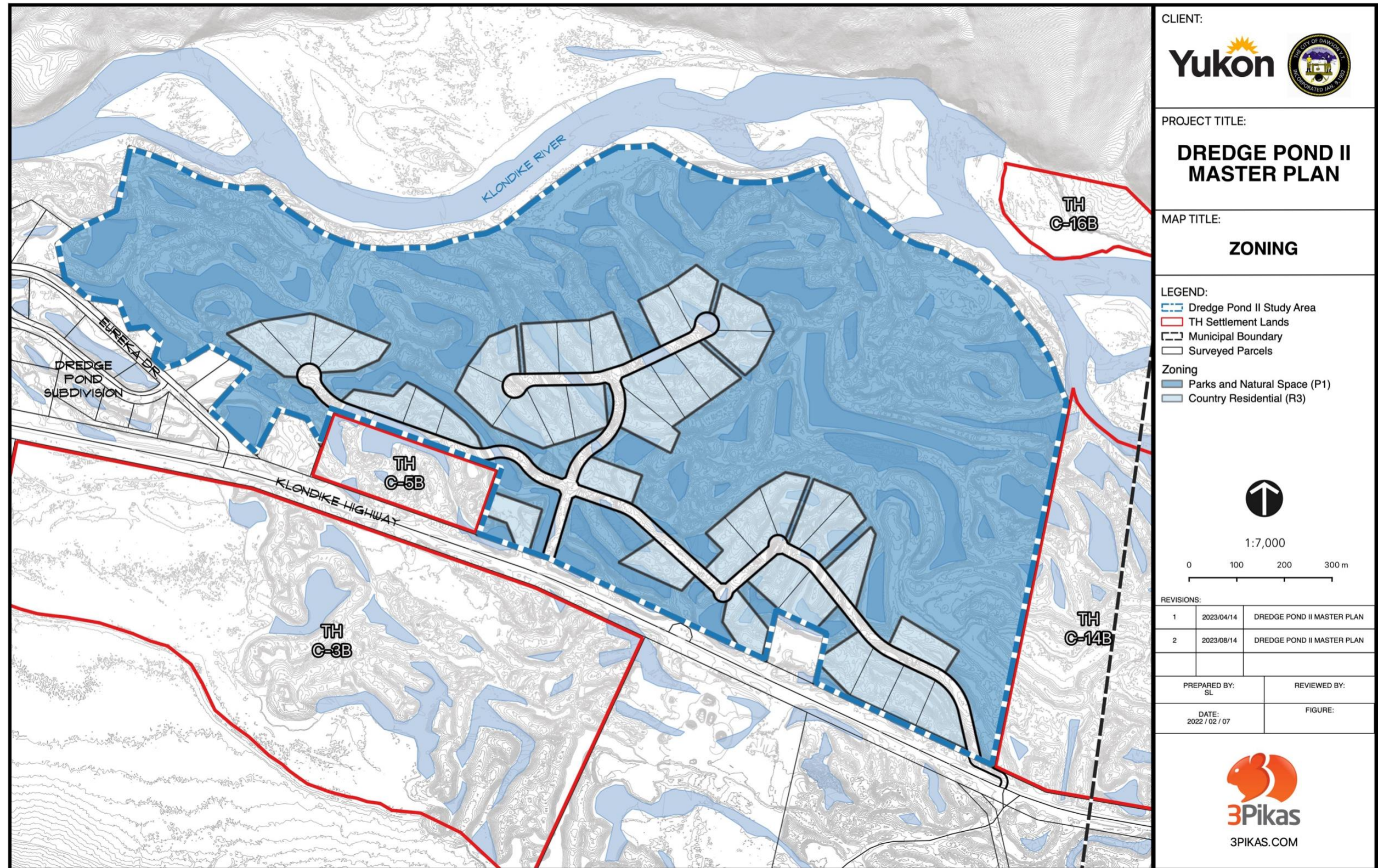
TABLE 3: CITY OF DAWSON ZONING BYLAW 2018-19

ZONING	INTENT	PRIMARY USE
Country Residential (R3)	<i>The purpose of the R3 zone is to permit low-density single detached housing in a rural setting.</i>	<i>Accessory building or structure - Bed and breakfast - Garden suite -Home industry - Home occupation -Modular home - Secondary suite -Single detached dwelling</i>
Parks and Natural Space (P1)	<i>The purpose of the P1 zone is to provide parks and natural areas for outdoor enjoyment.</i>	<i>Accessory building or structure- Campground - Cultural event or display - Park- Dock - Natural science exhibits and interpretive signage - Outdoor recreation facility - Public washrooms - Trails – Vendor, commercial – Vendor, food</i>

5.3.1 SUBDIVISION

Municipal regulation of the subdivision of land manages how parcels of land are divided into smaller lots. The City of Dawson regulates the layout of lots and their development. Subdivision control can ensure that the lots are designed to minimize hazards, are accessible, and can be maintained over the long term. Managing where and how land is divided into smaller lots is important to promote resilient developments to flood hazards. All proposed subdivided lots should have at least one viable building site and comply with all municipal and environmental setbacks. Consent to subdivide should be withheld where these conditions cannot be met. Lots should be less than 0.8 hectares to prevent further subdivision.

FIGURE 12: ZONING



6 ENGINEERING SERVICING PLAN

This section describes the preliminary servicing plan for the infrastructure required for Dredge Pond II. It is important to note that the planning and engineering sections are mutually supportive, and the overall functionality and sustainability of the subdivision depend on these two aspects working together.

The detailed servicing design should be developed with a close review of this master plan and be guided by goals, overall design intent and an integrated approach for the development.

The Preliminary Design Report, including site challenges, predesign, and Class D capital cost estimate, is attached in Appendix A.

6.1 SITE GRADING

The site grading plan was developed with consideration of the following principles:

- Stormwater management – Ensure proper drainage.
- Wastewater servicing – Ensure proper setbacks.
- Roads – Conform to existing topography wherever possible.
- Existing vegetation retention – Evaluate and identify opportunities to maintain vegetation within the lots and greenspace.
- Minimize earthworks – Provide the least earthworks to grade the development.

The overall grading concept plan (Figure 13) identifies proposed finished subdivision elevations and grades of the roads with the corresponding cut and fill shown. Other key components of the grading plan, such as driveways and conceptual minimum lot grading areas, are also shown.

6.1.1 DESIGN ELEVATION

While locating buildings and infrastructure outside the floodplain is always ideal, it is not possible in the case of Dredge Pond II. Dredge Pond II is adjacent to the Klondike River, so the risk of flooding due to ice jams is significant. According to the Yukon University Preliminary Assessment of Flood Exposure Report, the estimated 200-year water level varies non-linearly between 335.5m downstream to 342.5m from west to east, respectively. However, for the purposes of this Master Plan, a linear approach was used to determine the 200-year flood elevation throughout the planning area and a 1m of “freeboard” was added to provide an additional level of safety.

As such, a subdivision design elevation varies between 337m to 344m, from west to east. The minimum road design elevations are specified in the overall subdivision grading plan (Figure 13) and the Road Profile (Figure 14). The minimum lot design elevations are provided in (Table 4).

