Fortress Mountain Resort

Only in Alberta. Always in season.

NOVEMBER 2025

ALL SEASON RESORT MASTER PLAN

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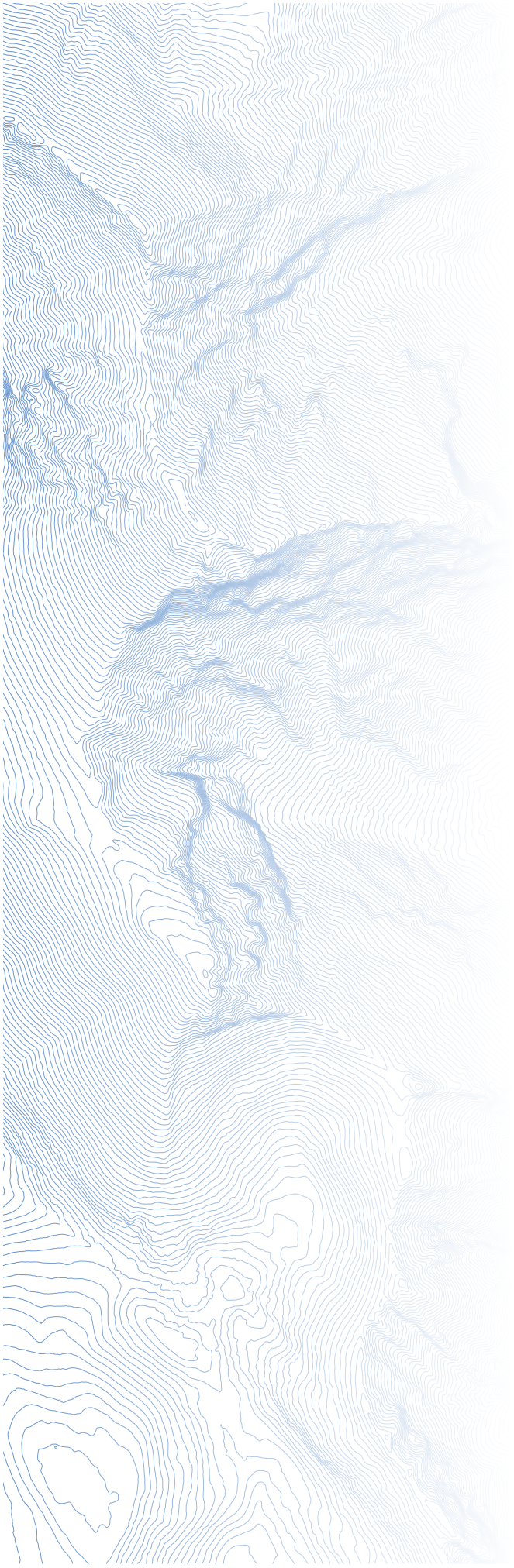
MOUNTAIN RESORT
PLANNERS



FORTRESS MOUNTAIN RESORT ALPINE RESORT MASTER PLAN

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The plans, tables and data supplied in this report represent Master Plan level planning work. Architecture, engineering and other detailed design must be completed prior to construction.

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Executive Summary

The vision outlined in the Fortress All Season Resort Master Plan is for a world-class, all-season mountain resort offering unique, high-quality recreational facilities and a diverse range of overnight accommodations—including tourist lodgings, real estate opportunities, and employee housing. The resort is designed to accommodate a balanced mix of day visitors and overnight guests, with a comfortable capacity that respects and complements Fortress's spectacular alpine environment.

In addition to the development of a premier alpine ski destination, the Master Plan features a robust summer recreation program. This includes experiences such as hiking, mountain biking, adventure activities, glamping, zip-lining, and sightseeing.

The All Season Resort Act provides a unique opportunity to begin a new chapter in responsible mountain tourism within Kananaskis Country. Fortress Mountain Resort is poised to be revitalized as a thriving destination, offering authentic, nature-based experiences that reflect the spirit of Alberta.

Summer Recreation Master Plan

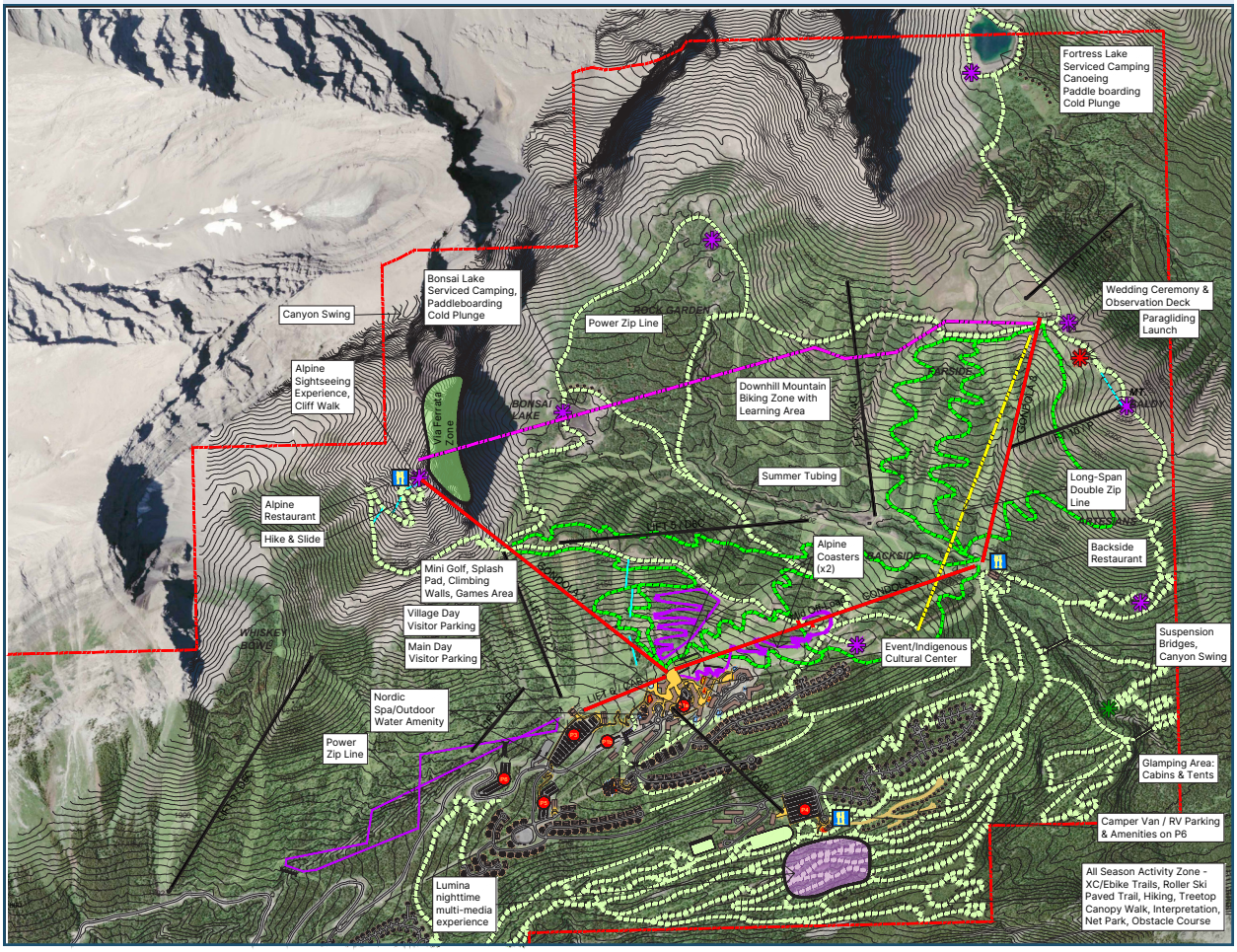


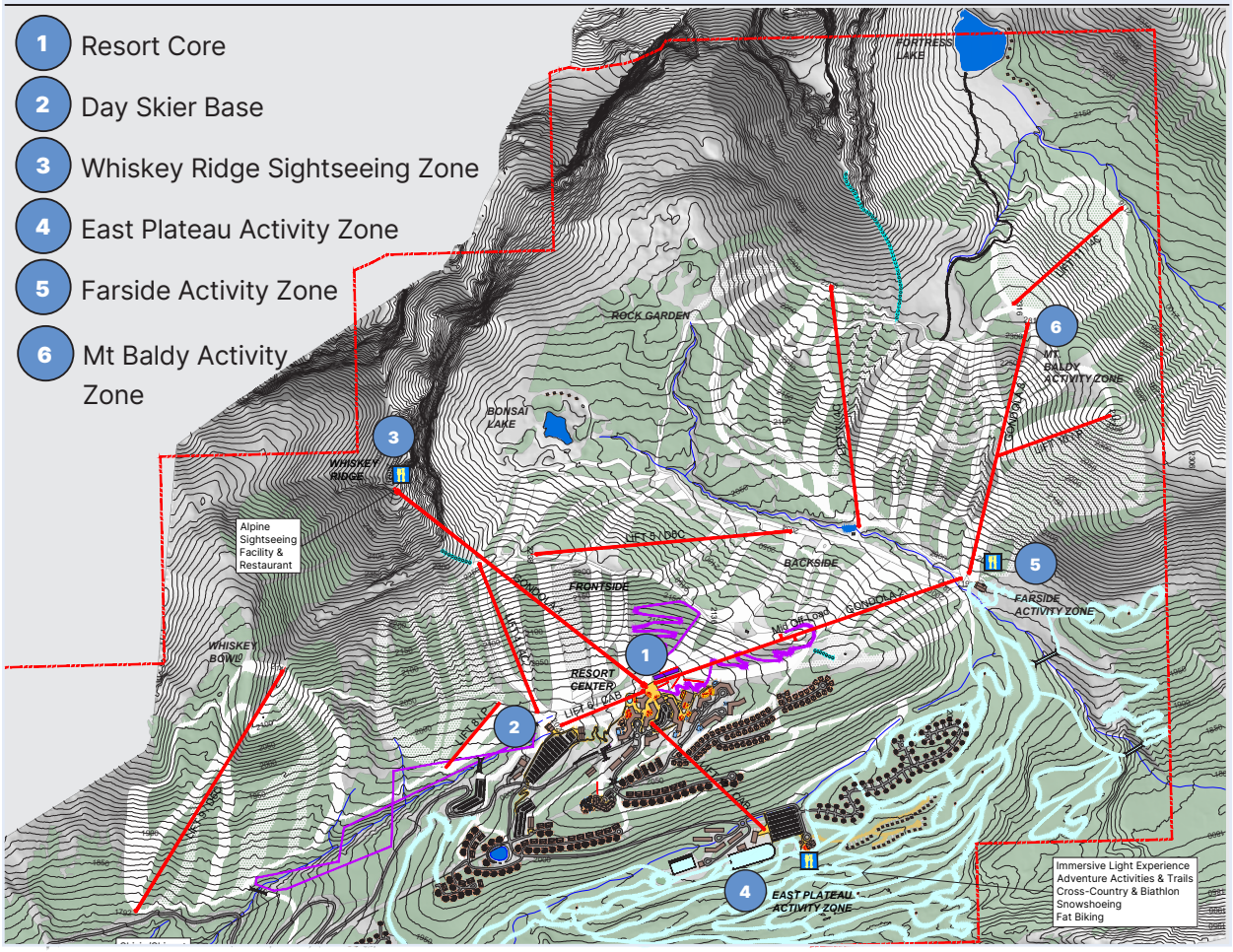
Table 1 summarizes the key program elements and their capacities across the mountain, base area, and all-season recreation components of the Fortress Master Plan. In the initial phase of development, Fortress will offer facilities for day visitors only, with a strong emphasis on summer activities. The centerpiece of Phase 1 will be a lift-accessed sightseeing experience, complemented by a variety of nature-based recreational amenities distributed throughout the resort.

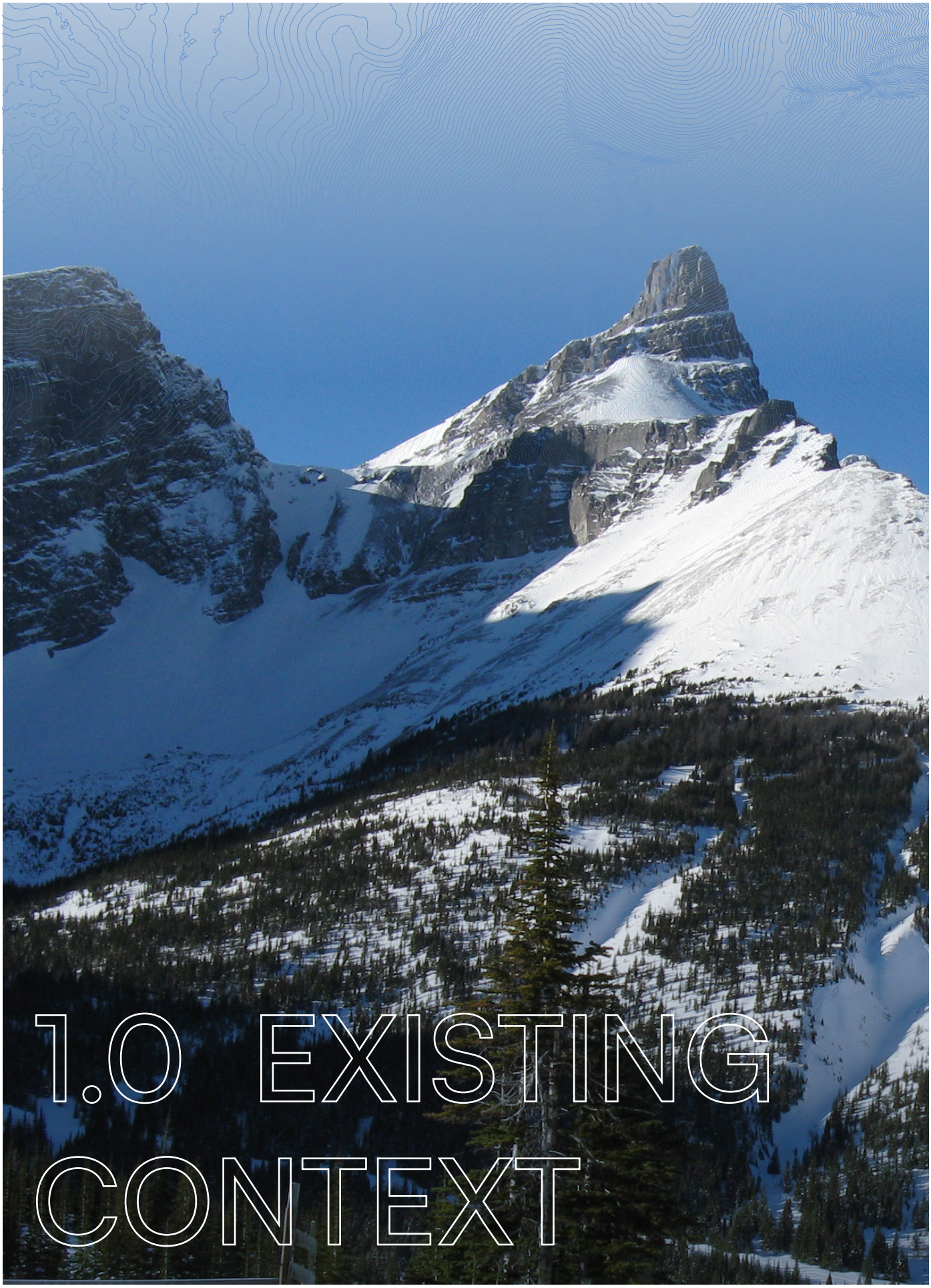
At full buildout, Fortress will accommodate up to 9,650 visitors per day, supported by eight aerial lift systems and six surface lifts. The summer and four-season activity programs will expand progressively across several designated activity zones, all connected to the Resort Core.
At the heart of the resort experience will be a mixed-use hotel and condominium development, featuring pedestrian plazas, a commercial shopping street, and spa facilities—creating a vibrant sense of place and a welcoming atmosphere for guests.

Table 1 Fortress Master Plan Program Summary

Master Plan Program	Phase 1
Peak Day Visitor Capacity	3,000
Peak Day Employees On Site	300
# Day Visitor Parking Stalls	1,100
# Aerial Lifts	3
# Surface Lifts	1
# Tourist Accommodation Units	-
# Real Estate Units	-
# Temporary Employee Housing Units	50
	Phase 5 / Buildout
Peak Day Visitor Capacity	9,650
Peak Day Employees On Site	1,500
# Day Visitor Parking Stalls	1,440
# Aerial Lifts	8
# Surface Lifts	6
# Tourist Accommodation Units	1,304
# Real Estate Units	522
# Employee Housing Units	691

Resort Master Plan





1.0 EXISTING CONTEXT

1.0 Introduction

Ecosign Mountain Resort Planners (Ecosign) was retained in September 2024 to develop a Master Plan to transform what was once the Fortress Ski Area, to a world-class, all season mountain resort. The vision for the Fortress All Season Resort Master Plan is in line with the Government of Alberta's goal of growing tourism and promoting the development of all-season mountain resorts under its newly legislated All Season Resorts Act. The Fortress All Season Resort and Village Master plan provides a detailed description of the long-term plan to develop an all-season mountain resort supported by a mixed-use pedestrian oriented village, ski-in/ski-out accommodation and a variety of four-season nature-based amenities. Fortress (formerly Snowridge Ski Area) was established in 1967, pre-dating the establishment of Kananaskis Country in 1977. Fortress operated as a day skier area until 2006 when it closed to the public. In 2011, Fortress re-opened as a cat-skiing area under the ownership of Fortress Mountain Holdings, and has become a popular location for filming commercials and feature films in the off-season. Fortress Mountain Holdings has pursued approval of a long-term master plan to develop Fortress as a public mountain resort since 2013. That process is now being advanced by Western Securities Ltd. and Ridge North America, who are partnering to acquire Fortress Mountain Holdings to establish the resort on site.

1.1 Location & Regional Context

Fortress is located in Kananaskis Country, on the west side of Highway #40. Fortress has a long history with various ownership changes, explained in Section 1.5. The former ski area is approximately 125 km west of Calgary and 140 km from the Calgary International Airport, making it the one of the closest ski areas to the greater Calgary metropolitan area, second to Nakiska, located 15 km to the north on Highway 40.

From Calgary, Fortress is accessed by traveling west on the Trans Canada Highway (Hwy#1) to the Kananaskis Trail (Hwy#40), then south on Kananaskis Trail for 40 km to the Fortress Junction Service Centre (Figure 1). A one-lane bridge and switchback road leads up the hill toward the base area. The ski area parking lots are located at the top of the road approximately 7 km from the highway. The closest town to Fortress is Canmore, located at the entrance to Banff National Park and approximately a 60 minute drive from Fortress. Highway 40 extends south another 82 km to connect with Highway #542 giving access to the Kananaskis Valley from southern Alberta. However, the access route into the Kananaskis Valley from the south is closed during the winter to allow for wildlife movements and to avoid avalanche risk, meaning winter travelers to the valley must arrive from the north on Highway #40.

Kananaskis Country is primarily located in Alberta's eastern foothills, including a small portion of park lands adjacent to the City of Calgary. The area includes most of the headwaters of the Ghost, Spray, Kananaskis, Elbow, Sheep, Jumpingpound Creeks and Highwood Rivers which flow into the Bow River, as well as a small portion of the headwaters of the Red Deer River. The region includes some of the most spectacular scenery in Alberta, as well as diverse terrain, a wide range of vegetation types and a large wildlife population. Its proximity to Calgary makes it one of the most heavily used recreation areas in Alberta.

Figure 1 Area Location

1.2 Kananaskis Country Historical Context

Portions of the area now known as Kananaskis Country were originally included in the Rocky Mountains Park of Canada (now Banff National Park). These lands were removed from the Park in 1911 under the Dominion Reserves and Parks Act. In 1929, the Natural Resources Transfer Agreement and the National Parks Act of 1930 transferred the lands east and south of Banff to the Alberta government making them provincial public lands. Roads into the area were constructed to facilitate the development of hydroelectric power, the extraction of coal and minerals used for construction, as well as logging. Calgary Power built a hydroelectric plant at Horseshoe Falls on the Bow River near Seebe in 1911, and a second plant on the Kananaskis River just upstream of the confluence with the Bow River in 1913. A dam was constructed on Upper Kananaskis Lake in 1932 to create a reservoir for these plants. Work camps built for forestry work in the Depression were used as internment camps in the Second World War. Additional dams and power plants were constructed during the 1940's and 1950's. Natural gas wells were also established.

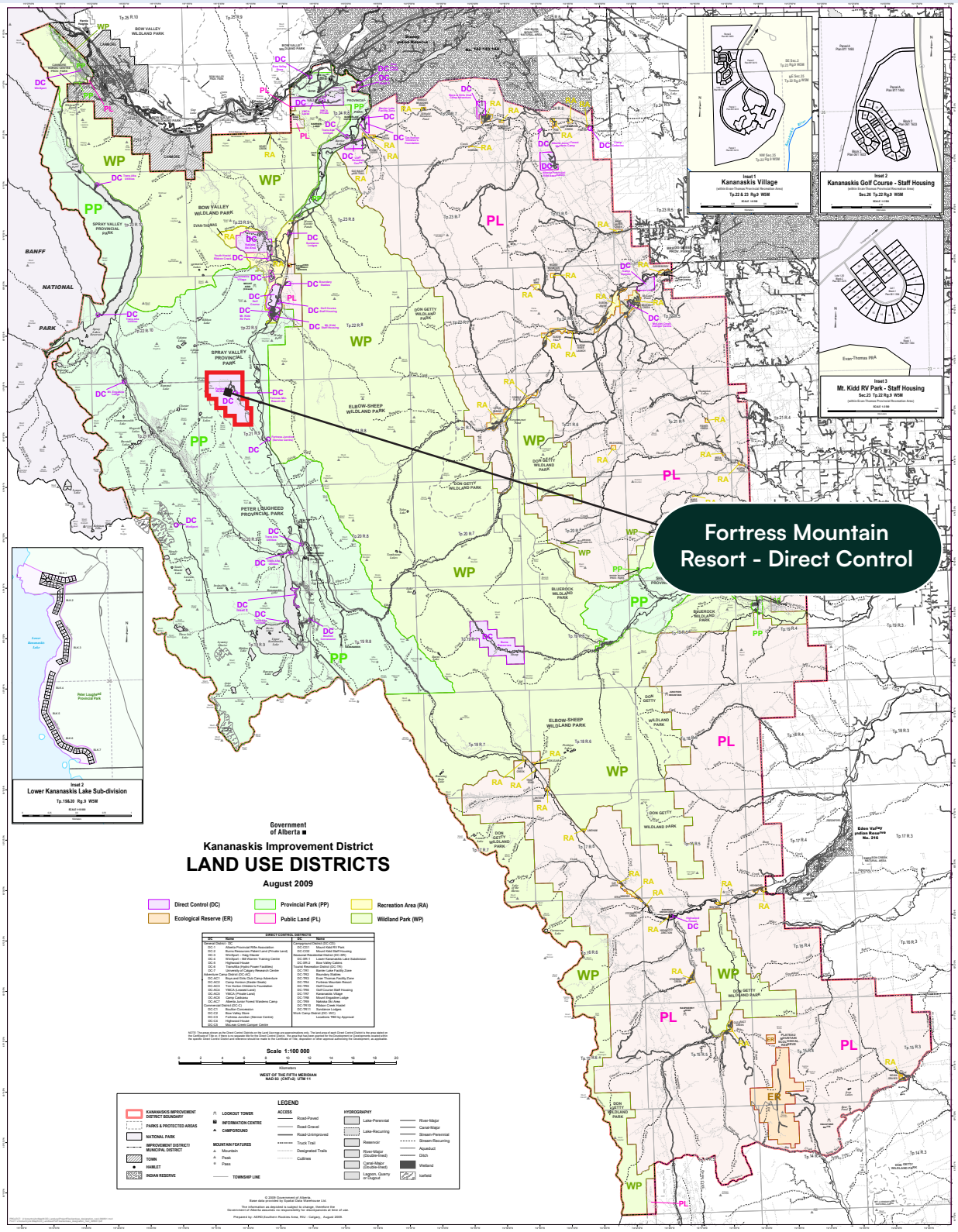
The roads into the area and the proximity to Calgary made it attractive for recreational use including hiking, climbing, camping, fishing and hunting. The Bow Valley Provincial Park was created in 1959 followed by the Bragg Creek Provincial Park in 1960. Several Forest Recreation Sites were developed in the 1960's.

The Snowridge Ski Resort (now Fortress) opened in 1967 before the road into the Kananaskis Valley was paved. The Alberta Wilderness Association proposed the creation of a wilderness area west of Calgary in the Kananaskis, Elbow and Sheep valleys in 1972. At the same time, the Environment Conservation Authority identified a need to protect the watersheds of these rivers and to provide resource development, recreation and tourism opportunities. In the 1970's, when they were intending to pave the Kananaskis Trail, the GOA conducted a survey on the future of the Eastern Slopes which received over 48,000 responses. The survey revealed strong support for the creation of a large protected area.

The GOA announced its intention to establish Kananaskis Country as a major multi-use recreation area in 1977 and Premier Peter Lougheed officially dedicated Kananaskis Country and Kananaskis Provincial Park in 1978. In addition to watershed and environmental protection and certainty of planning for the area, the intent was to develop facilities to encourage Albertans to recreate in Alberta. The development of recreation facilities was governed by the Policy for Recreational Development of Kananaskis Country, 1977. When Kananaskis Country was created there were existing mines, forestry operations, commercial recreation leases, rangeland leases and 71 leased cabin lots along Lower Kananaskis Lake. Existing leases were to be honoured, including the Fortress ski area lease. However, the policy stated that no new townsites and no permanent non-essential residency would be permitted. Since then, recreation policies have evolved and been updated through a review in 1979, decisions made in the preparation of the Kananaskis Country Sub-Regional Integrated Management Plan, 1986 which confirmed the priorities for watershed protection and recreation development, while providing a guide for the management of natural resources such as timber, rangeland and natural gas. The Kananaskis Recreation Policy was again updated in 1999 and a new Kananaskis Country Provincial Recreation Areas and Bragg Creek Provincial Park Management Plan was prepared in 2012. Figure 2 illustrates existing land use districts in Kananaskis Country, including the Fortress Mountain Resort direct control lease.

