City of Whitehorse

Outdoor Pickleball Court

Feasibility Study

Whitehorse
THE WILDERNESS CITY

LEES + ASSOCIATES

Final Report

December 15, 2025

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1 INTRODUCTION

1.1 PROJECT PURPOSE AND SCOPE

The City of Whitehorse is looking to develop six new outdoor pickleball courts. Two potential locations have been identified:

- Site 1: Adjacent to the Dog Parking Lot at 115 Sumanik Drive, and
- Site 2: Adjacent to the Ball Diamonds at 120 Robert Service Way.

Figure 1. Map of Site 1, Adjacent to Dog Parking Lot at 115 Sumanik Drive (Source: City of Whitehorse)

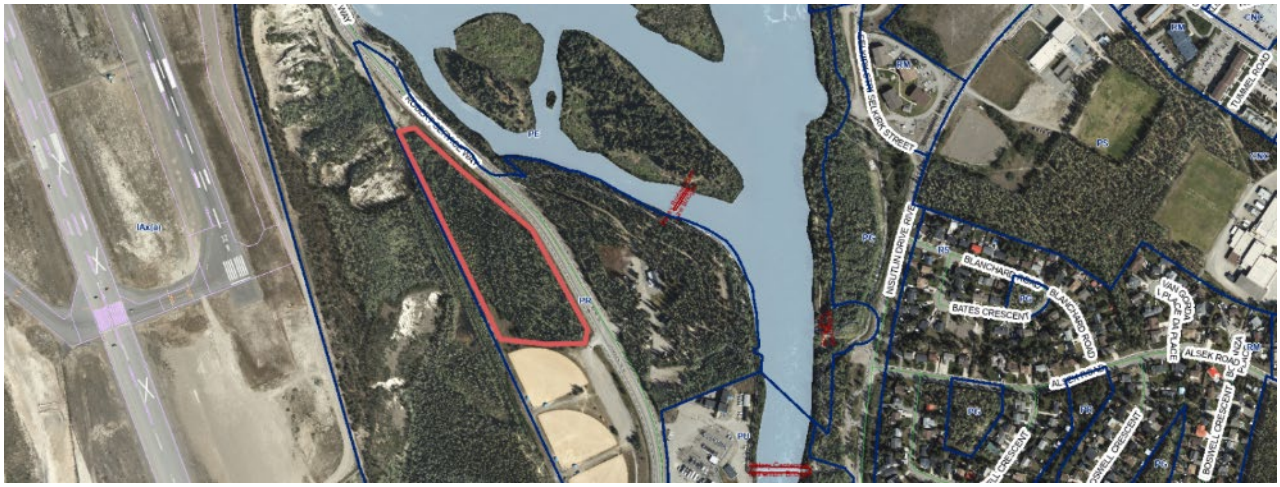


Figure 2. Map of Site 2, Adjacent to the ball diamonds at 120 Robert Service Way (Source: City of Whitehorse)

The project included preparation of a feasibility study with the following components:

1. Feasibility Study
    a. Assessment of site suitability at each of the identified locations, considering:
        i. Access and parking
        ii. Site grading, drainage and stormwater management
        iii. Environmental constraints and geotechnical considerations
    b. Recommendations on which site is most suitable, supported by objective evaluation criteria.
2. Conceptual Design Drawings
    a. Concept-level site plans for each location, including:
        i. Court layout for six (6) courts, at least one of which is accessible
        ii. Surface material that is durable and easy to maintain
        iii. Fencing for defined play area, including windscreens
        iv. Accessibility considerations
        v. Seating area and other optional amenities
3. Class D Cost Estimates
    a. Class D budget estimates for each site and design, including:
        i. Construction costs (site preparation, surfacing, fencing, amenities, landscaping and signage)

1.2 PROJECT METHODOLOGY

To assess feasibility and prepare concept designs, the project included the following tasks:

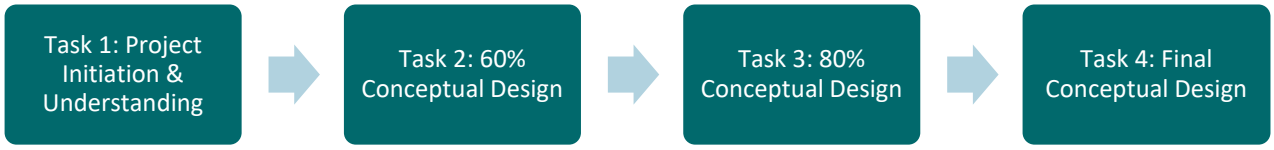


Figure 3. Feasibility Study Process

Task 1: – Project Initiation & Understanding – Conduct a kickoff meeting with City staff to discuss the project and learn about issues and opportunities; attend a site visit to observe site conditions; and review relevant background materials.

Task 2: 60% Conceptual Design – Prepare one (1) conceptual design for each site; prepare a summary report and Class D cost estimate; and review with City staff.

Task 3: 80% Conceptual Design – Update the report based on City feedback on the 60% conceptual design; and review with City staff.

Task 4: Final Conceptual Design – Prepare final conceptual design, summary report and cost estimate.

1.3 PICKLEBALL COURT REQUIREMENTS

Court Measurements

A standard pickleball court measures 6.10 m (20 ft) wide by 13.41 m (44 ft) long. The court is typically situated within a minimum playing surface area of 9.14 m (30 ft) wide by 18.29 m (60 ft) long, which includes run out on the side, and circulation and waiting space for safe player movement without encroaching on the actual court (Global Pickleball Federation, 2025).

A general guideline is to allocate between 210 to 230 m² (2,250 to 2,500 sq. ft.) per court, therefore, a six-court hub would require approximately 1,250 to 1,400 m² (13,500 to 15,000 sq. ft.) of total space (Pickleball BC).

The recommended playing surface area for wheelchair play is 13.41 m (44 ft) wide and 22.55 m (74 ft) long (Global Pickleball Federation, 2025).

Noise Considerations

Pickleball is recognized as a relatively high-noise activity, which can create conflicts with residents in surrounding areas. According to Pickleball BC, court locations should provide adequate setback distances to maintain noise levels below 50 dBA without mitigation measures (e.g., berms or engineered barriers).

For a six-court hub, a minimum setback of 105 m from the nearest residential property line is recommended. This distance may be reduced to 85 m when courts are designed with soft ground or surfacing materials that absorb sound.

Other Considerations (Pickleball BC)

- Orientation - north south is preferred
- Inter-court barriers to minimize ball and player migration
- Perimeter fencing to keep players and balls within the facility
- Drainage to enable court drying without too much gradient
- Access gates - player and maintenance, wheelchair included
- Player waiting and spectator areas to keep waiting players close but not in the way

2 SITE SUITABILITY ASSESSMENT

2.1 SITE SUITABILITY CRITERIA

Based on the project terms of reference, kick off meeting and site visit outcomes, review of relevant background data, and our outdoor recreational planning experience, the following site suitability criteria for the outdoor pickleball court development were developed:

Site Suitability Criteria	Requirement
Size / Available Area	Space available for six (6) pickleball courts in a N-S layout, including buffer area & one accessible court
Potential for Expansion	Potential for future expansion to 8 or 10 courts (pickleball or mix of pickleball/tennis)
Access and Parking	Suitable site access; Parking available for 10-20 cars, plus access to overflow parking
Geotechnical, Soils and Drainage	Suitable subsurface soils for court development; would not require substantial fill
Site Grades	Existing grades are less than 5%
Setbacks	Minimum setback distance of 105 m from residential neighbourhood (Pickleball BC, 2023); Minimum setback of 15 m from bottom of escarpment bank (Whitehorse 2040 OCP)
Zoning	Already zoned for Parks & Recreation
Access to Transit and Active Transportation	Public transit within 400 m. Biking and pedestrian infrastructure in proximity
Adjacencies	Proximity to other active recreational facilities and services, washroom and changeroom facilities; proximity to site servicing (water/sewer/power)
Environmental Conditions	Existing vegetation, solar exposure, wind pattern and known environmental constraints

Archaeology	Presence of known archaeological sites

Table 1. Site Suitability Criteria

These criteria form the basis for analyzing and comparing the two proposed site locations.

2.2 SITE ASSESSMENTS

2.2.1 METHODOLOGY

The consultant team reviewed background information supplied by the City, as well as publicly available information and conducted a preliminary desktop assessment of each of the proposed outdoor pickleball sites. The following background materials were reviewed:

- City of Whitehorse Open Data/GIS Mapping
- Aerial photography (2024)
- Whitehorse 2040 Official Community Plan
- Yukon Government LiDAR Collection (Accessed Sept 26, 2025)
- Geotechnical considerations (personal communication, Chad Cowan, Tetra Tech, Sept 9, 2025)
- Archeological considerations (personal communication, Yukon Heritage Resources, Nov 24, 2025)
- Shade Map Analysis
- Geohazard Analysis (BGC Engineering)

Site visits were carried out on September 19, 2025, by LEES+Associates and City of Whitehorse staff. Key findings for each of the sites are summarized below.

2.2.2 SITE EVALUATION SUMMARIES

Criteria	Site 1: 115 Sumanik Drive	Site 2: 120 Robert Service Way
Size / Available Area	Site 1 is 0.6 hectares in size. The site size is adequate for the location of 6 pickleball courts in a N-S orientation including buffer areas. However, the site size limits options for other court orientations or layout while maintaining a treed buffer from adjacent roadways.	Site 2 is approximately 3.0 hectares in size. The site has ample room for the location of 6 pickleball courts in various layouts and orientations including buffer areas, even though the geohazard zone reduces the available space.