FIGURE 13: GRADING PLAN

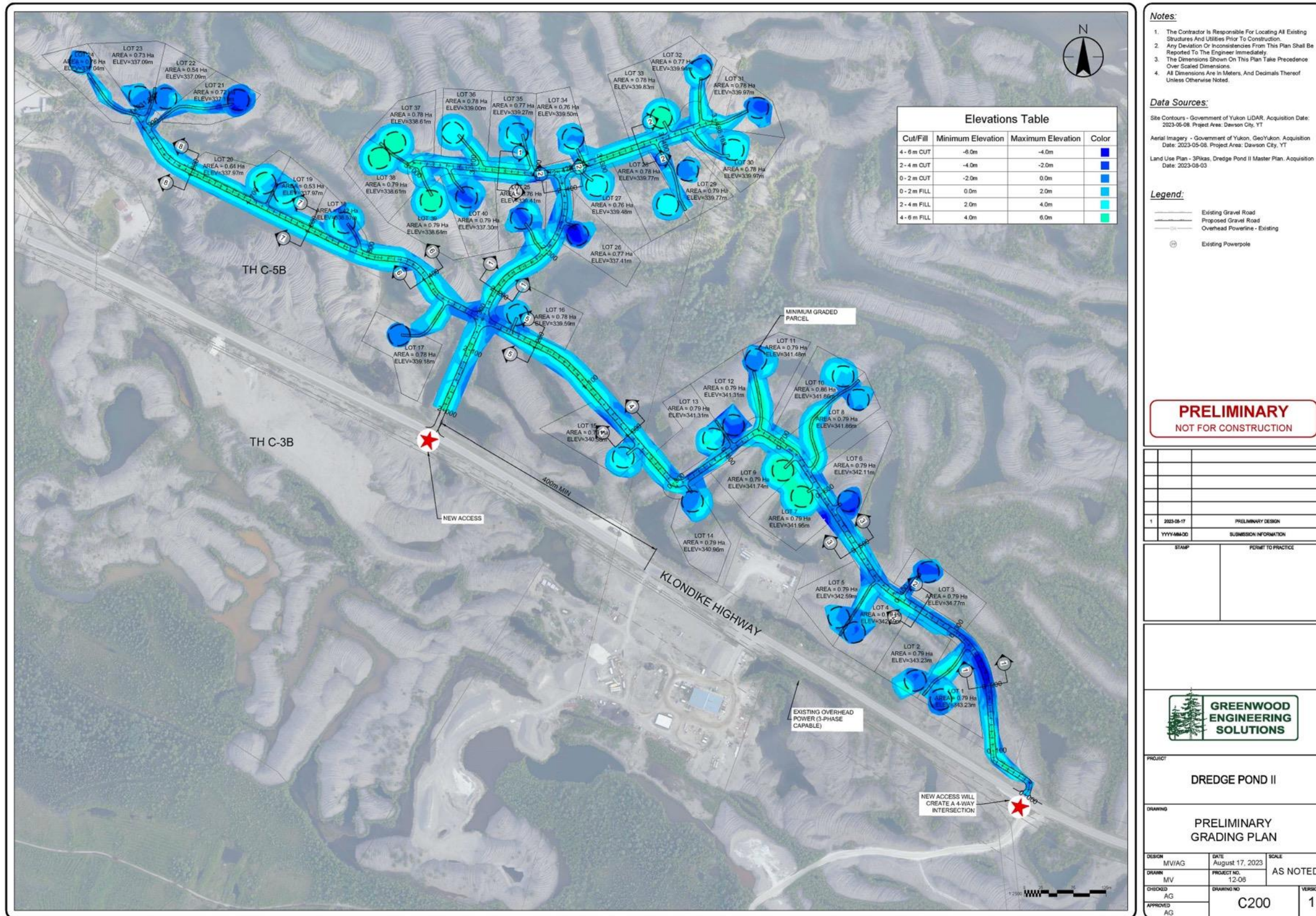


FIGURE 14: ROAD PROFILE

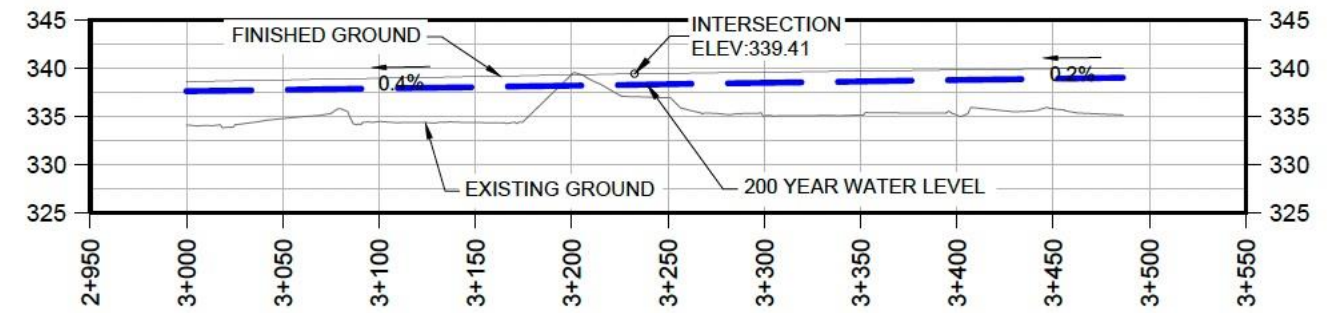
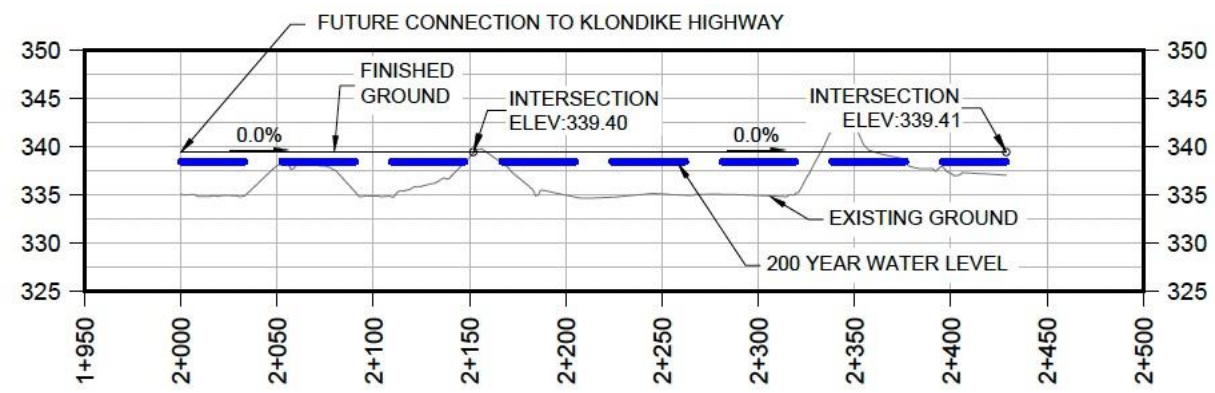
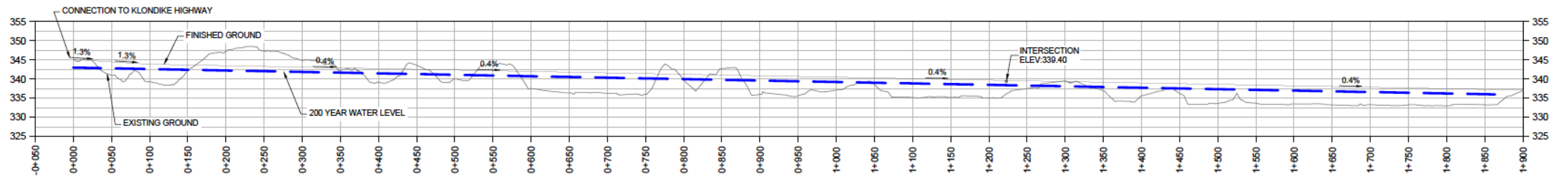


TABLE 4: LOT DESIGN ELEVATIONS

200 YEAR FLOOD DESIGN ELEVATIONS		
LOT NUMBER	LOT AREA (Ha)	DESIGN ELEVATION (m)
1	0.79	343.23
2	0.79	343.23
3	0.79	342.77
4	0.79	342.59
5	0.79	342.59
6	0.79	342.11
7	0.79	341.95
8	0.79	341.86
9	0.79	341.74
10	0.86	341.86
11	0.79	341.48
12	0.79	341.31
13	0.79	341.31
14	0.79	340.96
15	0.79	340.58
16	0.78	339.59
17	0.78	339.18
18	0.42	338.57
19	0.53	337.97
20	0.64	337.97
21	0.72	337.13
22	0.54	337.09
23	0.73	337.09
24	0.76	337.04
25	0.76	339.41
26	0.77	337.41
27	0.76	339.48
28	0.78	339.77
29	0.79	339.77
30	0.78	339.97
31	0.78	339.97
32	0.77	339.94
33	0.78	339.83
34	0.76	339.50
35	0.77	339.27
36	0.78	339.00
37	0.78	338.61
38	0.79	338.61
39	0.79	338.64
40	0.79	337.30

6.2 WATER & WASTEWATER

6.2.1 WATER

Water servicing could be provided using either water delivery by trucks or through well systems, with the final responsibility falling on the property owner in accordance with zoning and development regulations and Design Specifications for Sewage Disposal Systems (YG, Environmental Health Services).