Over time, the size of protected areas within Kananaskis Country has increased with additional areas being declared as parks including the Elbow-Sheep Wildlands and Bow Valley Wildlands Provincial Parks in 1998 and the Spray Valley Provincial Park in 2000. In 2001, the province announced three new provincial parks in Kananaskis; Don Getty Wildland, Sheep River and Bluerock Wildland. The Spray Valley and Bow Valley Wildland PP's boundaries were expanded in 2004. Kananaskis Country now encompasses over 4,000 square kilometres of mixed used lands, approximately two-thirds of which is protected as a park, ecological reserve or recreation area.

Figure 2 Regional Land Use Districts



https://www.kananaskisid.ca/Home/DownloadDocument?docId=0b81bf2b-92ee-48cb-99d6-5de7306b63ab

1.3 Fortress Ski Area Historical Context

Fortress Mountain Resort is a historical ski area, having first opened in 1967, pre-dating the environmental protections of Kananaskis Country and its Provincial Parks. At the time, Fortress was known as Snowridge Ski Resort, and consisted of just two T-Bar lifts and one chairlift on the backside of the resort. In 1975, the Canadian Chair and the Backside Chairs were added, along with a few now-removed buildings. Otherwise, little has been changed at the resort which has undergone multiple ownership changes, and is no longer operational as a commercial alpine ski area.

In 1971, Snowridge permanently closed for business at the end of the season, and bankruptcy was declared in 1973. By 1974, 50% of the ski area had been acquired by Aspen Skiing Company, and it reopened that fall as Fortress Mountain, installing the Canadian and Backside lifts in 1975. It wasn't until 1978 that Kananaskis Country was established; today, it has been renamed Peter Lougheed Provincial Park.

In 1986, Fortress was purchased by Locke, Stock, and Barrel, which later rebranded as what is now known as Resorts of the Canadian Rockies (RCR). In 2000, Spray Valley Provincial Park was established, surrounding Fortress on all sides by protected provincial parks.

In 2001, RCR filed for bankruptcy protection and put Fortress up for sale while continuing operations. It wasn't until April 2004 that RCR closed Fortress and sold it to Banff Rail Company in September 2005, with plans to re-open in December. The resort managed to open in January 2006 for four months, but the Kananaskis Improvement District fire chief ordered the permanent closure of the day lodge, hotel, and condos due to fire code violations.

After unsuccessful attempts to present a long-term plan, the Alberta Director of Fair Trading ordered the company to stop selling season passes, and the hill ceased operations in the winter of 2006–2007. To make matters worse, in 2007, the access bridge crossing the Kananaskis River was condemned, and the road was closed to the public.

In 2009, the movie Inception was filmed at the resort, generating funds for a one-lane bridge. Passes were sold with hopes of reopening that fall; however, Banff Rail Company was sued for credit fraud, as proceeds were being used to pay creditors.

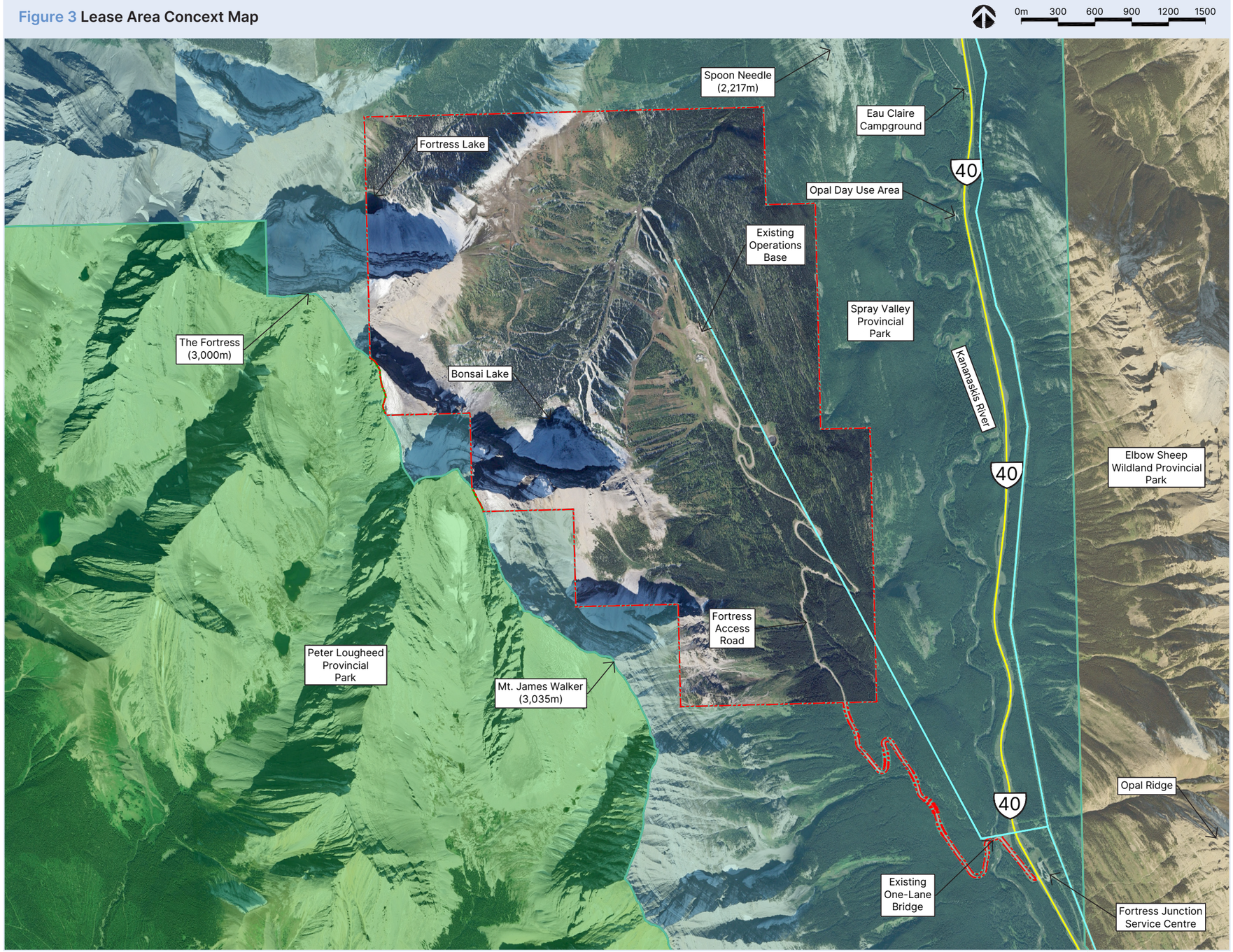
In 2010, Banff Rail Company sold the land to Fortress Mountain Holdings, and licenses were reinstated. The K-POW cat-skiing operation commenced in December 2011, and in 2013, a master plan to re-open Fortress as a modern mountain resort was presented to the Kananaskis Improvement District. An area structure plan was approved in 2014.

Today, K-POW Cat Skiing operates three to five days per week during the ski season. The original day lodge still stands but has been condemned and boarded up since 2006.

Fortress Mountain Holdings currently holds the original 6.5-hectare lease area, which includes the remaining buildings, as shown in Figure 3. Additionally, they control approximately 1,335 hectares under a License of Occupation (DLO) under the Public Lands Act.

The existing lifts are no longer operational and the existing facility is primarily used as a filming location. Notable productions shot at Fortress include The Revenant and Jumanji: The Next Level.

Figure 3 Lease Area Concext Map



LEGEND

- Lease Boundary 2025 Update
- Highway 40
- Power Lines
- Provincial Park Boundary
- Spray Valley Provincial Park
- Peter Lougheed Provincial Park
- Elbow Sheep Wildland Provincial Park

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Historical Photos of Fortress Mountain Resort

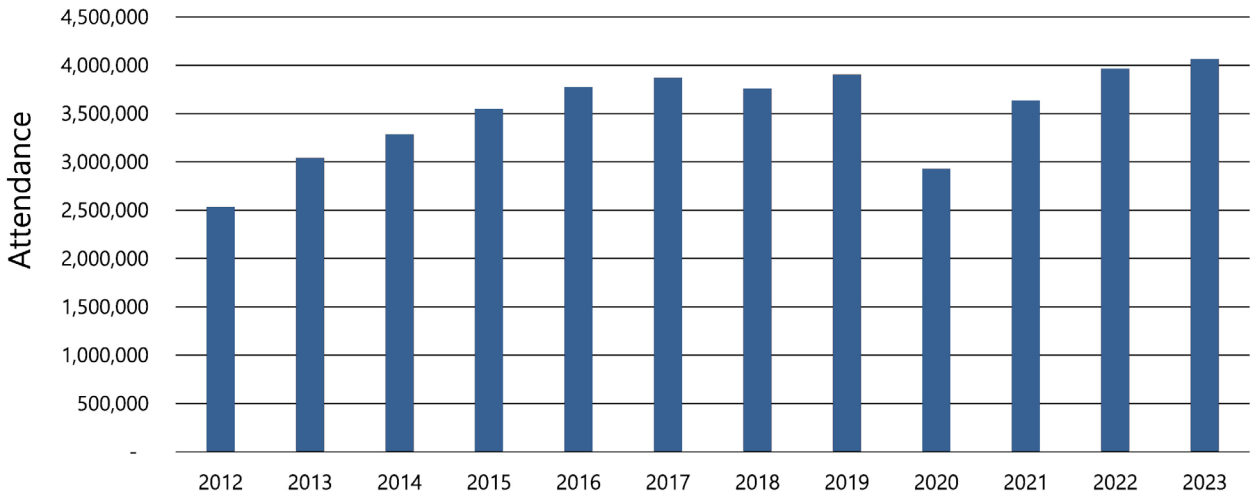
Source: https://calgaryguardian.com/old-photographs-fortress-mountain-ski-resort/

1.4 Regional Tourism

With no available accommodation on site, visitors to Fortress must arrive by vehicle, with the closest lodging located at Kananaskis Village 30-minutes north with an approximate capacity of 400 units. There is a larger public bed base in Canmore about 60 minutes away, however Mount Norquay and Sunshine Village are a shorter distance from Canmore relative to Fortress. Providing a bed base will make Fortress more attractive for destination visitors arriving at Calgary International Airport and the regional market. In the summer, the connectivity to the south will make the area more attractive for circular routes that start and end in Alberta and high demand for accommodation in Alberta's National Parks may spill over to overnight accommodation in Kananaskis Country.

Banff National Park drives a large portion of tourism to the Southwestern Alberta. Plate 1 shows annual visitation data to Banff National Parks obtained from Parks Canada, highlighting a growing interest in nature based tourism. During the Covid-19 Pandemic, visitation decreased to below 2010 levels, however, visitation quickly rebounded to all time highs in the 2023/2024 season, recording over 4.29 million visits to Banff National Parks. Many visitors have experienced crowding and limited availability in the National Parks, pointing to an opportunity to capitalize on this demand in new facilities in nearby Kananaskis Country.

Plate 1 Banff National Parks Annual Visitation

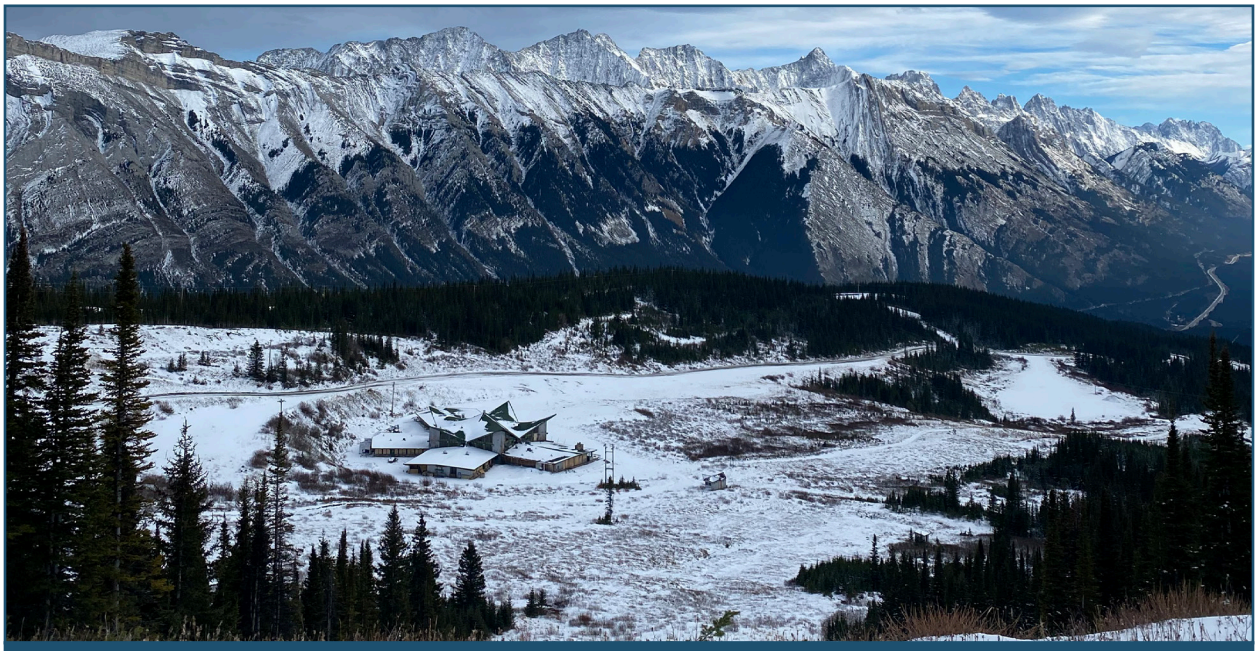


1.5 Master Plan Goals & Objectives

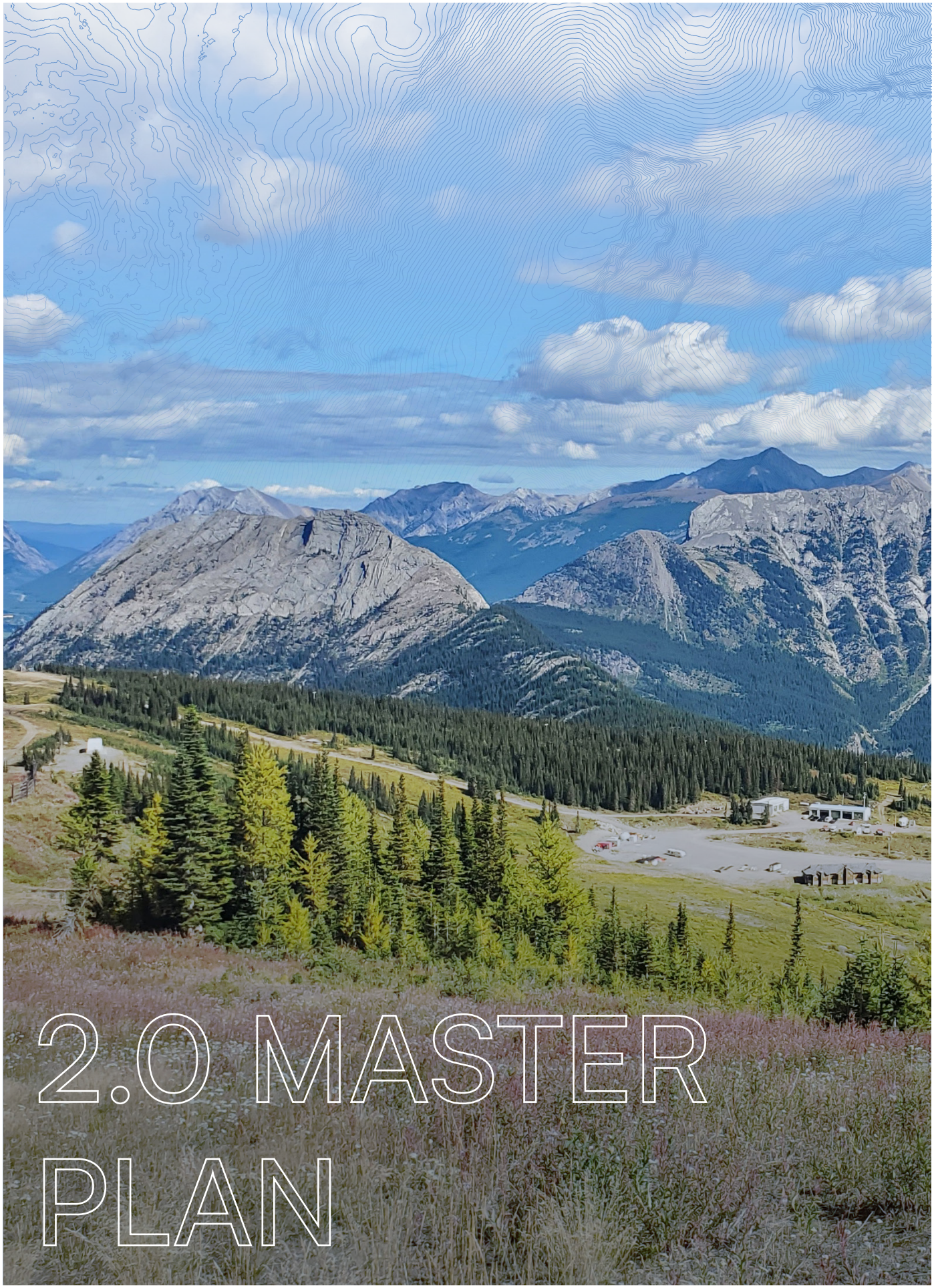
The Alberta government has a stated goal of doubling its tourism economy over the next decade, and has enacted legislation, Bill 35, to facilitate the development of four season mountain resorts, similar to neighboring BC that has seen a growth in mountain tourism facilities over the last 40 years under its All Season Resort Policy. The province will be accepting proposals for development of resorts on public land.

The Fortress All Season Resort Master Plan has been developed to achieve the following goals:

- Prepare a modern resort master plan for Fortress to open as an summer-focused day-use resort in Phase 1, evolving to destination all season resort with overnight accommodation at buildout.
- Phase 1 development needs to be efficient and profitable to reduce risk for investors and set up the real estate development process for success.
- Anticipating a high demand in the summer season, a diverse summer recreation program for the mountain and base area facilities is envisioned
- Plan a boutique commercial resort village with critical mass of approximately 4,000 tourist beds
- Plan for budget accommodation for groups, athletes and school programs to support a range of price points
- Plan for employee housing representing at least 15% of the total planned units



View of Base Area from Frontside Ridge



2.0 MASTER PLAN

2.0 Introduction

The Master Plan for Fortress was envisioned with a focus on developing a sightseeing and summer recreation program in Phase 1, then building out overnight accommodation and all-season facilities including alpine skiing in subsequent phases. Several site visits in summer and winter months informed the design process, in addition to the in depth inventory and terrain analysis described in Section 3.0. The overall vision for the Fortress All Season Resort is to create a compact Resort Core with commercial beds, restaurants, shops and amenities connected to a variety of recreation facilities in various activity nodes throughout the study area. Several zones are identified in the Master Plan and referenced in the phasing plan and activity program:

- Resort Core - Hotels, condos, event centre, spa, restaurants, retail shops, guest services, short term parking, transit center, trail head, four-season activities lift terminals
- East Plateau - Employee housing, day visitor parking, overflow parking, four-season activities, low density real estate
- Day Visitor Centre - Parking, transit, services, four-season activities
- Whiskey Ridge - Alpine sightseeing & four-season activities
- Mt. Baldy - Alpine sightseeing & four-season activities
- Farside Zone - Mountain restaurant, four-season activities

The Fortress All Season Resort Master Plan presents a long-term vision to develop a modern, world class destination in one of Alberta's most spectacular mountain contexts. Proposed phasing and capacity of mountain and base area infrastructure are described in this report.

2025 Lease Boundary Adjustment

The lease area boundary was first established in 1978 with the introduction of environmental legislation involving the surrounding provincial parks within Kananaskis Valley, 11 years after the resort originally opened in 1967. To realize the potential buildout of the Master Plan, consideration has bene given to the natural topography. Two areas with gently sloping topography suitable for resort development are on the east side of the existing lease boundary. The larger area to the north is 65 hectares, encompassing a plateau suitable for facilities such as parking, recreation trails, four-season activities and a future cross-country skiing facility. A second smaller area (17.94ha) to the south is a suitable addition to the existing lease boundary to include the full extent of the natural topographic bench within the Fortress Resort lease. These two expansions add a total of 83 hectares of land to the existing 1,346 hectare lease, bring the total lease area to almost 1,430 hectares, a 6% increase. This expansion of lease area occured only over the Spray Valley Provincial Park, and contains no expansion into the Peter Lougheed Provincial Park.

2.1 Phasing Plan

The buildout of the Fortress Master Plan will be executed in five phases, beginning with Phase 1, which introduces a day-use facility designed to accommodate 3,000 guests per day. Table 2 outlines the general phasing strategy for mountain facilities, including lift infrastructure and a variety of four-season activities. By the completion of Phase 5, the mountain facilities at Fortress All Season Resort will support a daily capacity of 9,650 guests. Mountain facilities at buildout include five gondolas or cabriolets, five chairlifts, two surface lifts and three moving carpets. A diverse range of four-season activities is planned throughout the study area, further enhancing the overall capacity and appeal of the resort.

The full Phasing Plan for the Fortress All Season Resort Master Plan is illustrated in Figure 4.

Table 2 Mountain Infrastructure Phasing Plan & Program

Phase	Daily Capacity People Per Day	Lifts	Activities
1	3,000	Gondola 1 Gondola 2 Gondola 3	Mountain coaster, night multi-media experience, trails, all-season tubng, via ferrata, cat skiing, electric ATVs, E-bikes, Fat bikes, climbing wall, downhill mountain biking, observation deck, aerial obstacle course, mountain slides, suspension bridges, canyon swing, net park, mini golf, tobogan hill, snowshoeing, zip line
2	4,500	Lift 4 Chairlift Lift 5 Chairlift Moving Carpets x2	Alpine skiing, cross-country biking & skiing, mountain coaster (2nd), Indigenous cultural centre, paddle boards, skating rink, Nordic Spa, Horse drawn rides/riding, alpine lakes, cliff walk, dark sky preserve, bungee jump, tree top journey, zip line, power zip, serviced camping
3	6,000	Lift 7 Chairlift Lift 8 Surface Lift Moving carpet x1	
4	7,250	Lift 6 Cabriolet Lift 9 Chairlift Lift 10 Surface Lift	Cross-country ski facility and competition facilities, ice skating trails, dog sledding, paragliding
5	9,650	Lift 11 Chairlift Lift 12 Cabriolet	

Phasing of base area facilities will be closely coordinated with the development of mountain infrastructure. Overnight accommodation begins in Phase 2 with the construction of three buildings in the Resort Core, the introduction of glamping options, employee housing, and the opening of the Canadian parking lot for day visitors. Phase 3 marks the launch of the first ski-in/ski-out real estate development, alongside the buildout of the event center and four additional buildings in the upper Resort Core. In Phase 4, further real estate development extends along the ridge east of the Resort Core. Phase 5 completes the full buildout of all designated base area development zones.