Potential for Expansion	Site 1 does not have space for future expansion of pickleball or other outdoor sport court facilities within the current site boundary.	Site 2 has room for future expansion of up to 10 or more pickleball courts, and could also accommodate other outdoor sport court facilities such as tennis.
Access	The current vehicular access is limited to right turn only off Hamilton Drive – southbound onto the adjacent property (currently used as Dog Parking Lot). Provision of a new access off of Sumanik Drive would need to be explored and considered, however it could be encumbered by sightlines, and adjacent property boundaries.	Vehicular access to the site exists presently off Robert Service Way, in front of the ball diamonds. The vehicular access is within the current Parks and Recreation zoned parcel.
Parking	There is space on the site for the development of 10-20 dedicated parking stalls, including accessible parking stalls. In addition, there is potential to use the Dog parking lot (south of the site) and arrange access to overflow parking at the adjacent Mount McIntyre parking lot or Canada Games Centre for events or tournaments.	There is space on the site for the development of 10-20 dedicated parking stalls, including accessible parking stalls. In addition, there is potential to coordinate access to overflow parking with the softball field parking area for events or tournaments. An overflow/event parking strategy could be coordinated with the facilities at the Robert Service Campground and Linda Rapp Landing. However, the existing parking area can be busy when there are softball games and tournaments.
Geotechnical, Soils and Drainage	Borehole information is not available on the proposed site, however geotechnical assessments have been completed throughout the McIntyre Subdivision and the ground conditions encountered consisted of a granular till with some cobbles and boulders; silt contents varied from trace to some (personal	Borehole information is not available on the proposed site, however there is some information available for adjacent properties including along the Robert Service Way alignment itself, the Robert Service Campground and the Yukon Energy Corporation yard. Typically, the soils conditions at these locations consisted of river deposits (silt, sand

	communication, Chad Cowan, September 9, 2025). There is an existing City of Whitehorse stormwater outfall at the north end of the site off Sumanik Drive, which connects under Sumanik Drive from the ski stadium, and on the east site of the site off Hamilton Boulevard. Reconfiguration of the storm outfall to ensure suitable drainage would likely be required. A more detailed study to better understand the design requirements and the associated costs must be completed. The design of the stormwater infrastructure will likely have an impact on the trees that are intended to remain.	and gravel) overlying the lacustrine silts (lake sediments) (personal communication, Chad Cowan, September 9, 2025). There is a geohazard area on the northwest of the site, which could reduce the overall available area for future expansion (BGC Report).
Site Grades	Site grades are suitable for pickleball development with average site grades of less than 5% across the site. LiDAR indicates the proposed pickleball site is approximately 1.0-2.0 m below the finish grade of the adjacent dog parking lot and Sumanik Drive. As such, significant fill could be required based on drainage strategies and desired connectivity to adjacent sites.	Site grades are suitable for pickleball court development, and are less than 5% across the site. LiDAR indicates the proposed pickleball site is approximately 1.5 to 2.0 metres below the adjacent softball fields, suggesting significant fill was placed prior to the softball field development. As such, fill could be required based on drainage strategies and desired connectivity to the adjacent site.
Setbacks	The site is located more than the minimum recommended noise setback distance of 105 m (Pickleball BC, 2023) from the nearest residential area, the McIntyre Subdivision. However, the Valleyview South Master Plan planned for mixed-use residential commercial	The site is located more than the minimum recommended noise setback distance of 105 m (Pickleball BC, 2023) from the nearest residential area. Although some portions of the parcel are within a 105 m setback from tent campsites at Robert Service Campground, there is room to

	and high-density development at the intersection of Sumanik Drive and Hamilton Boulevard (east of Hamilton) is less than 105 m from the site.	position the pickleball courts to maintain a minimum 105 m setback. The site is outside of the minimum setback of 15 m from bottom of escarpment bank as required by the City of Whitehorse Official Community Plan.
Zoning	The proposed site is zoned for Parks and Recreation (PR).	The proposed site is part of a larger 12.8 hectare parcel of land zoned for Parks and Recreation (PR).
Access to Transit and Active Transportation	Site 1 has excellent access to public transit. The site is approximately 300 m (less than a five-minute walk) from the transit stop at the Canada Games Centre which is serviced by four bus routes (Routes 101, 202, 301 and 402) (City of Whitehorse Transit Schedule, 2024). The multi-use path (MUP) along Hamilton Boulevard provides a protected and safe route for active transportation, whether by bike or on foot. A paved extension from the MUP to the pickleball courts would provide an accessible access route to the site.	Site 2 has some access to public transit. The site is less than 50 m (less than a five-minute walk) from a transit stop on Robert Service Way, but it is only serviced by one bus route (Route 302) (City of Whitehorse Transit Schedule, 2024). The unprotected bike lane on Robert Service Way provides bicycle access to the site, but it is less convenient for pedestrians. Pedestrians must cross Robert Service Way to reach the site from the Millenium Trail and the northbound bus stop, and there is no protected pedestrian crossing. The lack of a pedestrian crossing on Robert Service Way limits universally accessibility to the site.
Adjacencies	The site has excellent outdoor recreational adjacencies including proximity to the Canada Games Centre, which has the City's only indoor pickleball courts. Other nearby recreational facilities include the Mount Mac Disc Golf Course, Dirt n' Soul Mountain Bike Skills Park, Whitehorse Curling Club, Mount McIntyre Recreation Centre, Whitehorse Nordic Centre	Nearby recreational facilities include the Robert Service Way softball diamonds, and the Robert Service Campground. Adding pickleball courts at this location could further activate the area as a recreational destination. This location would provide more distributed access to indoor/outdoor pickleball facilities across the community instead of

	and the Mount McIntyre tennis courts managed by Tennis Yukon. Adding outdoor pickleball courts at this location would further augment the area as a recreational "hub." The proposed location conflicts with the Whitehorse Nordic Centre's Functional Planning which identifies the property for future ski stadium expansion, as part of the WNC's 10-year functional plan (Whitehorse Nordic Centre, 2024). The site is immediately adjacent to the boundary of the proposed Chasàn Chùa Territorial Park. The site is in proximity of emergency services, and to existing water and sewer infrastructure.	concentrating them centrally near the Canada Games Centre. The proposed site is approximately 2.5 kilometres from downtown Whitehorse, and in proximity to the Millenium Trail. The site is in proximity of emergency services, and to existing water and sewer infrastructure.
Environmental Conditions	Vegetation on the site consists of mixed forest, with White Spruce (*Picea glauca*) and Lodgepole Pine (*Pinus contorta*) predominant and some immature Trembling Aspen (*Populus tremuloides*). Groundcover includes typical native species to the southern Yukon including Kinnikinnick (*Arctostaphylos uva-ursi*), Arctic Lupine (*Lupinus arcticus*), and Soapberry (*Sheperdia canadensis*). A desktop review of available City of Whitehorse and GeoYukon GIS mapping did not reveal any notable environmental constraints on the site.	Vegetation on the site consists of coniferous forest, with White Spruce (*Picea glauca*) predominant. Groundcover includes typical native species to the southern Yukon including Cranberry (*Vaccinium vitis-idaea*), Fireweed (*Chamaenerion angustifolium*), Wild Rose (*Rosa acicularis*), and Labrador Tea (*Rhododendron groenlandicum*). On the forest floor mosses are predominant indicating poor drainage. A desktop review of available City of Whitehorse and GeoYukon GIS mapping did not reveal any notable environmental constraints on the site. The adjacent site, east of the railway ROW, is zoned PE – Environmental Protection.

	Sun-shade mapping indicates that the site receives full sun for most of the day during the spring equinox and throughout the warmer seasons until late fall. Based on this level of exposure, we can assume that snow will melt in a reasonable timeframe in spring. The prevailing wind in the summer in Whitehorse comes from the south-southeast. The open space to the south of Site 1 created by the Dog parking could affect play quality if coniferous trees (acting as a wind barrier) are not maintained, or if no wind barriers are created.	Sun-shade mapping indicates that the site receives full sun for most of the day, with the escarpment creating shade in the evening, during the spring equinox and throughout the warmer seasons until late fall. Based on this exposure, we can assume that snow may melt more slowly due to the shading from the cliff, but still within a reasonable timeframe in the spring. The predominant wind comes from the south-southeast, and the open space to the south of Site 2 created by the Softball Fields could affect play quality if coniferous trees (acting as a wind barrier) are not maintained, or if no wind barriers are created.
Archaeology	The site has never been subject to a heritage site inventory, thus there are no known archaeological sites within the site boundaries. The site is not likely to be a location of an archaeological site *(personal communication, Yukon Heritage Resources, Department of Tourism & Culture, Cultural Services Branch, November 24, 2025).* A Heritage Impact Resource Assessment (HIRA) may be required.	The site has never been subject to a heritage site inventory, thus there are no known archaeological sites within the site boundaries. However, the site is quite close to the river which elevates its potential for archaeological sites *(personal communication, Yukon Heritage Resources, Department of Tourism & Culture, Cultural Services Branch, November 24, 2025).* A Heritage Impact Resource Assessment (HIRA) may be required.

Table 2. Site Evaluation Summaries.