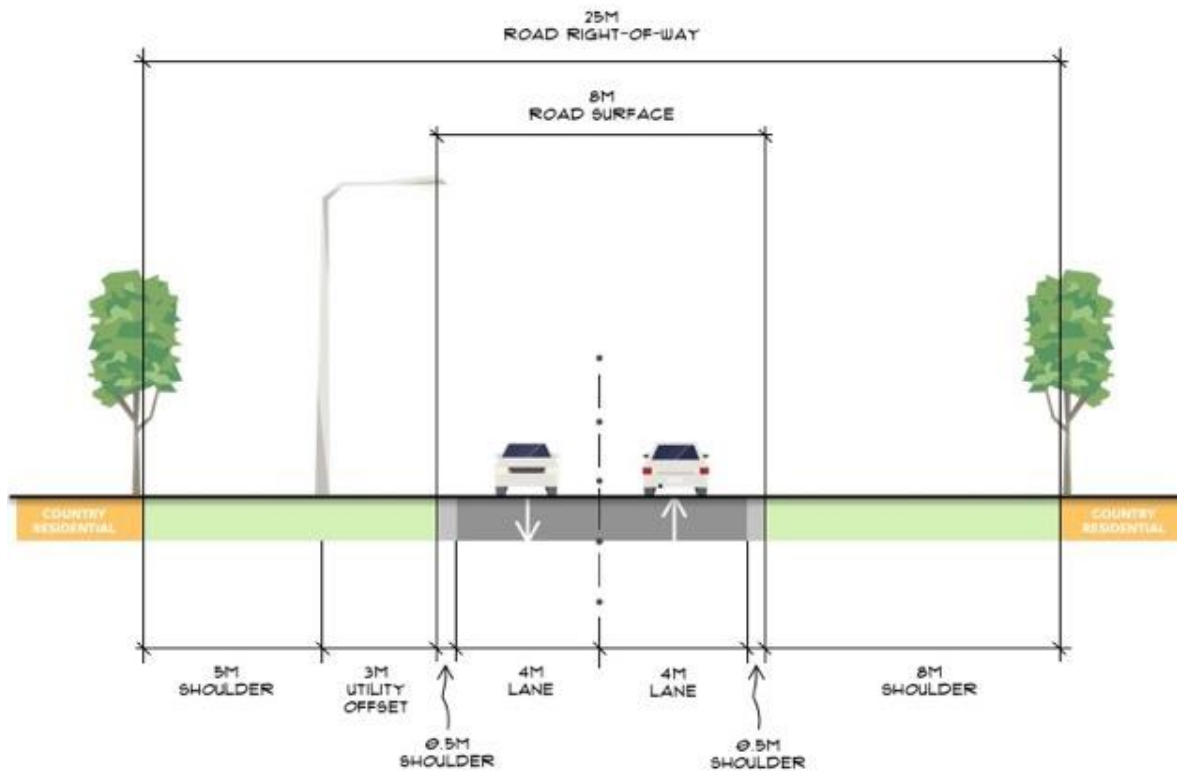
6.2.2 WASTEWATER

Where conditions allow for a 30m setback from any source of potable water, natural boundary or high-water level of any water body, septic fields are anticipated to be feasible. However, given the granular native material on site, the high hydraulic conductivity of the soils to the Klondike River, and the potential for flooding, there is a high risk of septic fields contaminating the river. There must be a minimum of 1.2 m of vertical separation between the bottom of a bed and the seasonally high groundwater table and/or impervious layer (Design Specifications for Sewage Disposal Systems, Yukon, 2022). Septic holding tanks will be required if percolation rates and regulatory setbacks are unsuitable within the lot. The tank sizing and setbacks will need to align with the Yukon government regulations and design standards.

6.3 ROADS AND DRIVEWAYS

Access to the proposed subdivision will be provided by an 8m wide, 2-lane gravel access road with a 25m right of way from the Klondike Highway (Figure 9). All internal access roads inside the subdivision will also be 8m wide, 2-lane gravel access roads with a 25m right of way. A minimum 3.5m wide gravel driveway will be provided to all lots. All roadways and driveways will have a 3% cross fall with the crown located 1m above the 200-year water level. Given the porous nature of the soils and the fact that the area will be built up with extensive dredge ponds throughout the development, culverts will not be required at all road crossings and driveways, and further review of any culvert requirements to manage drainage should be reviewed as part of the detailed design stage. Storm runoff will be conveyed to primarily through overland drainage (ditches) to open space areas. An overall subdivision drainage plan should be developed during detailed design to ensure run-off from developments will flow into designated open spaces.

FIGURE 15: LOCAL ROAD CROSS SECTION



6.4 POWER & COMMUNICATION

All electricity in Dawson City is provided and distributed by Yukon Energy Corporation (YEC). There is currently no existing electrical infrastructure in the Dredge Pond II planning area. However, 3-phase power is provided along the Klondike Highway between Dawson City and the Airport. YEC has indicated that they currently do not have the capacity to support the proposed 40 residential units in the Dredge Pond II area but are expecting to be able to supply this proposed development by November 2025 as they are in the process of procuring additional power generation equipment. All Dredge Pond II Subdivision electrical services would be provided via overhead power.

6.5 CLASS D COST ESTIMATE

Greenwood Engineering Solutions provided a Class D cost estimate. The cost estimate is intended to assist in making initial decisions on the feasibility of the Dredge Pond II subdivision. Many elements, such as final lotting, fill requirements, construction season, year of construction, etc., could impact the final cost estimate. The cost estimate includes items such as road construction, driveways, fill, two highway intersections, power and transformers, and a playground.

The was estimated to cost **\$11,400,000** or **\$285,000** per lot.

Note that these costs include a 50% contingency and engineering mark-up, which is typical of the Class D level to account for assumptions and associated risk of cost increases.

More details regarding the breakdown of costs and assumptions can be found in the pre-design report in Appendix A.

TABLE 5: CLASS D COST ESTIMATE

Item	Description	Unit	Quantity	Unit Rate	Cost Estimate
1	Earthworks				
1.1	Road Construction STA 0-000 - 1-860 (8m Wide)	l.m	1,860	\$568	\$1,056,480
1.2	Road Construction STA 2-000 - 2-428 (8m Wide)	l.m	428	\$568	\$243,104
1.3	Road Construction STA 3-000 - 3-486 (8m Wide)	l.m	486	\$568	\$276,048
1.4	Driveways (3.5m Wide)	l.m	1,969	\$56	\$110,261
1.5	Common Fill	m ³	151,000	\$12	\$1,812,000
1.6	Imported Fill	m ³	90,000	\$36	\$3,240,000
1.7	Highway Intersections	ea	2	\$75,000	\$150,000
2	Power and Communication				
2.1	Overhead Powerpoles with Allowance for Transformers	ea	46	\$12,000	\$552,000
3	Leisure				
3.1	Playground	ea	1	\$120,000	\$120,000
Subtotal					\$7,559,893
Contingency and Engineering (50%)					\$3,779,946
TOTAL					\$11,400,000
Cost Per Residential Lot					\$285,000

7 NEXT STEPS

7.1 TECHNICAL STUDIES

During the pre-planning and feasibility phase, a series of technical studies were undertaken to verify conditions and feasibility. These studies included a desktop geotechnical evaluation, an environmental assessment, a heritage impact assessment, a fisheries baseline study, and an analysis of flood exposure.

Before advancing to detailed design and construction, several additional steps need to be fulfilled to conclude the planning process. These steps encompass supplementary technical studies and securing environmental and municipal endorsements and permits.

The following technical studies should be completed prior to embarking on additional planning work.

Traffic Impact Assessment (TIA): Prior to development, a traffic study should be conducted in an effort to anticipate and mitigate the impacts of increased traffic levels on the Klondike Highway.

Flood Risk Map: Prior to detailed design, a flood risk mapping exercise should be completed in an effort to determine the socio-economic impacts flooding can have on the study area. The mapping would seek to identify critical infrastructure, homes, and other buildings that flooding could affect and may include financial impact estimates of potential floods of varying magnitudes.

Flood Risk and Mitigation Assessment: A flood risk and mitigation assessment should be completed. The scope of the study should consider all scales of mitigation and adaptation measures and, ultimately, select appropriate flood mitigation and adaptation approaches.

Climate Risk Assessment: A detailed climate risk assessment should be completed through an independent firm, and the owner should sign off on the accepted level of risk before moving forward to final design, tendering, and construction.

Geotechnical Investigation: While zoning regulations and policies are separate from building standards, decisions over development will be impacted where the two intersect. Requiring specific floodproofing requirements of a building is a valuable mechanism to complement flood risk mitigation and adaptation. A detailed geotechnical investigation must be completed to confirm soil conditions and foundation design specifications in flood-prone areas.

7.2 REGULATORY APPROVAL

When approved, the Master Plan can be advanced to regulatory approvals, permitting, and detailed design / construction tendering stages.

Regulatory approvals required to move forward include the YESAA review process, Water Licence, Fisheries Act Authorization, and municipal approvals such as OCP and zoning amendments and subdivision (Table 6). The timelines of these assessments vary.

TABLE 6: APPROVALS REQUIRED

APPROVALS	AUTHORITY
YESAA Review Process	YESAB
Water Licence	Yukon Water Board
Fisheries Act Authorization	Department of Fisheries and Oceans
OCP Amendment	City of Dawson
Zoning Amendment	City of Dawson
Subdivision Approval	City of Dawson

8 APPENDIX A

PRELIMINARY DESIGN REPORT: DREDGE POND II MASTER PLAN (GREENWOOD ENGINEERING SOLUTIONS, 2023)



City of Dawson

Report to Council

Agenda Item	OCP Comprehensive Review
Prepared By	Planning and Development
Meeting Date	November 7, 2023
References (Bylaws, Policy, Leg.)	Municipal Act, Official Community Plan
Attachments	

	Council Decision
x	Council Direction
	Council Information
	Closed Meeting

Recommendation

That Council direct administration to repeal S.16.2 of the Official Community Plan and replace it with a provision mandating a comprehensive review in five years.

Executive Summary

S.16.2 of the OCP states “Council shall adopt a methodology and schedule for a comprehensive review of the OCP at the first regular meeting in October 2023.” The council has deferred its decision regarding this issue pending the receipt of additional information. The Community Advisor has been contacted by administration in an effort to obtain their opinion on potential courses of action regarding this matter.

Background

Administration recommended at the previous council meeting on October 17 that the adoption of the methodology for the OCP comprehensive review be deferred until the first regular meeting in October 2024. Council postponed the decision in order to obtain additional information regarding how their choice might fit in with the intent of the OCP S.16.2.

Discussion / Analysis

The response from the Community Advisor [emphasis in original]:

Thank you for reaching out regarding advice on the OCP.

