# SKI & RIDE SMITHERS DRAFT SKI AREA MASTER PLAN



August 2006

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# **1.0** Introduction

Ski & Ride Smithers, owned and operated by Hudson Bay Mountain Adventures Ltd, is an existing regional destination ski area located in northwest British Columbia, adjacent to the Town of Smithers. The ski area currently offers approximately 177 ha of developed ski terrain serviced by 4 lifts.

In 2005, 20/20 Resorts Ltd acquired the resort with the intent of developing the resort into a multi season recreation facility with a mountain village incorporating residential and commercial/retail services. To assist in this process, the planning team of D.R. Matthews and Associates Inc (DRM) and Harry Measure and Associates (HMA) were commissioned to prepare and update the Ski Area Master Plan for the resort area including mountain and base area facilities.

This master plan, which has been submitted to the Province of BC for review and approval as a basis for negotiating a long term Master Development Agreement, provides a long term vision for development at the resort and reflects the overall goals and objectives of the Commercial Alpine Skiing Policy, which governs the form and type of resort development on Crown land within the Province of BC.

# 1.1. Project Location

Ski & Ride Smithers is located in the Bulkley Valley, adjacent to the Town of Smithers in northwest British Columbia and is accessed by a 26 kilometer, gravel road from the west side of Smithers.

The Town of Smithers has a population of approximately 6,000 people (with a similar number living in the immediate surrounds) and is a regional transportation, tourism and service center. The Town has an excellent airport (5km from Town), along with rail and highway access. The Bulkley Valley is known internationally for outstanding recreation activities, both winter and summer including fly fishing, mountain biking, hunting, hiking, snowmobiling, ski touring and various other summer and winter activities.

In 1984 and 2002, the Town of Smithers hosted the British Columbia winter games. The town has a variety of amenities which will provide activities and services for the users of the resort.

## **1.2. Historical Overview**

Skiing was first introduced to this area by the Smithers Ski Club in the early 1960's by means of a rope tow. Eventually a T-bar was installed in 1973, followed by construction of a day lodge and second T-bar in 1977, and finally a triple chair lift in 1980. Since that time, little development has occurred until the early 2000 when the existing operators began to seek possible purchasers for the resort. In late 2005, 20/20 Resorts successfully purchased the shares of Hudson Bay Mountain Adventures and immediately initiated improvements to the resort, including enhancements to the existing skier day lodge.

This master plan represents 20/20's proposed vision for a multi season, regional destination resort and forms the basis for a long term Master Development Agreement with the Province of British Columbia.

#### 1.3 Wet'suwet'en Nation

The resort lies within the traditional territory of the Wet'suwet'en First Nation (WFN), and one of the key objectives of Ski & Ride Smithers is to work cooperatively with the WFN in developing an effective and meaningful working relationship between the two parties that not only creates a quality all season mountain resort but also results in economic opportunities to be shared and a long term development plan that reflects and enhances the values of the WFN community as well as a recognition of the WFN substantial knowledge of the resort area. This commitment will provide development opportunities as a realistic alternative to existing WFN employment options.

The WFN and Ski & Ride Smithers have initiated discussions on a common vision for the long term development of the resort which will, among other things, provide certainty for the resort while at the same time respecting and protecting the WFN's traditional use and culture of this area.



Figure 1

#### 1.4 Plan Objectives

The intent of this Master Plan is to review and define the physical capabilities of the Ski & Ride Smithers site as they relate to the development of a multi season, regional destination ski resort. The plan has been developed in concert with the Commercial Alpine Skiing Policy ("CASP") and the All Season Resort Guidelines – Chapter II: Mountain Resorts, and defines potential development, both on the mountain and base area, over a twenty year period.

The major objectives of this plan are:

- To revise the ski lift and trail plan.
- To define the facilities associated with the trail and lift development.
- To define the base areas for commercial and residential development.
- To establish a focus for future mountain and base area development on a phased basis.
- To adjust the Controlled Recreation Area and define elements for future planning and study.

This Master Plan for Ski & Ride Smithers represents an amendment to the existing resort development currently in place. Although the proposed development at the resort is a substantial upgrade to the facilities that have been in place for nearly 25 years, the current proposal essentially builds on what has been developed to date. This updated Master Plan contemplates an expansion of the existing resort area (Controlled Recreation Area – CRA) to facilitate additional ski terrain and lifts, however the plan should not be considered a "new" development or application, given that Ski & Ride Smithers has been an existing ski area for many years, and the overall land use decision for use of the Crown land within the resort area has been previously made.

The Master Plan includes a detailed assessment of the existing ski area and facilities as well as an analysis of the proposed development, both on the mountain and in the base area.

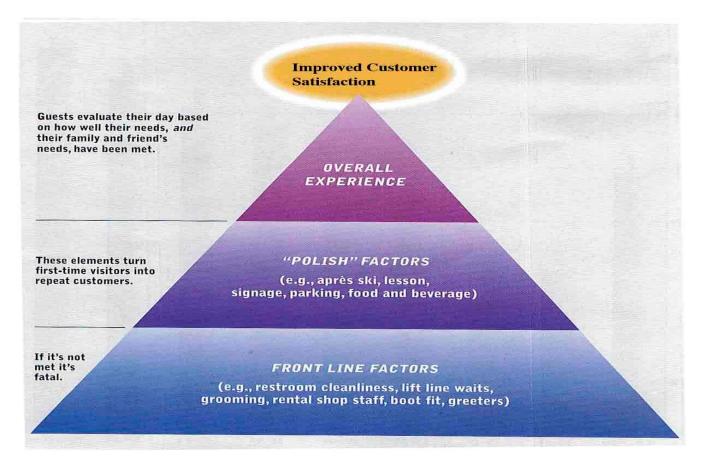
# 2.0 Ski Area Assessment and Review

In order to meet the study objectives, a number of assessments were undertaken. These assessments created the necessary base information for defining the quality of skiing product and facilities that the resort users desire. The process for detailing the ski area inventory and analysis forms the basis for the Assessment Section.