2.2.3 SITE ANALYSIS DIAGRAMS

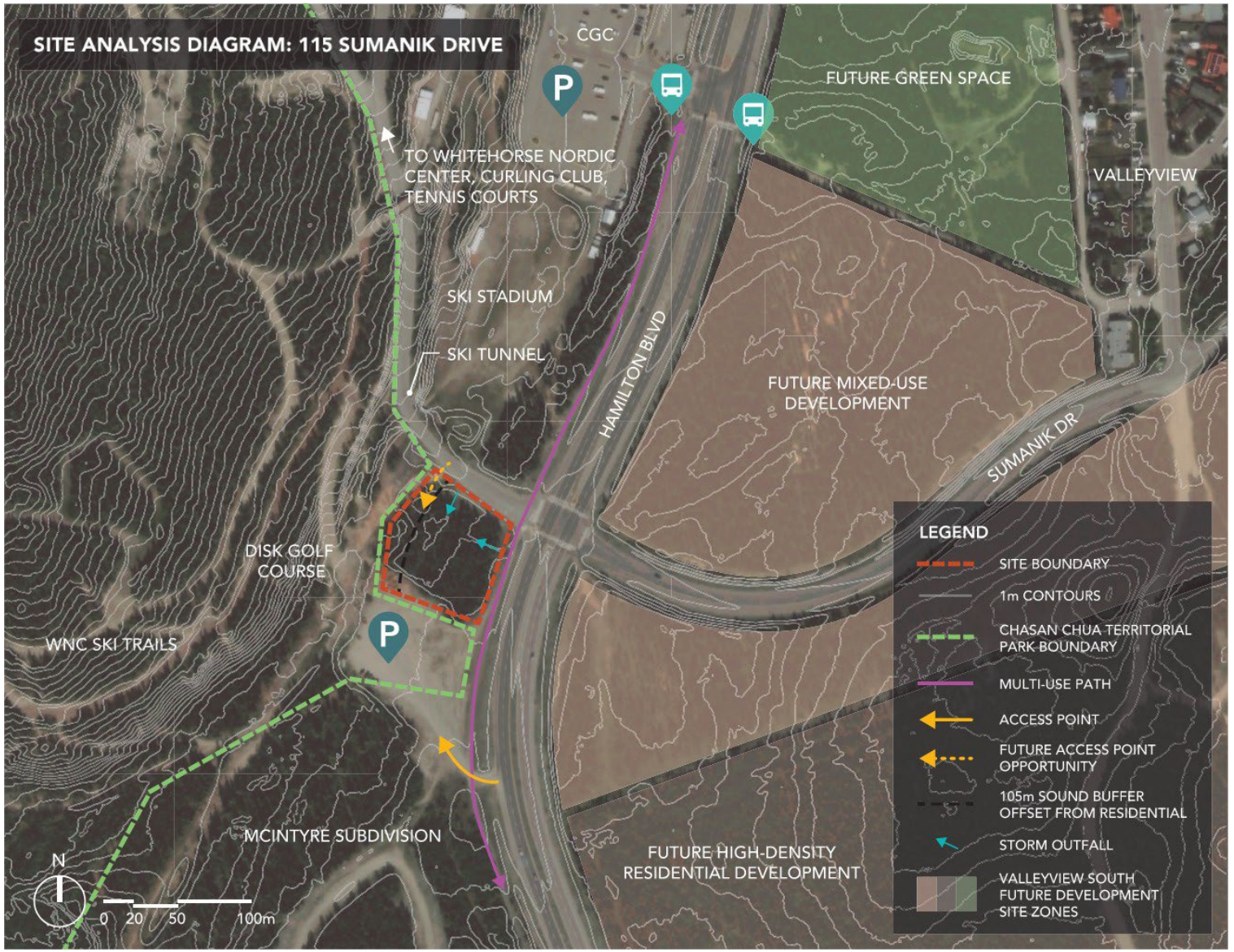


Figure 4. Site Analysis Diagram – Site 1 - 115 Sumanik Drive

Figure 5. Photo of Site 1, 115 Sumanik Drive.

Figure 6. Photo of Site 1, 115 Sumanik Drive

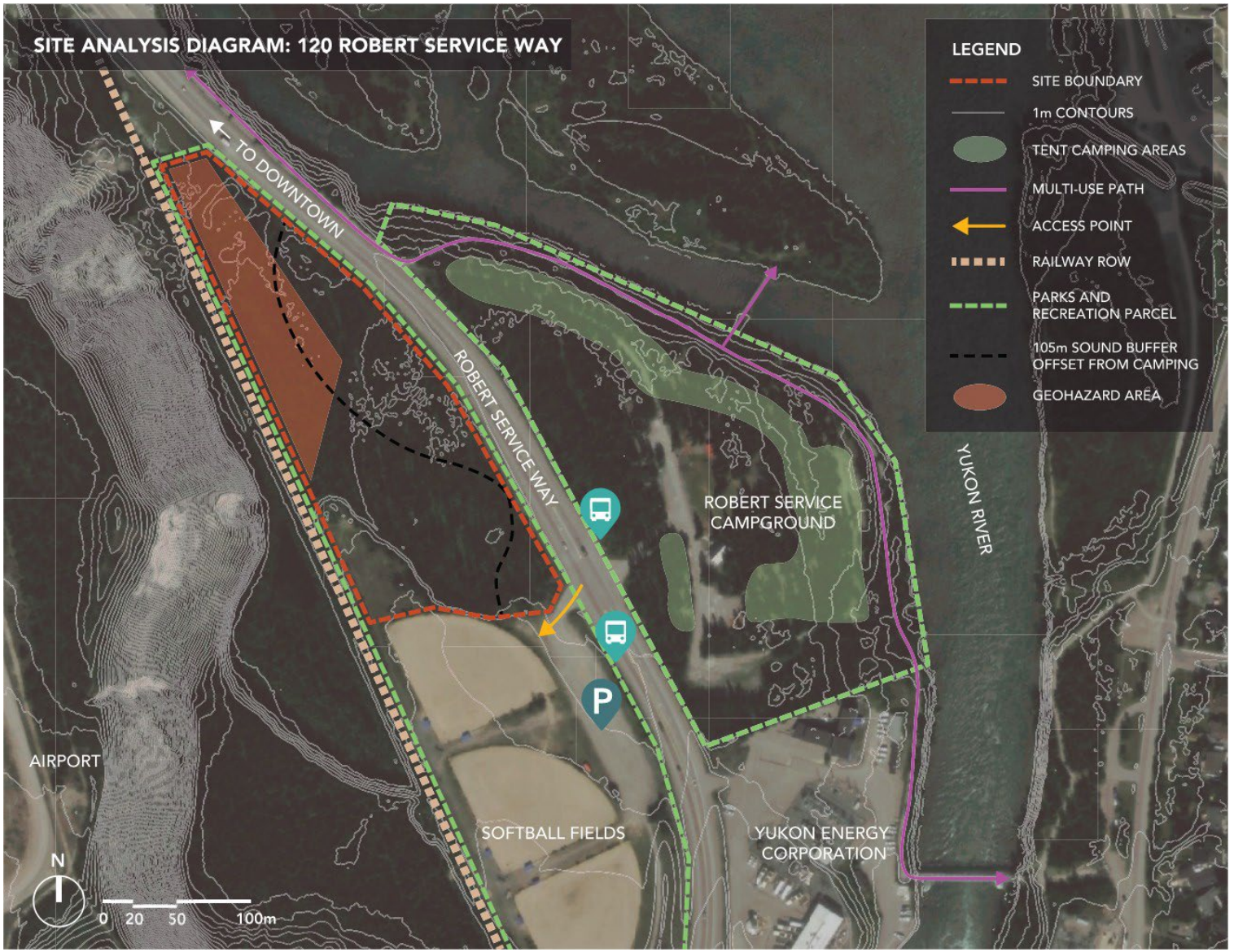


Figure 7. Site Analysis Diagram – Site 2 - 120 Robert Service Way

Figure 8. Photo of Site 2, 120 Robert Service Way.