*A properly conducted comprehensive review of an OCP takes significant time and resources from both council and administration. As an example, there are municipalities in the territory who started a comprehensive review near the beginning of their term, have dedicated significant resources to it, and are just now (2 years later) nearing a final product. When you factor in that an OCP review also requires updating the zoning bylaw as well, that administrative resources are limited, and that there is approximately only 10 months left in the current council’s term, **Community Affairs strongly recommends against a comprehensive review of the municipality’s OCP at this time** as it does not seem feasible that a proper review can be conducted given timing and available resources.*

In these situations it’s normal that the current council may feel some hesitation to not move forward with a review of the OCP as they may want to be able to have their input in to it. Our main reply in these cases has been that the review process of the OCP has several opportunities for input from the public, of which current councilors are part of and will therefore have an opportunity to guide OCP development when it does happen in some way, shape, or form even if they are not part of a future council.

In terms of adopting a methodology and a schedule for the comprehensive review of Dawson’s OCP in general, we can’t speak much to the methodology – those processes of the review which aren’t mandated by the Municipal Act are the municipality’s to carry out however it sees fit. In terms of scheduling, historically/typically municipalities review their OCP every 10 years. While this timeframe is not mandated in the Municipal Act it has been the best practice in the territory to-date.

Going with the above, we would recommend that either a) council decide that the current OCP remains as is and is reviewed 10 years from now and every 10 years thereafter, or b) that council decide that the OCP review begin next year with a new council, and conducted every 10 years thereafter. This is in keeping with the specific wording in section 16.2 of your current OCP as we read it and, more to the point, seems feasible given the current realities in the municipality. As for specific wording, I’ve taken a look at the OCPs in each municipality in Yukon, each have wording which basically amounts to the following which could be a starting point for discussion with council:

“There is no specific time under the Municipal Act at which the OCP must be updated. Assuming no significant changes have occurred in the interim, the municipality will undertake a review of the plan no later than 10 years after

adoption. Once the OCP has been adopted by bylaw a review of the zoning bylaw will take place to ensure all zoning and regulations are in alignment with the OCP."

The administration recommends going with option 1. The reasons for this are twofold: first, the existing OCP is effectively responding to the realities of Dawson City; and second, Dawson has not undergone any major changes in the past five years that would require an OCP comprehensive review. In order to accomplish this, Council may direct administration to repeal S.16.2 and replace it with a provision mandating a comprehensive review in five years.

Alternatives Considered

Establish a methodology for conducting the OCP comprehensive review and schedule it for the following year.

Approved by	Name	Position	Date
Paul Robitaille	<i>Paul Robitaille</i>	A/CAO	November 3, 2023



City of Dawson

Report to Council

Agenda Item	Zoning Bylaw Amendment No.25 (Bylaw #2023-14)
Prepared By	Planning and Development
Meeting Date	November 7, 2023
References (Bylaws, Policy, Leg.)	
Attachments	

	Council Decision
x	Council Direction
x	Council Information
	Closed Meeting

Recommendation

That Council accept this report as information and forward Zoning Bylaw Amendment No.25 (Bylaw #2023-14) to the next council meeting for Second Reading.

Executive Summary

The structure on Lot 2, Block U, Ladue Estate is a single detached residence that existed prior to the adoption of the current Zoning Bylaw. The lot, however, is zoned C1: Core Commercial. To bring the property into compliance, the owner filed a Zoning Bylaw Amendment Application to rezone the property to R1.

Lot 1 was in the same situation as Lot 2 (zoned C1 with existing residential dwellings) that underwent rezoning in 2020 and 2021. This report will contain details about the rezoning discussion for this parcel.



Lot 2, Block U, Ladue



Lot 1, Block U, Ladue

Background

Zoning Bylaw Amendment No.25 (Bylaw #2023-14) had its First Reading on October 4, 2023. In order to obtain additional information on the rezoning of the adjacent lot (Lot 1, Block U, Ladue Estate), Council forwarded Bylaw #2023-14 to the Committee of the Whole.

Discussion / Analysis

Lot 1, Block U, Ladue Estate was in the same situation as Lot 2 (the subject of Zoning Bylaw Amendment No.25). Lot 1 has a single detached residence but was zoned C1, making it noncompliant. In 2020, the City received an application asking rezoning Lot 1 to R1. Concerns were raised regarding other lots in this block with single detached dwellings zoned C1, as well as the issue of other legal nonconforming heritage homes throughout the C1 zone.

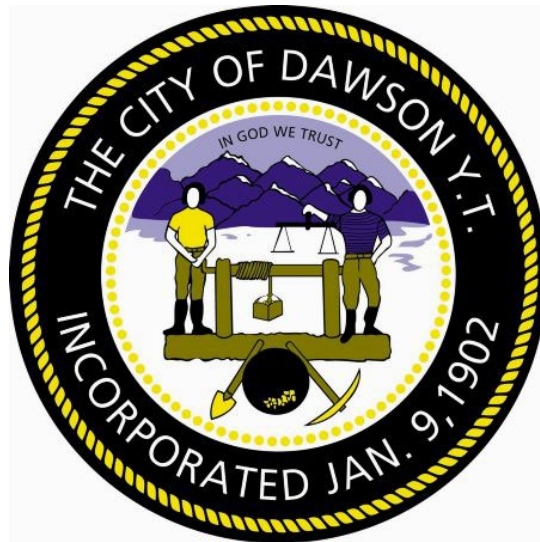
On November 18, 2020, Council was given three alternatives for moving forward with Lot 1 rezoning: 1) to rezone Lot 1 individually; 2) to amend the Zoning Bylaw to include historic residential dwellings as a permitted use in the C1 zone; and 3) to rezone all lots with residential dwellings on Block U to R1. Council chose option 1 and determined that each of the lots with historic residential dwelling in the C1 zone exists in a unique setting and should thus be dealt individually. Following that, in 2021, the Bylaw Amendment for Lot 1 was passed, rezoning Lot 1 as R1.

Given the council decision that these lots must be examined individually, as well as the fact that rezoning Lot 1 to R1 already set a precedent, staff recommends that Council proceed with rezoning Lot 2, Block U, Ladue Estate.

Alternatives Considered

Do not proceed with Zoning Bylaw Amendment No.25 and instead direct administration to start a Zoning Amendment Bylaw that treats all identical properties collectively.

Approved by	Name	Position	Date
Paul Robitaille	<i>Paul Robitaille</i>	A/CAO	November 3, 2023



City of Dawson Waste Management Planning

Public Works Department

September 2023

Executive summary

The City of Dawson staff is proposing the following changes to the waste management services following some major changes over the last several years and upcoming changes.

- 1- That the Municipality discontinue Commercial, Institutional, and Multi residential property solid waste and recycling collection services.
- 2- That the Municipality move to a bi-weekly Residential solid waste and recycling pickup service.
- 3- That the municipality adopt a bag limit per week with the option to buy additional bag tags. As per Council direction.
- 4- That the Municipality entertain increasing the collection route to include the Dredge Pond, C4, and the Dome subdivisions. Also included are the future planned subdivisions Dredge Pond Phase 2 and the Klondike Highway.
- 5- Updating the “Garbage Bylaw” from 1971 to bring the municipality up to date on regulatory requirements, recent changes, and approved changes.

These changes to the municipal waste management services will be implemented alongside Federal and Territorial changes. A regional Waste Agreement is currently being developed with the Yukon Government and the City of Dawson. The Yukon Government has committed to implement Extended Producer Responsibility by the end of 2025.

Two additional options to municipal waste management recycling services are included in this report; Weekly Residential solid waste and recycling pickup service and a 24/7 drop off service.

Additional equipment and staff are recommended to implement the changes above.

Background and introduction

The City of Dawson has taken on two new municipal services in the last 3 years that warrant analysis and bylaw amendments. In 2020, the City of Dawson internalized municipal waste collection services. In 2021, the City of Dawson internalized municipal waste diversion services. In 2023, the Diversion Center opened its doors to the public. The governing bylaw regarding municipal waste collection named “Garbage Bylaw” is dated 1971 and does not include the newly added services.

Commercial waste collection was passed on from both the previous waste collection contractor and the previous recycling contractor. Some commercial institutions receive three waste collection events per week for a cost of \$319/year. These practices are not fiscally sustainable.

The City of Dawson and the Yukon Government are working towards a Regional Waste Agreement. The anticipated changes include upgrades to our facilities (eg. weight scale), financial support for financial services to unincorporated residents within the “regional boundary”, introduction of universal tipping fees for all accessing the landfill facility, and reducing greenhouse gas emissions through diversion.

Analysis

Commercial, institutional, and Multi-residential Service

Commercial, institutional, and Multi-Residential properties are currently serviced at a higher level in comparison to residences for a similar fee while producing significantly more waste, especially cardboard products. For example (excluding cardboard days), Bonanza market produces approximately 90 garbage bags per week, the Drunken Goat produces 36 bags per week, and the Bank building (including Annabel’s Noodle House, the CIBC branch, and the other businesses on the second floor) produces 57 bags per week. These businesses receive garbage collection 3 times per week and cardboard collection twice per week.

The City of Dawson staff recommend following the example of other municipalities and removing these locations from the available municipal services (Whitehorse and Waston Lake - pictured below). Waste volumes from these properties are unpredictable and uncontrollable. Charging these properties via self-hauling or through contractors will result in a fairer pay structure through tipping fees. This will encourage large waste creators to reduce or divert their waste.