2.2 Phase 1 Plan

Fortress will open as a summer-focused mountain resort with a variety of activities and experiences for day visitors. Figure 5 presents the Phase 1 Master Plan for Fortress Mountain Resort. The centerpiece of the visitor experience will be a thrilling sightseeing cableway, providing access to Fortress's stunning alpine environment. From the summit, guests can enjoy panoramic viewpoints, scenic trails, interpretive experiences, and a food and beverage outlet. For those seeking adventure, options such as a via ferrata and a long zip line descending from the top of the gondola will offer exhilarating ways to explore the mountain. As shownin Figure 6, base area facilities planned in Phase 1 include:

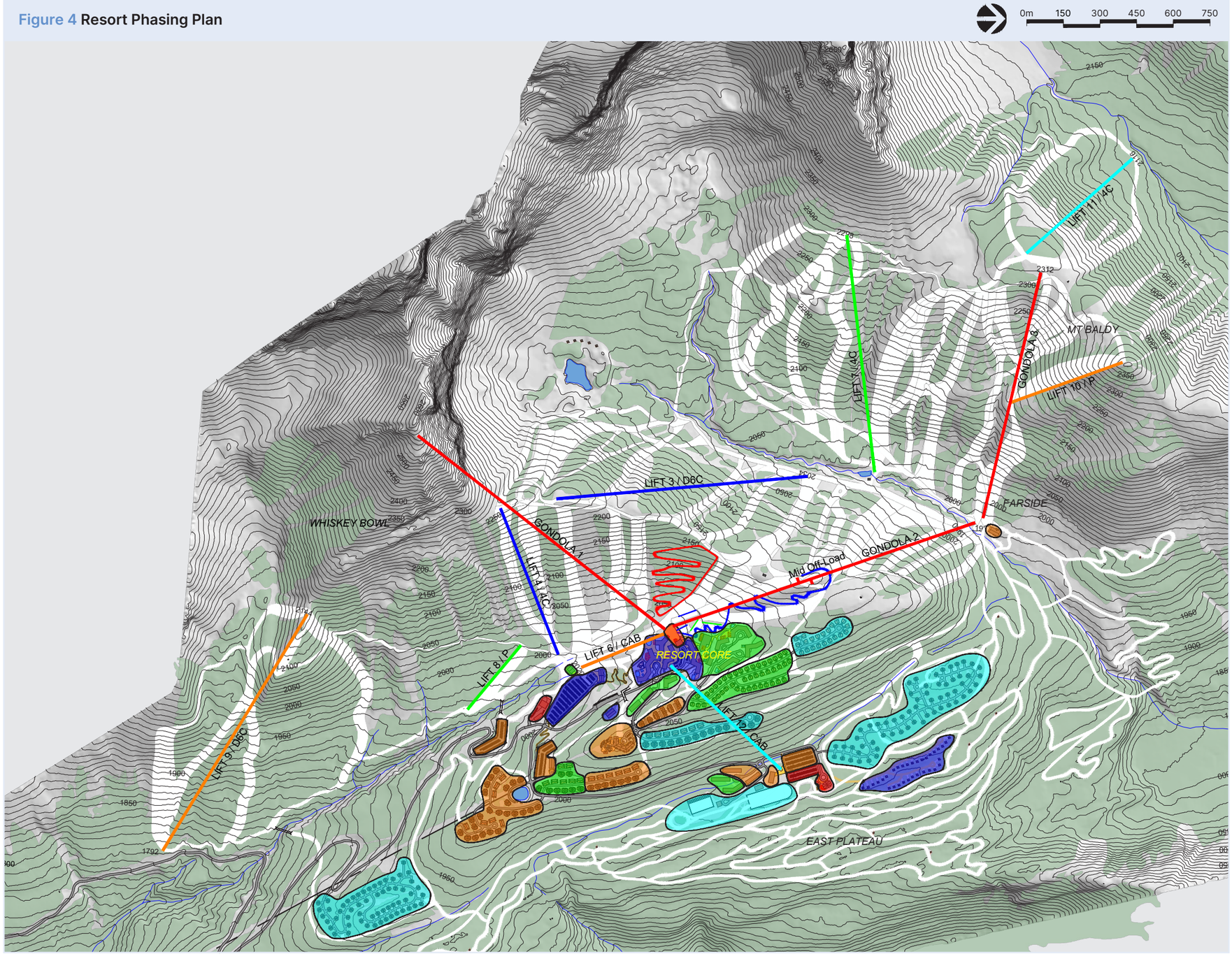
- Day visitor parking for cars and buses in lots P1, P2, P3 and P4
- Overnight parking for RVs in P3
- Guest service buildings in P1 and P4
- Temporary employee housing (50 beds) in P4 with septic
- Sightseeing cableway with mountain restaurant at the top (4 seasons)
- Summer Activities: mountain coaster, via ferrata, climbing wall, suspension bridges, canyon swing, net park, zip line, mini golf, playground, obstacle course, ebike rentals, electric ATVs, multi-use trails, mountain slides, mountain biking
- Immersive nighttime multi-media experience
- Winter Activities: toboggan hill, snowshoeing, cat skiing, snow tubing, fat biking

In the first phase of development as a day visitor facility, daily visits are anticipated to peak in the summer season. Dwell time for day visitors will range from 2 hours to 6 hours, allowing parking lot capacity to turn over more than once. Phase 1 parking capacity is detailed in Table 3. A total of 1,100 parking stalls are provided in four lots; the main visitor parking lot at the base of the sightseeing cableway (P1), the upper temporary overflow lot (P2), the Canadian lot (P3) and the new East Plateau Parking lot (P4). Overnight parking for RVs and vans will be permitted in lot P3 with access to the main visitor base in P1 with a new pedestrian path. Parking for charter buses and shuttles will

Table 3 Phase 1 Parking Capacity

Day Visitor Parking Lot	# Cars	# RVs	# Buses	# Visitors	# Employees
P1 Resort Base Area Phase 1 Temporary Parking	550	-	4	1,535	-
P2 Upper Temporary Overflow Parking	150	-	4	535	-
P3 Phase 1 Employee Parking & Temporary RV Lot	200	50	-	100	250
P4 Phase 1 East Plateau Parking	200	-	-	375	50
Total At-One-Time Capacity	1,100	50	8	2,545	300
Daily Turn-Over				1.2	
Total Daily Visitor Capacity				3,054	

Figure 4 Resort Phasing Plan



LEGEND

Proposed Lifts

- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Phase 5

Base Area Development

- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Phase 5
- Mountain Coaster - Phase 1
- Mountain Coaster - Phase 2

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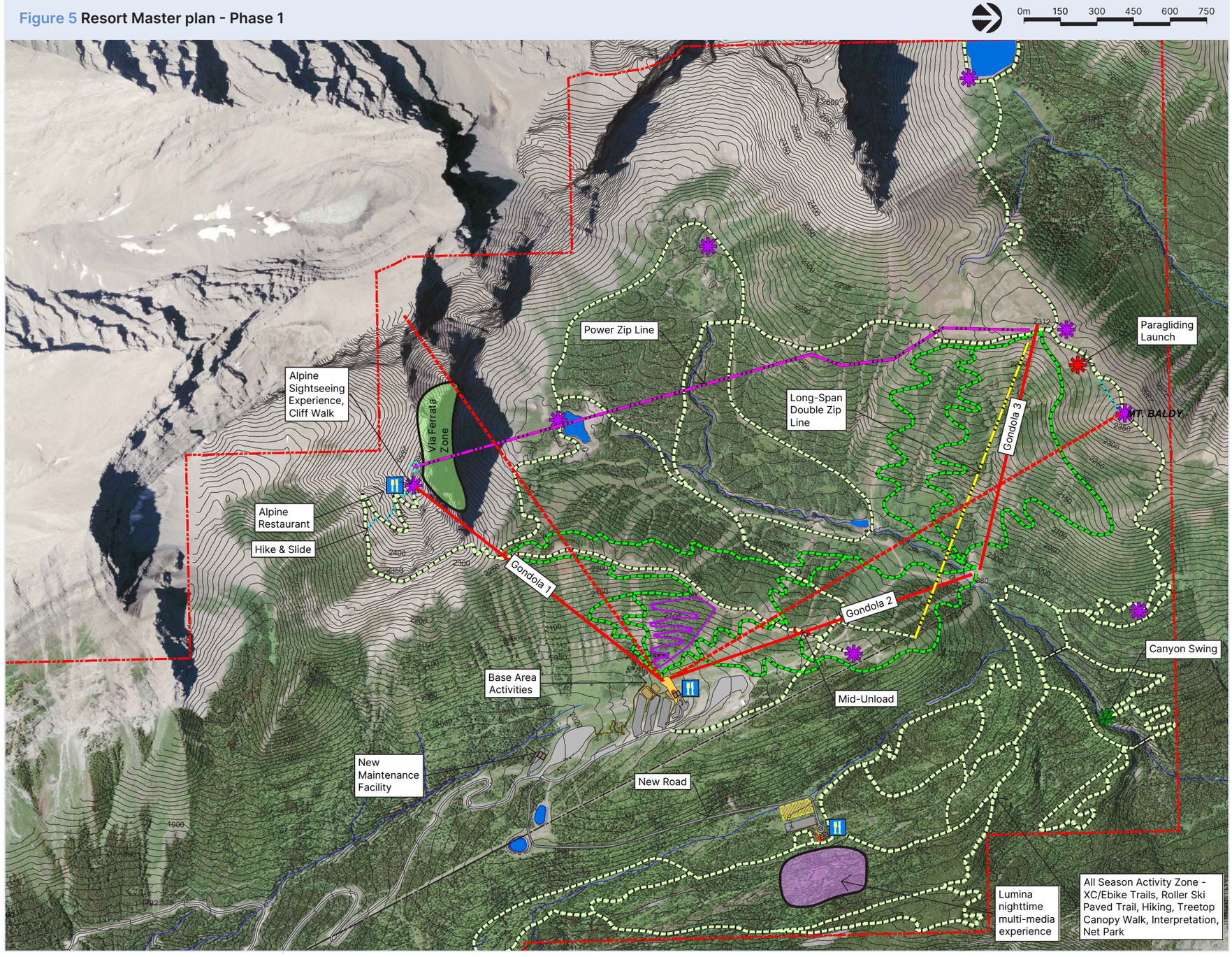
Figure 5 Resort Master plan - Phase 1



LEGEND

- Phase 1 Gondolas
- Phase 1 Alternative Gondola Options
- Lease Boundary 2025 Update
- Power Line
- Viewpoint
- Paragliding Launch
- Canyon Swing
- Multi Use Trail
- Mountain Bike Trail
- Zipline
- Power Zip Line
- Hike & Slide
- Mountain Coaster
- Restaurant

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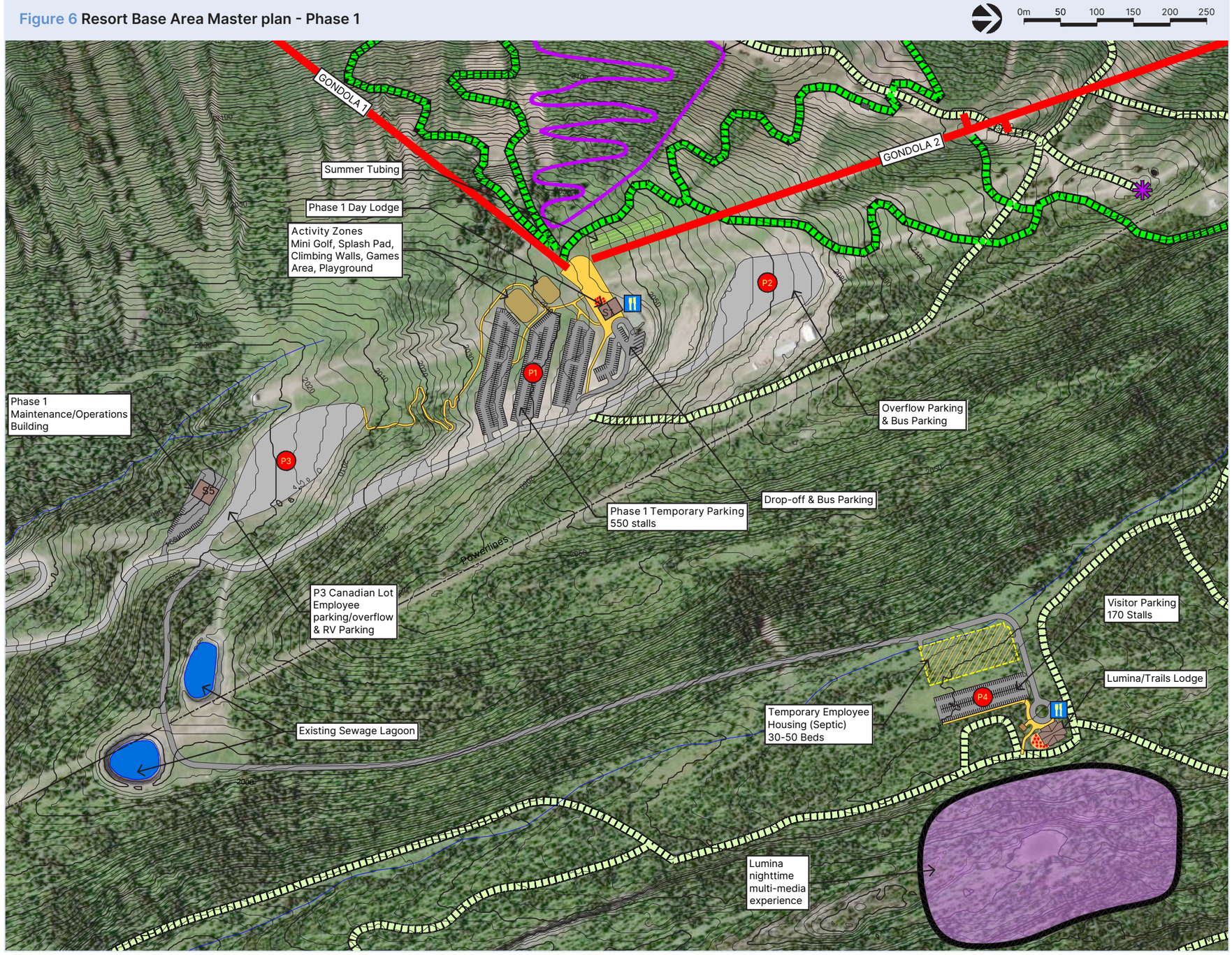
Figure 6 Resort Base Area Master plan - Phase 1



LEGEND

- Phase 1 Gondolas
- Power Line
- Viewpoint
- Mountain Coaster
- Multi Use Trail
- Mountain Bike Trail
- Restaurant

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be provided in P1 with overflow capacity in P2. The total capacity at-one-time of Fortress' Phase 1 parking is 2,500 visitors and 300 employees. Taking into account turn-over over the course of the day, the Phase 1 lots can support the anticipated daily peak visitation of 3,000 visitors per day.

2.3 Phase 5 Plan (Buildout)

Figure 7 and 8 illustrate the buildout plan for mountain facilities at Fortress in winter and summer respectively. The landscape at Fortress supports a network of trails and activities connecting the Resort Core with activity nodes in five key zones:

1. Resort Core - Plazas within the village create notes of activities in sight of restaurant patios and retail shops, extending to trails, coasters and the sightseeing gondola.
2. Whiskey Ridge - Alpine area with spectacular views and access to adventure activities
3. Farside Valley - Trails, downhill mountain biking, backcountry restaurant and access to suspension bridges and the canyon swing
4. Mt. Baldy - Trails, viewpoints, access to Fortress Lake, alpine slides, wedding venue
5. East Plateau - Large natural flat bench with cross-country trails, glamping, nighttime multi-media experience

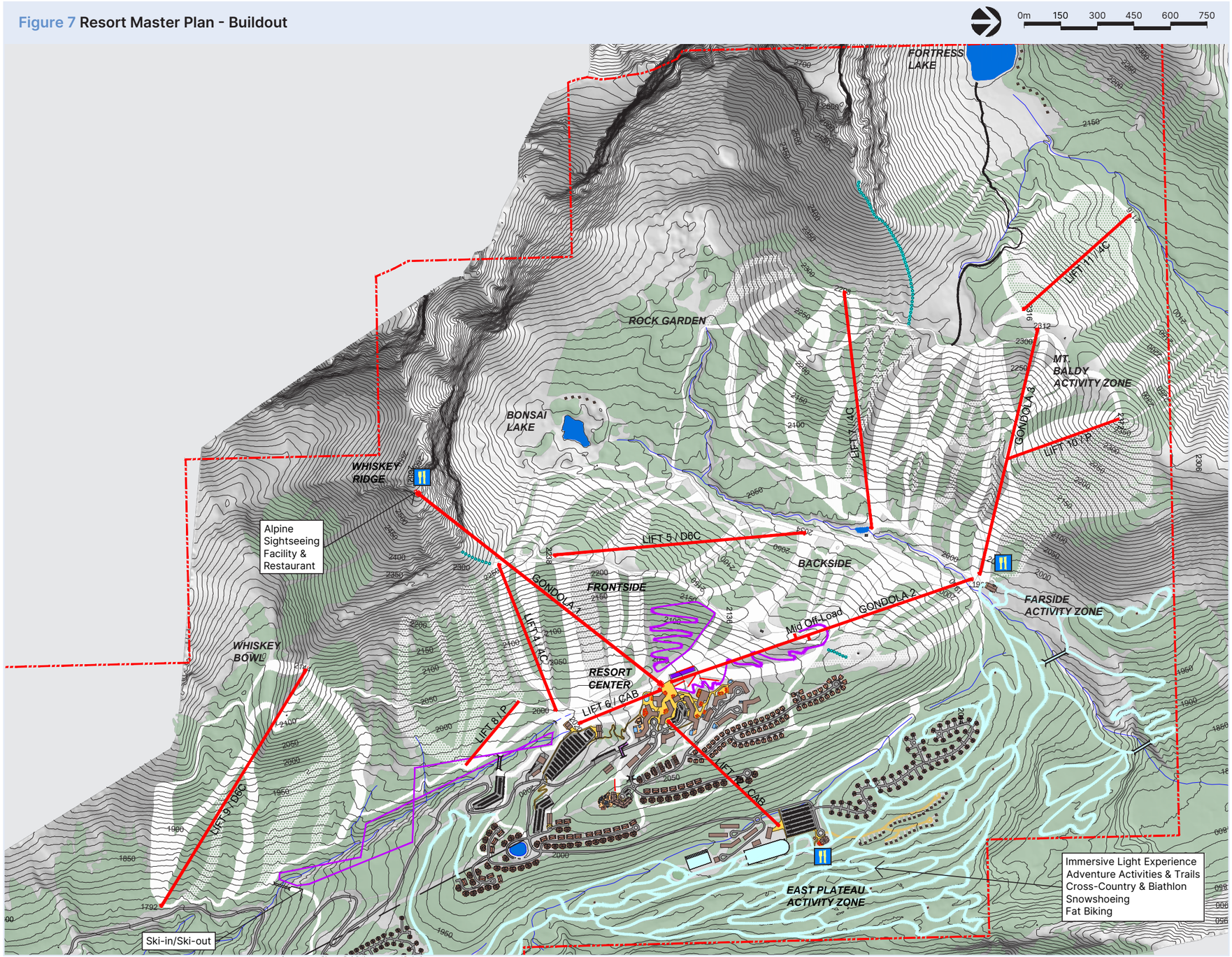
The capacity of day visitor parking in Phase 5 is listed in Table 4. Fortress is planned with a total of 1,440 cars supporting 3,000 day visitors at one time.

Table 4 Phase 5 Parking Capacity (Buildout)

Base Area Zone	# Day Use Cars	# Day Visitors
Village Day Use Parking		
P1a Village Day Lodge Parking	35	88
P1b Parking Along Road	39	98
Subtotal	74	185
Day Visitor Parking		
P3 Canadian Parking Lot	500	1,250
P5 Pond Parking Lot	200	500
P6 Lower Visitor Parking Lot	240	600
Subtotal	940	2,350
Cross-Country / Overflow Parking		
P4 East Plateau Parking*	500	625
Total	1,440	2,975

*Overflow hotel parking with shuttle or Lift 12 acces to Resort Core

Figure 7 **Resort Master Plan - Buildout**



LEGEND

Proposed Lifts

Lease Boundary 2025 Update

Restaurant

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Winter & All Season Activities

Snowshoeing

Mountain Top Seating

Sightseeing Gondola

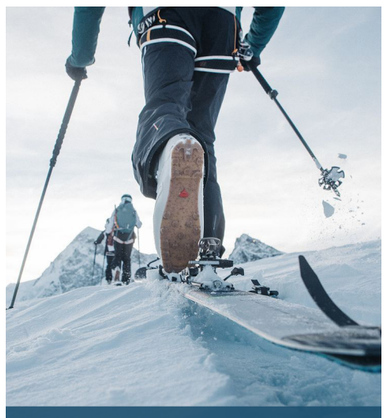
Sauna

Snow-Cat Snowshoeing Tour

Learning Area

Mountain Restaurant

Horseback Sledding



Backcountry Skiing

Fire Pit

Snow Tubing

Alpine Skiing

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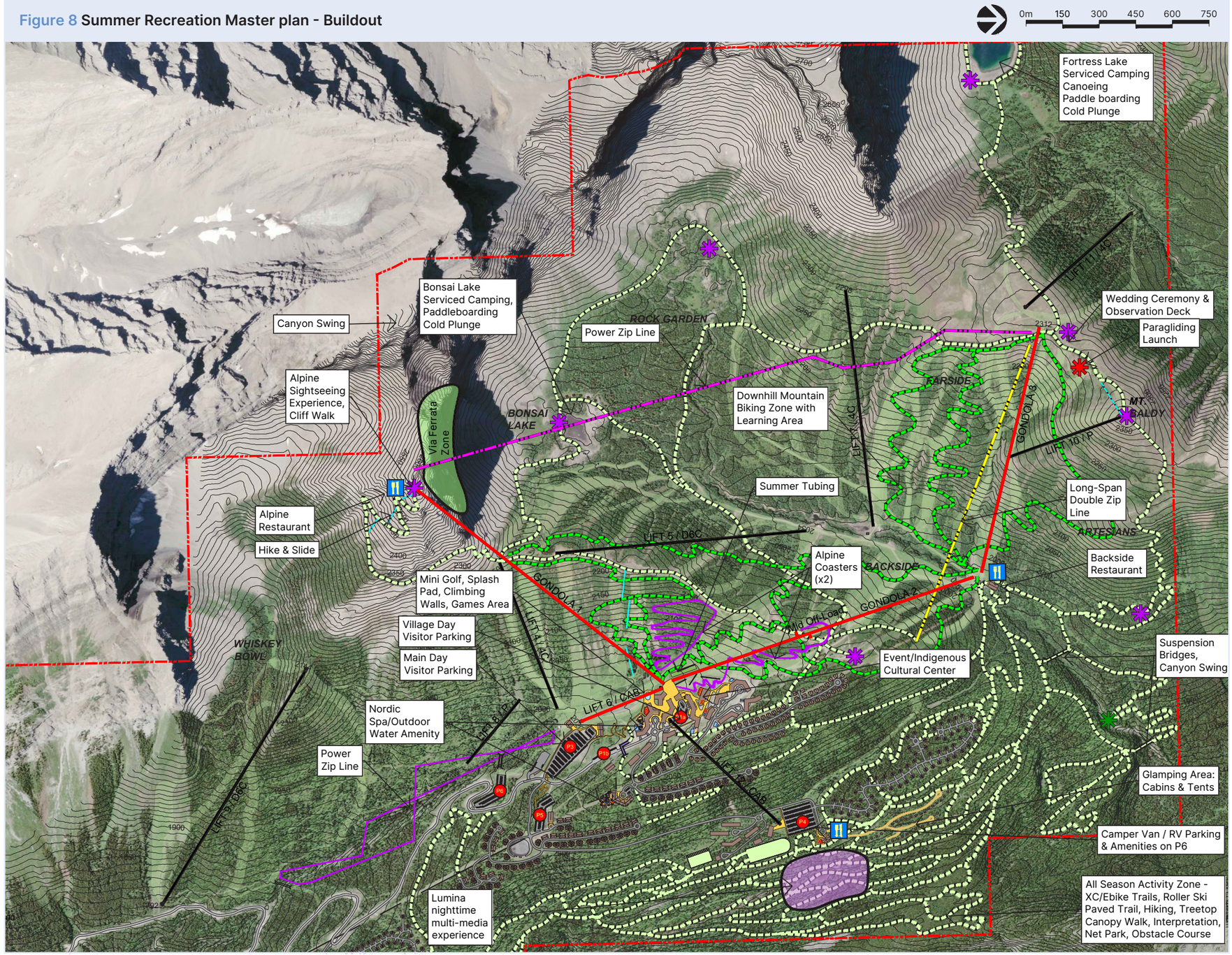
Figure 8 Summer Recreation Master plan - Buildout



LEGEND

- Summer Operated Lifts
- Winter Only Operated Lifts
- Lease Boundary
- Power Lines
- Bridge
- Zip Line
- Power Zip Line
- Multi-Use Trails
- Summer Hiking Viewpoints / Destinations
- Paragliding Launch
- Canyon Swing
- Hike & Slide
- Mountain Biking Trails
- Mountain Coaster
- Lease Boundary 2025 Update
- Parking
- Restaurant

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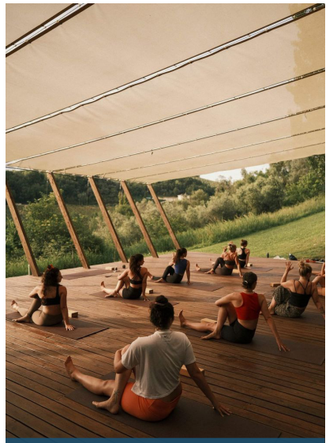
Summer & All Season Activities


Outdoor Yoga


Mountain Biking


Outdoor Play Structure


Via Ferrata

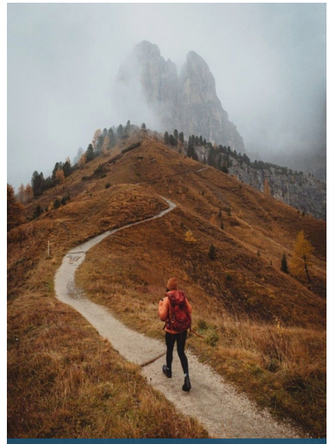

Hotel & Outdoor Spa


Zip Line

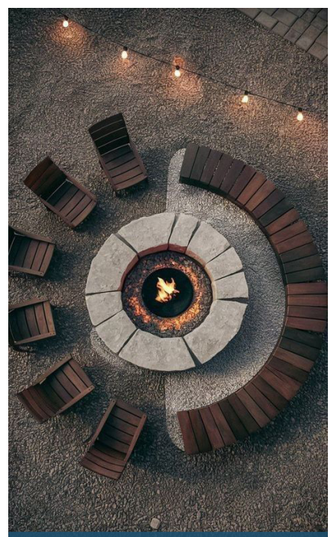

Star Gazing


Outdoor Pool


Mountain Coaster


Hiking


Horseback Rides


Fire Pit


Mountain Biking


Stand Up Paddleboarding


Outdoor Stage

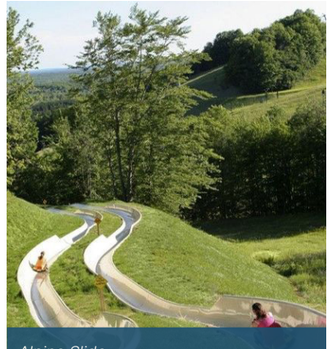

Climbing Structure


Outdoor Play Structure


Glamping


Bike Pump Track


Hiking


Alpine Slide

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2.4 Base Area Land Use Plan

The Fortress Base Area Land Use Plan includes five designations for different types of overnight accommodation and eleven sub-types of buildings within these five zones. The overall base area program and capacity calculation utilizes the development program assumptions in Table 5 and peak period occupancy assumptions in Table 6 to generate total number of units, guests and skiers from each building or land use zone planned in the base area master plan. Table 5 outlines the average net unit size, parking stalls per unit, estimated units and pillows per hectare, and total peak period guests/employees from pillows for each building type. Table 6 lists the occupancy and skier participation assumptions applied to each building type to estimate guest yield and alpine skier yield from all overnight accommodation types.