Figure 9. Photo of Site 2, 120 Robert Service Way

2.2.4 SUN AND WIND ANALYSIS

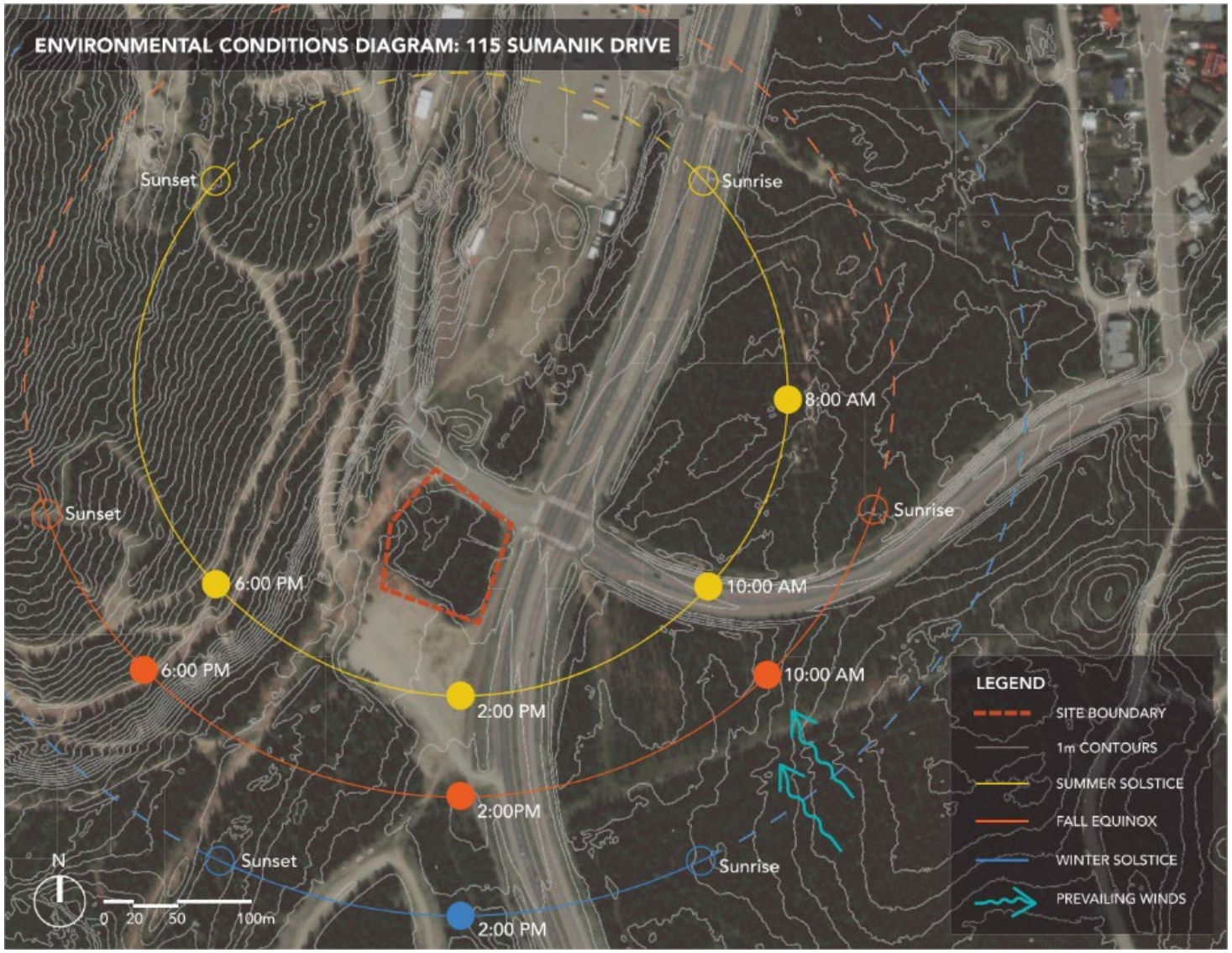


Figure 10. Diagram of sun path at the solstices and equinox & prevailing wind from May to October; Site1 - 115 Sumanik Dr.

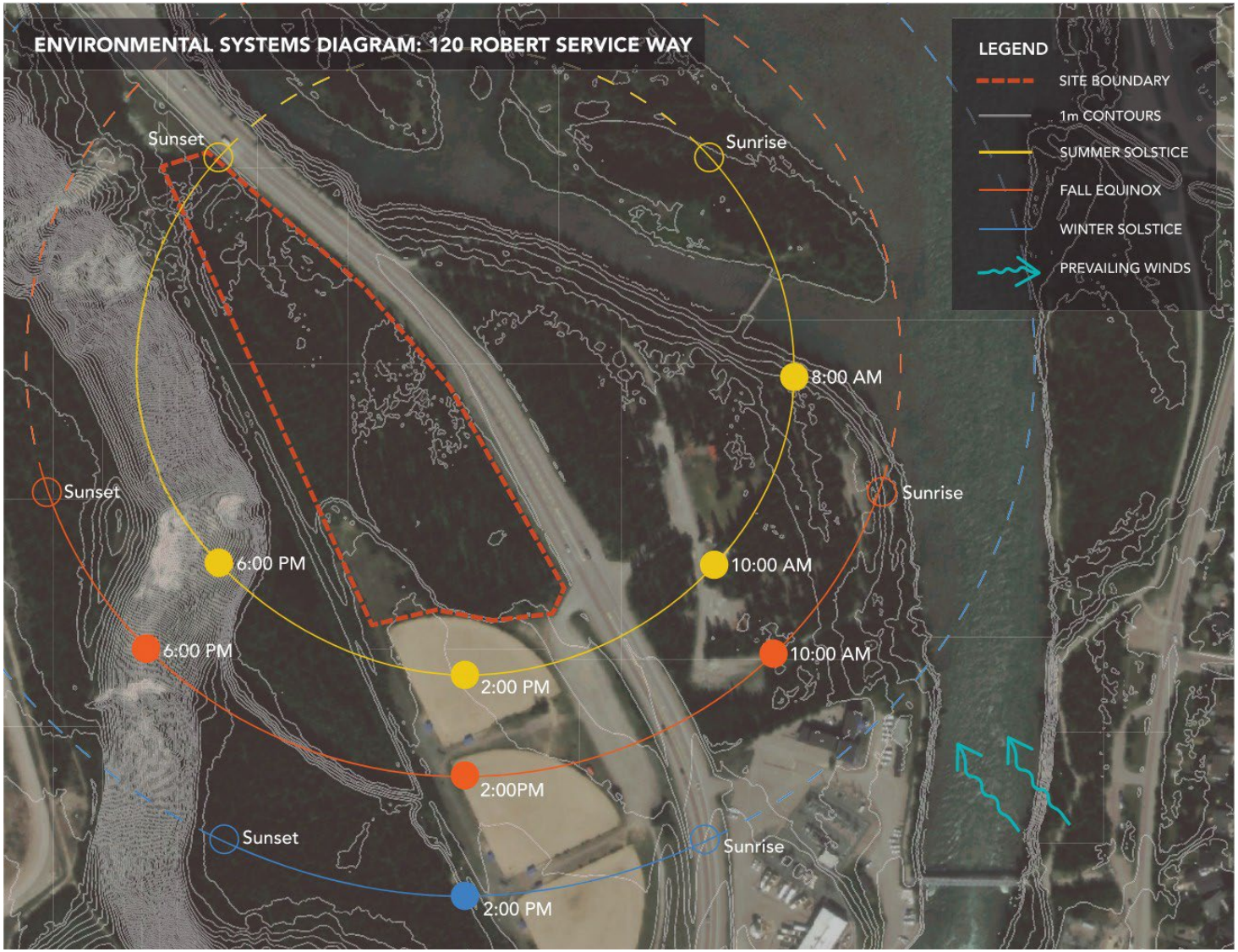


Figure 11. Diagram of sun path at the solstices and equinox & prevailing wind from May to October; Site 2 - 120 Robert Service Way

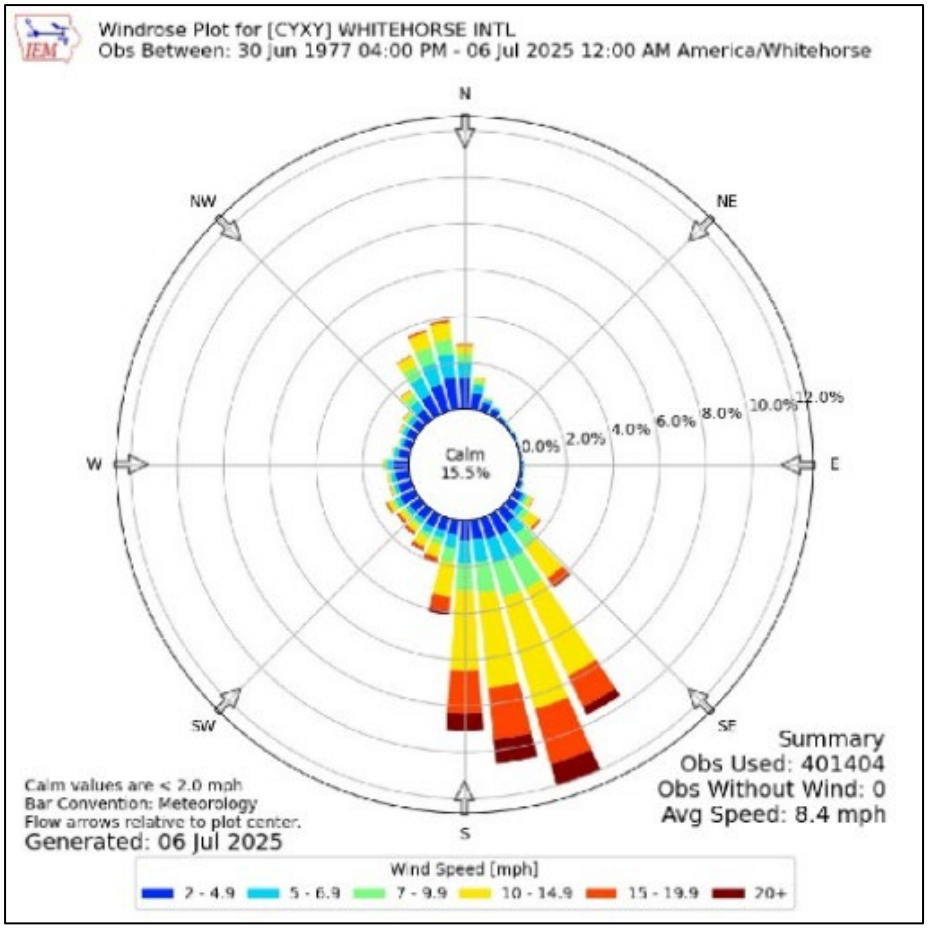


Figure 12. Wind Rose for July based on data from Erik Neilson Airport. Wind Rose generated by the Iowa State University, 2025

2.3 SITE SUITABILITY COMPARISON

The following table compares the suitability of the two proposed sites under consideration. Note that criteria are not listed in hierarchical order. Based on the information collected to date, the table shows that both locations could be suitable for development of outdoor pickleball courts based on the criteria outlined in section 2.1, however proposed Site 2 at 120 Robert Service Way meets a greater number of site suitability requirements.

CITY OF WHITEHORSE OUTDOOR PICKLEBALL COURTS FEASIBILITY STUDY - Site Comparison Matrix												
	Proposed Site	Size/ Available Area	Potential for Expansion	Access	Parking	Geotechnical Soils, Drainage	Site Grades	Setbacks and Zoning	Access to Transit	Adjacencies	Environmental Constraints	Archaeology
1	115 Sumanik Drive	0.6 hectares	No expansion potential	Access off Sumanik Drive to be explored	Access to overflow parking	Existing City storm outfall		Within 105m setback from future residential	Transit stop within 300m (4 bus routes)	Adjacent to CGC, tennis courts, disc golf. Conflicts with WNC 10-Yr Functional Plan.		
2	120 Robert Service Way	3 hectares	Potential for expansion or additional courts	Existing Access off Robert Service Way	Some access to overflow parking	Soils are wetter, could require more fill.			Transit stop within 50m (1 bus route)	Adjacent to Softball Fields, Robert Service Campground	Geohazard Consideration	

fulfills requirements
partially fulfills requirements

Table 3. Comparison of Sites According to Site Suitability Criteria.