The key objective is to design and implement a plan that provides for expansion on a phased basis and to define the size, scope and potential of Ski & Ride Smithers as a Regional Destination Resort. In addition, the proponent will be requesting that their existing CRA be adjusted to incorporate additional ski terrain (see Figure 3).

The level of design and assessment, as outlined in this section, relates to the existing ski area, which has the potential, assuming the plan and proposed improvements are approved and implemented, to become a significant mountain resort development in northwest British Columbia. The total ski area plan contemplates ski hill development over a twenty (20) year horizon.

In addition, Ski and Ride Smithers has spent considerable time and resources to improve the existing ski area product by means of lodge improvements and additional grooming time and equipment. The focus of these improvements was on critical elements related to improving the overall guest experience (see Figure 2 below).



## 2.1. Design Objectives

In the spring of 2006, Ski and Ride Smithers conducted a public open house to receive comments from the general public and the various user groups. This exercise contributed to a revised ski area plan and design objectives. The following design objectives were defined for this phase of the study.

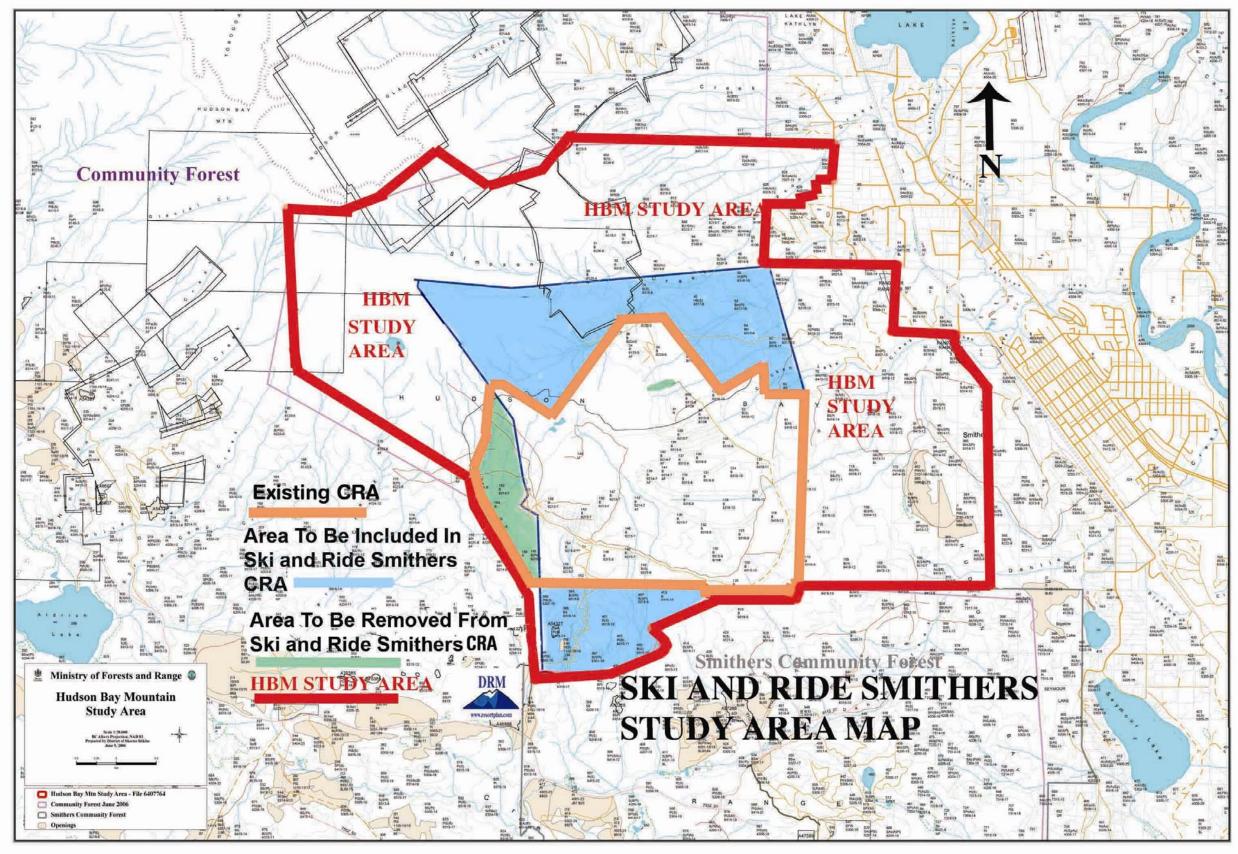
- Assess the potential of ski terrain that was not defined in the previous planning initiatives.
- Create a ski terrain offering that is line with consumer needs.
- Define a lift development program that will improve access and efficiency.
- Define the ski area comfortable carrying capacity for existing and proposed phases.
- Define the facilities that are necessary to support the proposed trail and lift development.