Table 5 Development Program Planning Assumptions

Land Use Code	Unit Type	Average Net Unit Size m²	Parking Stalls Per Unit	Units per ha	Pillows per ha	Total Peak Period Guests/Employees from Pillows
RC	5* Spa Hotel	40	0.7	50	125	81%
	4* Hotel	38	0.6	130	390	81%
	4* Condotel	60	1.0	100	400	81%
	4* Condotel (Large Units)	80	1.0	65	390	81%
	3* Condotel	30	0.6	160	400	81%
H	2* Alpine Hostel	22.5	1.0	60	120	86%
	2* XC Hostel	45	1.0	60	240	86%
MD	Mixed Density Real Estate A (MDA)	165	1.0	25	137.5	64%
	Mixed Density Real Estate B (MDB)	200	2.0	15	105	64%
	Mixed Density Real Estate C (MDC)	300	2.0	6 - 8	65	56%
GL	Glamping Cabin	50	1.0	9	65	72%
EH	Employee Housing - Apartment	22.5	0.5	60	120	95%
	Employee Housing - Townhouse	100	1.0	30	120	95%

Table 6 Peak Period Occupancy & Skier Yield Assumptions

Vehicle Type	Visitors per Vehicle	Employees per Vehicle
Car	2.5	1.25
RV	2.0	-
Kananaskis Shuttle	20	-
Charter Bus	40	-

Table 7 Land Use Plan

Code	Phase	Name	Area (ha)	Total Units	Total Population
Resort Core (RC)					
RC-1	2	Resort Core	3.90	646	1,680
RC-2	3	Upper Resort Core	4.10	291	980
RC-3	3	Condos	1.00	104	400
RC-4	4	Spa Hotel	2.00	155	320
Total (RC)			**11.00**	**1,196**	**3,380**
Resort Service (RS)					
RS-1	1	Upper Day Lodge	0.135	-	-
RS-2	3	Lower/Canadian Lot Day Lodge	0.15	-	-
RS-3	1	Operations Base	0.53	-	-
RS-4	1	Cross-Country Lodge	0.25	-	-
RS-5	4	Mountain Restaurant	0.26	-	-
Total (RS)			**1.33**	**-**	**-**
Employee Housing (EH)					
EH-1	2	Employee Building (S4)	0.44	76	145
EH-2	3	East Ridge EH Townhouse	1.80	54	308
EH-3	2	Upper Road (S8)	0.30	61	116
EH-4	3 & 4	East Plateau EH Apartments	1.90	500	950
Total (EH)			**4.44**	**691**	**1,519**
Hostel/Group Accommodation (H)					
H-1	4	Alpine Hostel	0.32	49	80
H-2	4	XC Hostel	0.36	27	90
Total (H)			**0.68**	**76**	**170**
Mixed Density Real Estate A (MDA)					
MDA-1	4	Ridge 1	0.95	24	80
MDA-2	3	Ridge 2	4.50	113	400
MDA-3	5	East Ridge 1	3.30	83	290
MDA-4	4	East Ridge 2	2.00	50	180
Mixed Density Real Estate B (MDB)					
MDB-1	5	Ridge 3	2.1	32	110
MDB-2	4	Ponds	5.2	78	275
Mixed Density Real Estate C (MDC)					
MDC-1	5	Cross-Country	11.5	70	310
MDC-2	5	Lower Plateau	9.0	72	320
Total (MD)			**38.55**	**522**	**1,965**
GL	2	Glamping	3.50	32	46
Total			**59.50**	**2,517**	**7,080**

The Fortress Mountain Resort Base Area Land Use Plan is presented in Figure 9, with a corresponding program for all types of overnight accommodation and resort services outlined in Table 7. The Land Use Plan identifies a total of 59.5 hectares of develop-able land with a total program of 2,517 units. During peak periods, proposed development could accommodate approximately 7,080 people inclusive of visitors and employees. A description of each land use designation listed in Table 7 is provided on the following pages.

Resort Core (RC) – Sites with gentle terrain, close proximity to mountain facilities and excellent views are designated as Resort Core, allowing for development of a variety of hotel or condotel buildings that include publicly accessible commercial space or skier services. Development zones designated as Resort Core include the most valuable land within the Fortress base area, reserved for public accommodation and resort amenities that will form the core base area experience at the resort. The village is designed around the interface of mountain facilities, integrated with lift terminals, learn to ski/bike areas and other activities that support a vibrant atmosphere within the village. Resort Core buildings are planned with underground parking, providing maximum efficiency within the development zone to create pedestrian oriented space and guest facilities. All overnight accommodation within this land use designation should be available for rent by the public either through operation as a traditional hotel or rental covenants on private real estate (condotel model). A total of 1,196 units are planned within the four areas designated as Resort Core in Fortress's Land Use Plan.

Example Mixed Use Resort Core

Resort Service (RS) - Buildings with no overnight accommodation that provide essential facilities to support the resort have the Resort Service designation. These include lodges in the day skier and village base, as well as the new operations base below the main day skier parking lot. The Phase 1 Day Lodge, is planned with guest service space, equipment rental and repair and ticket space on the lower level, as well as lockers and restaurant space on the second level, located at the snow front for easy access to the lifts and beginner zone. The lower day lodge is located on the snow front adjacent to the Canadian day visitor parking lot, with a ticket booth, and eating and warming space provided. The operations base below the Canadian lot provides easy access for snow cats to the ski terrain.

Employee Housing (EH) – Employee housing is provided in apartment-style buildings and high density townhouses. Three employee housing developments are planned within walking distance to the resort core or connected to the ski-in/ski-out trails. The first building constructed in Phase 1 at the end of the Canadian lot includes administration and employee space on the ground floor. A second building across the access road from the Canadian Lot includes townhouses accessed from the cross-country access road. A large employee housing apartment development is planned as part of the East Plateau zone with a total of 691 units and 1,519 beds in this area.

Hostel (H) – Two sites are identified in the land use plan for modern, low-cost hostel-style accommodation. The hostel buildings contain rooms for two, four, or six guests with shared bathrooms and space dedicated to lounges, lockers and food service. The hostels provide options for groups, athletes and youth to access the Fortress Resort affordably and are in locations on the peripheral of the resort center but with convenient access to recreation facilities. These hostel-style buildings have flexibility to provide ground level space for training, courses or other club or competitive program facilities. A total of 76 units are planned in the two hostel buildings in Fortress's base area.

Mixed Density Real Estate

To allow for flexibility as Fortress's real estate develops over time, a mixed-density land use designation is planned, allowing for a mix of single-family or multi-family units within three categories that reflect a range in unit density. Legal covenants on title requiring owners of private real estate to participate in a rental pool and allow their unit to be available to rent when it is not used by the owner should be considered for all mixed density zones in Fortress.

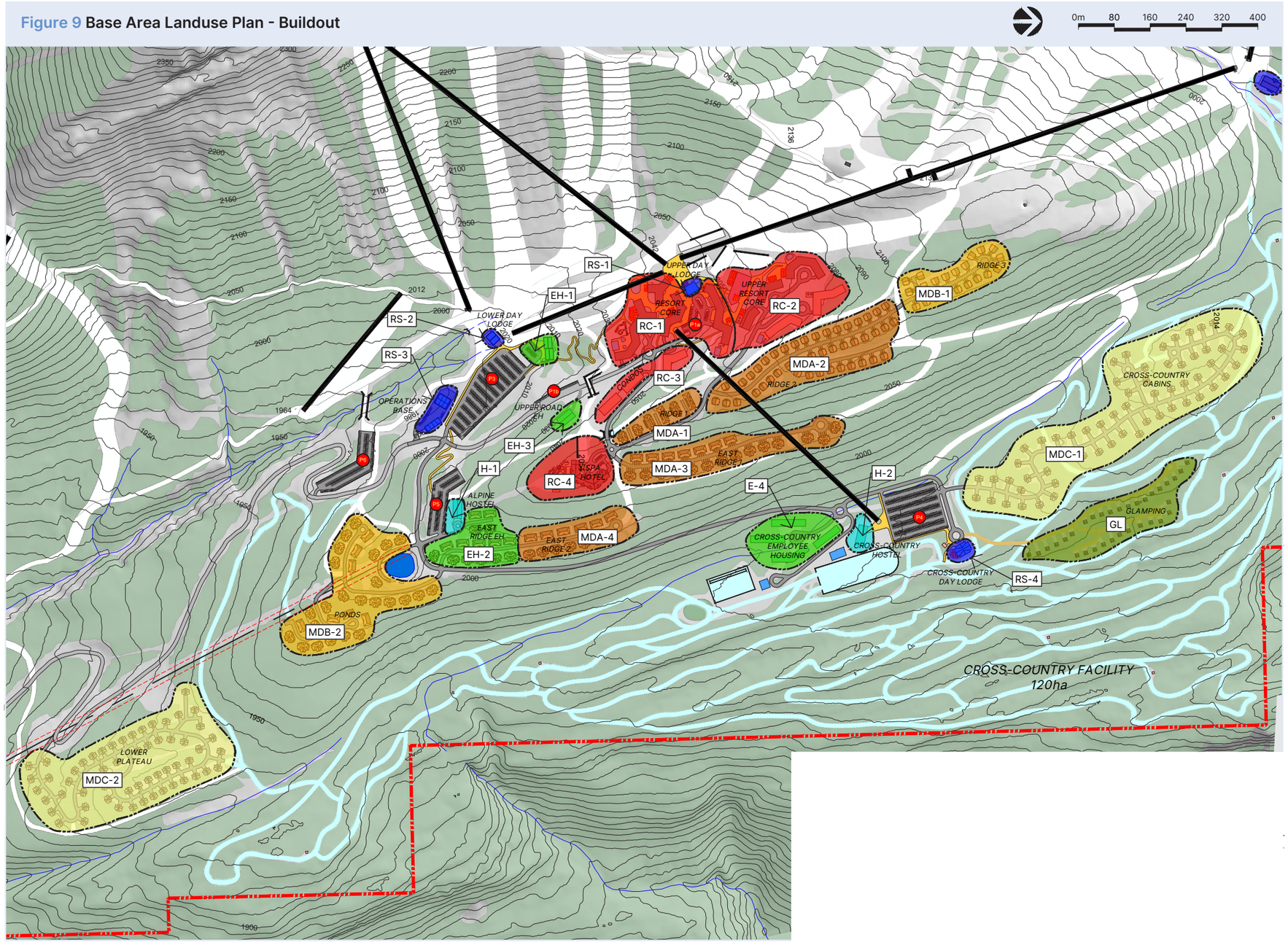
MDA Mixed Density Real Estate A- Mixed Density "A" refers to parcels with the highest density target, including The Ridge 1, Ridge 2, East Ridge 1, and East Ridge 2 parcels. These parcels have a target density of 25 units per hectare. Parcels with this density are best suited close to the village, for increased walk-ability for a maximum number of visitors. Ski-in/ski-out trails are interconnected throughout the developments via easements to private strata roads. These trails leverage the natural topography to transport skiers to and from the ski terrain, village, and development parcels seamlessly via skier bridges and tunnels over public roads.

MDB Mixed Density Real Estate B- The second classification, "B", refers to the Ridge 3 and Ponds parcels, with a target density of 15 units per hectare. These parcels are farther away from "A" parcels and not within comfortable walking distance, but are still connected to the ski-in/ski-out network.

MDC Mixed Density Real Estate C- The third mixed density classification "C" refers to the Lower Plateau and Cross-Country Cabin parcels. These parcels are planned with low density development of 6 to 8 units per hectare. Since these development parcels are out of comfortable walking distance and the ski-in/ski-out network, skiers must drive to the day visitor parking lots.

GL Glamping – A glamping area with 32 units is planned within the cross-country facility. Glamping is considered as Tourist Accommodation and part of the public bed base. The glamping sites can be managed through facilities in the cross-country day lodge or a dedicated building.

Figure 9 Base Area Landuse Plan - Buildout



LEGEND

- Resort Core Mixed Use (RC)
- Condos (C)
- Mixed Density Real Estate A (MDA)
- Mixed Density Real Estate B (MDB)
- Mixed Density Real Estate C (MDC)
- Employee Housing (EH)
- Hostel (H)
- Glamping (GL)
- Resort Services (RS)
- Day Use Parking (P)
- Lease Boundary 2025 Update
- Power Line ROW

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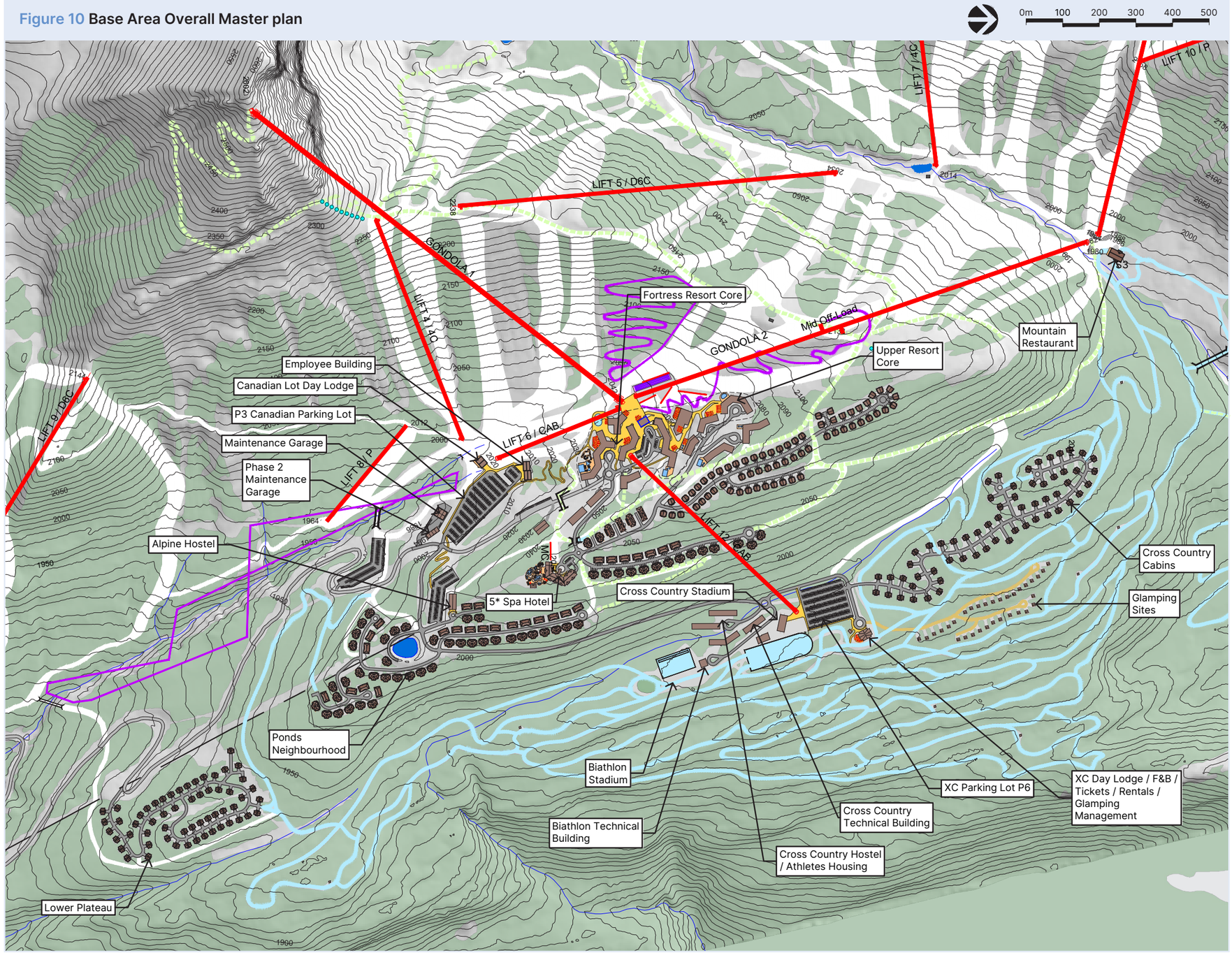
Figure 10 Base Area Overall Master plan



LEGEND

- Proposed Lifts
- Tree Skiing
- Power Lines
- Proposed Buildings
- Existing Roads
- Proposed Roads
- Cross-Country Ski Trail
- Multi Use Trail
- Mountain Biking Trail
- Parking (P)
- Skier Direction
- Hardscape Plaza

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Table 8 **Village Building Program**

Building	Building Type	Phase	Maximum # Floors	Gross Floor Area m²	# Units	# Population	# Parking Stalls Required
Resort Core							
S1	Upper Day Lodge	1	2	825	-	-	-
A1	3* Condotel	2	5	8,740	170	340	102
A2	4* Condotel (Large Units)	2	4	4,625	28	140	28
B	4* Hotel	2	5	14,580	203	600	122
C1	4* Hotel	2	6.5	16,780	245	600	147
C2	Event/Cultural Center	3	2	3,000	-	-	-
D	4* Condotel (Large Units)	3	5	3,645	25	120	25
E	4* Condotel	3	5	5,150	49	160	49
F	4* Condotel	3	5	7,400	80	260	80
G	4*Condotel	3	5	5,530	55	180	55
H	4*Condotel	3	5	7,520	80	260	80
Subtotal Resort Core				**77,795**	**937**	**2,660**	**690**
I	4*Condotel (Large Units)	3	4	3,900	36	180	36
J	4*Condotel	3	3	2,700	33	110	33
K	4*Condotel	3	3	2,865	35	110	35
L	5* Spa Hotel	3	5	10,390	155	320	109
Subtotal Hotels & Condotels				**97,650**	**1,196**	**3,380**	**902**
Other Areas							
S2	Canadian Lot Day Lodge	3	1	500	-	-	-
S3	Maintenace Garage	1	1	1,000	-	-	-
M	Alpine Althlete Hostel	4	3	2,130	49	80	49
N	XC Athlete Hostel	4	3	2,325	27	90	27
S4	Employee Housing	2	4	2,840	76	145	38
S5	Cross-Country Day Lodge	1	1	700	-	-	-
S6-S7	Cross-Country Technical Buildings	5	1	840	-	-	-
S8	Employee Housing Apartments	2	3	1,725	61	116	80
S9-12	Employee Housing Apartments	4	4	18,760	500	950	250
Subtotal Other Areas				**30,820**	**713**	**1,381**	**444**
Total				**128,470**	**1,909**	**4,761**	**1,346**

Base Area Capacity

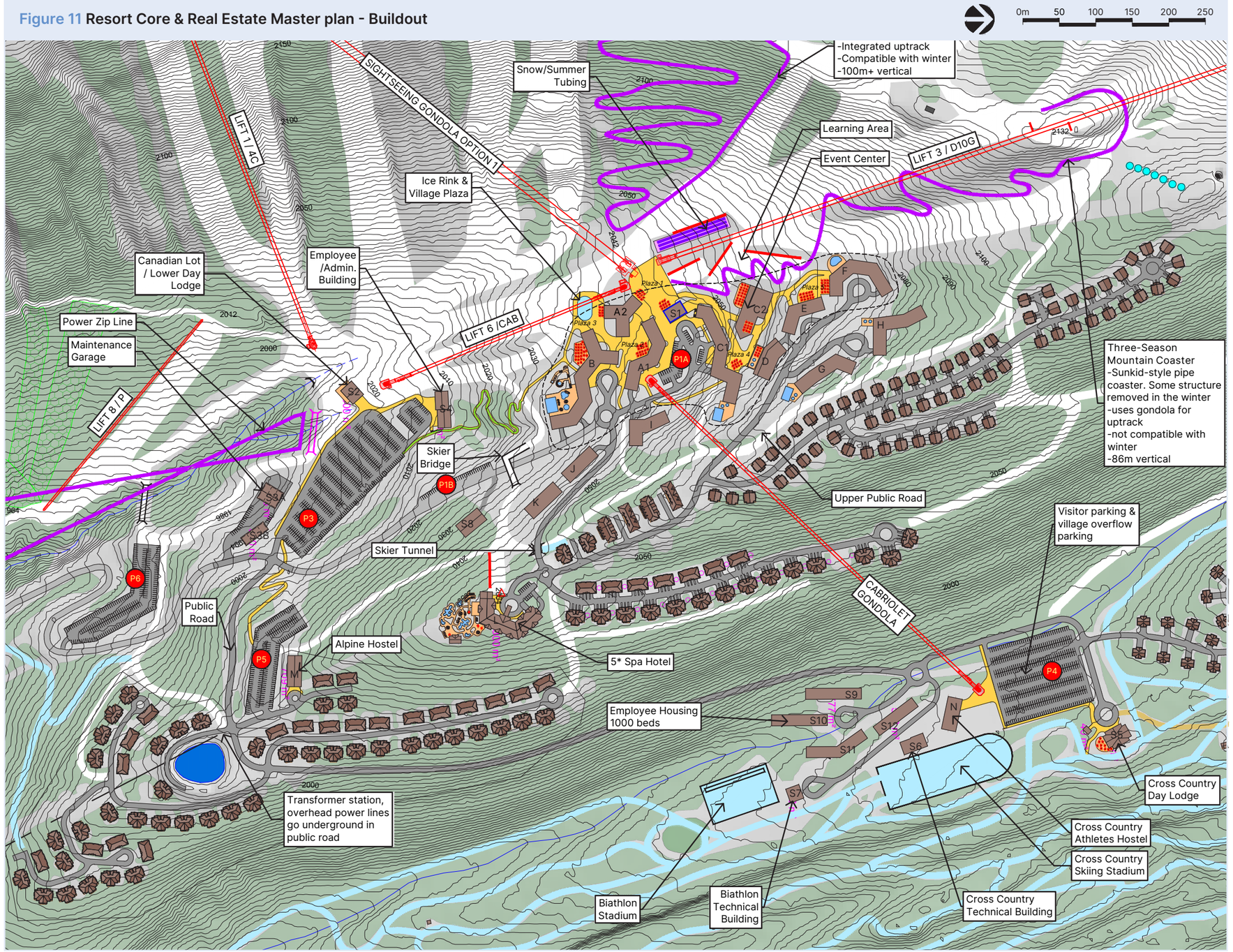
"Base Area Capacity" has two components: "Day Population" and "Overnight Population". Day Visitors arrive by vehicle (private vehicle, bus or shuttle) and require parking and drop-off facilities to access the resort. The capacity of day-use parking lots, transit facilities, and drop-offs determine the total Day Visitor Capacity of a resort. Overnight Visitors include any visitor that stays in overnight accommodation. These visitors often drive to the resort, so additional parking associated with overnight accommodation needs to be planned for Overnight Visitors, so they don't consume the parking capacity dedicated to Day Visitors. Employees who spend the day or stay overnight in accommodation are added to the day visitor capacity to determine total population at the resort.

Table 9 provides a summary of the total Base Area Capacity planned at Fortress, with a break down of total Day Population (visitors and employees) and total Overnight Population (visitors and employees) at buildout of the master plan. At buildout, the total combined population one a peak day at Fortress is 11,155 people; 7,000 from beds and 4,155 from parking/transit. A breakdown of visitor type and employees is provided in Table 9. Employee capacity on a peak day is 1,500 people total, 1,200 staying in overnight accommodation and 300 arriving by car for the day. At buildout, peak visitation is anticipated in the winter when all ski facilities are built to capacity. The ski area can support a total of 6,900 skiers on a peak day, with over 2,100 visitors participating in other activities. Overnight visitors that don't participated in ticketed activities on-mountain account for approximately 5% of total around 450 people per day.

Table 9 Phase 5 Base Area Capacity Summary

		Total # Daily Population	% Total	Total Employees	*WINTER VISITORS* Total Skiers	Other Active Visitors	Non Participants @5% Visitors
Overnight Population	**Tourist Accommodation**						
	Resort Core (RC)	3,380		-	2,540	671	169
	Hostel/Group Accommodation (H)	170		-	80	82	9
	Glamping	46		-	7	37	2
	Subtotal Tourist Accommodation	**3,596**	32%	**-**	**2,627**	**789**	**180**
	Real Estate (MD A-B-C)	1,965		-	1,000	867	98
	Employee Housing (EH)	1,519		1,200	312	-	-
	Total Overnight Occupants	**7,080**	63%	**1,200**	**3,939**	**1,656**	**278**
Day Population	Day Visitor Parking	2,975		-	2,301	525	149
	Regional Transit (Charter Bus & Shuttles)	880		-	803	33	44
	Employees	300		300	-	-	-
	Total Day Visitors & Employees	**4,155**	37%	**300**	**3,104**	**558**	**193**
	Total Daily Population	**11,235**		**1,500**	**7,043**	**2,214**	**471**
		% Total Population		13%	63%	20%	4%

Figure 11 Resort Core & Real Estate Master plan - Buildout



LEGEND

- Proposed Lifts
- Power Lines
- Mixed-Use Village Building
- Existing Roads
- Proposed Roads
- Pedestrian Circulation
- Parking (P)
- Skier Direction

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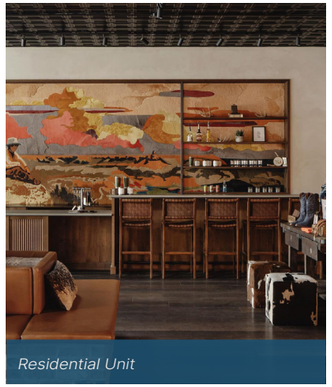
Resort Atmosphere