3 PRELIMINARY DESIGN CONCEPTS

A preliminary design concept has been developed for each location. See Concepts 1 and 2 on the following pages. These design concepts informed the development of Class 'D' costing included in Chapter 4. Both preliminary design concepts include:

- Court layout for 6 outdoor pickleball courts;
- Fencing for defined play areas;
- Locations for future court expansion (if space allows);
- Site access and parking for 10 – 20 vehicles;
- Seating areas for players and spectators;
- Setbacks as required for zoning, geohazard and site grading;
- Perimeter court drainage, and
- Buffer zones

The concepts do not include any proposals for washroom buildings or lighting. The City of Whitehorse is planning to provide porta potties during the pickleball season and given the outdoor pickleball season corresponds to Whitehorse's long daylight hours during spring, summer, and early fall, the present scope of the project does not include any site lighting.

Both of the proposed sites are situated lower than the adjacent municipal infrastructure and will require imported fill to ensure proper grading, drainage, and implementation.

It is recommended to limit Firesmart work at both sites to ensure that a vegetative buffer is maintained.

3.1 DESIGN CONCEPT - SITE 1, 115 SUMANIK DRIVE

The design concept for Site 1 locates the pickleball courts in a preferred north-south orientation, with a new site access and dedicated parking area off Sumanik Drive. A pathway linkage is proposed to connect to the existing Dog Parking Lot and the multi-use path on Hamilton Boulevard. In the case that the proposed parking lot is not developed at the same time as the courts, there is the possibility to use the Dog parking lot without any known conflict, as the parking is mostly quiet during the summer.

Site 1 is well served by public transit as well as active transportation infrastructure, and is located in an existing recreational "hub," surrounded by the MUP on Hamilton Boulevard, the Canada Game Centre, outdoor tennis courts, a Disk Golf course and the Whitehorse Nordic Centre.

Retaining a buffer of existing trees on the south and east sides of the proposed pickleball courts will create a natural buffer for the southeast winds and a visual barrier with Hamilton Boulevard.

Constraints

The feasibility of a new access off Sumanik Drive, and the coordination of site drainage to accommodate existing City of Whitehorse stormwater outfalls requires further engineering study.

It is noted that space limits the expansion of any future courts at this location. In addition, the courts are located within a 105 m setback of planned future residential in Valleyview South which could create noise conflicts, and require additional mitigation measures (e.g., berms or engineered barriers). The location is also in conflict with design options in the Whitehorse Nordic Centre 10-Year Functional Plan (2024).

3.2 DESIGN CONCEPT - SITE 2, 120 ROBERT SERVICE WAY

The design concept for Site 2 proposes six pickleball courts in a preferred north-south orientation, with a staggered court layout along the western portion of the parcel to maintain a noise setback from tent sites within the Robert Service Campground. The staggered court layout also provides for a small waiting/gathering area for spectators and for players to socialize and rest between games. The design indicates space for future court expansion to the north, which could include additional pickleball courts, tennis courts, or a combination of both, to create an outdoor sport court hub. The geohazard area in the northwest corner of the site should not impact the potential for future expansion.

An extension of the existing gravel parking area is proposed along Robert Service Way. The existing parking lot serving the softball fields could also be used; however, it is often very busy on summer evenings and weekends, which may create circulation conflicts.

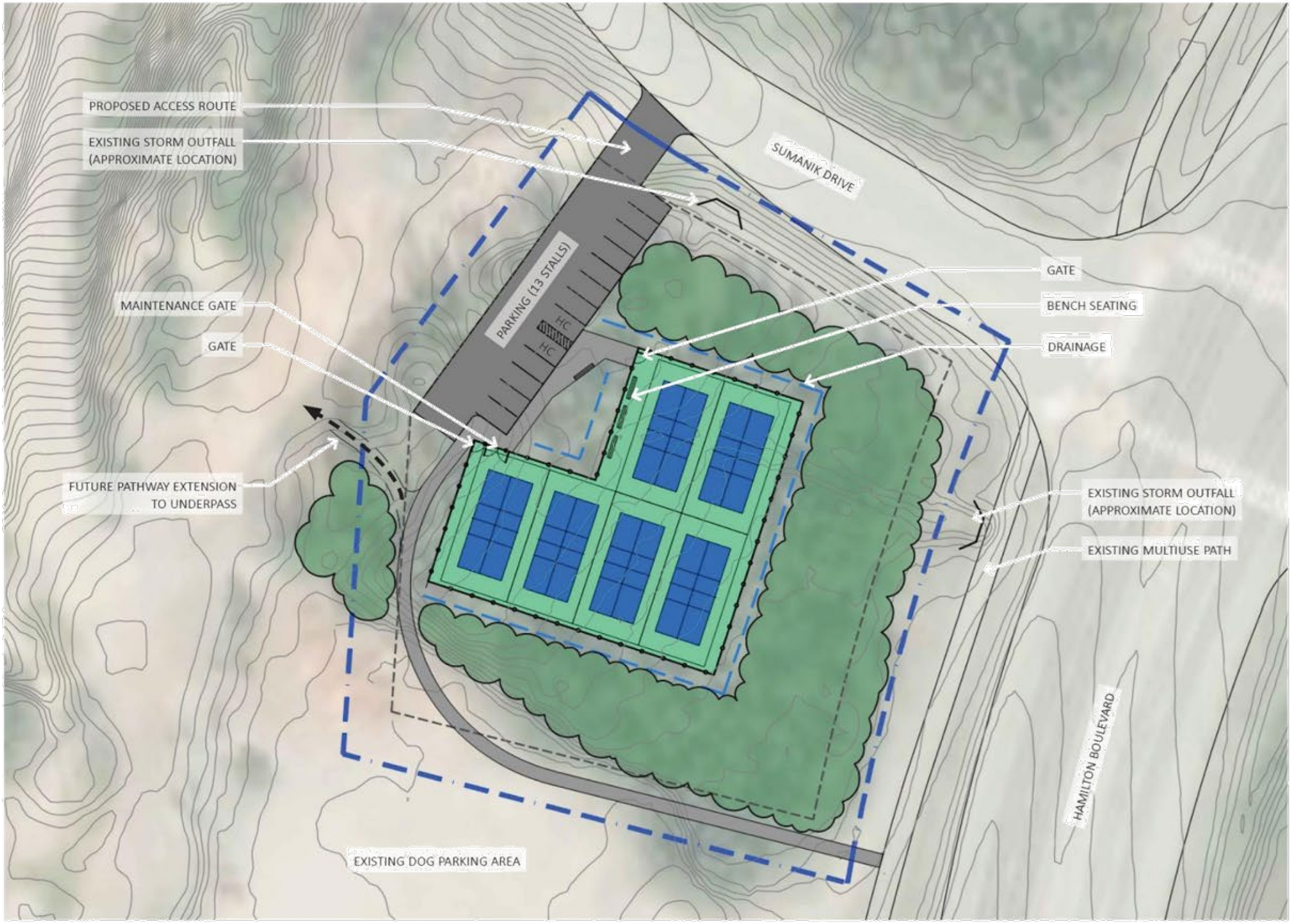
Retaining existing tree buffers on the south and east sides of the proposed pickleball courts will create a natural buffer for the southeast winds and a visual barrier from the softball fields and Robert Service Way.

Constraints

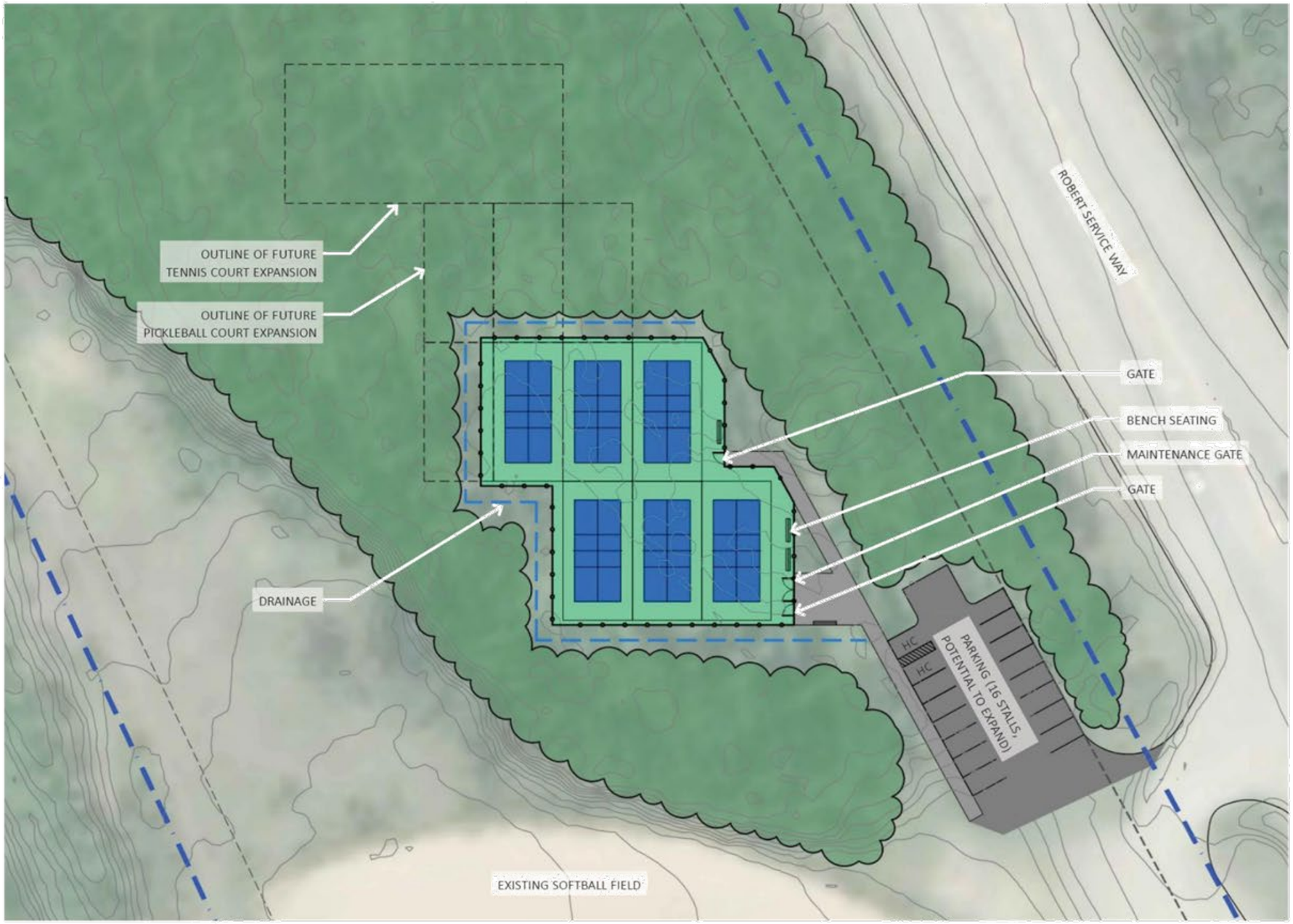
Access to Site 2 would primarily be by car, as only one bus route serves the area and active transportation infrastructure is limited. While the Millenium Trail is nearby, there is no designated pedestrian crossing of Robert Service Way.