It is recommended the City of Dawson offers ample time prior to removing this service. Additional recycling services will not likely be implemented until this service is removed.

Removing Commercial waste collection will allow the Public Works Department to entertain servicing areas outside of Dawson proper including the Dome, Prospector, Bonanza and the


Dredge Pond Subdivisions. With the planned developments (Klondike Highway and Dredge Pond #2) the number of residences is expected to increase by at least 60 requiring additional rental bins if the status quo were to be maintained. Its anticipated that the additional subdivisions may be services with the recommended service level.

Including these subdivisions will remove the need for waste bin rentals resulting in savings of approximately \$85,000 per year. Municipal revenue will decrease by approximately \$25,000 per year from reducing the fees to Commercial, Institutional, and Multi-Residence facilities.

Tipping fees will also relieve the loss in revenue from the removal of the commercial, institutional, and multi-residential waste services. As it stands, we are expecting to charge \$2.5 per cubic meter, or approximately \$120 per tonne of residual waste. Tonnage estimates are not possible at this moment as there is no mechanism in place for determining how much waste comes from separate locations.

21. Only residential waste will be collected, this includes residual and compostable waste (Schedules “C” and “G”) and may include recyclable items (Schedule “D”).

Figure 1: Watson Lake Bylaw



MULTI-UNITS (5 OR MORE) & COMMERCIAL BUSINESSES >

Multi-unit residences (5 units or more) and commercial businesses are required to handle their waste using commercial services or by self-hauling.

Figure 2: Whitehorse Waste Services

Recycling Services

The City of Dawson Public Works staff have analysed three options for Council consideration.

1. Weekly waste and recycling curbside services.
2. Bi-weekly waste and recycling services.
3. 24/7 community drop-off locations.

For each option, the public works department considered the following factors: fulfillment of resident and Council concerns, capital costs, and operation and maintenance costs.

Accessibility and location were a concern that involved two separate issues. The first being the distance from town for community members who depend on their refund money, and the second being the amount of time, gas, and the discouragement to recycle due to the distance from town. All three options resolve the second issue, the first one may be resolved in a future development phase.

Hours of Operation involved the request from the public wanting a 24-hour drop off at the site. The facility cannot operate on a 24-hour basis due to limitations from the Yukon Wildlife & Conservation Office regulations among other considerations. Option 3 resolves this issue by providing the public with disposal sites around the municipality, heightened vigilance from the public works staff will be required by keeping the disposal site clean and free from loose waste to reduce the chance of wildlife encounters. This option also introduces the potential for stream contamination.

Curbside Pickup was in mind during the design phase of the new facility. Options 1 and 2 provide an overview of including the recycling curbside pickup service.

Introducing a bag limit per week on garbage will incentivise the community to recycle their waste. Residences may purchase a “bag tag” for additional garbage bag pickups. Bag size, weight, and quality; and bag tag price will be determined in the Bylaw amendment process. The City of Dawson staff will likely recommend implementing the following criteria:

- Minimum size of a bag is 65 cm by 90 cm. Maximum size of a bag is 80 cm by 125 cm.
- Maximum weight for a bag is 20 kg (44 lbs).
- Additional bag will cost between \$2 and \$3

Following the removal of commercial, institutional, and multi-residential curbside garbage collection – the Public Works staff will be able to include curbside waste collection of additional Subdivisions including C4, the Dome, Dredge Pond, Bonanza, and the two planned subdivisions (Dredge Pond Phase 2 and the Klondike Highway). The residents of these subdivisions will be required to provide a garbage box for their waste, the bylaw will dictate requirements for these boxes – the Public Works staff envision typical garbage cans will be allowed for these subdivisions as they are not within the historical requirements of Dawson Proper. These cans will be placed and removed as per garbage day scheduling.

Current composting operations include 3 large bins located at the AMFRC parking lot, the bottom of the Dome Road, and the dredge pond subdivision. The compost is collected on an as-needed basis and disposed of at the dump. Stream contamination is of major concern in this operation resulting in Category B compost quality – this means it has restricted uses unless tested prior to being used in desired applications. The compost at the landfill is currently being stored and is good material for infill post cell closures to promote reclamation efforts,

Compost collection may be included in the curbside service. It is recommended compost be phased in following an adjustment period for the staff. In the meantime, the City of Dawson staff would like to introduce the following composting initiatives:

- Adding a large compost location at the community gardens. Where community members can dispose or collect compost material.
- Adding a compost bin at the diversion center.
- Introducing a compost drop-off at the farmers market for local farmers to collect for their personal use or commercial use.
- Purchasing composting containers for residences to use. Community members may submit an application and collect a bin for their personal backyard use. For example, a dual chamber tumbling composter which costs \$150 per unit.

Option 1: Weekly Waste and Recycling Curbside Services

This option excludes commercial businesses from the analysis.

Households will be required to sort and bring three bins to the curb for a weekly pickup of the recyclable materials. Additional staff will be hired to collect the recyclable material from the community and dispose of them to the diversion center for additional sorting and counting. Specific pickup days will be provided to each residence based on an approved schedule as yet to be determined by the amended Bylaw.

Cost of equipment

Administration recommends purchasing a recycling pickup trailer as pictured below (Figure 1, 2 and 3), and requiring residence to separate their recyclable material into 3 separate receptacles. The three receptacles will be dedicated to paper/cardboard, recyclable materials, and glass.

Figure 1 shows a trailer option with individual hydraulic dump containers, totalling 20 cubic yards. This trailer has an estimated capital cost of \$29,000 plus shipping.

Figure 2 shows a trailer option with hydraulic dumping capabilities, totalling 20 cubic yards. This trailer has an estimated capital cost of \$19,000 plus shipping.

Figure 3 show a trailer with removable bins, totalling 20 cubic yards. This trailer has an estimated cost of \$15,000 plus shipping.

The last equipment option is to use the old garbage truck to collect the recyclable materials – the replacement cost of a curb side truck is estimated at \$225,000.

Three additional full-time staff will be required for this curbside pickup option (two for pickup and one for the depot), resulting in an increase of approximately \$214,000 per year.



Figure 3: 20 cubic yard 4 bin hydraulic dump



Figure 4: 20 cubic yard 4 bin trailer



Figure 5: Multiple removable bin trailer

Additional considerations and actions

This option will only affect community members in Dawson proper and other areas including the Dome, Dredge Pond, Bonanza and Prospector will be considered once commercial businesses are removed from the collection route.

Operations will require some time to adjust to pulling a trailer in difficult to access properties. Locations where more than one residence disposes of garbage will be required to separate into individual boxes or they may decide to act as a “Multi-residential” property.

The City of Dawson will be following a similar method to Whitehorse’s curbside plan as shown in the figure below. With exceptions to collection start times and potential addition of a compost stream.



Cost

The following considerations are included in this cost analysis (all equipment costs do not include taxes or shipping).

O&M: Assumed Level 2 Union Positions (with salary increases based on the collective agreement), equipment O&M for the depot equipment and recycling curb truck, assumed 50 bins needing replacement per year.

Capital: New collection trailer will be needed (operations may start prior to new equipment utilizing old garbage truck), one bin per residence at \$43/bin.

O&M Cost	2024	2025	2026
Staff Costs (two for pickup one for depot)	\$ 167,938.92	\$ 172,137.39	\$ 176,440.83
Including Benefits (30%)	\$ 218,320.60	\$ 223,778.61	\$ 229,373.08
Vehicle O&M	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00
Bin Replacement (50 per year)	\$ 2,150.00	\$ 2,150.00	\$ 2,150.00
Removal of Bin rentals	-\$ 85,680.00	-\$ 85,680.00	-\$ 85,680.00
Removal of fee revenue	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00

TOTAL	\$ 163,790.60	\$ 169,248.61	\$ 174,843.08
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Capital	2024
New Trailer (Assumed figure 2)	\$ 19,000.00
Pickup Truck	\$ 45,000.00
Plastic bags	\$ 3,108.00
Compost Gifts (X40)	\$ 6,000.00
Recycling Bins (\$43 per unit)	\$ 34,400.00
Total (trailer option)	\$ 107,508.00

Option 2: Bi-weekly Waste and Recycling Curbside Services

This option is similar to option 1, the only difference being the reduced service of household garbage and recycling pickup frequency.

Similar equipment will be required for operations.

Cost

The following considerations are included in this cost analysis (all equipment costs do not include taxes or shipping).

O&M: Assumed Level 2 Union Positions (with salary increases based on the collective agreement), equipment O&M for the depot equipment and recycling curb truck, assumed 50 bins needing replacement per year.

Capital: New collection trailer will be needed (operations may start prior to new equipment utilizing old garbage truck), one bin per residence at \$43/bin.