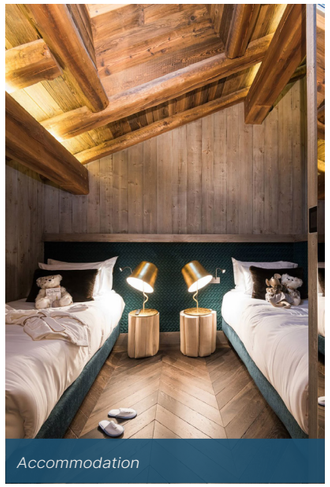
Residential Patio Space

Residential Development Character

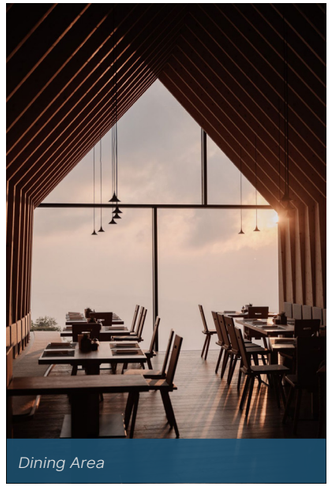
Sauna



Residential Unit

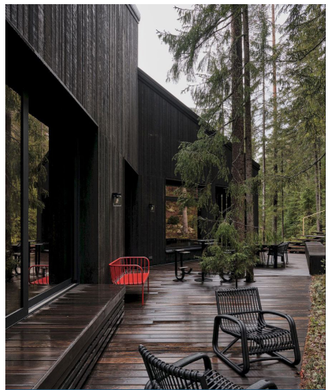


Accommodation

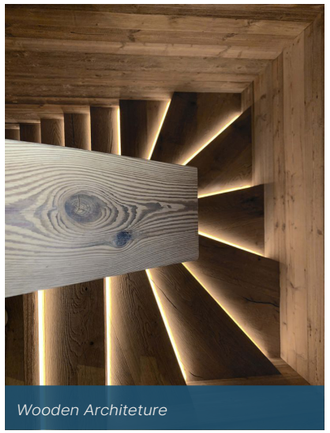


Dining Area

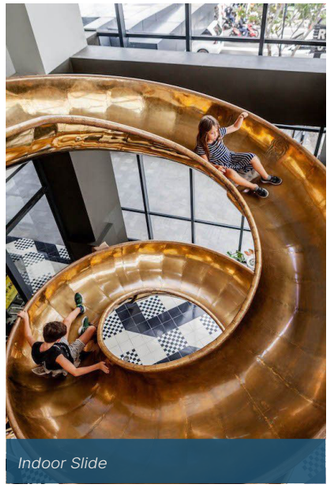
Residential Unit



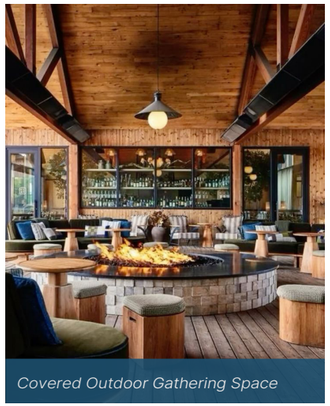
Multi-Unit Residential Patio



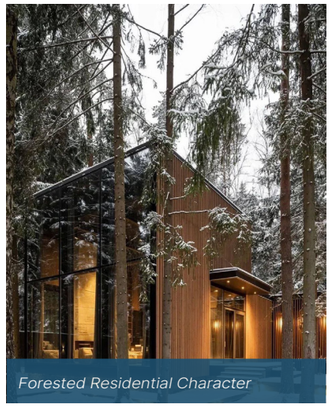
Wooden Architeture



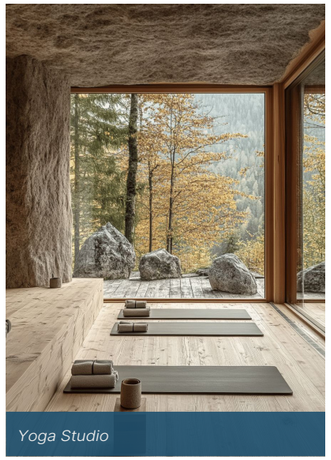
Indoor Slide



Covered Outdoor Gathering Space



Forested Residential Character

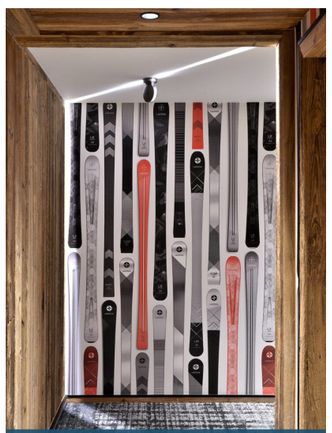


Yoga Studio

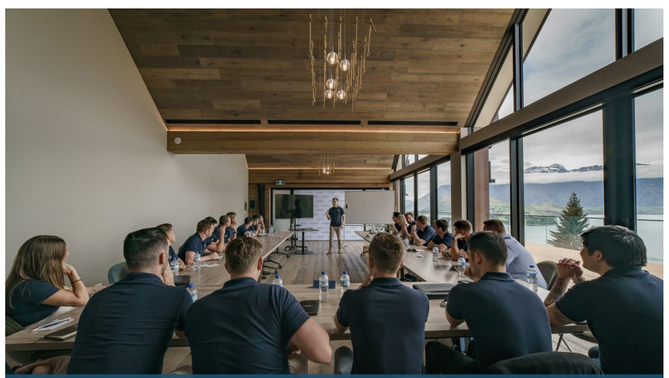
Outdoor Fire Pit

Children's Accommodation

Residential View



Architectural Character



Conference Space

Outdoor Relaxation Space

3.0 INVENTORY & TECHNICAL ASSESSMENT

3.0 Introduction

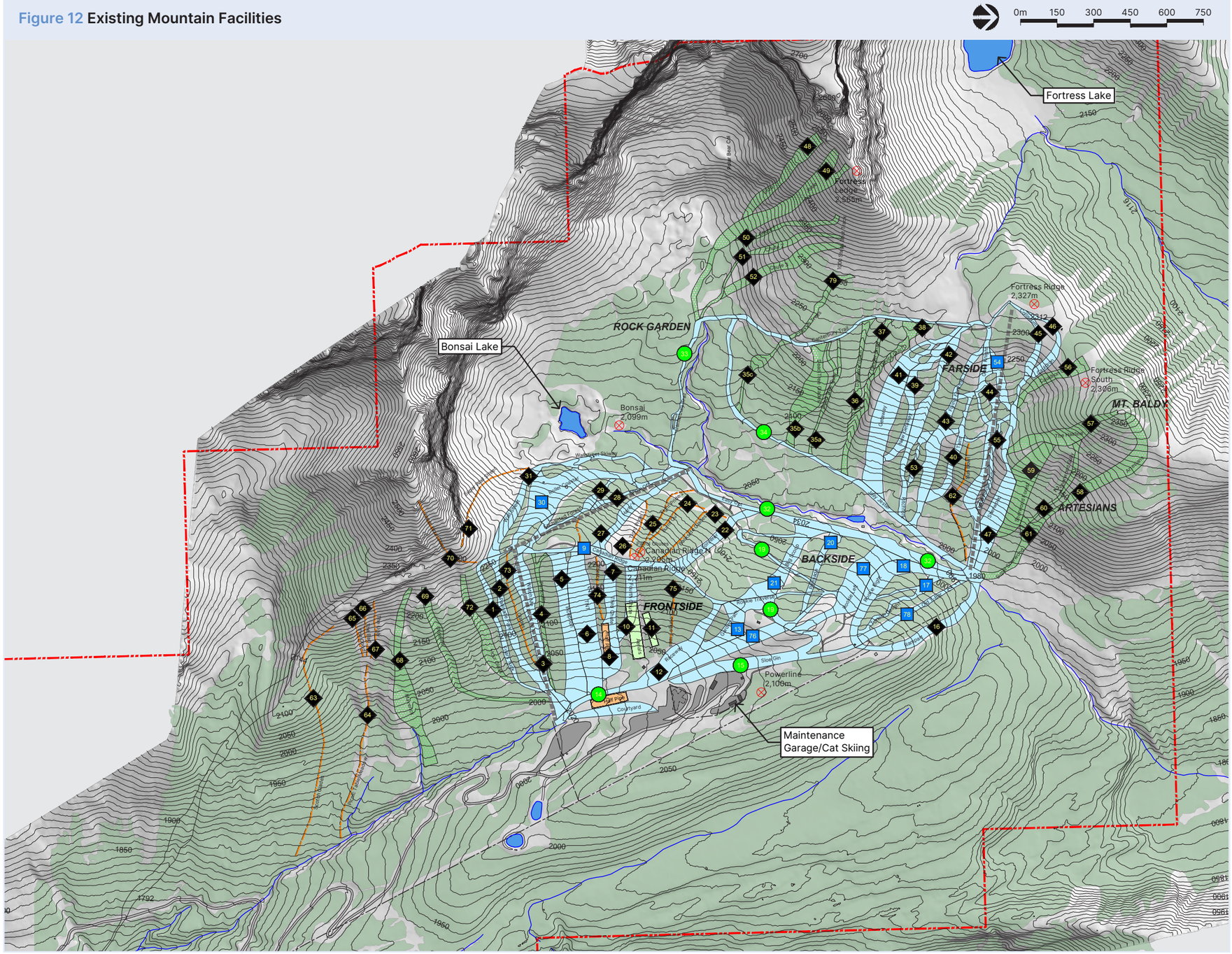
The master planning process starts with an inventory of the the existing study area, which can then be assessed to determine the village's comfortable carrying capacity and suitable development opportunities for mountain and base area facilities. Fortress hasn't operated as a public ski area since 2006, therefore the inventory of existing mountain facilities is limited to ski trails currently used for cat-skiing and infrastructure used for Fortress' commercial water business. Likewise, most former base area buildings have been condemned with the exception of the snow cat maintenance garage and operations base. Other base area infrastructure includes the access road, parking lots, sewage treatment ponds (inactive) and overhead power lines.

Ecosign's Technical Assessment is carried out over terrain within the study area to identify terrain characteristics that inform the village planning process including topographic features, steepness, and solar radiation impacts. Understanding these terrain characteristics and development suitability for both the mountain and base areas is vital in the design process. Ski terrain expansion opportunities, as well as base area development opportunities can be identified using village planning parameters in coordination with terrain characteristics identified in the Technical Assessment. Ecosign's expertise in calculating comfortable carrying capacity is used as a foundation in balancing base and mountain facilities. The mountain's Ski Terrain Capacity Analysis assesses terrain pods to determine the overall capacity of the terrain for commercial alpine ski development, providing valuable insight on the skill class opportunities and the associated comfortable densities of the skiable terrain. Area's within comfortable walking distance of the ski area, and opportunities for ski-in/ski-out will also become clearly outlined as a result of the Technical Assessment mapping exercise, which can then be further explored in the concept development stages of design. As there are limited existing base area facilities at Fortress, the concept development stage aims to provide sufficient base area facilities to reach a balanced comfortable carrying capacity, and maximize mountain terrain utilization.

3.1 Existing Mountain Facilities

Since 2011, Fortress has operated solely as K-POW Cat Skiing with a daily maximum guest capacity of 14 skiers or snowboarders of strong intermediate to advanced / expert skill level only. The Existing Mountain Facilities plan is shown in Figure 12, highlighting mountain facilities currently within the Lease Area Boundary. None of the existing lift infrastructure is operational, or can be salvaged to operate in the future, and is therefore identified as "deactivated". The existing ski trails have generally been maintained and cleared of brush and are used for cat skiing. Currently, the only indoor space used for cat skiing guests is a meeting room within the existing snow cat maintenance garage.

Figure 12 **Existing Mountain Facilities**



SKI TRAIL ABILITY LEVEL

- Easiest
- More Difficult
- Most Difficult

LEGEND

- Deactivated Lift
- Existing Trail
- Existing Gladed Skiing
- Catskiing Line
- Deactivated Half Pipe
- Deactivated Aerials
- Lease Boundary 2025 Update
- Powerlines
- Snow Study Stations

Existing Cat Skiing

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Planning Parameters

Ski terrain and trails are classified in concert with Ecosign's International Ski Trail Standards (Table 10), as well as the seven skier skill classification levels exhibited in Table 11.

Table 10 International Ski Trail Standards

Symbol	Trail Designation	Skier Ability Level
	Easiest	Beginner & Novice Skiers
	More Difficult	Intermediate Skiers
	Most Difficult	Advanced & Expert Skiers

Each ski trail at Fortress has been classified into one of the seven skier skill class levels after an evaluation of the following parameters: ski trail width, average gradient and the steepest 30m vertical pitch. Since the average slope gradient of a ski trail is generally much lower than the steepest 30m vertical pitch, the ski trails are usually classified to ensure that the steepest 30m fall within the acceptable terrain gradients listed in Table 11. This method of classification ensures that each ski trail is skiable from top to bottom by the skill class level assigned to it. For example, if a ski trail has an average slope in the range of 15–25% acceptable for novice, but has a very steep section in the middle, then such a ski trail cannot be classified as a novice ski trail. We have used the skill level classification system shown in Table 11 to rate the ski terrain at Fortress.

Table 11 Skier Skill Classification Slope Gradients

Skill Classifications		Acceptable Terrain Gradients
1	Beginner	8 - 15%
2	Novice	15 - 25%
3	Low Intermediate	25 - 35%
4	Intermediate	30 - 40%
5	High Intermediate	35 - 45%
6	Advanced	45 - 60%
7	Expert	60% +

Skier / Snowboarder Densities

Ecosign has performed on-site research to determine comfortable and safe skier densities at ski areas in many parts of the world. Densities used in planning ski areas in different parts of the world listed in Table 12, and Plate 2 graphically illustrates the "SAOT" (Skiers at One Time) densities and the "On-Slope" densities.

The SAOT is based on the total number of skiers/snowboarders at the area, including those in lift queues, riding lifts, in restaurants and on the trails. The "On-Slope" densities take into account only those skiers and snowboarders actually on the trails at any given time. As shown, acceptable skier/ snowboarder slope densities tend to decrease as the proficiency of the skier increases.

The lower density for better skiers occurs due to their increased speed, and therefore, longer stopping distances and the general increase in space needed to avoid obstacles and other skiers. As listed, the exception to this rule is that slope densities increase slightly on expert terrain since these steep, ungroomed slopes dictate controlled, short radius turns. Under these conditions, expert skiers have slower speeds and require less space for safe skiing.

As Fortress is envisioned as providing a boutique, high quality and uncrowded ski experience, we believe that the "Western North American Destination" densities are most appropriate for analysis and planning.

During the past several years, Ecosign has undertaken and reviewed substantial research dealing with skier skill class distribution and skier densities on a worldwide basis. This research and observation of the skiing/snowboarding population suggests that the total worldwide market would conform to a bell curve distribution of skier skill levels. Plate 3 illustrates the normal North American "Bell Shape" distribution used for planning purposes.

Table 12 Worldwide Comparison of Ski Densities Per Hectare

Skill Classification	1 Beginner	2 Novice	3 Low Intermediate	4 Intermediate	5 High Intermediate	6 Advanced	7 Expert
Western N. America Destination							
SAOT (skiers/ha.)	50	50	40	40	30	15	20
On-Slope (skiers/ha.)	20	20	15	15	12	7	10
Western N. America Regional/European Destination							
SAOT (skiers/ha.)	75	75	60	60	45	22	30
On-Slope (skiers/ha.)	30	30	22	22	18	10	15
Eastern N. America Regional							
SAOT (skiers/ha.)	100	100	80	80	60	30	40
On-Slope (skiers/ha.)	40	40	30	30	24	14	20
Australia, China & Japan							
SAOT (skiers/ha.)	100	100	80	80	60	30	40
On-Slope (skiers/ha.)	40	40	30	30	24	14	20
Eastern N. America Urban							
SAOT (skiers/ha.)	250	150	125	86	50	37	37
On-Slope (skiers/ha.)	110	67	54	37	22	17	17

Plate 2 Worldwide comparison of Ski Densities Per Hectare

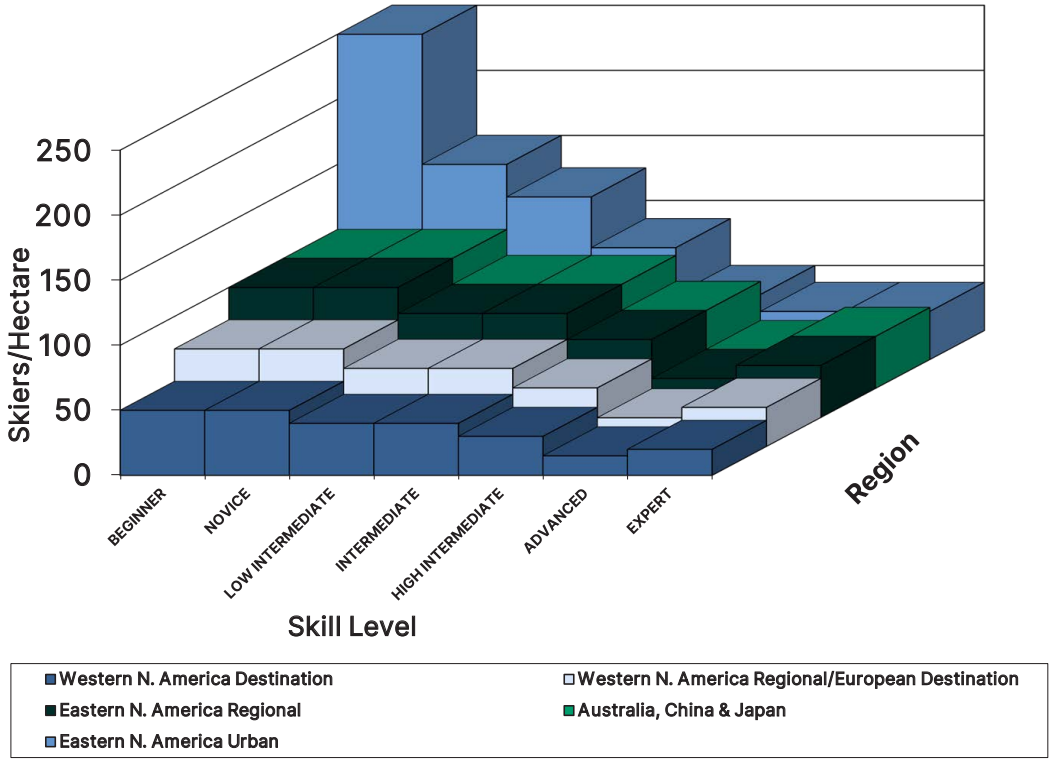
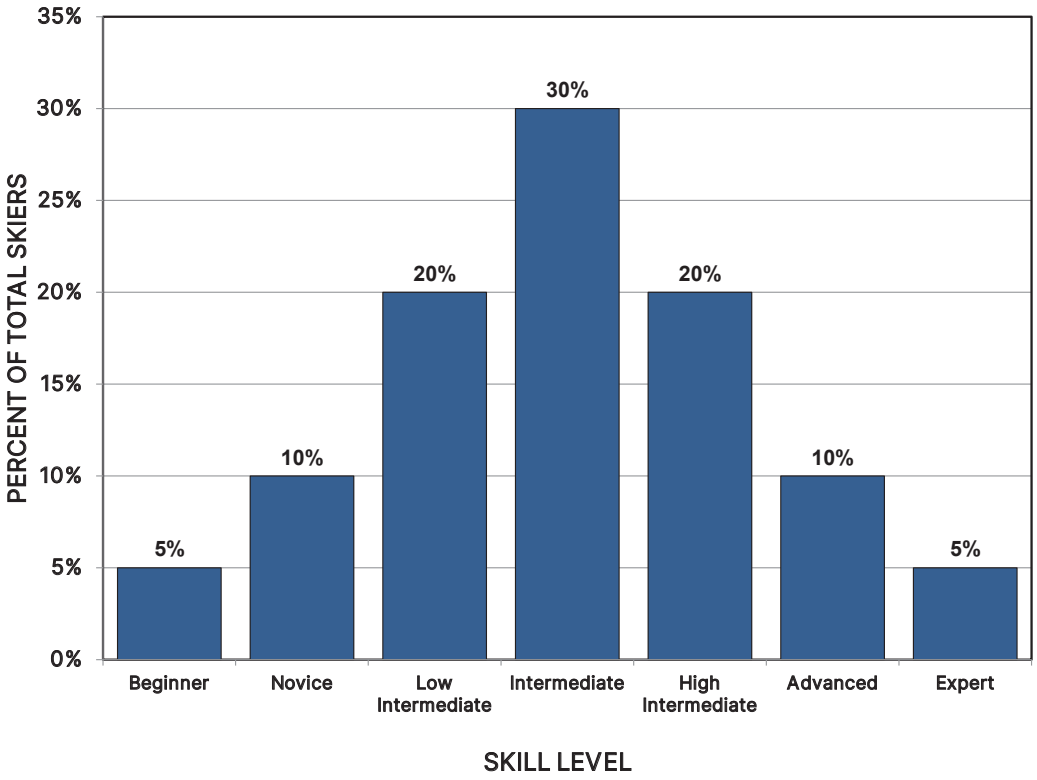


Plate 3 North American Skier Skill Class Distribution



Skier Demand - Vertical Transport Metres

Each skier's ability level places different demands upon an area's lift and ski trail system. Empirical observations have determined that each skier ability level will ski a relatively constant number of vertical metres per day. As the proficiency of the skier increases, the demand for vertical metres also increases. In Europe, Scandinavia, Canada and the United States, we use the industry high VTM demand to ensure a quality, uncrowded sliding experience for the better-conditioned, more aggressive skiers. In urban markets and the emerging markets, we select the average levels of demand for use in planning. We believe that the Fortress skier market falls into the high level of demand.

Table 13 lists the Skiing Demand by Skill Classification.

Table 13 Skiing Demand by Skill Classification

Skill Classification	Planning Goals	Skier Demand VTM/Day		
		Low	Average	High
1 Beginner	5%	610	705	940
2 Novice	10%	1,370	1,595	2,120
3 Low Intermediate	20%	1,830	2,125	2,825
4 Intermediate	30%	2,440	2,830	3,770
5 High Intermediate	20%	3,290	3,840	5,080
6 Advanced	10%	3,840	4,460	5,935
7 Expert	5%	5,485	6,370	8,475
Weighted Average		**2,582**	**3,001**	**3,988**

The planning parameters used for the analysis of the terrain for the Fortress study area are summarized in Table 14.

Table 14 Summary of Fortress Ski Area Planning Parameters

Skill Classifications	Skill Mix	Acceptable Terrain Gradients	Maximum Gradients	Skier Demand VTM/Day	Skier Densities Skiers per ha.	
					At Area	On Trail
1 Beginner	5%	8 - 15%	20%	940	50	50
2 Novice	10%	15 - 25%	30%	2,120	70	30
3 Low Intermediate	20%	25 - 35%	40%	2,825	60	24
4 Intermediate	30%	30 - 40%	45%	3,770	60	24
5 High Intermediate	20%	35 - 45%	50%	5,085	45	18
6 Advanced	10%	45 - 60%	65%	5,935	22.5	9
7 Expert	5%	60% +		8,475	30	12

Existing Lifts

Fortress currently has three deactivated lifts which used to service the Frontside, Backside, and Farside areas. These lifts have not been operational since 2006 and are now at their end-of-life, providing an opportunity for reconsideration of lift alignments to enhance connections and flow throughout the village.

Existing Trails

Ecosign has inventoried 81 numbered return-cycle ski trails at Fortress covering approximately 156 hectares, over a total combined length of 46.9 kilometres, as listed in Appendix A - Existing Trail Specifications. The existing ski trail network at Fortress could comfortably support approximately 3,000 skiers at one time, based on ideal skier densities.

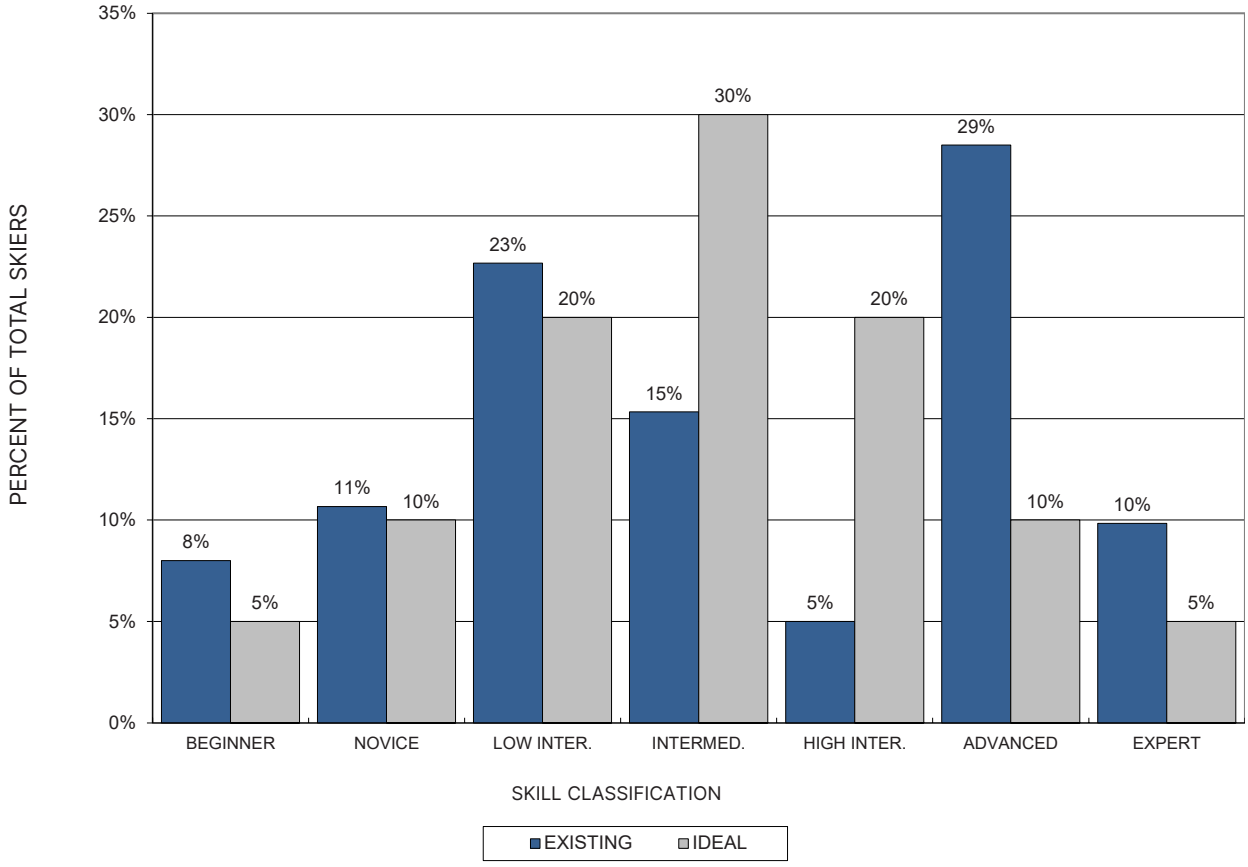
The Fortress ski area contains short ski trails that mainly follow the fall-line, with primarily advanced to expert skill levels. In addition, there are numerous tree-skiing “off-piste” trails. The Cumulative Ski Trail Balance Statement for Fortress is listed in Table 15 and illustrated in Plate 4. The existing ski trail skill level balance indicates that the terrain is moderately well-balanced with significant excesses in advanced and expert terrain, and significant shortages in high intermediate and intermediate terrain.

Table 15 Cumulative Ski Trail Balance Statement

Skill Classification	Hectares	Skiers	Balance	Ideal
1 Beginner	4.6	240	8%	5%
2 Novice	6.4	320	11%	10%
3 Low Intermediate	16.9	680	23%	20%
4 Intermediate	11.9	460	15%	30%
5 High Intermediate	5.3	150	5%	20%
6 Advanced	78.4	855	29%	10%
7 Expert	41.0	295	10%	5%
TOTALS	164.5	3,000	100%	100%

Average Density =	3.6	Skiers/Hectare
Optimum Density =	32.3	Skiers/Hectare
Weighted Demand =	4,299	VTM/Skier/Day

Plate 4 Existing Trail Balance By Skill Class



Maintenance & Snowmaking

Currently, there is no functioning snowmaking system at Fortress and K-POW Cat Skiing relies on natural snow for operations. Avalanche control is performed on site using explosives, both above the ski area for operational safety and along the village access road. Due to the location of avalanche start zones, explosive control is conducted with authorization beyond the boundaries of the Fortress Lease Boundary where required to ensure safety of all guests and infrastructure at the village.

Existing Recreation Trails

The Spray Valley and Peter Lougheed Provincial Parks which surround Fortress, have numerous recreational trail networks that can be accessed year-round. Since Kananaskis Country is a heavily protected area, these provincial parks boast some of the most natural and scenic hiking trails in proximity to Calgary. The Fortress Lake Trail travels through the village passing Bonsai Lake then arrives at Fortress Lake on the north-west side of the lease area boundary.