The escarpment (clay cliffs) to the east of the site will create shade in the evenings during summer, which may impact snow management during the spring snow melt, and general player enjoyment of the facility.

CONCEPT 1: SITE 1 - 115 SUMANIK DRIVE



CONCEPT 2: SITE 2 - 120 ROBERT SERVICE WAY



4 CLASS D COST ESTIMATE

A cost estimate for the development of six (6) outdoor pickleball courts and associated infrastructure and amenities is provided in Table 4. This estimate is itemized under the following headings:

- General Requirements
- Site Preparation
- Surfacing
- Fencing
- Amenities
- Landscaping
- Signage

This 'Class D' cost estimate (+/-30%) provides an estimation suitable for budget planning purposes.

More detailed cost estimates will be required during detailed design and prior to construction of specific improvements.

SITE	DESCRIPTION	COST
SITE 1 - 115 SUMANIK DRIVE	Material and Labour	$1,512,231.10
SITE 2 - 120 ROBERT SERVICE WAY	Material and Labour	$1,428,579.15

Table 4. Class D Cost Estimate

** Detailed cost estimates are included in Appendix B*

Exclusions

The following project risks have been identified, but have not been included in the above cost estimates:

- Dealing with existing stormwater outfalls at Site 1 Sumanik Drive requires further engineering study, and may require offsite improvements.
- A Circulation Study might be required before adding a vehicular access on Sumanik Drive.
- Completion of a Heritage Resource Impact Assessment (HRIA) may be required.
- YESAB submission if required.

Phasing

To reduce the overall cost, the project could be phased. Since both sites have adjacent parking that could be used by pickleball players, the proposed parking areas could be constructed at a later stage.

5 CONCLUSION

5.1 RECOMMENDATIONS

The following locations have been reviewed as potential locations for outdoor pickleball development:

Site 1: Adjacent to the Dog Parking Lot at 115 Sumanik Drive, and
Site 2: Adjacent to the Ball Diamonds at 120 Robert Service Way.

Many factors affecting the suitability of the sites have been considered. Based on an assessment of the evaluation criteria and opportunities and constraints at each site, either site is suitable for outdoor pickleball court development. **However, the proposed location at 120 Robert Service Way meets the greatest number of site suitability requirements,** such as:

- Site area has enough space for future expansion;
- Existing access exists from Robert Service Way, no need to create a new vehicular access;
- Distance from existing and proposed residential neighbourhoods is greater than 105 metres (noise mitigation), and
- Adjacent recreational infrastructure known long-term plans do not affect the site.

The following considerations should be factored into the decision on which site to develop:

- Long-term plans for the Mount McIntyre Recreation Area, including integration of the Whitehorse Nordic Functional Plan options, the Chasàn Chùa Territorial Park planning, and future development of Valley View South;
- Feasibility of a new vehicular access point off Sumanik Drive to access Site 1;
- Management of the stormwater discharge at Site 1;
- Whether the City would prefer to have pickleball facilities clustered in one central location, or distributed throughout the community;
- The extent to which future expansion of outdoor pickleball court facilities, or the relocation of tennis courts in the medium to long-term, is likely;
- The access and accessibility of the site (i.e., transit, active transportation, motorized vehicles) and the proximity of existing infrastructure, and
- The possibility to retain existing tree buffer zones for wind protection, screening and shade. It is recommended to reduce the firesmart work at both sites until the final location is chosen and construction is planned.

6 REFERENCES

BC Recreation and Parks Association. *Pickleball Noise Assessment*. February, 2023.
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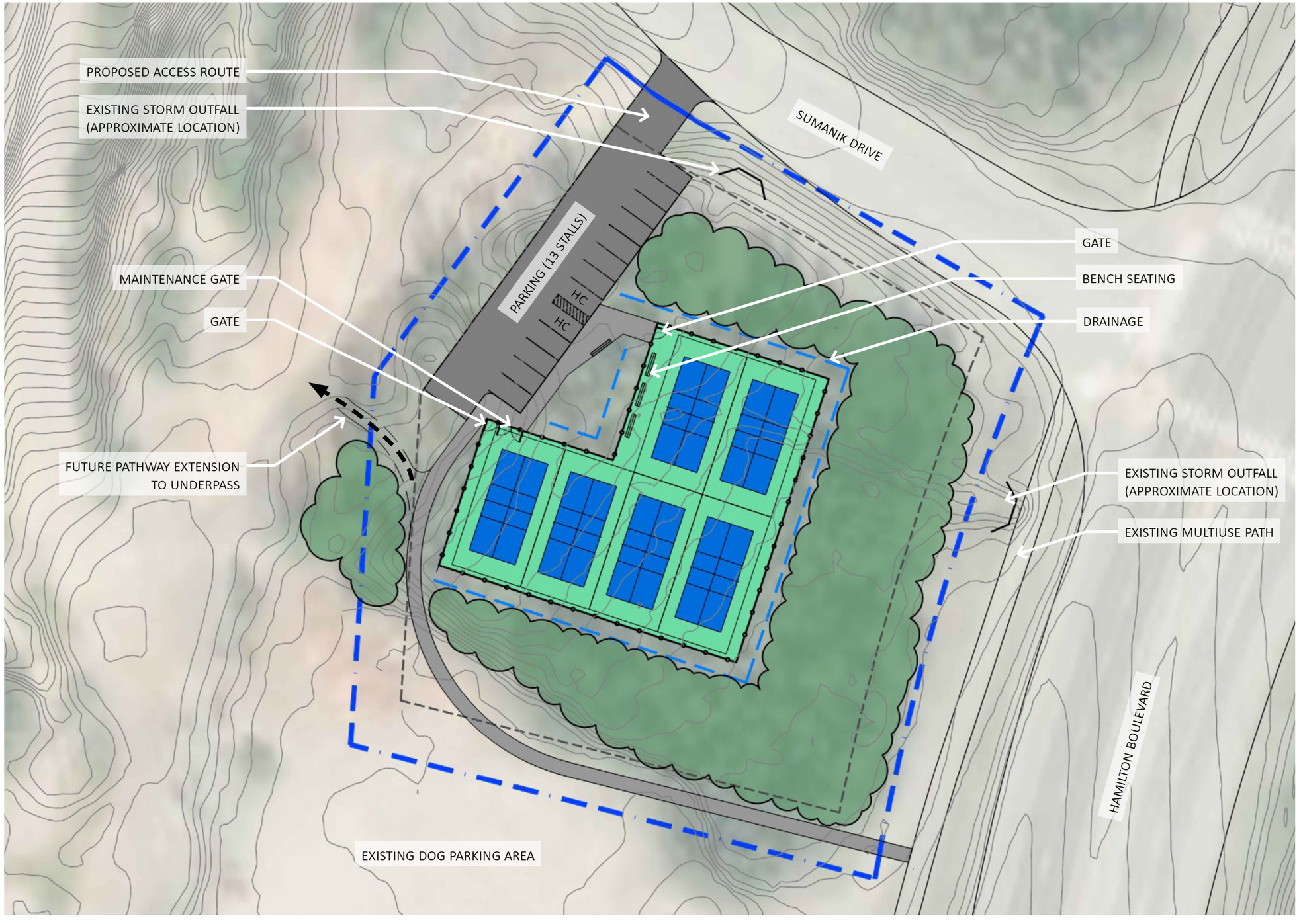
APPENDIX A – CONCEPTS

CONCEPT PLAN: SITE 1 - 115 SUMANIK DRIVE

WHITEHORSE OUTDOOR PICKLEBALL FEASIBILITY STUDY AND CONCEPT DESIGN

LEGEND

- PROPERTY LINE
- SETBACK
- 2.5M CONTOURS
- FENCING
  155 LM
- DRAINAGE
  132 LM
- COURT SURFACING
  1190 SM
- PATHWAY (GRAVEL)
  262 SM
- PARKING (GRAVEL)
  534 SM
- EXISTING FOREST/
  BUFFER ZONE
- BENCH