### 2.2. Ski Area Assessment

The study area, comprised of existing and proposed ski terrain, was based on the long term planning horizon as well as information received at the Ski and Ride Smithers Open House. Additional information was received via previous ski area master plans and Provincial agencies. See Figures 3 and 4.

Once the Master Plan is approved, the CRA will be adjusted to incorporate additional ski terrain as outlined in Figures 3 and 4.

Public access to the terrain added to the CRA, which has traditionally been used for hiking, snow shoeing and mountain touring, is defined in Section 2.12 and Figures 34 and 36.



**Figure 3 - Study Area** 

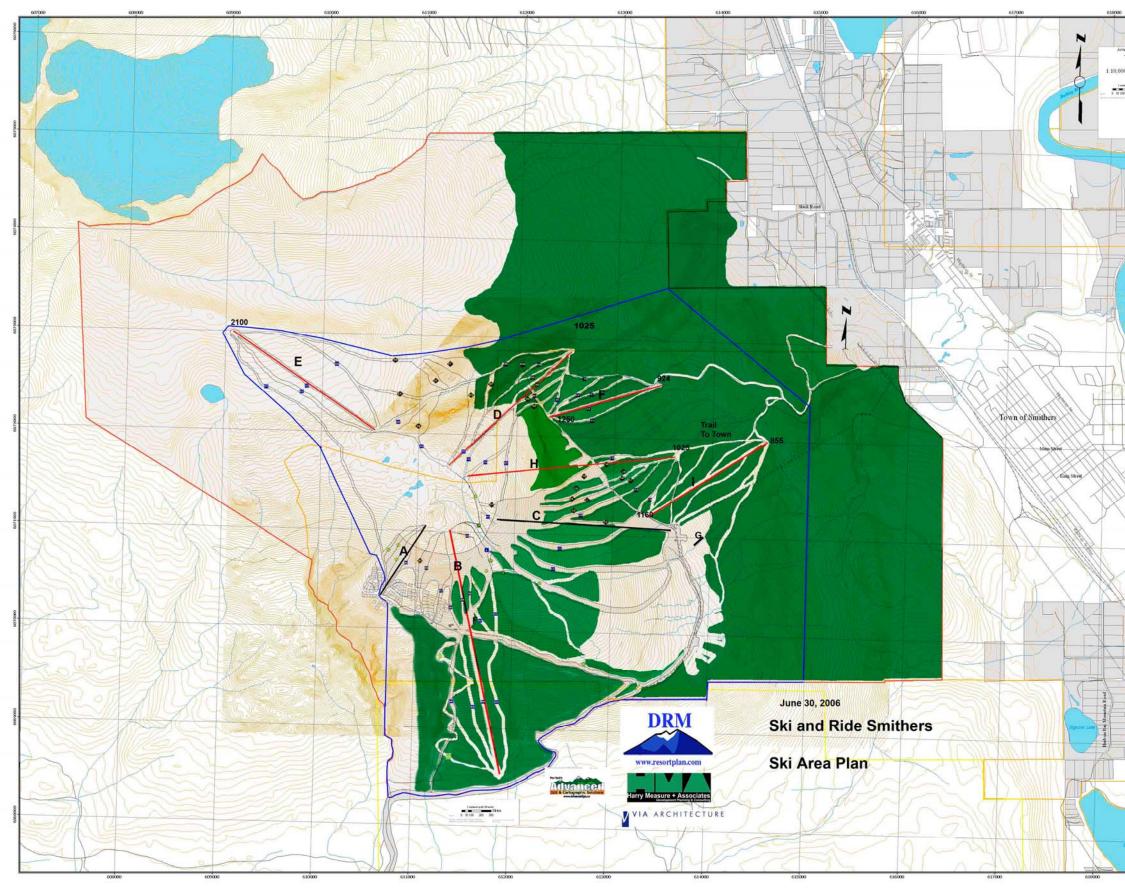


Figure 4 - Ski Area Plan



### 2.2.1. Land Form

Hudson Bay Mountain consists of three main peaks providing a wide variety of ski terrain. At this time, Ski & Ride Smithers is located to the southeast of the main peaks. The study area consists of 3934 hectares of recreational lands.

The existing and potential ski terrain provides a substantial and potential vertical:

- Existing vertical drop is 524 meters or 1,719 feet.
- Potential Lift Serviced from 2,100 meters to 855 meters, 1,245 meters or 4,084 feet.
- Including the trail to the Town of Smithers at an elevation of 500 meters, this provides for a potential vertical of 1,600 meters or 5,249 feet.
- The existing and proposed ski terrain has been separated into ski terrain pods. Each terrain pod has designated ski trails associated with a specific ski lift. There are 8 terrain pods (see Figure 5)

The ski area plan defines Ski & Ride Smithers as becoming one of the top five ski areas in North America in terms of vertical and terrain serviced. The skiing consists of both upper alpine and forested terrain.