3.2 Existing Base Area Facilities

Base area facilities at Fortress are outdated and minimalist in nature to service Cat skiing guests, as the majority of commercial ski area guest service facilities have been permanently closed and condemned in 2006. As shown in Figure 13, there are three existing buildings in the base area: the old day lodge and townhouses that are non-operational and a snow cat maintenance garage. The existing townhouses in the base area do not conform to the Kananaskis Improvement District's fire code and are therefore unusable. A new and modern water pump house is located along the Canadian Ridge approximately 75 metres uphill from the old daylodge which provides fresh drinking water supply at the village and is the source for fresh bottled water. An overhead power line runs through the base area via the access road and highway which provide electrical power to the village. There are currently no operational skier service space buildings at the village, and cat skiing guests and staff use temporary porta-potties for restroom facilities. Fortress has three parking lots (P1, P2 & P3), as well as a small lot used to park buses above the old day lodge. Two non-operating sewage treatments ponds are located on the ridge.

Existing Parking

Fortress' three existing parking lots have an approximate capacity of 1,000 cars, as shown in Table 16. Capacity has been estimated assuming 330 cars per hectare and an average of 2.7 skiers per car. No skier visit data or car counts from the previous operation was provided to confirm the capacity of the former ski area. The parking lots are used as staging areas for film crews.

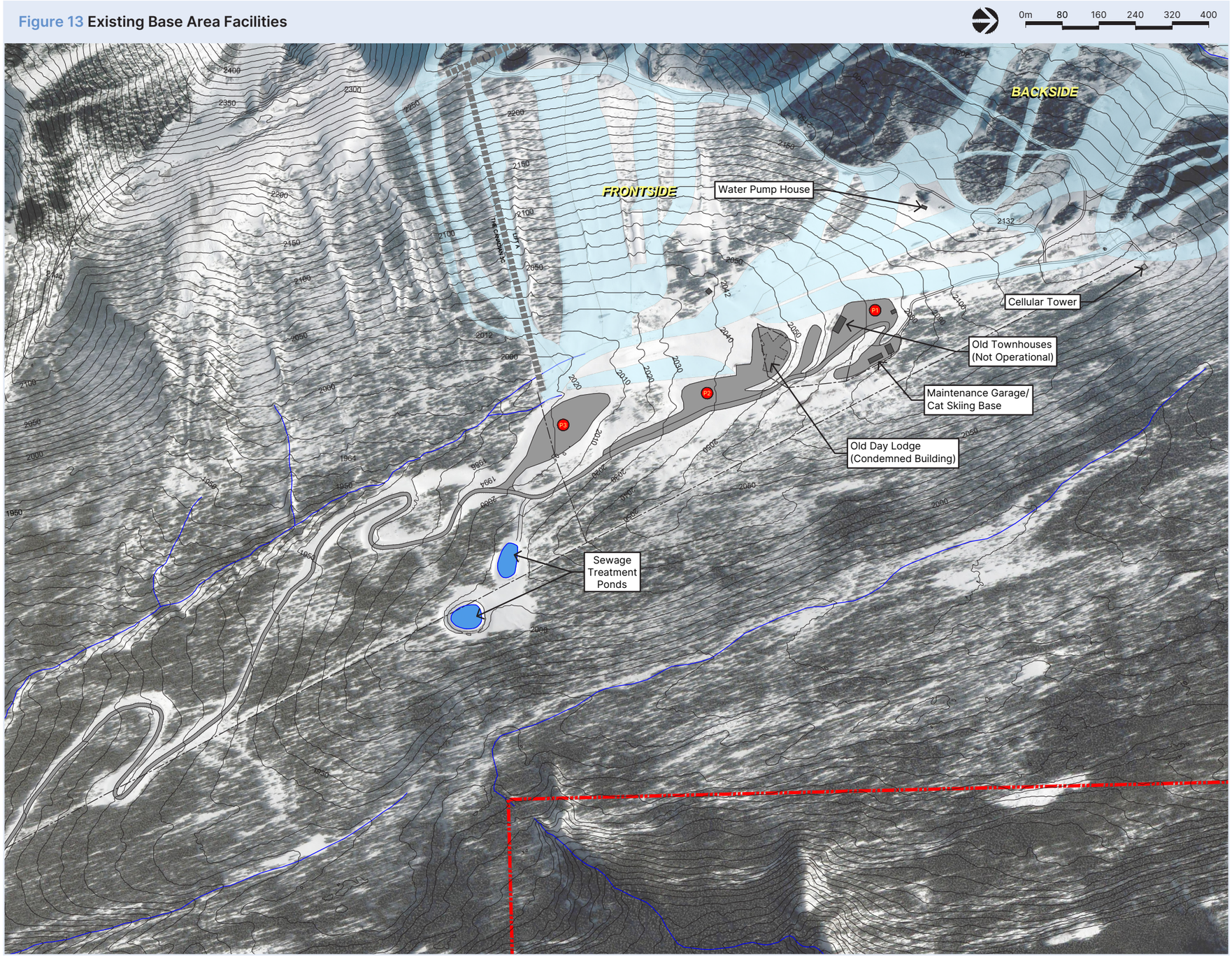
Table 16 Existing Parking Capacity

Lot	Size (ha)	# Cars	# People
1	0.27	89	241
2	1.05	347	936
3	1.60	528	1426
Total	2.92	964	2602

Assumptions	
Cars/Hectare	330
Skiers/Car	2.7

Existing Base Area

Figure 13 Existing Base Area Facilities



LEGEND

- Deactivated Lift
- Existing Trails
- Existing Buildings
- Dayskier Parking
- Lease Boundary 2025 Update

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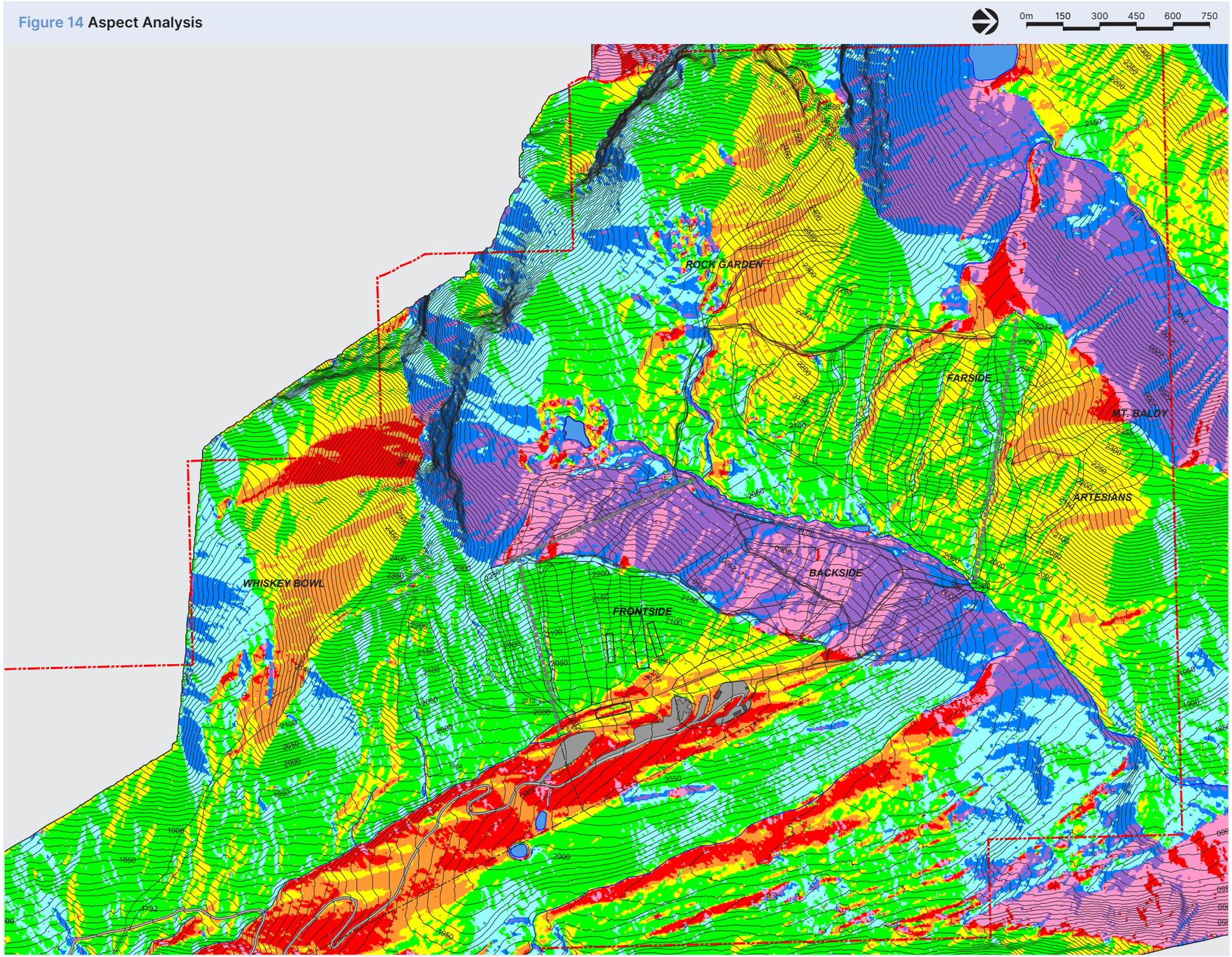
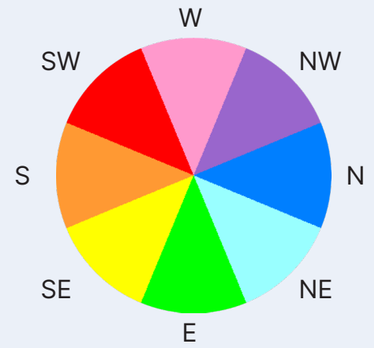
Figure 14 **Aspect Analysis**



ASPECT CLASSIFICATION



3.3 Aspect Analysis

Slope aspect refers to orientation according to the four cardinal and four ordinal points on a compass. In the northern hemisphere, slopes oriented towards the south absorb more of the sun's radiation while slopes oriented towards the north remain cooler with less impact from the sun. Eastern aspects are warmer in the morning when the sun is rising while western aspects absorb more sunlight in the afternoon.

The Aspect Analysis uses warm colours (red, orange and yellow) to illustrate warmer south, south-east and south-west aspects and cool colours (purple, light and dark blue) to identify colder north, north-east and north-west aspects. The Aspect Analysis map shown on Figure 14 illustrates that the existing Fortress ski area has a mix of slope aspects, with the Frontside and Farside having primarily eastern terrain, while the Backside is located on terrain with primarily western to north-western aspects (pink/purple). The existing Fortress base area is located on primarily south-west (red) facing terrain. The terrain past the Farside Ridge within the lease area includes a large area of north to north-west facing terrain, optimal for snow quality and seasonal retention.

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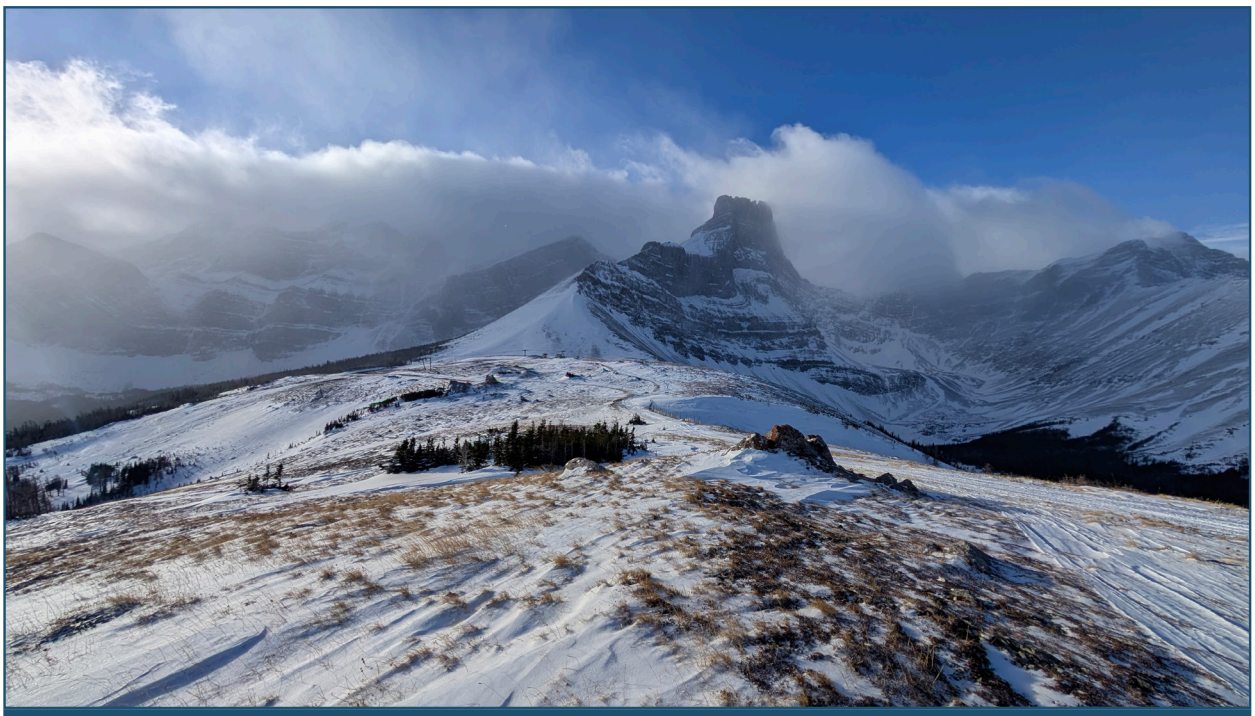
3.4 Wind Effects

Weather conditions within the Fortress Study area are among the most studied and researched in the world due to the Fortress Mountain Research Basin (FMRB) initiative run by the University of Saskatchewan and other partner organizations as part of the Canadian Rockies Hydrological Observatory. Within the study area, there are seven meteorological stations and two hydrometric stations which have near real time weather data available online.

Fortress is susceptible to strong downslope winds which occur along the lee of the Rockies which are highly affected by topography, and therefore wind conditions simultaneously measured at the different stations within the study area contain different values for wind direction and speed. The Fortress Ridge weather station, located near the top of the Backside Lift, is known to be affected by strong winds which are often from the southwest. Fortress is known to have periods of extreme winds, especially at ridge tops, presenting challenges for lift design at higher elevations. In a cold climate like Kananaskis, strong winds contribute to wind chill effects, further decreasing perceived temperatures.

Wind also has a great effect on snow quality; moderate winds of 25-40km/hr have the ability to transport snow from the windward slope to the leeward slope, meaning conditions can vary greatly from one side of a ridge to the other.

Wind scouring occurs when snow has been transported off of a slope, revealing either the ground or the underlying snow and resulting in a hard packed snow crust that makes ski travel more difficult.



Wind scouring from the southwest is clearly visible along the Farside ridge *December 2024*

3.6 Mountain Slope Analysis

Mountain slope is one of the most important conditions to analyze in respect to the development of commercial alpine skiing. The Mountain Slope Analysis (Figure 15) displays the ranges in slope gradients which represent the ideal terrain for different skier skill class levels. Beginner and novice skill class terrain are shown in green (8% - 25%), intermediate terrain shown in yellow (25% - 45%) and advanced terrain are shown in blue (45% - 70%). A navy blue area represents expert terrain with very steep slopes (70%-100%). Areas that remain white in the Mountain Slope Analysis are under 8% and too flat to ski downhill without pushing or gliding and often require snowboarders to release one foot to push. Areas shown in red are steeper than 100% slope, and are generally too steep for commercial skiing.

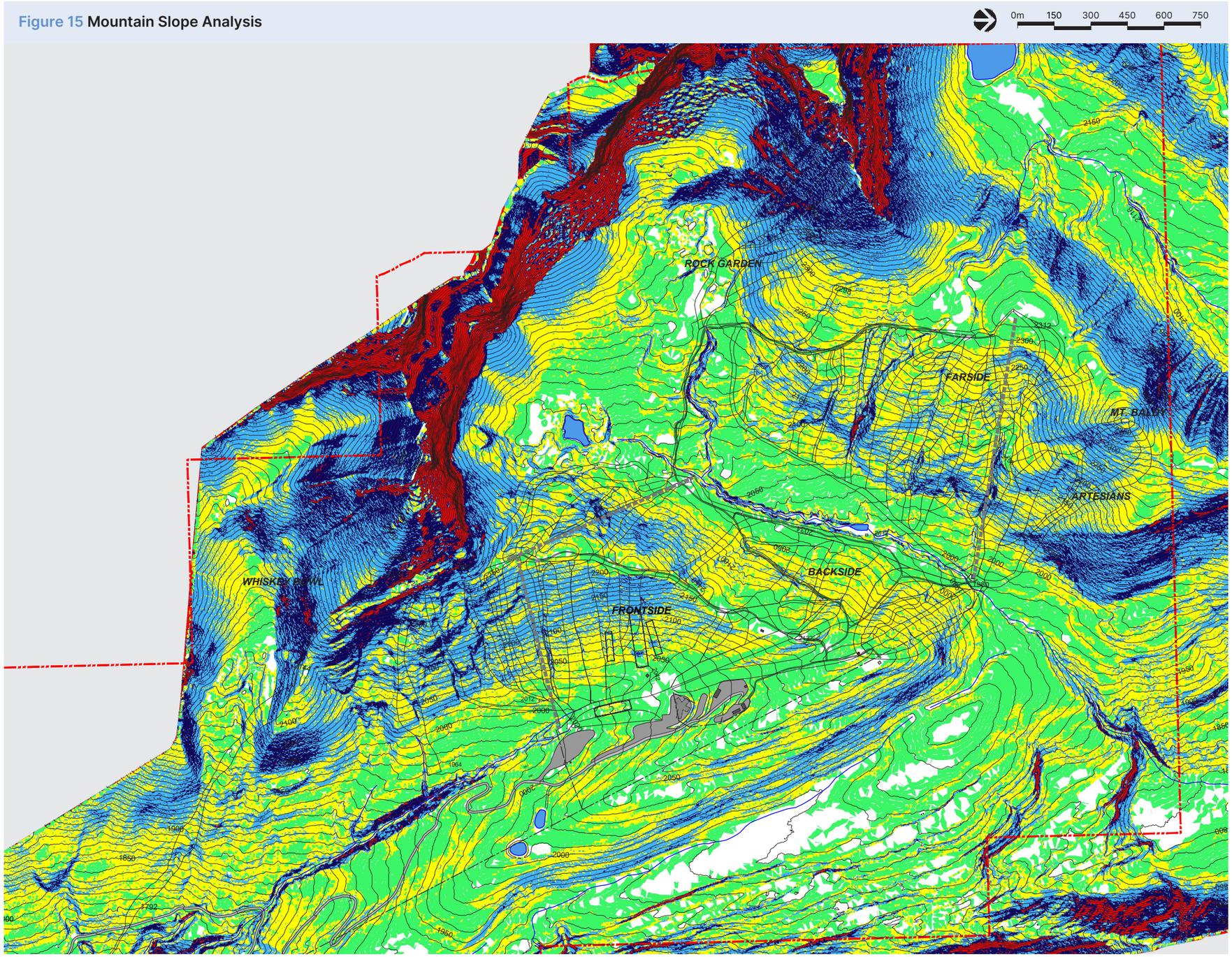
Figure 15 shows that Fortress has a mix of beginner (green) terrain at the base of steeper slopes, with Intermediate (yellow) terrain on the north end of the Frontside and Backside Ridge. The majority of terrain is in the intermediate to advanced(blue-yellow) on the Frontside, Backside, and Farside, which provides the most desirable terrain for high-intermediate to advanced skiers. At higher elevations on the Farside, as well as in the Cougar Bowl and southern portion of the Frontside, there is very steep terrain suitable for expert skiers, shown in a Navy Blue.

3.5 Base Slope Analysis

Figure 16 illustrates the Base Slope Analysis, carried out over the Fortress study area using a 2-metre contour interval. The Base Area Slope Analysis has a similar purpose to the Mountain Slope Analysis and is used to identify terrain suitable for base area development such as buildings, roads and parking lots. Flat land, with slope gradient less than 8%, is optimal for primary base area facilities such as parking lots, pedestrian plazas and large buildings. Gently sloping terrain between 8% - 15% is optimal for buildings and roads, requiring minimal earthworks and grading. Steeper slopes shown in yellow (15% - 25%) are suitable for medium to low density only, as more grading is required to build roads and prepare buildings sites, and terrain between 25% - 40% is marginal and may only be suitable for very low-density development if the surface material is bedrock which allows for steeper angles of cut and fill slopes. Slopes above 40% are generally considered too steep for development and should be avoided.

The existing Fortress base area has a moderate slope uphill from the access road toward the day lodge and upper parking areas. The day lodge is approximately 50 metres in elevation above the lower parking lot, making for a substantial grade change between the two areas. Generally, the base area is at or below 15% grade, with pockets of steeper slope gradients. This type of terrain is suitable for townhouse developments, while areas with slopes greater than 15% are suitable for chalet developments. A large flat bench surrounding the existing day lodge provides the best opportunity for a compact village core.

Figure 15 Mountain Slope Analysis



LEGEND

Deactivated Lift

Lease Boundary 2025 Update

MOUNTAIN SLOPE ANALYSIS CLASSIFICATION

SLOPE GRADIENT	COLOUR	TYPE OF SKIING
0% to 8%	White	Flat Terrain, Marginal Skiing
8% to 25%	Green	Beginner and Novice Skiing
25% to 45%	Yellow	Intermediate Skiing
45% to 70%	Blue	Advanced and Expert Skiing
70% to 100%	Navy Blue	High Expert Skiing
100%+	Red	Unskiable, Hazard Area

Fortress has a variety of slope gradients throughout the resort *December 2024*

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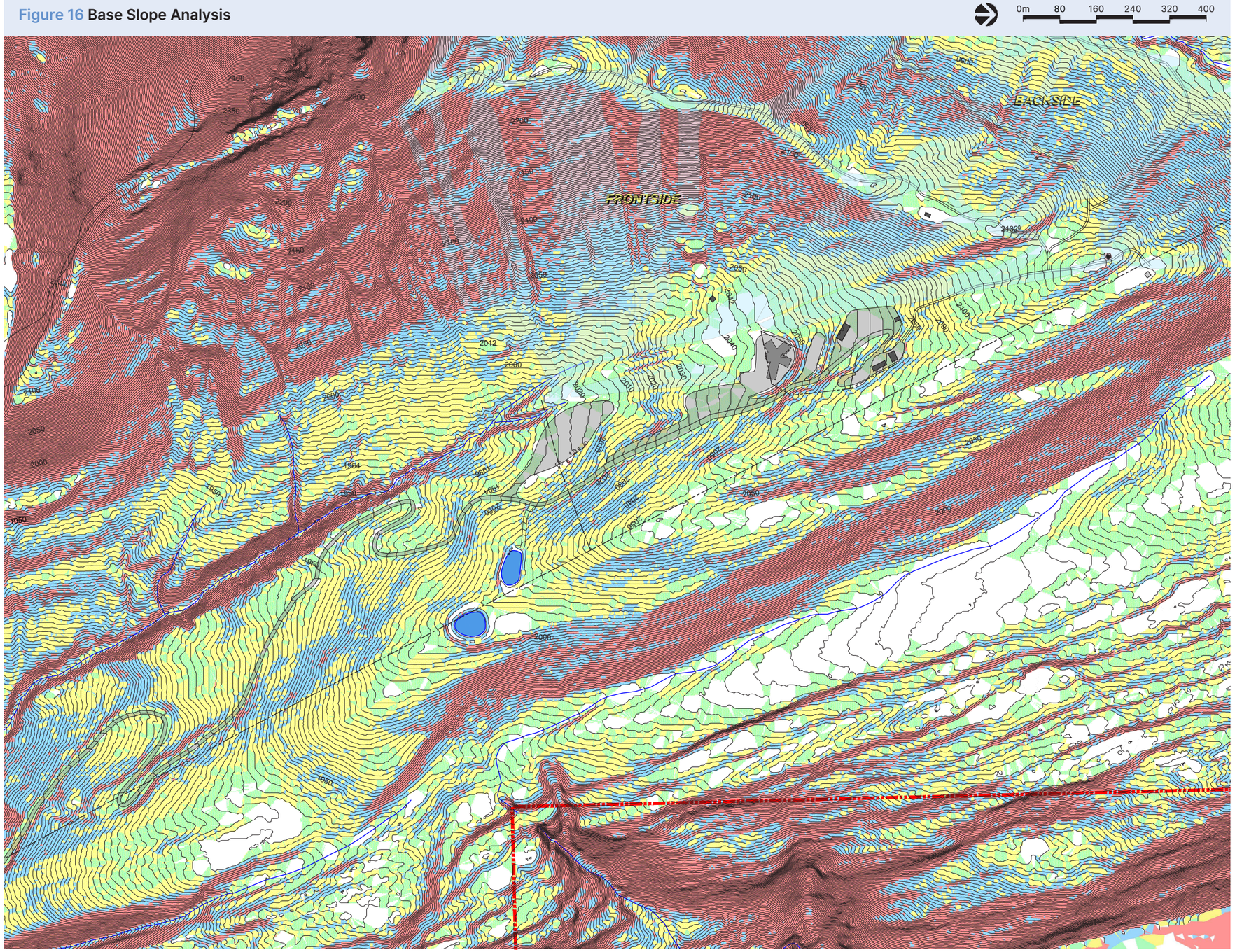
Figure 16 Base Slope Analysis



LEGEND

Deactivated Lift

Lease Boundary 2025 Update

BASE AREA SLOPE GRADIENTS

SLOPE GRADIENT	COLOUR	BASE AREA DEVELOPMENT SUITABILITY
0 to 8%	White	Suitable for roads, parking, high density village style developments, outdoor and indoor recreation and snow play zones with limited terrain modification
8 to 15%	Green	Smaller multi-family or townhouse (medium density) developments, roads, snow play and parking with some terrain modification
15 to 25%	Yellow	Single-family chalet (low density) developments with substantial grading required to provide vehicle access.
25 to 40%	Blue	Marginal for single-family development. May require rock stacking and/or retaining walls to provide vehicle access.
40%+	Red	Too steep for development

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3.7 Solar Shadow Analysis

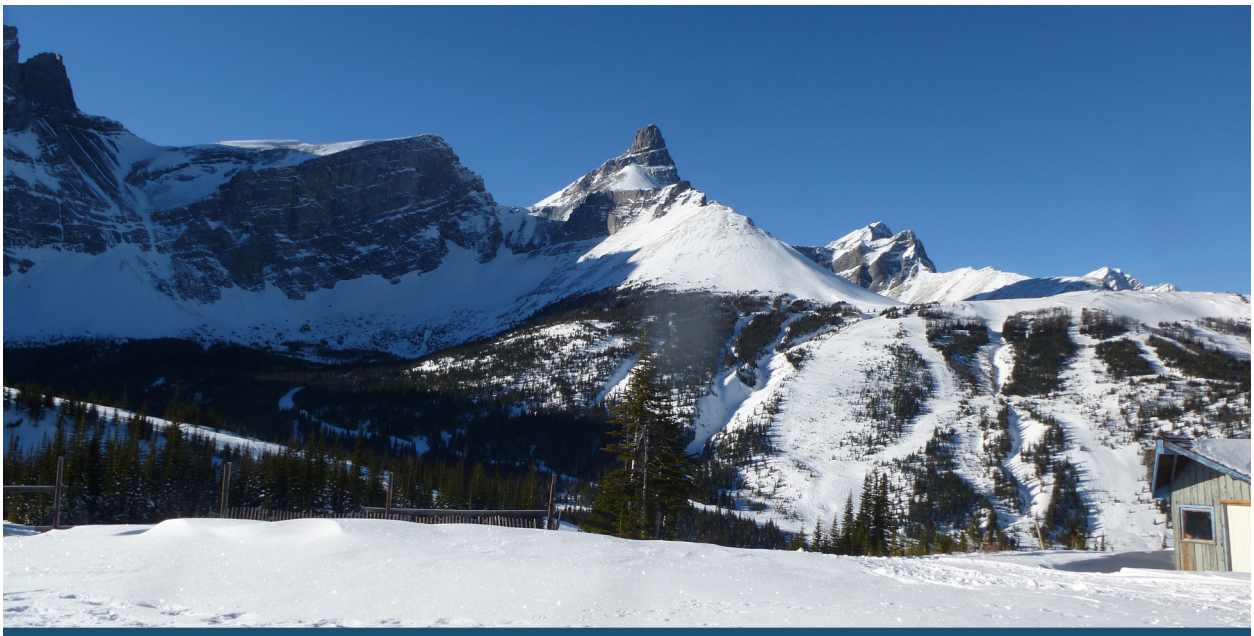
The impact of the sun on the study area in the winter months in the morning, mid-day and afternoon is presented in the Solar Shadow Analysis in Figures 17a, 17b, and 17c. Four shades of shadow are illustrated in this plan, indicating the terrain that is in shadow on December 21st in light blue, on January 21st in medium blue, on February 21st in dark blue, and the darkest blue still in shadow by March 21st. Areas that present as white in the Shadow Analysis are in full sun throughout the year at the indicated time.