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LEES + ASSOCIATES

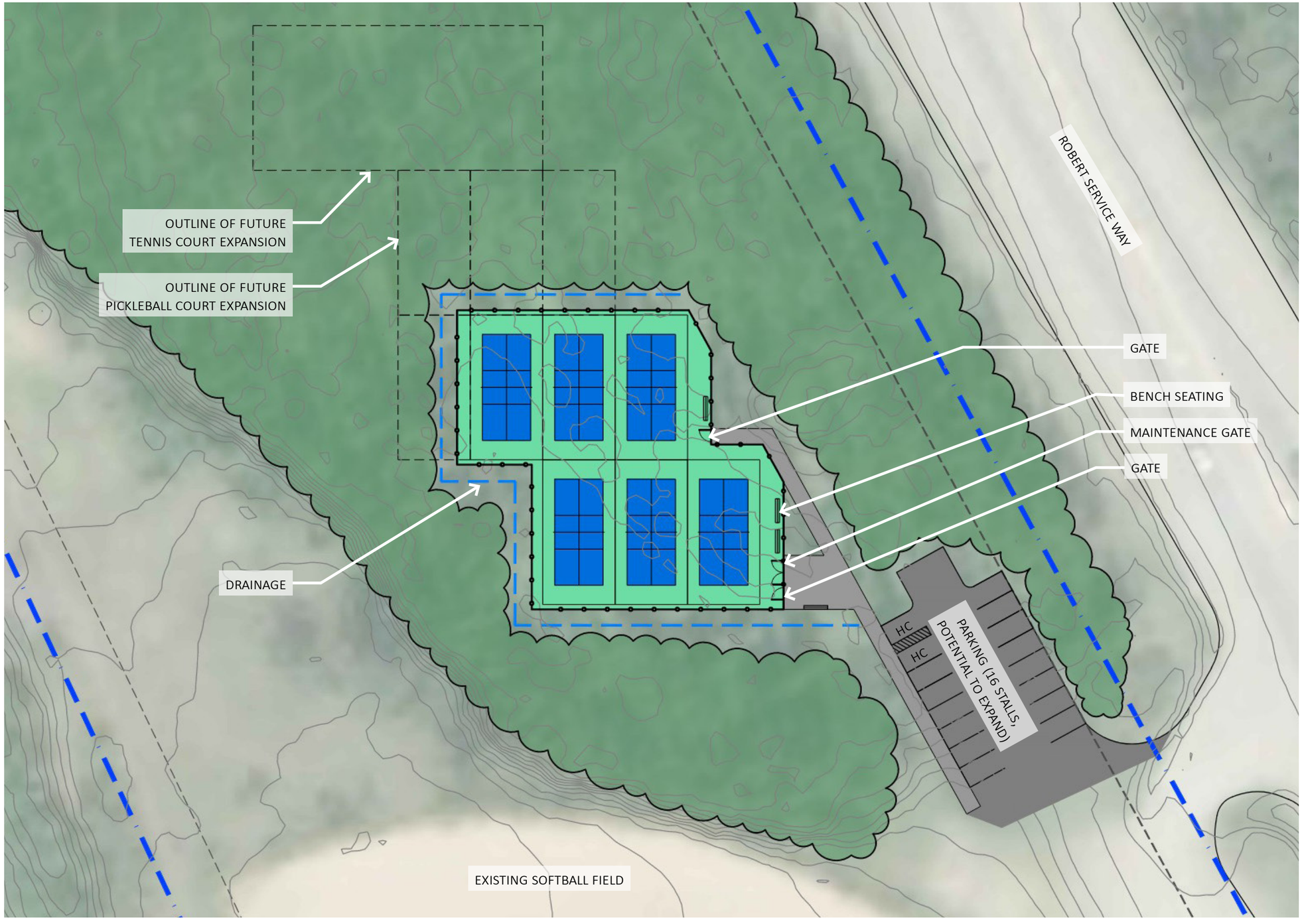
CONCEPT PLAN: SITE 2 - 120 ROBERT SERVICE WAY

WHITEHORSE OUTDOOR PICKLEBALL FEASIBILITY STUDY AND CONCEPT DESIGN

Whitehorse
THE WILDERNESS CITY

LEGEND

- PROPERTY LINE
- SETBACK
- 2.5M CONTOURS
- FENCING
  154 LM
- DRAINAGE
  124 LM
- COURT SURFACING
  1217 SM
- PATHWAY (GRAVEL)
  170 SM
- PARKING (GRAVEL)
  557 SM
- EXISTING FOREST/
  BUFFER ZONE
- BENCH



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LEES + ASSOCIATES

APPENDIX B – CLASS 'D' COST ESTIMATES

Outdoor Pickleball Court Feasibility Study
Based on Conceptual Design
Class 'D' Cost Estimate
SITE 1 - 115 Sumanik Drive

LEES + ASSOCIATES

December 15, 2025

LEES Project No. 25-116

ITEM	DESCRIPTION	UNIT	UNIT PRICE	APRX QTY	EXTENDED AMOUNT
1.0	**GENERAL REQUIREMENTS**				
1.1	Mobilization & Demobilization	L.S.	$ 95,000.00	1	$ 95,000.00
1.2	Construction Survey	L.S.	$ 5,000.00	1	$ 5,000.00
				Sub-Total =	$ 100,000.00
2.0	**SITE PREPARATION**				
2.1	Clearing & Grubbing & Stripping	m2	$ 45.00	3238	$ 145,710.00
2.2	Excavation and Subgrade Preparation	m2	$ 25.00	3238	$ 80,950.00
2.3	Supply & Install French Drain (including trenching and geotextile)	l.m.	$ 300.00	132	$ 39,600.00
2.4	Drain Line Clean Out	ea.	$ 1,500.00	1	$ 1,500.00
2.5	Supply & Install Rock pit / soakway	L.S.	$ 15,000.00	1	$ 15,000.00
				Sub-Total =	$ 282,760.00
3.0	**SURFACING - ACCESS TRAIL AND PICKLEBALL COURT**				
3.1	Filling and Grading	m3	$ 30.00	3590	$ 107,700.00
3.2	Supply & Install Geotextile	m2	$ 8.00	1190	$ 9,520.00
3.3	Crushed Aggregate / Compacted Base Course - 20mm Granular	m3	$ 70.00	27	$ 1,890.00
3.4	Asphalt pavement (Leveling Course and Surface Course) - Tennis Course	m2	$ 145.00	1190	$ 172,550.00
3.5	Supply and Install Granular "A" - 10mm Minus	m3	$ 100.00	218	$ 21,800.00
				Sub-Total =	$ 313,460.00
4.0	**PARKING**				
4.1	Filling and Grading	m3	$ 30.00	1068	$ 32,040.00
4.2	Crushed Aggregate / Compacted Base Course - 20mm Granular	m3	$ 70.00	53	$ 3,710.00
4.3	Supply and Install Granular "A" - 10mm Minus	m3	$ 100.00	80	$ 8,000.00
				Sub-Total =	$ 43,750.00
5.0	**FENCING**				
5.1	Supply & Install 3,048 mm Height Chain-Link Fencing (including gates - 1 single and 1 double)	l.m.	$ 265.00	155	$ 41,075.00
				Sub-Total =	$ 41,075.00
6.0	**PICKLEBALL COURT**				
6.1	Supply Resurfacer and Cushion (OPTIONAL)	ea.	$ 22,000.00	6	$ 132,000.00
6.2	Supply Pickleball Posts and Net (including all required accessories)	ea.	$ 1,320.00	6	$ 7,920.00
6.3	Acrylic Surefacing Including Line Paint (Supply only - for 6 courts)	L.S.	$ 16,140.00	1	$ 16,140.00
6.4	Install Acrylic surface	L.S.	$ 75,000.00	1	$ 75,000.00
				Sub-Total =	$ 231,060.00
7.0	**AMENITIES**				
7.1	Supply & Install Bench on Concrete Pad	ea.	$ 3,000.00	4	$ 12,000.00
7.2	Supply & Install support for Paddle (20 Paddles)	ea.	$ 850.00	1	$ 850.00
				Sub-Total =	$ 12,850.00
8.0	**LANDSCAPING**				
8.1	Supply & Install Hydroseed - including 100mm Depth Topsoil	m2	$ 23.00	781	$ 17,963.00
				Sub-Total =	$ 17,963.00
9.0	**SIGNAGE**				
				Sub-Total =	$ -
				Sub-Total:	$ 1,042,918.00
				Contingency Allowance (30%):	$ 312,875.40
				Design & Engineering (15%):	$ 156,437.70
				Total:	$ 1,512,231.10

Outdoor Pickleball Court Feasibility Study
Based on Conceptual Design
Class 'D' Cost Estimate
SITE 2 - 120 Robert Service Way