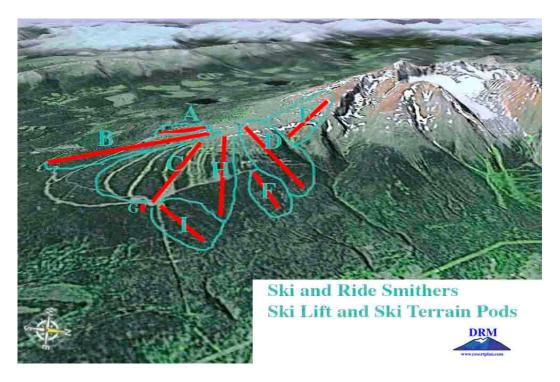
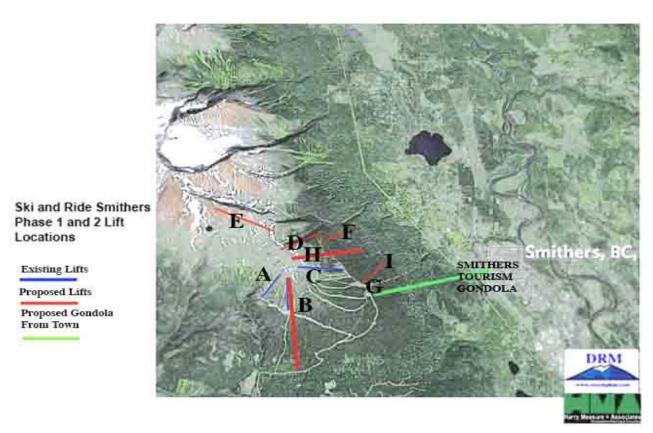


Figure 5 - Lift and Terrain Pod



#### Figure 6 - Proposed Lift Locations

#### 2.2.2. Slope Aspect

A ski area generally uses a variety of slope aspects. The slope aspects affect the quality and snow pack, and the comfort factor for the skiers and boarders. The planning team has endeavored to use a wide variety of slope aspects to enhance the on-slope experience (see Figures 7 - 9) which highlight the impact of slope aspect on the existing and proposed slopes on Hudson Bay Mountain).

When considering a ski slope's aspect, both elevation and aspect are the main determinants. The impacts of a ski trail's aspect are as follows:

| Slope Direction           | Snow Pack               | Skier Comfort        |
|---------------------------|-------------------------|----------------------|
| northern and northeastern | very good               | Can be uncomfortable |
| east and northwestern     | good                    | warmer               |
| Southerly                 | first to lose snow pack | warmest              |

#### 2.2.3 Altitude and Climate

Climate is an obvious major factor in a ski area's success. The concept of consistent snow supply to create skier demand is universal.

Altitude & Climate ~ the area's consistent winter temperatures (below zero) and the beginning of a snow pack on the mountain following the end of October is sufficient for operations to open traditionally by the middle of November, even with the significant lack of summer grooming and non industry standard of run development. The area enjoys a consistent climate of -3C to -10C during day operations for the months of December through to the end of February to the middle of March, with an annual cold phase for the last week or two of February.

The snow quality is unusually dry, keeping in mind that the predominant weather systems come from the West and Northwest and with the Pacific Ocean only 290 to 300 km away. The consistent systems from the west are faced with climbing the nearly straight vertical of the back side of Hudson Bay Mountain. The snow proceeds through a natural stripping tower leaving the falling snow stripped of water and naturally dry. March is normally a month of snow accumulation and warmer day time operational hours and regular sunny days. The snow pack especially on the north facing slopes is enjoyed by the local community into the months of June.

- o Average Annual Snowfall ~ 500 to 600 cm
- Average Annual Snow Pack ~ 250 to 300 cm
- $\circ$  Average Opening Day ~ Late November (as previously noted with standard summer grooming this date could be as early as the first week of November).
- Average Closing Day ~ Late April (with the ability to operate until late May).
- Quality of Snow Pack at the end of the season ~ good to excellent snow conditions as the majority of the present and proposed terrain is North Facing so the pack does not get as moist during day operations with less direct sunlit and pack heating.
- $\circ$  Average length of season ~ 120 days (recognizing the extension to operations with summer grooming).

Altitude, or elevation, is a critical determining factor in the feasibility and operation of a successful ski area in this area of British Columbia. Altitude can typically be linked directly with depth of snow pack. The existing ski area lies between 1150 and 1670 meters above sea level with the ski out dropping to the 500 meter elevation. Although the snow pack on the lower southeastern slopes is likely to deteriorate more quickly than that on the northern and northeastern slopes, information provided by ski area staff indicates that a consistent and reliable snow pack usually can be expected at, or around, the 1,000 meter or the 3,200 foot level on the southern slopes (see Figure 10 - Elevations Map). This elevation was used as a criterion for ski slope development; all terrain below this point will require snowmaking (see Figures 7 - 9).

At present the operations base is 1125 m at the base of Skyline Chair, with the peak of Hudson Bay Mountain summit at 2520 meters.