The Solar Shadow Analysis is referenced when identifying sites for restaurants and other amenities that benefit from maximum sun exposure, as well as identifying areas with too much sun for snow retention.

Fortress is located on the north-east side of Mt. James Walker's ridge line, in the shadow of the afternoon sun as it sets in the west. In the morning, the high elevation peaks on the east side of the valley block the morning sun from hitting the base area at 9 a.m. until mid-February.

At noon, the slopes below Mt. James Walker on the backside are in shadow with the majority of the ski area in full sun. The northern aspect near Fortress Lake is also in the shade until mid-March at noon. At 3p.m., most of the village will be in the shadow of the ridge line until mid-February. Only small pockets of the Farside will have sun by this time in mid-January. The base area will be in shadow at this time until mid-February.

With a combination of low temperatures, along with large amounts of solar shading throughout the winter months, Fortress lends itself to great snow quality and retention. This is vital in the operation of Fortress due to the relatively little amount of yearly snowfall in the Kananaskis Valley.



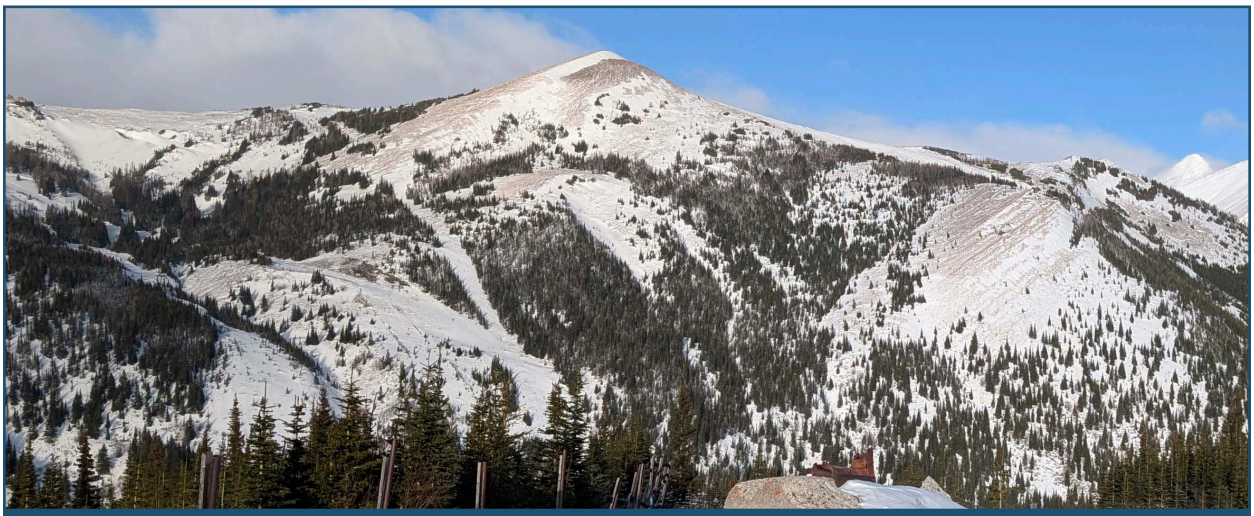
Solar shading extends the duration of high quality snow *January 2015*

3.8 Solar Radiation Analysis

The Solar Radiation Analysis (Figure 18) provides a composite analysis of slope gradients, aspect and solar shadow to produce a range of colours that indicate the strength of incoming solar radiation on the terrain in KWh/m². Steep slopes facing south will receive more solar radiation compared to gentler slopes with the same aspect, so the solar radiation analysis provides the most accurate picture of warm and cool areas within the study area. This analysis illustrates the average radiation over the winter months of December to March, so should be considered as an overall winter season average rather than a representation of a specific day of the year.

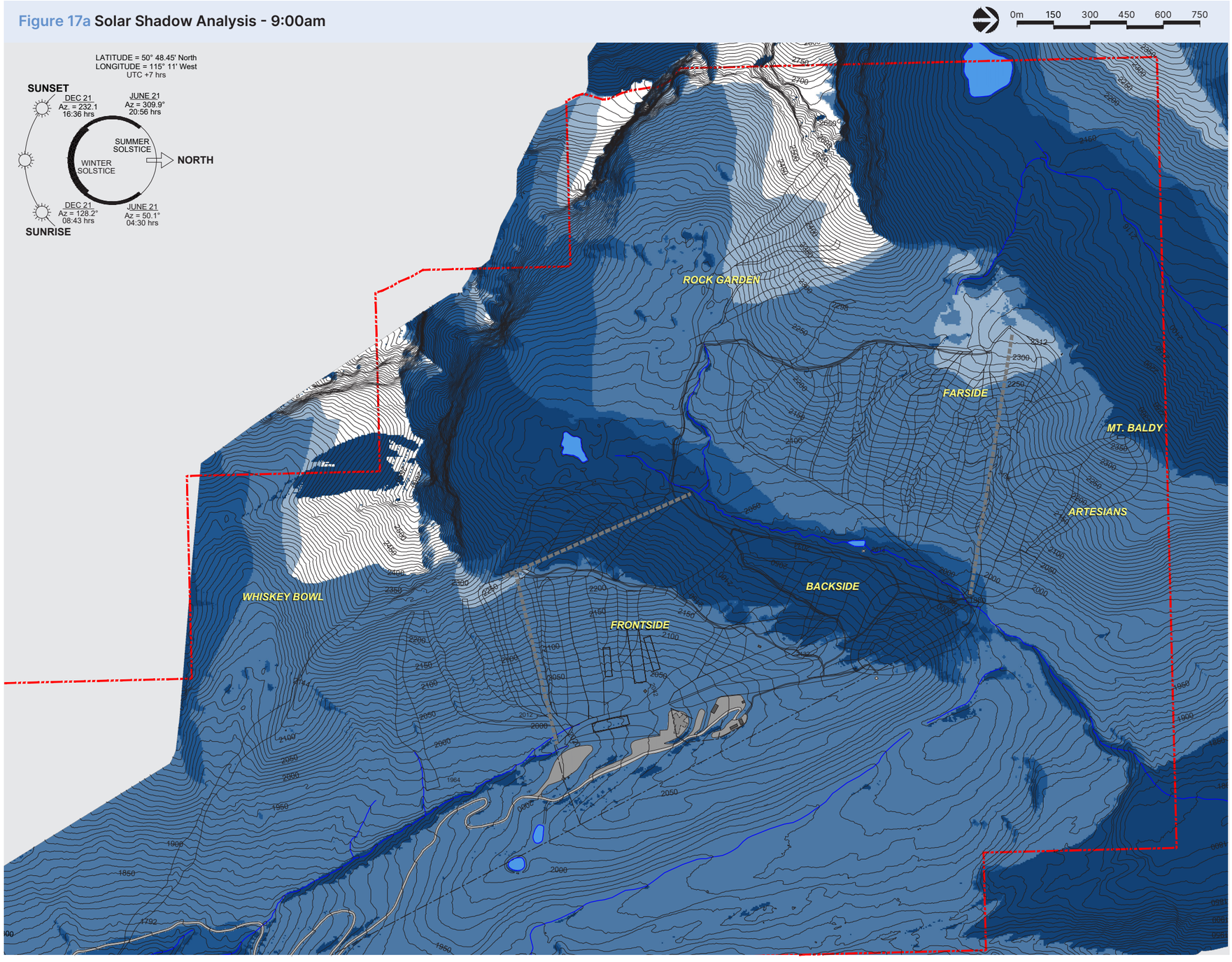
Terrain that receives more than 410 KWh/m² of radiation on average will be susceptible to soft snow conditions in the spring and may require more maintenance and snowmaking to maintain a quality ski surface. Terrain with 410KWh/m² or less will have good conditions for alpine skiing and support high quality snow into the Spring season.

As illustrated on the Solar Radiation Analysis, the south face of Mount Baldy and the Artesians receive the most solar radiation exposure due to the aspect and lack of protection from the Mount James Walker ridge line, meaning that snow retention and quality will be more challenging to manage. The Farside and the Frontside base area receive a moderate amount of solar exposure. The backside receives the least amount of solar radiation exposure due to a combination of ridge line protection and a north-westerly aspect. Snow quality will remain high for the longest amount of time in the Backside slope and the north-west terrain beyond the farside due to a low exposure to solar radiation.



Solar Radiation greatly impacts snow retention and snow quality

Figure 17a Solar Shadow Analysis - 9:00am



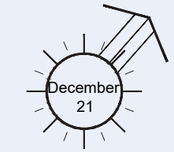
LEGEND

December 21

January 21

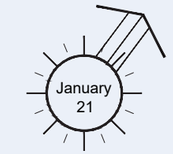
February 21

March 21



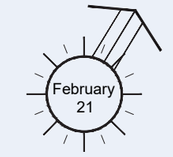
SUNRISE:
08:43
SUNSET:
16:36
SUNLIGHT DURATIO
477 Minutes

Sun's Alt. = 1.9°
Sun's Az. = 131.5°



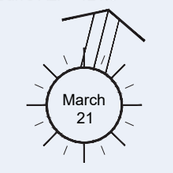
SUNRISE:
08:34
SUNSET:
17:12
SUNLIGHT DURATIO
522 Minutes

Sun's Alt. = 3.1°
Sun's Az. = 127.0°



SUNRISE:
07:44
SUNSET:
18:06
SUNLIGHT DURATIO
626 Minutes

Sun's Alt. = 10.5°
Sun's Az. = 121.5°



SUNRISE:
07:40
SUNSET:
19:57
SUNLIGHT DURATIO
737 Minutes

Sun's Alt. = 11.8°
Sun's Az. = 103.8°

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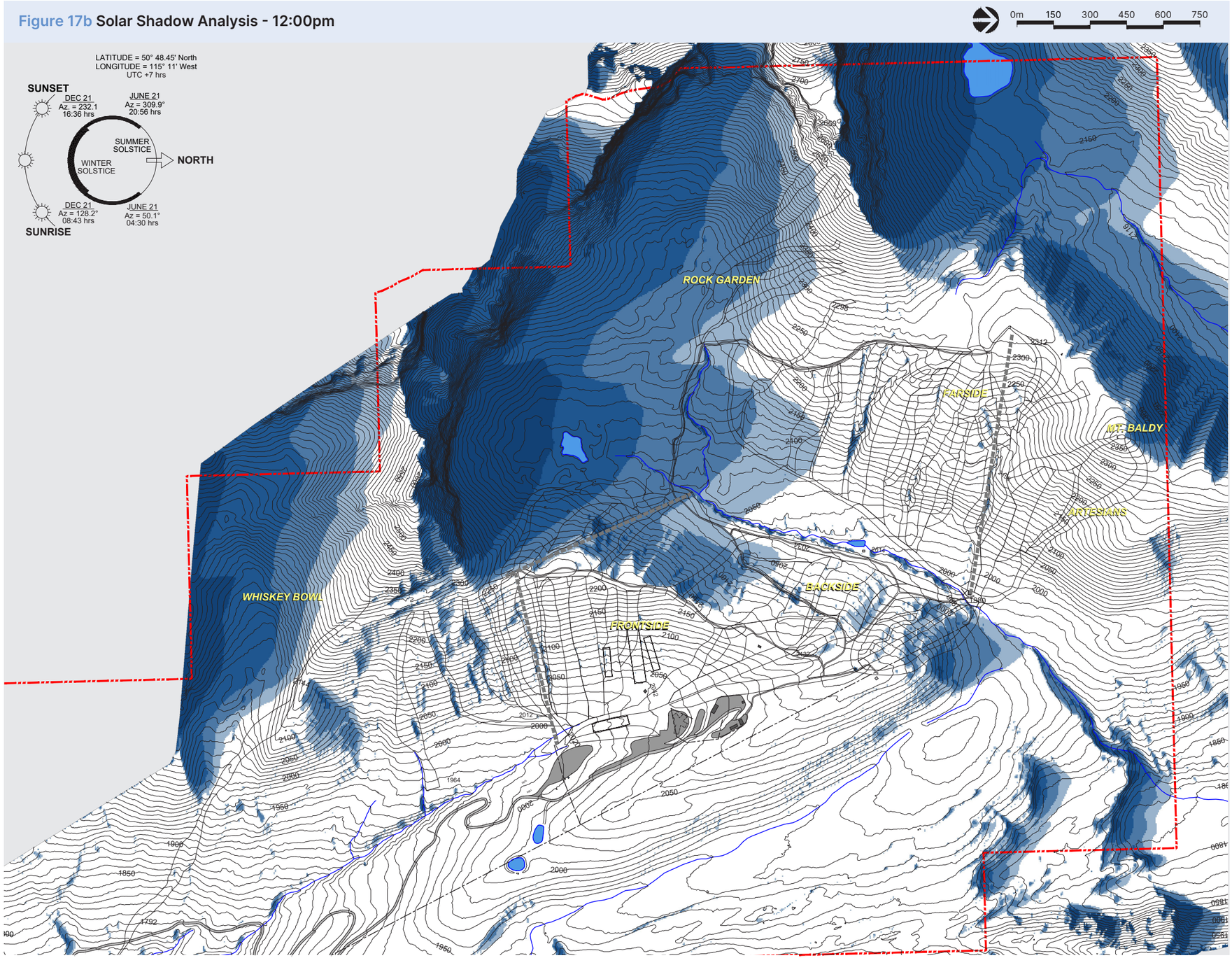
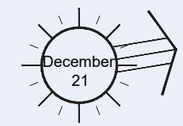
Figure 17b Solar Shadow Analysis - 12:00pm



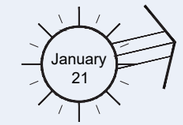
LEGEND

- December 21
- January 21
- February 21
- March 21



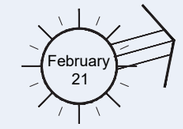
SUNRISE: 08:43
SUNSET: 16:36
SUNLIGHT DURATIO
477 Minutes

Sun's Alt. = 15.3°
Sun's Az. = 170.8°



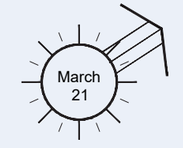
SUNRISE: 08:34
SUNSET: 17:12
SUNLIGHT DURATIO
522 Minutes

Sun's Alt. = 18.4°
Sun's Az. = 167.1°



SUNRISE: 07:44
SUNSET: 18:06
SUNLIGHT DURATIO
626 Minutes

Sun's Alt. = 27.5°
Sun's Az. = 164.9°



SUNRISE: 07:40
SUNSET: 19:57
SUNLIGHT DURATIO
737 Minutes

Sun's Alt. = 34.9°
Sun's Az. = 146.5°

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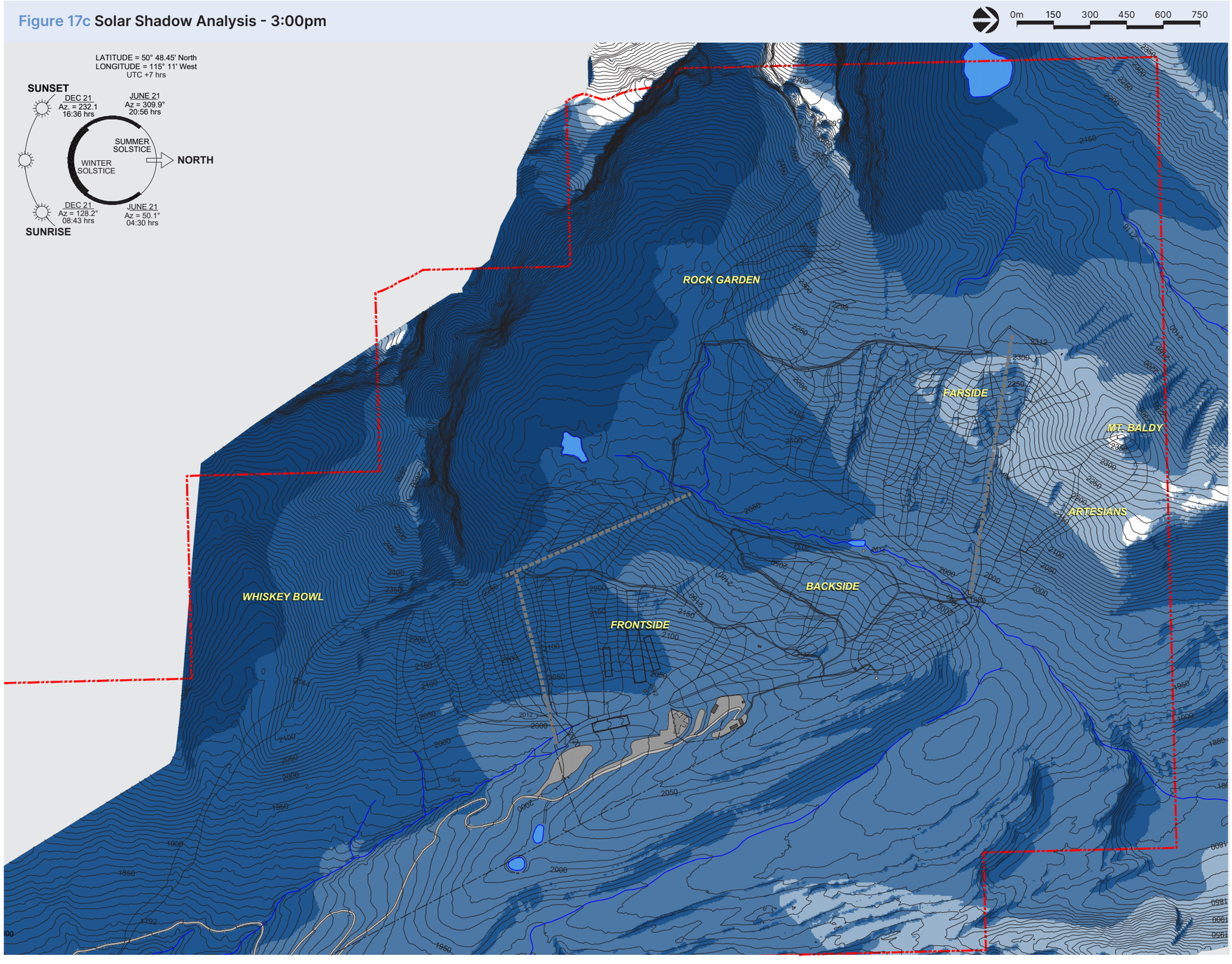
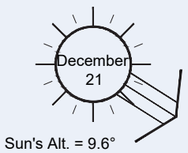
Figure 17c Solar Shadow Analysis - 3:00pm

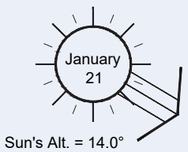


LEGEND

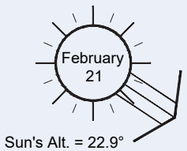
- December 21
- January 21
- February 21
- March 21



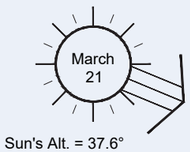
SUNRISE: 08:43
SUNSET: 16:36
SUNLIGHT DURATIO
477 Minutes
Sun's Alt. = 9.6°
Sun's Az. = 212.5°



SUNRISE: 08:34
SUNSET: 17:12
SUNLIGHT DURATIO
522 Minutes
Sun's Alt. = 14.0°
Sun's Az. = 210.9°



SUNRISE: 07:44
SUNSET: 18:06
SUNLIGHT DURATIO 626 Minutes
Sun's Alt. = 22.9°
Sun's Az. = 213.8°



SUNRISE: 07:40
SUNSET: 19:57
SUNLIGHT DURATIO 737 Minutes
Sun's Alt. = 37.6°
Sun's Az. = 203.1°

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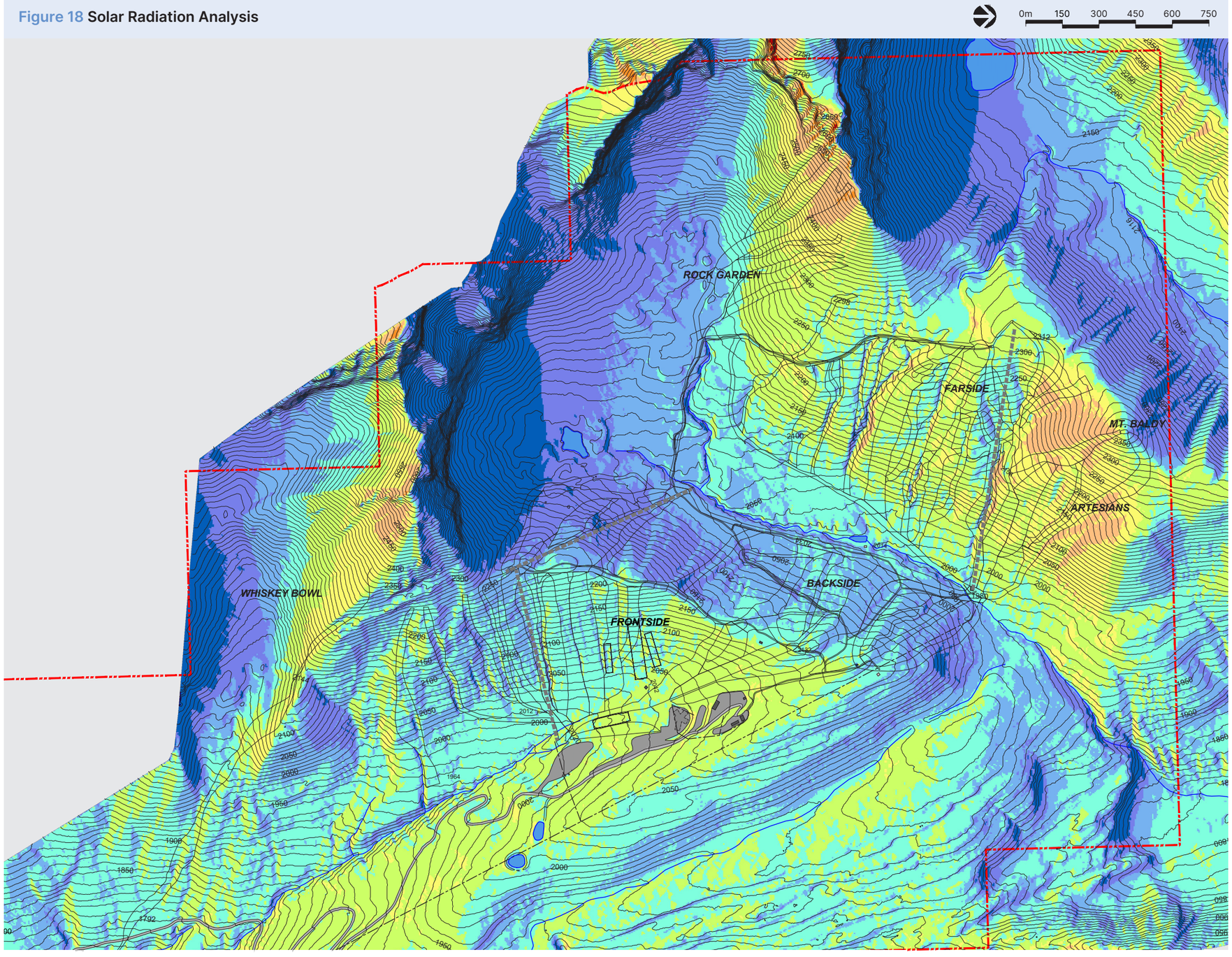
Figure 18 **Solar Radiation Analysis**



INCOMING SOLAR RADIATION

PERIOD OF CALCULATION:
Daily - Dec 1 to Mar 31

DAILY EXTENTS OF CALCULATION:
03:00 hrs - 22:00 hrs

INTERVAL OF CALCULATION:
15 minutes

NUMBER OF DAYS ANALYZED:
121 days

AVERAGE NUMBER OF DAYLIGHT HRS:
10.28 hours/day

MINIMUM INCOMING ENERGY:
33.0 KWh/m2

MAXIMUM INCOMING ENERGY:
614.0 KWh/m2

AVERAGE INCOMING ENERGY:
267.8 KWh/m2

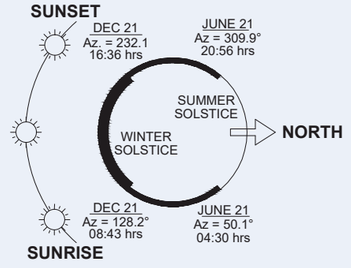
Incoming Energy (KWh/m²)
614
552
490
428
366
304
242
180
118
56
0