LEES + ASSOCIATES

December 15, 2025

LEES Project No. 25-116

ITEM	DESCRIPTION	UNIT	UNIT PRICE	APRX QTY	EXTENDED AMOUNT
1.0	**GENERAL REQUIREMENTS**				
1.1	Mobilization & Demobilization	L.S.	$ 90,900.00	1	$ 90,900.00
1.2	Construction Survey	L.S.	$ 5,000.00	1	$ 5,000.00
				Sub-Total =	$ 95,900.00
2.0	**SITE PREPARATION**				
2.1	Clearing & Grubbing & Stripping	m2	$ 45.00	3223	$ 145,035.00
2.2	Excavation and Subgrade Preparation	m2	$ 25.00	3223	$ 80,575.00
2.3	Supply & Install French Drain (including trenching and geotextile)	l.m.	$ 300.00	124	$ 37,200.00
2.4	Drain Line Clean Out	ea.	$ 1,500.00	1	$ 1,500.00
2.5	Supply & Install Rock Pit / Soakaway	L.S.	$ 15,000.00	1	$ 15,000.00
				Sub-Total =	$ 279,310.00
3.0	**SURFACING - ACCESS TRAIL AND PICKLEBALL COURT**				
3.1	Filling and Grading	m3	$ 30.00	1857	$ 55,710.00
3.2	Supply & Install Geotextile	m2	$ 8.00	1217	$ 9,736.00
3.3	Crushed Aggregate / Compacted Base Course - 20mm Granular	m3	$ 70.00	17	$ 1,190.00
3.4	Asphalt pavement (Leveling Course and Surface Course) - Tennis Course	m2	$ 145.00	1217	$ 176,465.00
3.5	Supply and Install Granular "A" - 10mm Minus - Parking	m3	$ 100.00	208	$ 20,800.00
				Sub-Total =	$ 263,901.00
4.0	**PARKING**				
4.1	Filling and Grading	m3	$ 30.00	1228	$ 36,840.00
4.2	Crushed Agregate / Compacted Base Course - 20mm Granular	m3	$ 70.00	56	$ 3,920.00
4.3	Supply and Install Granular "A" - 10mm Minus - Parking	m3	$ 100.00	84	$ 8,400.00
				Sub-Total =	$ 49,160.00
5.0	**FENCING**				
5.1	Supply & Install 3,048 mm Height Chain-Link Fencing (including gates - 1 single and 1 double)	l.m.	$ 265.00	154	$ 40,810.00
				Sub-Total =	$ 40,810.00
6.0	**PICKLEBALL COURT**				
6.1	Supply Resurfacer and Cushion (OPTIONAL)	ea.	$ 22,000.00	6	$ 132,000.00
6.2	Supply Pickleball Posts and Net (including all required accessories)	ea.	$ 1,320.00	6	$ 7,920.00
6.3	Acrylic Surefacing Including Line Paint (Supply only - for 6 courts)	L.S.	$ 16,140.00	1	$ 16,140.00
6.4	Install Acrylic surface	L.S.	$ 75,000.00	1	$ 75,000.00
				Sub-Total =	$ 231,060.00
7.0	**AMENITIES**				
7.1	Supply & Install Bench on Concrete Pad	ea.	$ 3,000.00	4	$ 12,000.00
7.2	Supply & Install support for Paddle (20 Paddles)	ea.	$ 850.00	1	$ 850.00
				Sub-Total =	$ 12,850.00
8.0	**LANDSCAPING**				
8.1	Supply & Install Hydroseed - including 100mm Depth Topsoil	m2	$ 23.00	532	$ 12,236.00
				Sub-Total =	$ 12,236.00
9.0	**SIGNAGE**				
				Sub-Total =	$ -
				Sub-Total:	$ 985,227.00
				Contingency Allowance (30%):	$ 295,568.10
				Design & Engineering (15%):	$ 147,784.05
				Total:	$ 1,428,579.15

APPENDIX C – CONSTRUCTION AND MATERIALS

1. PICKLEBALL COURT SURFACE OPTIONS

- Traditional Acrylic Court:

  i. Up to three coats of acrylic are applied directly over a well-graded asphalt base, using the same method as for tennis courts.

  ii. Preferred surface for professional-level competition.

Figure 13. Example of Traditional Acrylic Court Surfacing (Photo: DIY Court Canada).

- CushionX:

  i. Optional material that improves the surface shock absorption and provides enhanced comfort for players.

  ii. The CushionX system consists of a 4 mm mat installed between the asphalt base and the acrylic surface.

- Modular Court Tile Surface:

  i. The tiles are made of a high-impact copolymer polypropylene, designed for outdoor use. This versatile option can be installed over graded hard surfaces (concrete or asphalt), for either temporary events or a more permanent application.

  ii. Requires less maintenance than acrylic surfaces; however, overall performance (bouncing, impact response, traction) is not as high as acrylic. This option is more for recreational play, and can last 25-30 years.

  iii. Court tiles can be more susceptible to damage is temperatures drop below -31C.

  iv. LEES did not consider this surface option in the design analysis.

Figure 14. Example of Modular Court Tile Surfacing (Photo: DIY Court Canada).

2. CONSTRUCTION / SEQUENCE OF WORK

Outdoor pickleball court construction involves the following steps:

1. Subbase excavation and installation of drainage trenches.
2. Placement, grading, and compaction of the subgrade.
3. Installation of fencing (10-foot-high vinyl-coated chain link).
4. Asphalt paving, including all required layers, penetrations, anti-crack treatments, sealant, and curing.
5. Installation of CushionX mat (optional).
6. Surface preparation, including grading verification and installation of footings for nets and other accessories.
7. Application of acrylic resurfacer (up to three coats).
8. Application of acrylic colour coats.

3. EQUIPMENT AND ACCESSORIES (OPTIONAL)

The following are optional court accessories and amenities to be considered:

- Benches and spectator seating
- Paddle holders – Also used as a placeholder for who is up next
- Lighting (not likely required for summer use in Whitehorse)
- Shade structures for spectators (if there is a lack of adjacent tree cover)
- Shed (storage for equipment)
- Site signage
- Courtside signage (with information on court hours, safety protocols, etc.)

4. PICKLEBALL COURT EXAMPLES

Figure 15. Divider Fence: 4-foot Fence Separating Two 3-court Hubs

Figure 16. Divider Fence: 4-foot Fence Around Each Court

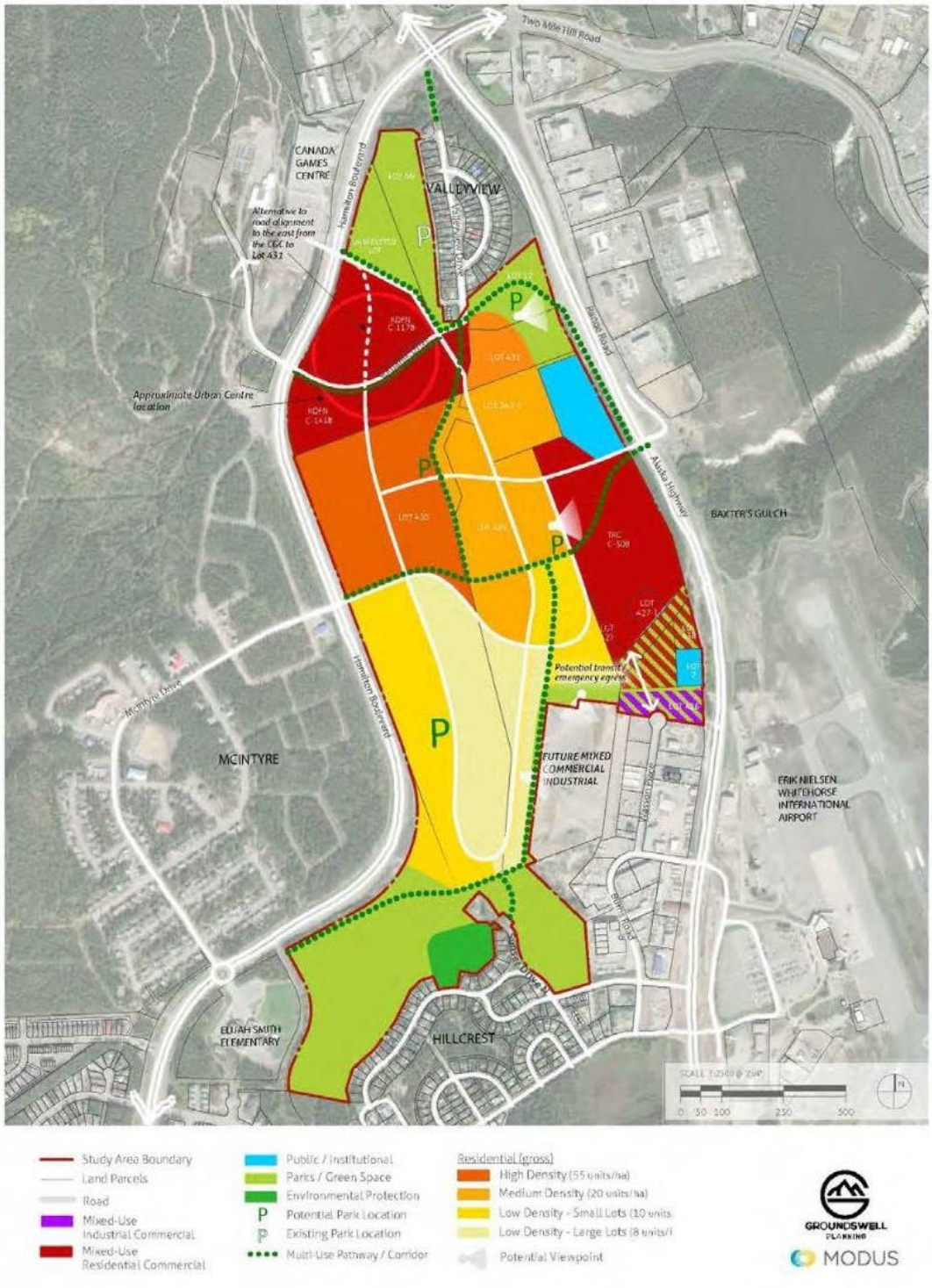
Figure 17. Divider Fence: Circulation Areas Between Court Hubs

Figure 18. No Divider Fence

5. PADDLE HOLDER EXAMPLES

Figure 19. Example of Pickleball Paddle Holders.

APPENDIX D – VALLEYVIEW SOUTH MASTER PLAN



APPENDIX E – ROBERT SERVICE CAMPGROUND