O&M Cost	2024	2025	2026
Depot Staff	\$ 55,979.64	\$ 57,379.13	\$ 58,813.61
Including Benefits (30%)	\$ 72,773.53	\$ 74,592.87	\$ 76,457.69
Vehicle O&M	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00
Bin Replacement (50 per year)	\$ 2,150.00	\$ 2,150.00	\$ 2,150.00
Removal of Bin rentals	-\$ 85,680.00	-\$ 85,680.00	-\$ 85,680.00
Removal of fee revenue	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00
TOTAL	\$ 18,243.53	\$ 20,062.87	\$ 21,927.69

Capital	2024
New Trailer (assumed figure 2)	\$ 19,000.00
Pickup Truck	\$ 45,000.00
Plastic Bags	\$ 3,108.00
Compost Gifts (X40)	\$ 6,000.00
Recycling Bins (\$43 per unit)	\$ 34,400.00
Total (trailer option)	\$ 107,508.00

Further consideration should be taken from the Municipality Services Review that took place in 2013 and 2023. The following question was asked in a public survey: *“Would you support alternating weekly collection of garbage and compost and/or recycling?”*.

In 2013: 60% of the community were in favour, 20% of the community were not in favour and 20% of the community did not know.

In 2023: 61% of the community were in favour, 25% of the community were not in favour and 14% of the community did not know.

As seen above, there are minor changes in the community's stance regarding recycling curbside pickup. The main difference being the 5% increase in community members who do not want this introduced. The comments referring to those who voted no mention the City of Dawson's anticipated inability to take on the work. The vast majority of the comments express the want and need for this service to be introduced.

2.3.7 Alternate Week Waste Collection Support

Would you support alternating weekly collection of garbage and compost and/or recycling?

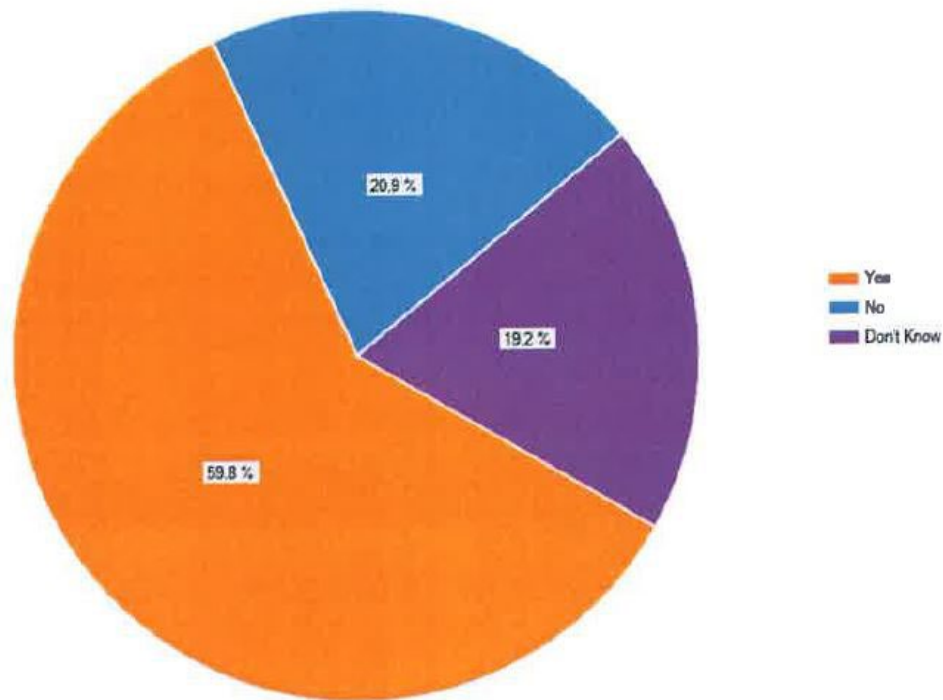


Figure 6: 2013 municipal survey results

Option 3: 24/7 community drop-off locations

This option excludes commercial businesses from the analysis.

Households will be required to sort and bring their recyclable materials to large sorting bins located throughout the municipal boundaries. An estimated 5 bins will be required for this option.

Depending on the frequency of collection, existing staff will be able to collect the recyclable material from the community drop-off location and dispose of them to the diversion center for additional sorting and counting.

If this option is selected, administration recommends purchasing a roll-off trailer and associated bin as pictured below (Figure 5 and 6), figures 6 and 7 provide additional bins options. The bins will be dedicated to paper, recyclable materials, glass, and cardboard.

Cost

The following considerations are included in this cost analysis (all equipment costs do not include taxes or shipping).

O&M: Assumed Level 2 Union Positions (with salary increases based on the collective agreement), equipment O&M for the depot equipment and recycling curb truck.

Capital: New Roll-off trailer (\$28,000) and roll-off bins (\$8,000 each). Figures 7 and 8 cost \$4,000 and \$7,000 respectively.

O&M Cost	2024	2025	2026
Depot Staff	\$ 55,979.64	\$ 57,379.13	\$ 58,813.61
Including Benefits (30%)	\$ 72,773.53	\$ 74,592.87	\$ 76,457.69
Vehicle O&M	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00
Removal of Bin rentals	-\$ 85,680.00	-\$ 85,680.00	-\$ 85,680.00
Removal of fee revenue	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00
TOTAL	\$ 18,093.53	\$ 19,912.87	\$ 21,777.69

Capital	2024
Roll-off trailer	\$ 28,000.00
Compost Gifts (X40)	\$ 6,000.00
Bins (X5)	\$ 40,000.00
Total	\$ 74,000.00



Figure 7: Roll-off trailer



Figure 8: Roll-off bins



Figure 9: Small bin



Figure 10: Large Bin



Minister's office (CM-4)
PO Box 2703, Whitehorse, Yukon Y1A 2C6

October 17, 2023

City of Dawson
Attention: Mayor William Kendrick
PO Box 308
Dawson City, Yukon Y0B 1G0
bill.kendrick@cityofdawson.ca

BY EMAIL AND REGULAR MAIL

Dear Mayor Kendrick:

RE: Five-year Review of the Cannabis Legislation

As you are aware, in 2018 cannabis was legalized nationwide at the federal level and in each Canadian province and territory through the introduction of cannabis legislation. With this letter I provide notice of the Government of Yukon's intent to review its *Cannabis Control and Regulation Act*, five years after it came into force.

The purpose of legalizing recreational cannabis was to allow adults access to cannabis through a regulated model to reduce illicit market activities, while protecting public health and safety and, specifically, safeguarding youth from accessing and consuming cannabis. The Government of Yukon is responsible for the authorization and oversight of wholesale distribution and retail sales of legally produced recreational cannabis.

The review aims to ensure that the Yukon's cannabis legislation remains effective and responsive to the needs of all Yukoners, while ensuring the continued support of the Yukon's legal cannabis industry. As part of the review – which is mandated in legislation – the Yukon Liquor Corporation will be undertaking public engagement. The engagement will focus on how the legislation is meeting its intended outcomes and to gather any perceived issues or concerns. No specific legislative changes are contemplated at this time.

To guide the engagement, the Corporation has developed a public discussion document and engagement questions customized for specific stakeholder groups affected by this legislation (see attached). In addition to the engagement component, the overall review will also include analysis of various national and Yukon specific research studies, consideration of potential policy and legislative issues as well as analysis of health indicators specifically collected for the Yukon over the five year period (2018 – 2023).

I value your input and herewith invite you to participate in the engagement. Attached you will find a questionnaire developed for your municipality and community. I kindly request you to review the questions and provide the Corporation with your responses in a manner convenient to you, by choosing one of the following options:


- By mailed letter to the following address: Yukon Liquor Corporation, Policy and Communications Branch, 9031 Quartz Road, Whitehorse, Yukon Y1A 4P9 (X-1)
- By email to: ylc-cannabisreview@yukon.ca
- By requesting a virtual (Zoom/Teams) or in-person meeting

The deadline for providing feedback is December 1, 2023.

If you have any questions about the five-year review process, or to submit your responses to the questionnaire, please contact us via email at ylc-cannabisreview@yukon.ca

We look forward to engaging with you on this important topic and receive your comments.

Sincerely,



Hon. Sandy Silver
Minister responsible for the Yukon Liquor Corporation

Encl (2)

Cc: David Henderson, CAO cao@cityofdawson.ca



Yukon Liquor Corporation
PO Box 2703, Whitehorse, Yukon Y1A 2C6

Cannabis five-year review
Engagement questions for Yukon municipalities and Local Advisory Councils (LACs)

Question 1: Public health and safety are main priorities in the Yukon's cannabis framework. Do you feel the current rules and protective measures are adequate and effective in achieving this goal within your community?

- Strongly disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree
- Don't know/not sure/no opinion

If you wish to elaborate on your answer, please provide your comments here:

Question 2: Do you have public health and safety concerns related to cannabis sales or consumption within your community?

Answer:

Question 3: Since legalization, have cannabis consumption patterns changed in your community?
What are your thoughts about this?

Answer:

Question 4: In the Yukon, specific measures are in place to protect youth from exposure to cannabis and to discourage consumption by youth. These measures include, among others, things like setting the legal age to purchase or consume cannabis at 19 years of age or older, prohibitions on promotion of cannabis, set rules for distances of cannabis retail stores to schools (150 metres), mandatory training for cannabis store employees, requirements for retail stores to make sure no person can look into or hear activity in the store, and disallowing home cultivation of cannabis plants if the home is used as a day home or daycare.