LEGEND

Deactivated Lift

Lease Boundary 2025 Update

LATITUDE = 50° 48.45' North
LONGITUDE = 115° 11' West
UTC +7 hrs



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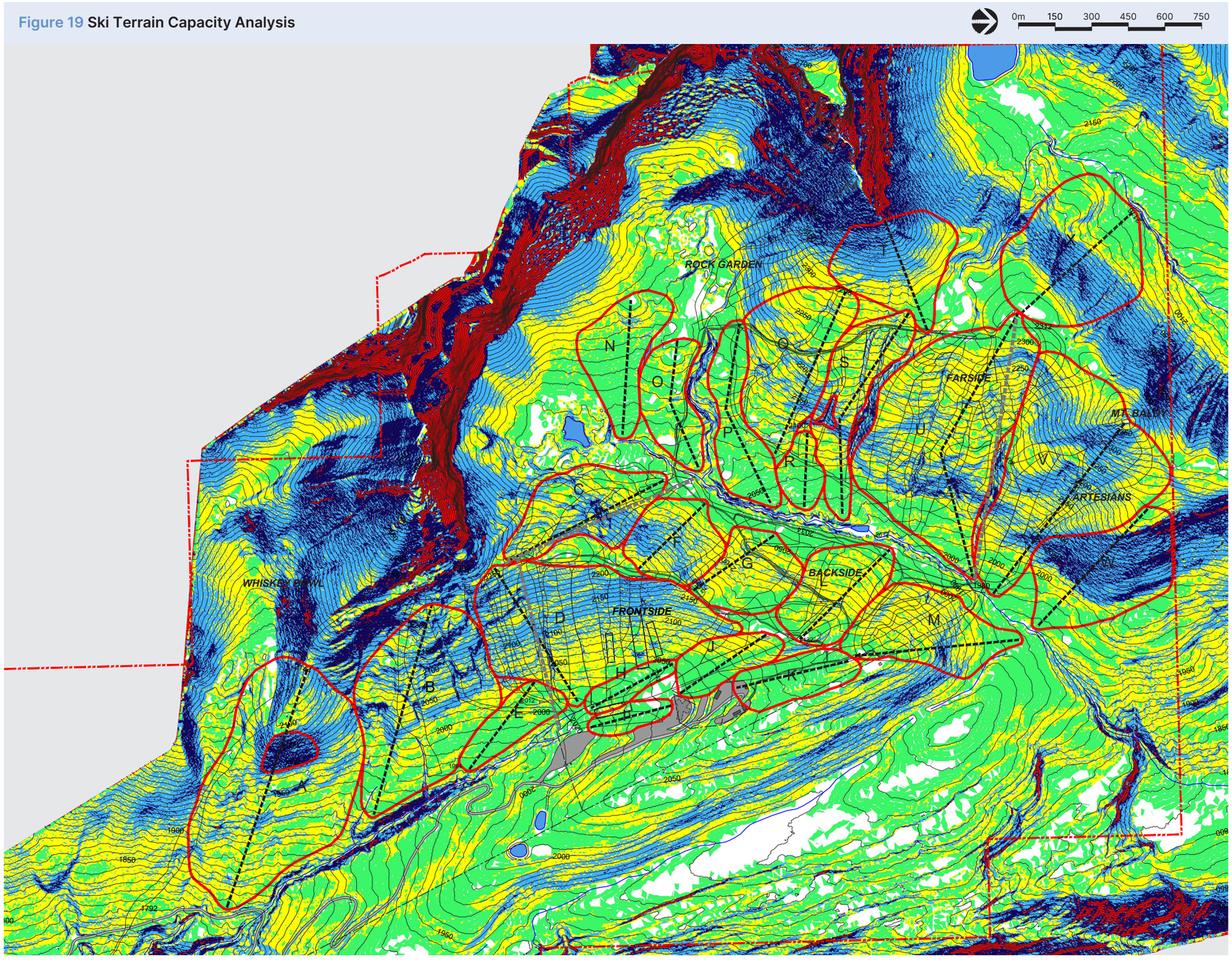
3.9 Ski Terrain Capacity Analysis

Through analyzing the ski terrain, various ski pods throughout the village area have been identified. A ski pod is a distinct portion of the ski terrain within a single skill class that will naturally lead a skier from top to bottom within that pod based on fall line trajectory. In Figure 19, 24 distinct ski pods were identified, and are listed in Table 17 which identify the skill class, skier densities and physical characteristics of each terrain pod. A straight line is drawn from the high point to the low point of the pod, and a red bubble is drawn that captures all of the skiing within that terrain pod. Typically only 30% of a ski pod will be developed into cut ski runs. As shown in Table 17, the ski pods analyzed add up to 445.7 ha, meaning if all of the ski pods were developed into commercial ski terrain, there would be 155.4 ha of terrain available. The resulting ski terrain could support 6,780 skiers per day if each pod was developed to typical densities.

Plate 5 shows a graphic distribution of the ski pod's skill classes, highlighting a well distributed mix of ski terrain within the village, with a slightly lower proportion of low intermediate terrain than what is considered ideal, along with a slight over-representation of beginner and novice terrain. This analysis is slightly skewed by the large area of beginner and novice terrain adjacent to the base area.

The Ski Terrain Pods illustrated in Figure 19 indicate areas where natural ski terrain occurs, and provides a useful tool for planning the expansion of lifts and ski trails within the lease area boundary. This analysis will guide the concept development process and provide a rationale for proposed infrastructure in the Fortress Master Plan in the following section of this report.

Figure 19 **Ski Terrain Capacity Analysis**



LEGEND

- Ideal (No Shading)
- Acceptable
- Poor
- Unsuitable
- Ski Pod
- Straightline Slope
- Deactivated Lift
- Lease Boundary 2025 Update

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Plate 5 **Terrain Capacity Assessment Distribution**

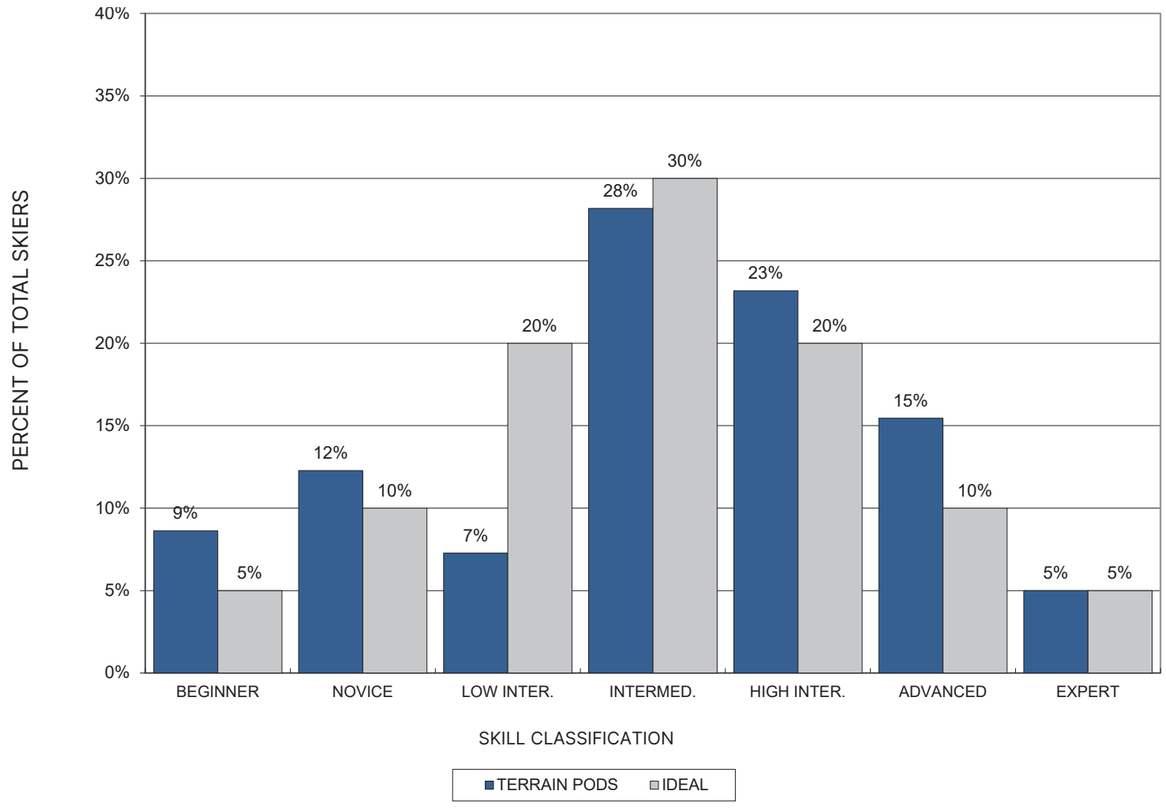

Table 17 **Terrain Capacity Assessment Pods**

Terrain Pod	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	TOTAL
Top Elevation m.	2,144	2,236	2,252	2,254	2,028	2,206	2,156	2,050	2,044	2,128	2,128	2,132	2,128	2,184	2,154	2,160	2,296	2,092	2,284	2,464	2,316	2,370	2,248	2,316	
Bottom Elevation m.	1,814	1,928	2,074	2,008	1,962	2,064	2,042	2,008	2,006	2,048	2,072	2,016	1,972	2,086	2,064	2,044	2,072	2,038	2,034	2,274	1,984	1,978	1,966	2,112	
Total Vertical m.	330	308	178	246	66	142	114	42	38	80	56	116	156	98	90	116	224	54	250	190	332	392	282	204	4,104
Horizontal Distance m.	1,029	888	704	642	444	378	395	378	339	424	469	518	673	549	542	777	720	301	906	479	1,172	878	652	608	
Slope Distance m.	1,080	940	726	687	449	404	412	380	342	431	472	531	691	558	550	786	754	305	939	515	1,218	962	710	641	15,481
Average Slope %	32%	35%	25%	38%	15%	38%	29%	11%	11%	19%	12%	22%	23%	18%	17%	15%	31%	18%	28%	40%	28%	45%	43%	34%	
Skill Class	4	6	4	6	2	5	4	1	1	2	1	4	5	3	3	2	5	3	6	7	5	6	7	6	
Skier Density/Ha.	60	23	60	23	75	45	60	75	75	75	75	60	45	60	60	75	45	60	23	30	45	23	30	23	
VTM Demand/Day	3,770	5,935	3,770	5,935	2,120	5,085	3,770	940	940	2,120	940	3,770	5,085	2,825	2,825	2,120	5,085	2,825	5,935	8,475	5,085	5,935	8,475	5,935	
Total Area Ha.	48.5	34.6	16.7	39.6	7.0	10.8	10.9	3.8	3.2	7.2	8.2	12.9	17.0	12.6	9.3	11.6	21.3	4.3	14.7	16.0	45.5	42.3	20.7	27.1	445.7
% Ski Terrain Available	30%	30%	51%	45%	30%	30%	30%	50%	50%	72%	50%	43%	30%	30%	30%	30%	30%	30%	30%	30%	42%	30%	30%	30%	
Available Ski Terrain	13.7	10.4	8.5	17.8	2.1	3.2	3.3	1.9	1.6	5.2	4.1	5.5	5.1	3.8	2.8	3.5	6.4	1.3	4.2	4.8	19.1	12.7	6.2	8.1	155.4
Total Skiers	**820**	**230**	**510**	**400**	**160**	**150**	**200**	**140**	**120**	**390**	**310**	**330**	**230**	**230**	**170**	**260**	**290**	**80**	**100**	**140**	**860**	**290**	**190**	**180**	**6,780**
Demand VTM (000)	491	217	305	377	54	121	120	21	18	131	46	197	186	103	76	87	234	36	94	188	694	273	256	170	
Lift Capacity.Hr.	1,487	703	1,715	1,532	816	853	1,050	497	471	1,640	826	1,702	1,190	1,052	847	754	1,045	664	377	991	2,091	697	906	831	24,739

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3.10 Base Area Development Suitability Analysis

An analysis of potential development in Fortress's base area lands is prepared as a foundation of the design process, identifying all suitable land for three main types of development:

- High Density Development; village, hotel, apartment style condominiums, surface parking, day use facilities
- Medium Density Development; stacked townhouses, row townhouses, recreation
- Low Density Development; single-family, recreation facilities, village amenities

Figure 20, the Base Area Development Analysis presents an evaluation of Fortress's base area lands that utilizes the Base Area Slope Analysis and a delineation of Comfortable Skier Walking Distance to existing and proposed lifts to define nine areas with development potential assigned to the three categories above. Table 18 outlines the size of each area in hectares and with development suitability designated as High, Medium or Low.

The extents of each area are delineated using the slope analysis to include developable terrain with slope gradients generally below 15% and exclude steep areas with slopes steeper than 25%. Other considerations that influence the Base Area Development Suitability Analysis include:

- Existing creeks & power lines; A minimum 10-metre setback from top of bank on minor watercourses is required and a 10-metre power line right-of-way is recommended. Power lines may be moved underground to develop their ROW.
- Potential road access; each development zone must be accessed from a road that intersects the Fortress existing public roads. For the purpose of evaluating potential development zones, conceptual access roads are shown.
- Comfortable walking distance; lift design and the village planning should consider comfortable walking distance and use ski-in/ski-out to optimize access to village facilities from overnight accommodation and parking lots.
- Existing lease; development opportunities outside of the existing lease are revealed in the Base Area Suitability Analysis and may be explored further in the design process.

Two areas identified as High development suitability are directly adjacent to the ski area facility and encompass terrain with slope gradients less than 15%. Areas A and B have a total size of 10 hectares and are the most suitable for the location of primary resort facilities such as parking lots, a commercial village and skier services.

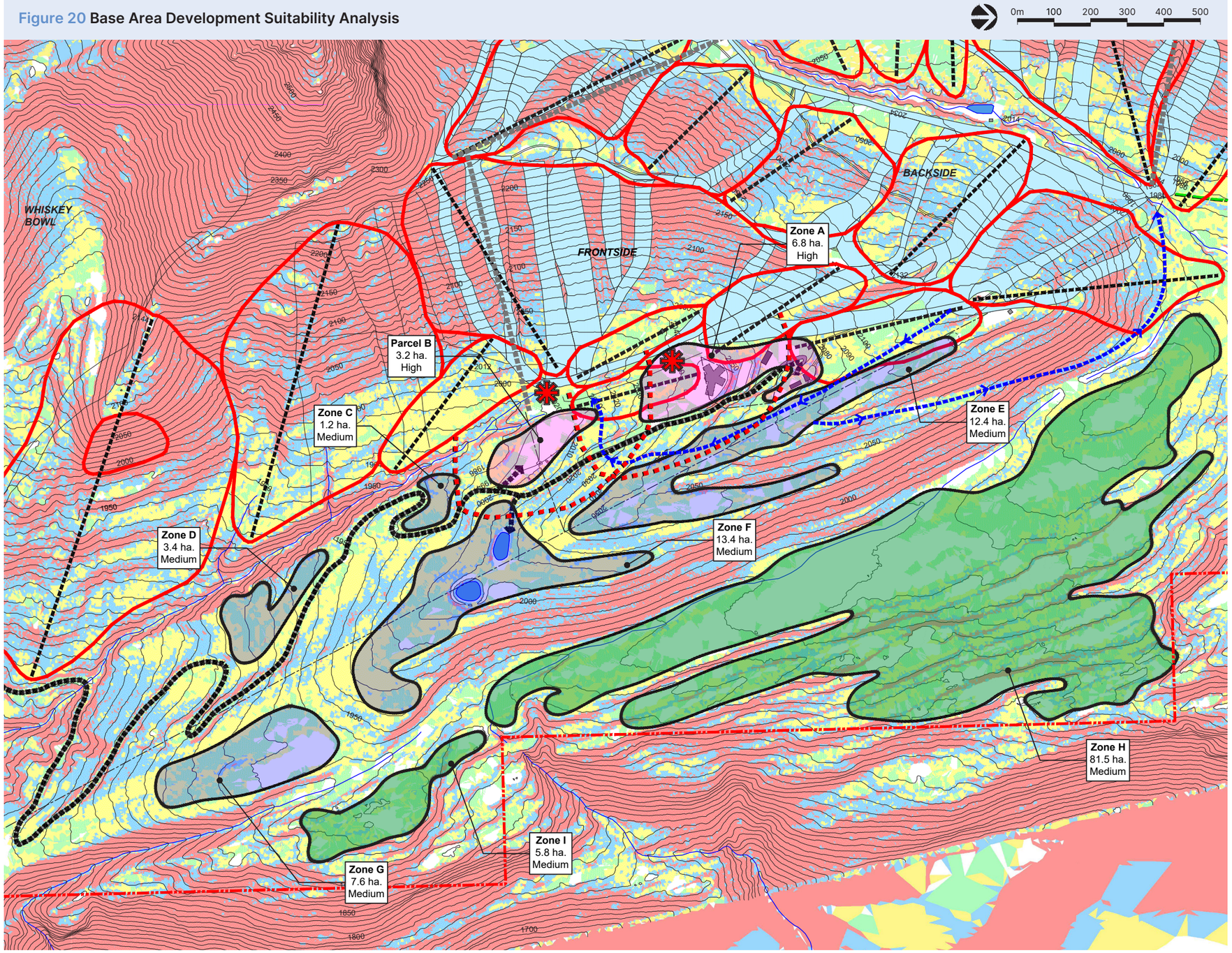
Areas C, D, E, F and G encompass 38 hectares of developable land located on the ridge to the east of the main access road. These sites have terrain suitable for development and have potential for ski-in/ski-out but require a bridge or tunnel for skiers to cross the road to reach the ski facilities. Areas G, D and F are located below the elevation of the Canadian Lot (Area B), therefore in addition to crossing the main access road, skiers also need to cross a steep ravine to reach the ski area facilities to the west of the drainage. These areas are designated as Medium development suitability as they have excellent views and good proximity to the village, but require extra infrastructure to make a ski-ins/ski-out connection.

Areas H and I encompass a flat bench of land at the base of the east side of the ridge. This land is very developable in terms of slope gradients, but is disconnected from the alpine ski terrain. However, these sites could be considered for other recreation facilities and supporting accommodation and should be evaluated as part of the design process. In previous master plans for Fortress, this area was identified as a potential cross-country ski facility which is confirmed as a suitable function based on the Base Area Slope Analysis.

Table 18 Base Area Development Suitability Analysis

Area	hectares	Development Suitability
A	6.8	High / Village
B	3.2	High / Village
Subtotal High	10.0	
C	1.2	Medium / Real Estate
D	3.4	Medium / Real Estate
E	12.4	Medium / Real Estate
F	13.4	Medium / Real Estate
G	7.6	Medium / Real Estate
Subtotal Medium	38.0	
H	81.5	Low/Recreation
I	5.8	Low/Recreation
Subtotal Low	87.3	
Total	135.3	

Figure 20 Base Area Development Suitability Analysis



LEGEND

- Deactivated Lift
- Lease Boundary 2025 Update
- Staging area & Comfortable Skier Walking Distance
- Potential Road
- Potential Ski-Way

Development Potential

- High / Village
- Medium / Real Estate
- Low / Recreation

BASE AREA SLOPE GRADIENTS

SLOPE GRADIENT	COLOUR	BASE AREA DEVELOPMENT SUITABILITY
0 to 8%	White	Suitable for roads, parking, high density village style developments, outdoor and indoor recreation and snow play zones with limited terrain modification
8 to 15%	Green	Smaller multi-family or townhouse (medium density) developments, roads, snow play and parking with some terrain modification
15 to 25%	Yellow	Single-family chalet (low density) developments with substantial grading required to provide vehicle access.
25 to 40%	Blue	Marginal for single-family development. May require rock stacking and/or retaining walls to provide vehicle access.
40%+	Red	Too steep for development

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3.11 Glossary

The glossary of terms provide an explanation of a number of ski industry terms and technical jargon specific to ski area development.

Skier

Refers to all snow sliders, including skiers, snowboarders, snow bladers, telemark skiers etc.

Skier Visit

One person visiting a ski area for all or part of a day or night for the purpose of skiing or snowboarding. This is the total number of day lift tickets issued and passes scanned. Skier visits include a person holding a full-day, half-day, night, complimentary, adult, child, season, or any other ticket type that gives a skier the use of an area's facilities.

Skier Visit

Visitor or Guest

One person visiting the village who does not ski but participates in other activities, including shopping or eating in the Village shops and restaurants.

Non-Skier Visitors

Day Skier or Visitor

One person arriving by vehicle at the village for some or all of the day. Day skiers or visitors do not stay in overnight accommodation.

Overnight Skier or Visitor

One person who spends the night at the village in any type of overnight accommodation.

Rated Uphill Capacity

The manufacturer's rated number of skiers per hour a lift can transport to the top of the lift. An area's hourly capacity is the sum of the individual lifts.

VTM/Hour (000) - (Vertical Transport Metres Per Hour)

The number of people lifted 1,000 vertical metres in one hour (vertical rise of a lift, times the lift capacity per hour, divided by 1,000). An area's total VTM, is the sum of the VTM for all lifts.

VTM Demand / Skier / Day

The amount of vertical skied (demanded) each day by each skill class of skier. More experienced skiers expect to ski more vertical in a day.

Skier (Comfortable) Carrying Capacity (SCC)

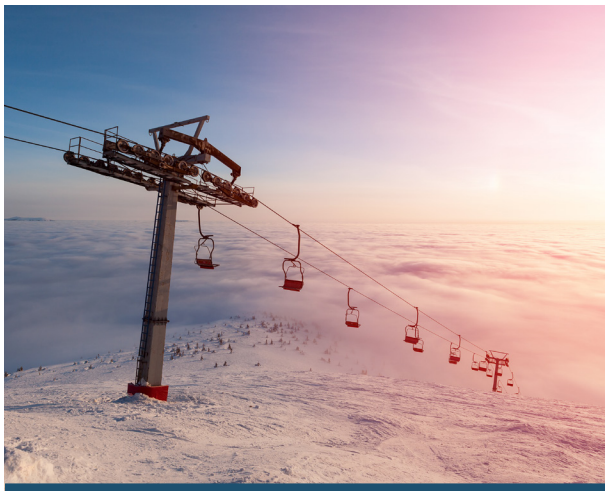
The number of skiers that a given ski area can comfortably support on the slopes and lifts without overcrowding, or those that may be accommodated at one time and still preserve a congenial environment. A ski area's comfortable carrying capacity is a function of VTM demand per skier, VTM supplied per hour, difficulty of terrain and scope of support facilities. The Skier Carrying Capacity is expressed in terms of Skiers at One Time (SAOT).

Terrain Pod

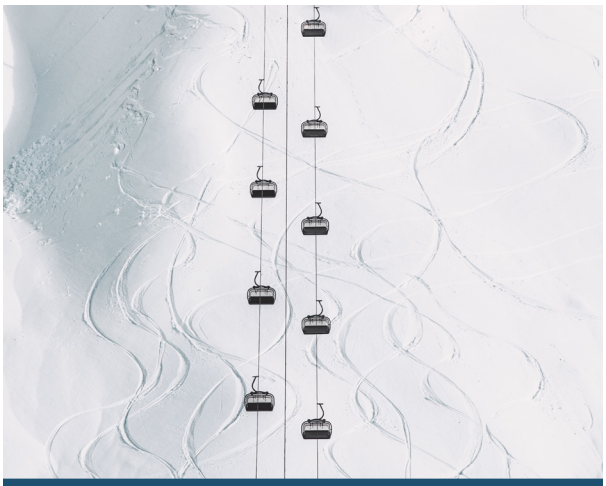
A contiguous area of land deemed suitable for ski lift and trail development due to its slope gradients, exposure and fall line characteristics.

Loading Efficiency

The ratio between the manufacturer's rated hourly capacity and the actual delivered hourly capacity expressed as a percentage. The ability of a lift to reach the manufacturer's rated hourly capacity is reduced if carriers are not fully occupied and mis-unloads which result in lift stoppages or slowdowns and, therefore, a reduced actual capacity.



Uphill Capacity / VTM is lift dependent



Ski Pod - Terrain leads skier to lift

SCC / Density varies based on Skill Class

Lift Maze

Queuing area at the base of the ski lift. The queuing area can be organized to maximize loading efficiency.

Seasonal Utilization

Utilization is measured as a percent of skier carrying capacity. Comfortable Seasonal Capacity is the product of a ski area's daily skier carrying capacity times its days of operation. Utilization compares actual seasonal skier visits to calculated comfortable seasonal capacity.

Lift Staging

The access point into the ski area facilities for skiers. The staging lift is the first lift that a skier rides at the beginning of the day.

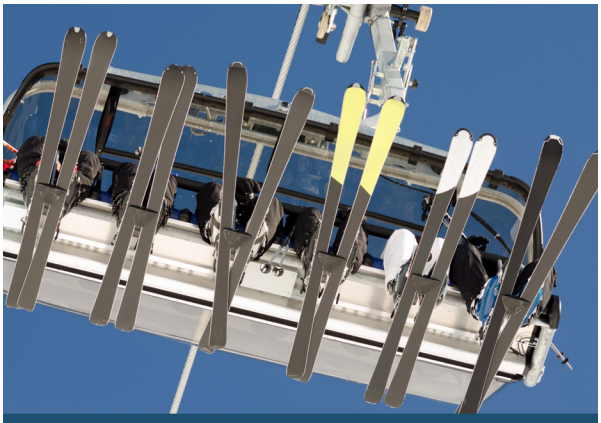
Snow Front

The flat or gently sloping snow surface at the interface between the Village and the ski area facilities.

Design Day

Guest services are planned to comfortably accommodate an average busy day at the village, rather than the peak day. As such, facilities may feel somewhat crowded on the 5 to 10 busiest days but won't be over built for the majority of the operating season. When assessing the capacity of existing guest services, Design Day is determined by calculating the average of the top 10 days of historic skier visits over two or three seasons. For a master plan, 'Design Day' is set based on 80% of the lift system's comfortable Skier Carrying Capacity. Design Day is a theoretical daily skier visit capacity used to plan guest services using assumptions of floor space per skier visit or restaurant seat per skier visit.

Lift Staging



Loading Efficiency

Ski Trails are designed to the top 10 busiest days