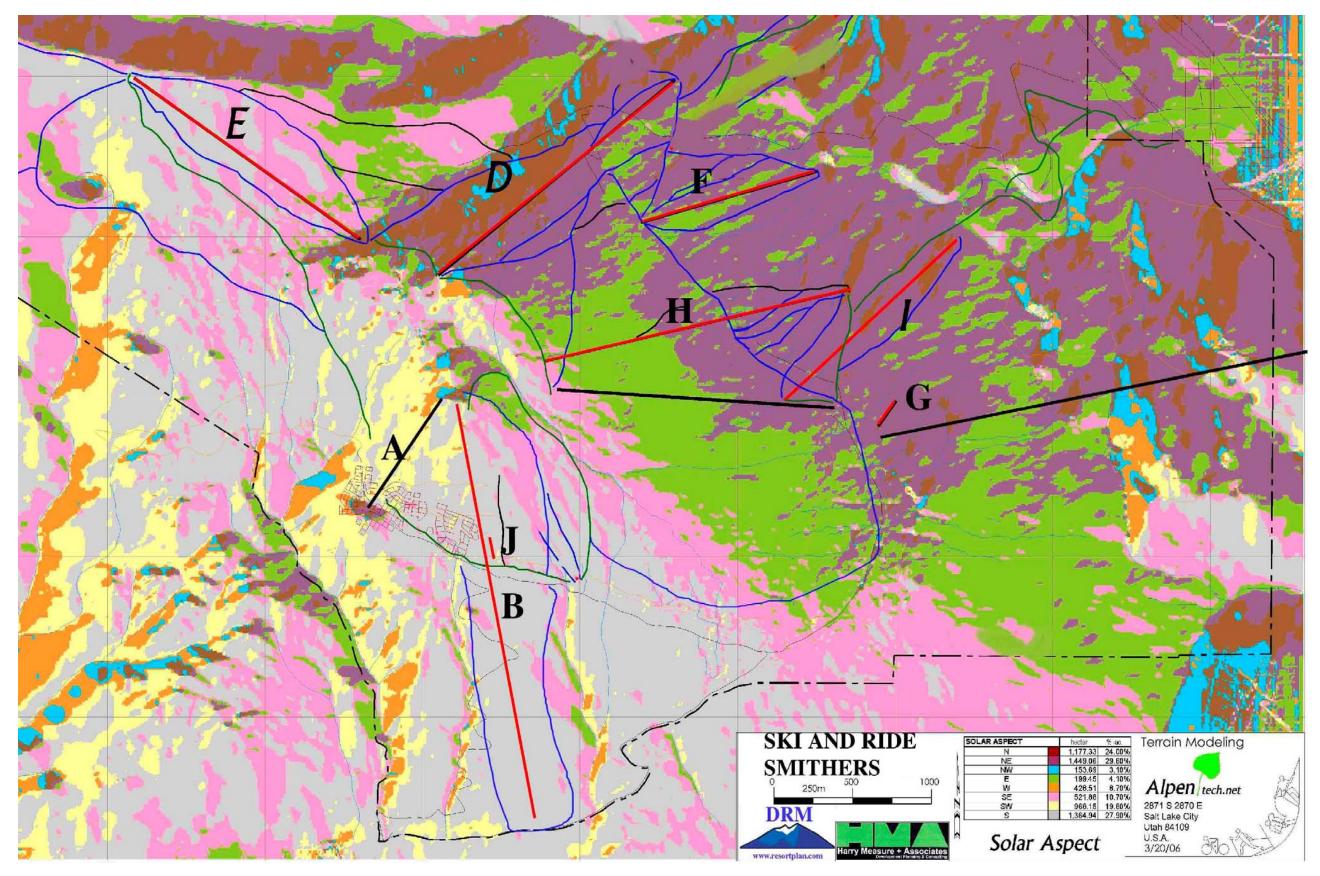


Figure 7 – Solar Aspect

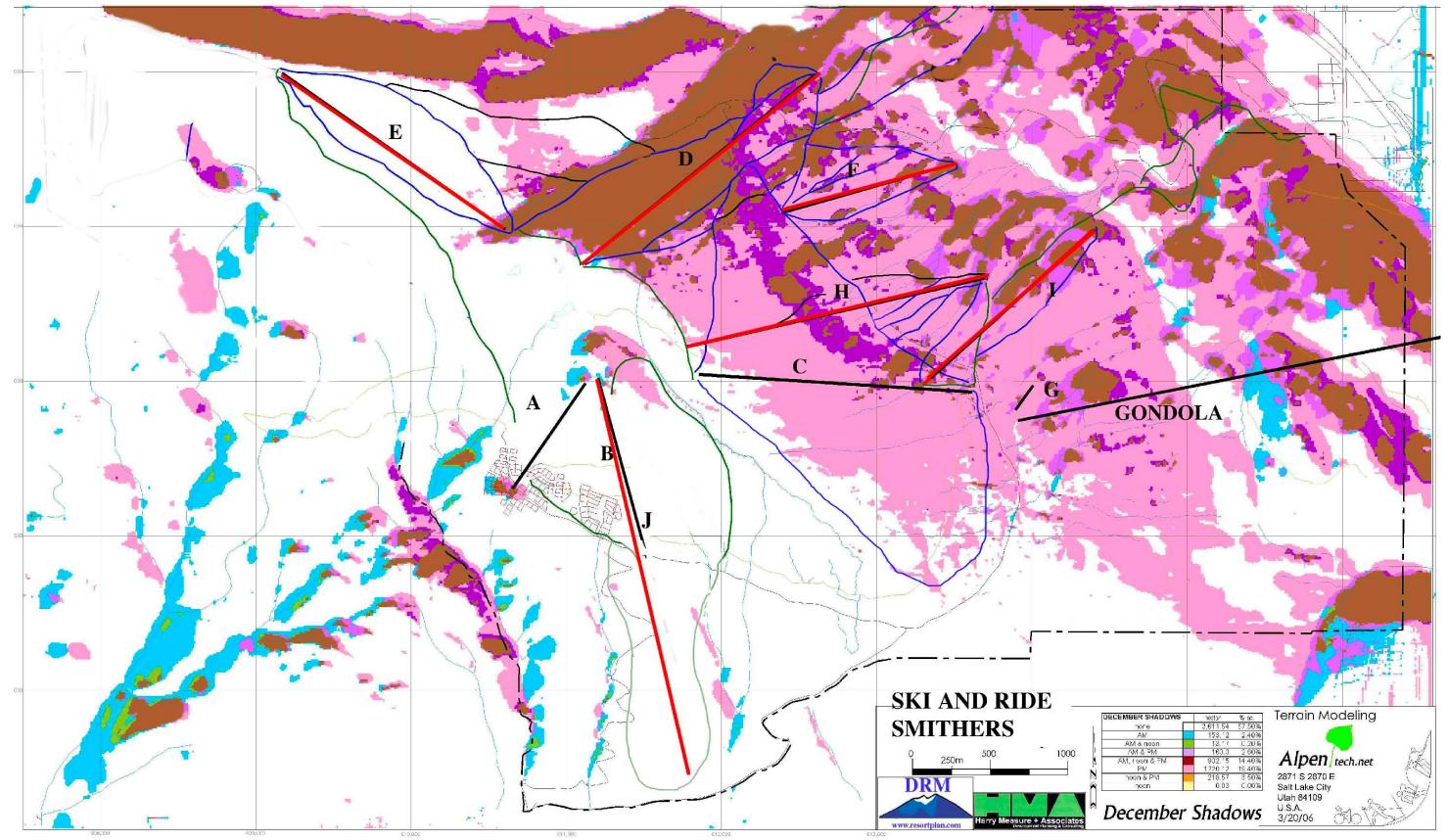


Figure 8 – December Shadows

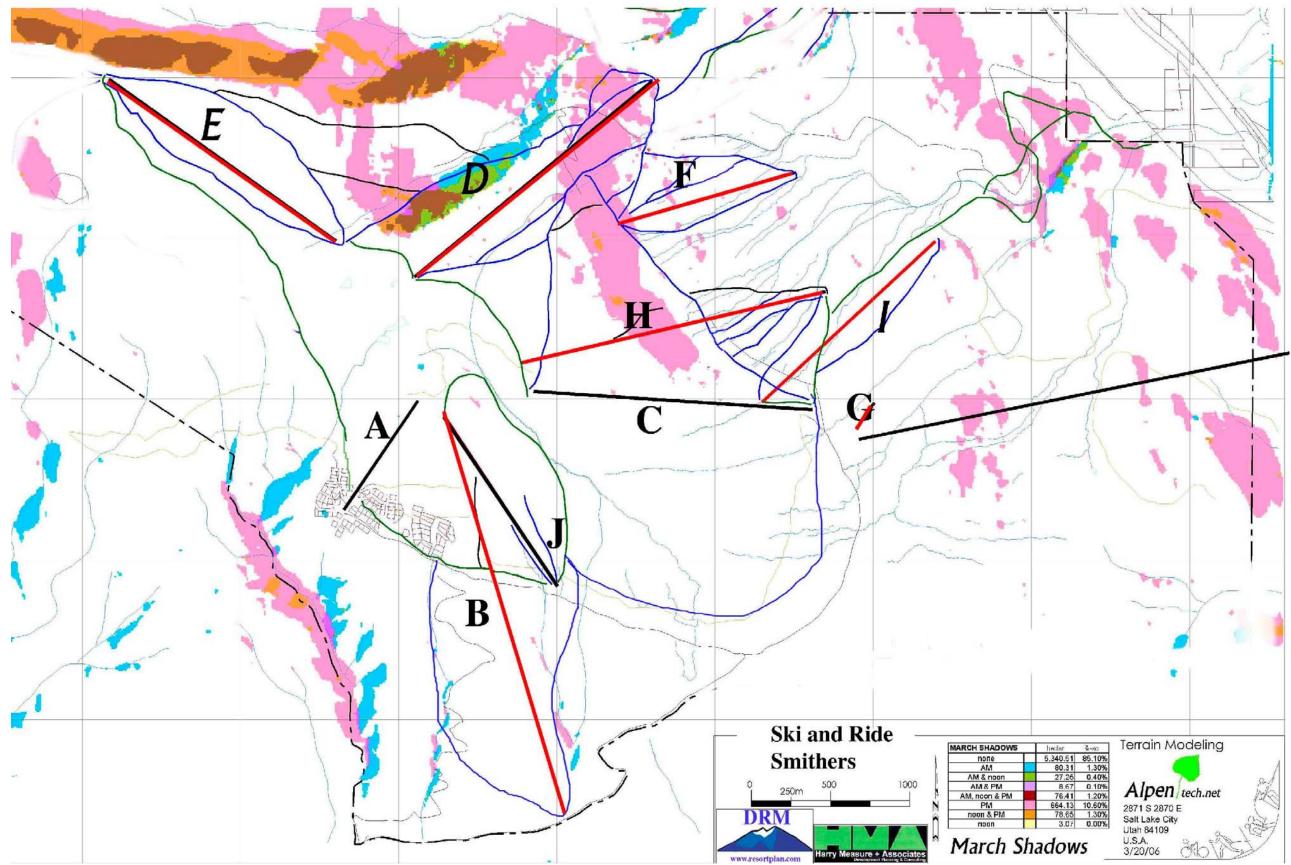


Figure 9 – March Shadows

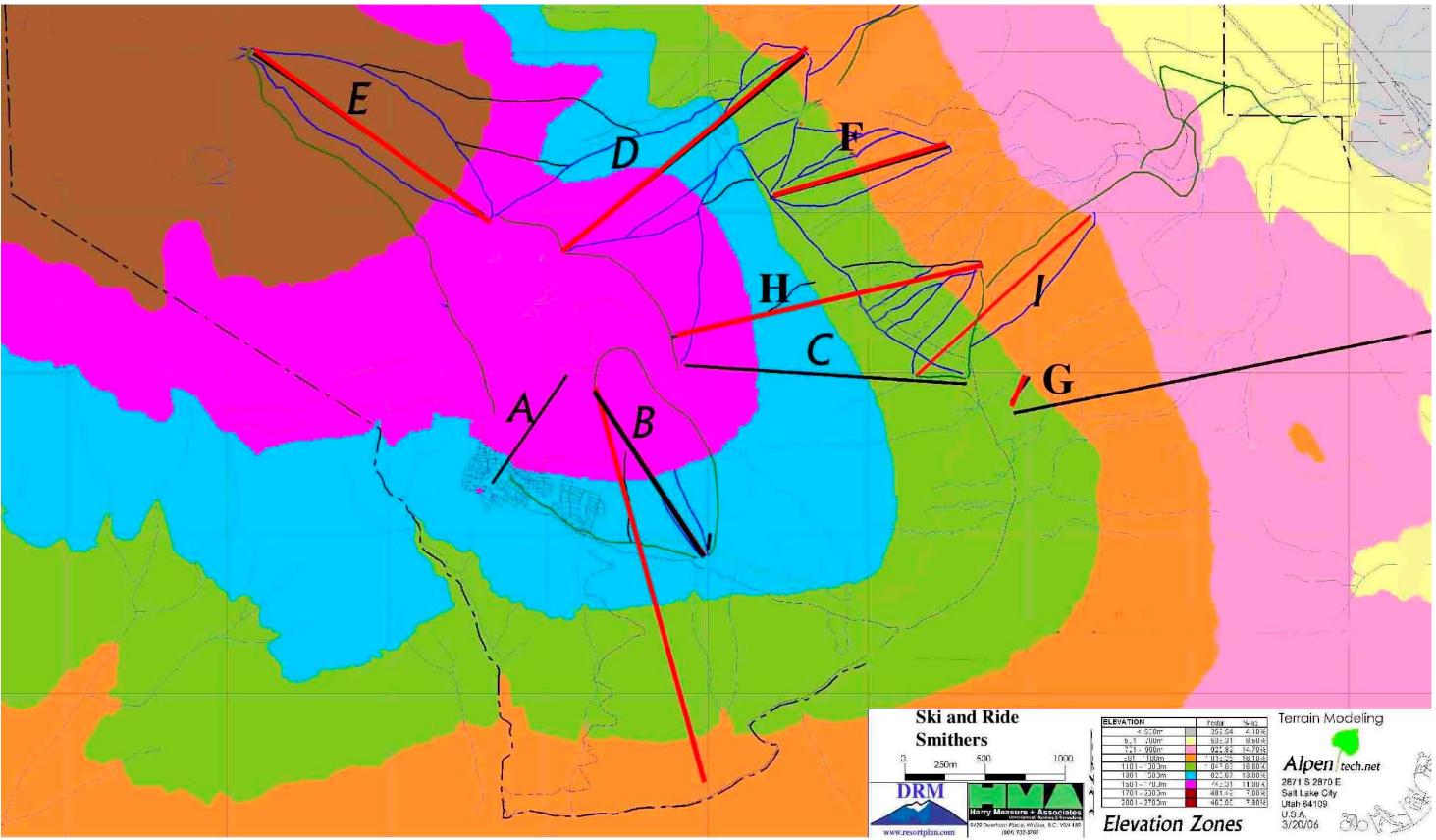


Figure 10 - Elevation

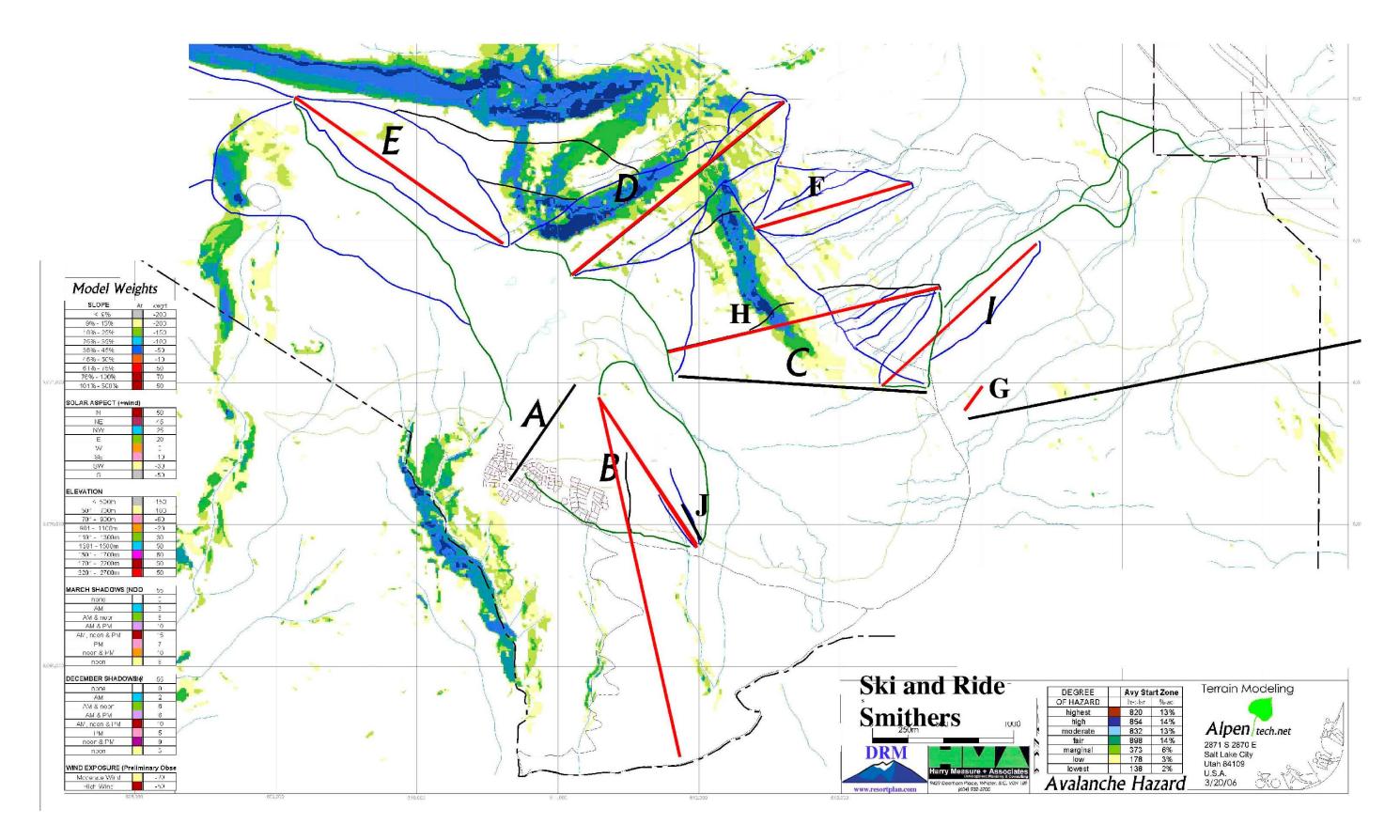
| VATION       | rectar   | %-a2    |
|--------------|----------|---------|
| < 500m       | 252.54   | 4.10%   |
| 5_1 .UUm     | 53±.31   | 8.50%   |
| 711 - 900m   | 925.82   | 14.70%  |
| :U1 '100m    | 1 U1±.25 | 16.10%  |
| 1101- 000m   | 1 047.63 | 16.60%  |
| 1301 500m    | 822.67   | 13:00%  |
| 1501-~~UJm   | 74:5.01  | 11.90 % |
| 1701 - 2000m | 481,43   | 7.00%   |
| 2001 - 2700m | 402.05   | 7.30%   |