- In your view, are these measures effective?
- Does your community have any concerns related to protection of youth?

Answer:

Question 5: With year-over-year growth in legal sales, various private cannabis retail locations and local cannabis production, the cannabis sector is thriving, creating jobs and making a valuable contribution to the Yukon economy.

- What is your perspective on the economic aspects of cannabis legalization for your community
- Do you have any concerns or encounter any challenges in this area?

Answers:

Question 6: Do you have any other cannabis legalization related questions you would like to discuss with us?

Comments:



Discussion Paper 5-Year Review

Cannabis Control and Regulation Act



Contents

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- 2. Pre-legalization: the illicit market 3
- 3. Objectives of cannabis legalization..... 4
- 4. Public health..... 6
- 5. Public safety..... 8
- 6. Protection of young persons..... 9
- 7. Economic contributors 10

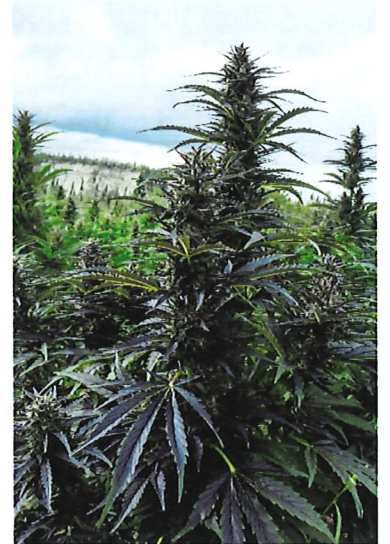
1. Introduction

The federal government legalized recreational cannabis in Canada with the enactment of the Cannabis Act on October 17, 2018. The Act regulates legal cannabis, for non-medical purposes, at a national level.

The federal and provincial/territorial governments have different responsibilities. The federal government is responsible for the licensing and oversight of legal cannabis production while provincial and territorial governments are responsible for the authorization and oversight of wholesale distribution and retail sale of recreational cannabis within their respective jurisdictions.

National and provincial/territorial legislation work together to manage recreational cannabis.

Cannabis laws in the Yukon are set out in the Cannabis Control and Regulation Act (CCRA) and its regulations. The CCRA requires a review of the Act every five years. With the first five years of legalization behind us, the review is now due.



How can you contribute?

Please complete the survey at [online survey link](#).

The survey is open to all Yukon residents and will take about 15 minutes to complete.

The survey will run from October 17 to December 1, 2023.

All information you submit is confidential. The feedback you provide is protected by the Access to Information and Protection of Privacy act and the Statistics Act.

2. Pre-legalization: the illicit market

Consumption of recreational cannabis was common in Canada and the Yukon before it was legalized in 2018. As cannabis was an unregulated illegal substance, all trade and profits belonged to the illicit market. Before legalization, cannabis was the most widely used illicit drug in Canada.¹

According to surveys, Yukoners consumed cannabis at a higher per capita rate than the national average prior to legalization. In the Yukon Addictions Survey 2005, 21% of Yukoners over the age of 15 reported using cannabis in the past 12 months, compared to 14% of Canadians overall.²

The rate of consumption has remained fairly stable in the decades that followed. National Cannabis Survey data in 2018 suggests that rates of past three-month cannabis use in the territorial capital cities – Whitehorse (23%), Yellowknife (27%), and Iqaluit (33%) – were up to double the national average prior to legalisation (16%).

The higher usage in the north continues after legalization: past-year cannabis use was reported by approximately 39% and 33% of residents in the territories in 2018 and 2019, respectively, compared to 16%-31% of respondents in the provinces.³ The Yukon has the lowest consumption of all three territories.

Efforts by federal and territorial organizations to reduce activity in the illicit market are working. According to the Canadian Cannabis Survey in 2022, 61% of Canadian cannabis users purchased cannabis from a legal store front, an increase from 53% in 2021 and 41% in 2020.

¹ Canadian Tobacco, Alcohol and Drugs Survey (CTADS) summary of results for 2017 (Health Canada, Ottawa), January 4, 2019.

² Yukon Addictions Survey (YAS) Preliminary Results 2005, A survey of Yukoners' use of alcohol and other drugs, Government of Yukon, Health and Social Services, Yukon Bureau of Statistics, 2005.

³ Cannabis use prior to legalisation among alcohol consumers in Yukon and NWT, Hammond et al. 2021.

3. Objectives of cannabis legalization

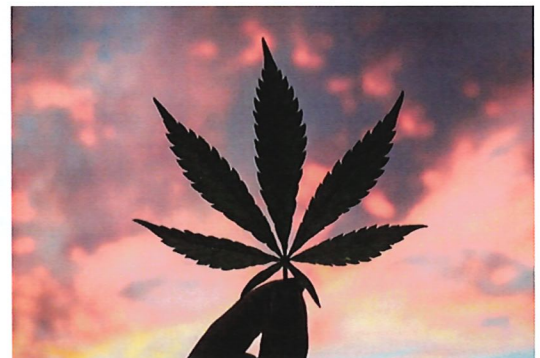
The federal Cannabis Act

The objectives of legalizing recreational cannabis at the federal level were to prevent youth from accessing cannabis, to protect public health and safety by establishing strict product safety and product quality requirements, and to deter criminal activity by imposing penalties for those operating outside the legal framework⁴.

Legalization means adults (18 and older) may possess up to 30 grams of dried legal cannabis (or equivalent form) in public, buy legal cannabis from a licensed retailer, grow up to four cannabis plants per residence for personal use, and make cannabis food and drinks at home, subject to restrictions under the federal regulations. Provinces and territories have the authority to impose further restrictions. For example, in the Yukon, the legal age to possess, purchase and consume cannabis is 19 years of age and older.

Did you know?

- In 2022, 27% of Canadians (older than 16) reported having used cannabis in the past 12 months, an increase from 25% in 2021. Provincial/territorial estimates ranged from 18% to 41%⁵ with higher usage in the territories, including the Yukon. This is in line with higher-than-average usage in the Yukon prior to legalization.



⁴ Government of Canada, Cannabis Act, S.C. 2018, c. 16, s. 7.

⁵ Canadian Cannabis Survey 2022.

The Cannabis Control and Regulation Act

Like the federal Act, in the Yukon the purpose of the Cannabis Control and Regulation Act is to regulate adult consumption of recreational cannabis while protecting public health and safety – and specifically to discourage young persons from accessing and consuming cannabis. These goals are further accomplished by facilitating distribution and consumption only of cannabis produced by federally licensed producers to guarantee a safe and high-quality supply.

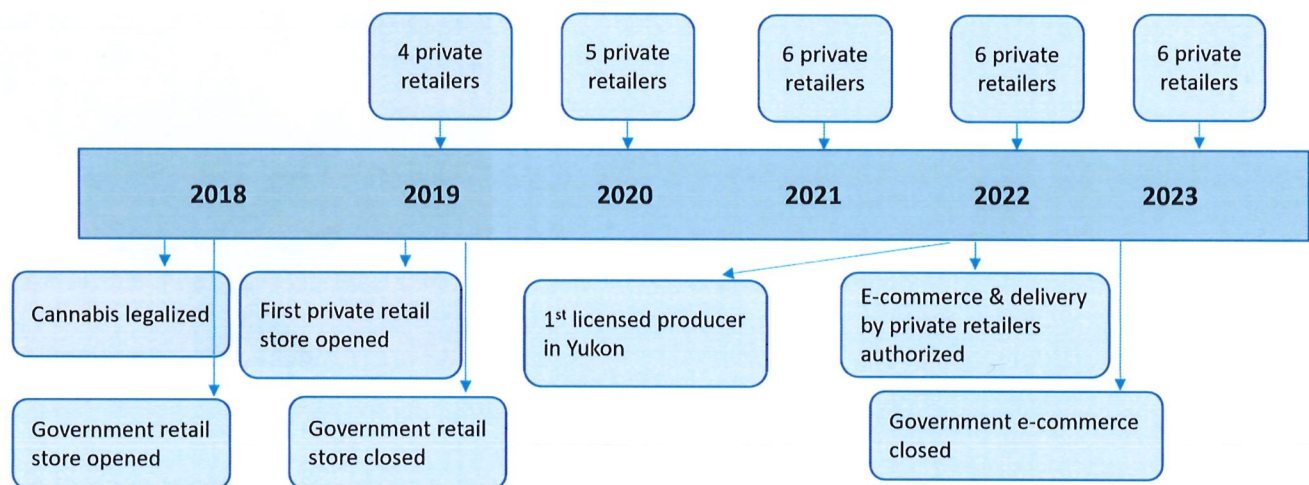
To achieve these objectives, the Act lays out the laws for distribution, licensing of cannabis retail stores, sale and possession of cannabis, home cultivation, where cannabis can legally be consumed and fines or other penalties that may be imposed if laws are broken.

Did you know?

- Consumption of cannabis is only allowed in a permanent or temporary residence (as defined by the legislation) or adjoining property, such as a backyard.
- An individual cannot possess cannabis in a vehicle unless it is in a closed container and inaccessible to all people in the vehicle.
- Licensed retailers can only purchase their cannabis inventory from the distributor corporation.

Timeline

The following timeline shows how the cannabis sector has advanced in the Yukon in the five years since the legalization of cannabis.



4. Public health

A challenging fact of the cannabis legislation is that it serves multiple, sometimes seemingly conflicting, objectives, such as providing access to a controlled substance, while simultaneously restricting its consumption to support public health or safety.



Public health is a core pillar of cannabis legalization. As cannabis is a controlled substance, raising public awareness about the risks of cannabis consumption aims to reduce health-related harms.

Cannabis use has short-term and long-term effects on the body and brain that vary from person to person. Health risks can be reduced by choosing not to consume cannabis, applying moderation if choosing to consume, and increasing the age of initiation.

As with any drug, the same form, dosage and potency can have different effects on different people. Some individuals may feel relaxed, lively, talkative and giddy, while others may feel tense, anxious, fearful or confused.

Cannabis can be consumed in a number of ways, and the method of consumption can impact the way effects are felt. For example, people who inhale cannabis smoke feel the effects more quickly than when it's consumed in food, brewed in a tea, or taken as a capsule or oral spray.

Did you know?

- In the Yukon, private retailers play a role in protecting public health and safety. For example, all retail staff must take mandatory training which covers the impact of cannabis on health, social responsibility and legislative requirements.
- All labels on legally sold cannabis products in the Yukon contain health warnings.
- Yukon Liquor Corporation's [cannabis annual reports](#) track health indicators.

Social responsibility initiatives

Since legalization the Yukon Liquor Corporation has undertaken a range of social responsibility initiatives to educate Yukoners on the potential health risks of cannabis consumption.

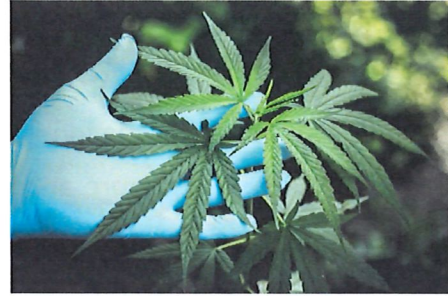


In particular, the Corporation has:

- Implemented the Check 30 initiative in private retail stores. This initiative requires retail staff to ask for identification from anyone who looks under 30 years of age.
- Developed, launched and maintained the “Be A Responsible Server-Cannabis” (BARS-C) online training for all cannabis private retail staff.
- Distributed Cannabis Talk Kit brochures in all Yukon communities, in all Corporation liquor stores and on Yukon.ca. The information is designed to be a guide for parents or guardians on how to discuss cannabis with youth.
- Promoted the Government of Canada’s social media posts through the Yukon Liquor Corporation Facebook page on the risks of cannabis use, intoxicated driving, and safer consumption.
- Distributed a cannabis information brochure called Cannabis 101 that is available in cannabis stores and online. This content explains the risks of cannabis use on health, how to keep cannabis use legal and safer consumption methods.
- Participated in Mothers Against Drunk Driving red ribbon campaigns, with the Minister and Corporation staff attending check stops.
- Distributed Canada’s Lower-Risk Cannabis Use Guidelines brochure in Corporation liquor stores and private retail stores. This material was created by the Canadian Research Initiative in Substance Misuse to help people reduce the health risks of cannabis use.
- Completed inspections to ensure licensees follow legal requirements.
- Collaborated with the Canadian Centre on Substance Use and Addiction to share information about cannabis consumption risks during the pandemic on social media and in Corporation liquor stores.

5. Public safety

The public safety component of cannabis legalization is geared towards reducing the illicit market and keeping profits out of the hands of criminal organizations.



Reducing production and sales in the illegal market further contributes to public health as legally produced cannabis needs to meet rigorous product safety requirements and testing. Legal cannabis products are considered safe while illegal products can be laced with harmful pesticides or other pollutants, or even lethal substances such as fentanyl.

Public safety also relates to measures taken to prevent impaired driving by raising awareness and public education. A Yukon example of this is the Planning Ahead campaign run by the Department of Highways and Public Works.

Enforcement of the Yukon's cannabis laws is handled by enforcement officers through a set of fines, penalties and possibly jail time depending on the seriousness of the offence. Yukon Liquor Corporation inspectors enforce licensed premises and licensees only, while RCMP have authority to take enforcement measures regarding all cannabis laws.

Did you know?

- Legal cannabis can be easily recognized by its packaging. Legal cannabis containing THC has:
 - An excise stamp indicating the product has been legally produced and taxes paid. The Yukon's stamp is dark pink in colour.
 - A standardized cannabis symbol.
 - Health warning messaging.
- Police-reported data for 2020 on impaired driving indicates that the highest rates (per 100,000 population) are observed in the Yukon, Prince Edward Island, the Northwest Territories and Nunavut⁶. Cannabis is one of the most frequently detected class of drugs among drivers.



⁶ Public Safety Canada, *Annual Data Report to inform trends and patterns in drug-impaired driving*, 2021.

6. Protection of young persons

There are measures in place in the Yukon to support the protection of youth from cannabis harms by limiting exposure and discouraging consumption of cannabis. Examples of these measures are age-gating of websites where cannabis can be ordered, restrictions on advertising and a complete ban on access, sale or delivery of cannabis to youth.

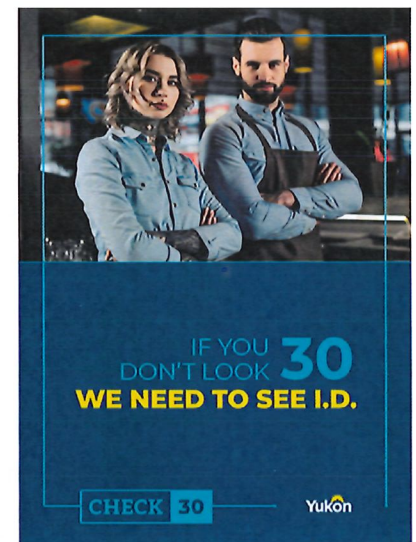
Other rules in place that may help protect youth in the Yukon include:

- Minors are not allowed to be present in a cannabis store.
- Individuals should not be able to see into or hear any activity inside a cannabis store.
- Sale or delivery of cannabis to a minor is not allowed. Cannabis retailers must check the identification of any individual who appears to be a younger than 30 years. This applies to in-store sales, online orders and deliveries.
- Minimum distance requirements from elementary and secondary schools for cannabis retail stores.

There are also restrictions on the promotion of cannabis under the federal Cannabis Act, as well as limitations on flavours that could be appealing to youth such as candy or fruits.

Did you know?

- Canada-wide, 37% of survey respondents in the 16-19 year old age group responded having used cannabis in the past 12 months in 2022. This demographic is the second highest user group, preceded only by 20-24 year olds with a reported usage of 50%.⁷
- There was no change in cannabis use for these two younger age groups between 2021 and 2022, while usage among people 25 years and older increased from 22% in 2021 to 25% in 2022.



⁷ Canadian Cannabis Survey 2022.

7. Economic contributors

At time of legalization, the Yukon established a government-run wholesale and distribution model and opened a government cannabis store with the commitment to transfer cannabis retail to the private sector. Now, five years later all cannabis retail is in the hands of private cannabis retailers.

The first private sector cannabis store opened in spring of 2019, leading to the closure of the government store in October 2019. In May of 2022, private retailers were authorized to offer online sales and delivery and in fall 2022 the government e-commerce site was closed. With that, the transition from government-run retail to fully private cannabis retail was complete.

The Government of Yukon continues to run the wholesale and distribution model guaranteeing a safe and reliable supply and serving six cannabis retailers across the territory. Licensing and regulation of licensed retailers is also a function of government.

Cannabis legalization has diversified the Yukon economy and created a legal industry that generates revenue. This supports the capture of market share from illegal cannabis operations.

Table 1 shows the growth in cannabis sales and the number of licensed retailers over time.

Retailers choose to enter a highly regulated industry and must navigate stricter requirements compared to other, less regulated, types of retail. Despite the challenges, legal retail sales have shown strong growth, year over year.

Table 1: Cannabis sales Yukon Liquor Corporation 2018-2023⁸

Cannabis Sales, Growth and Number of Licensed Retailers		
October 2018 – March, 2019	\$2,030,459	1 government retail store open
April 2019 – March, 2020	\$4,863,403 (139.5% growth)	5 private retail stores open
April 2020 – March 2021	\$6,070,156 (24.8% growth)	5 private retail stores open
April 2021 – March 2022	\$7,091,758 (16.8% growth)	6 private retail stores open
April 2022 – March 2023	\$7,708,150 (8.7% growth)	6 private retail stores open

The local cannabis industry in the Yukon is strong. Estimates indicate that five years after legalization, the market share of legal cannabis is roughly 70-80%. This means that a significant piece of the illicit market has been replaced by legal sources.

Did you know?

- Collectively, the Yukon’s licensed retailers employ approximately 40 employees.
- The Yukon’s cannabis private retail is firmly established, leading to an estimated higher legal cannabis market share than the national average.
- The territory’s most popular cannabis products are dried cannabis, extracts and edibles. The biggest growth in 2022 was driven by growth in inhaled extracts such as vaporizers and concentrates.

⁸ Source: Annual Reports 2019 - 2023, Yukon Liquor Corporation.