#### 2.2.4. Avalanche Potential

A qualified professional (Christoph Dietzfelbinger), along with ski area staff, conducted a review of the avalanche potential within the existing and proposed Controlled Recreation Area (see Figure 11). The results are contained in a separate report and are highlighted as follows:

• Opening new avalanche terrain at Ski & Ride Smithers would greatly improve skiing at the resort. The resort has a lot of big north facing terrain that is almost constantly being loaded with strong winds out of the south. Some of the big gullies would make for some interesting avalanche control strategies as they contain three slide paths with multiple start zones down the pitches and a long run out. Large bombs on sleds, and various sizes of hand charges, would need to be employed, and the possibility of an avalancher will be considered. A remote weather station, tracking wind, temperature, relative humidity, and barometric pressure would also be needed. All of this equipment would ensure safe skiing and consistent operations.

The opening of new terrain would provide Ski & Ride Smithers world class skiing opportunities, and some of the best fall-line powder runs of anywhere in British Columbia, Canada and North America.



### 2.3. Ski Terrain Classification

The ski terrain at Ski & Ride Smithers was classified by means of a skills classification system that equates degree of pitch on the ski trail. This has been further defined by means of the international rating of ski terrain; Easiest - More Difficult - Most Difficult. See Ski Trail Planning Parameters chart below.

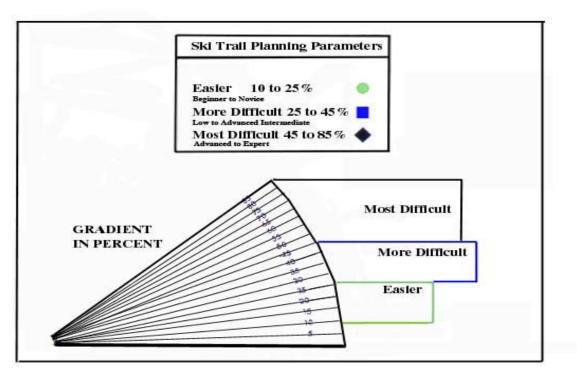


Figure 12 – Ski Trail Planning Parameters

### 2.3.1. Ski Terrain Pods

The review of the ski terrain within the study area at Ski & Ride Smithers reveals that there are 9 ski terrain pods within the existing and proposed CRA. The existing ski area currently utilizes all or part of five of these pods, which are serviced by 2 T-Bars, a Handle tow and a Triple chair lift (see Figure 13).

Each terrain pod was assessed using the following criteria.

- Fall line skiing from top to bottom.
- The servicing of as many skier levels as possible for each pod.
- The location of suitable lift terminal sites.
- Establishing each terrain pod as a distinct and separate entity.
- The limiting of long, flat or uphill sections of ski terrain.
- Skier traffic flow in terms of skier safety and quality of skiing.
- Avoidance of major drainages and extreme terrain features.
- Figure 13 Terrain Gradient Map

It is noted that the new ski trail design is narrower in width and all of the trails will be summer groomed.

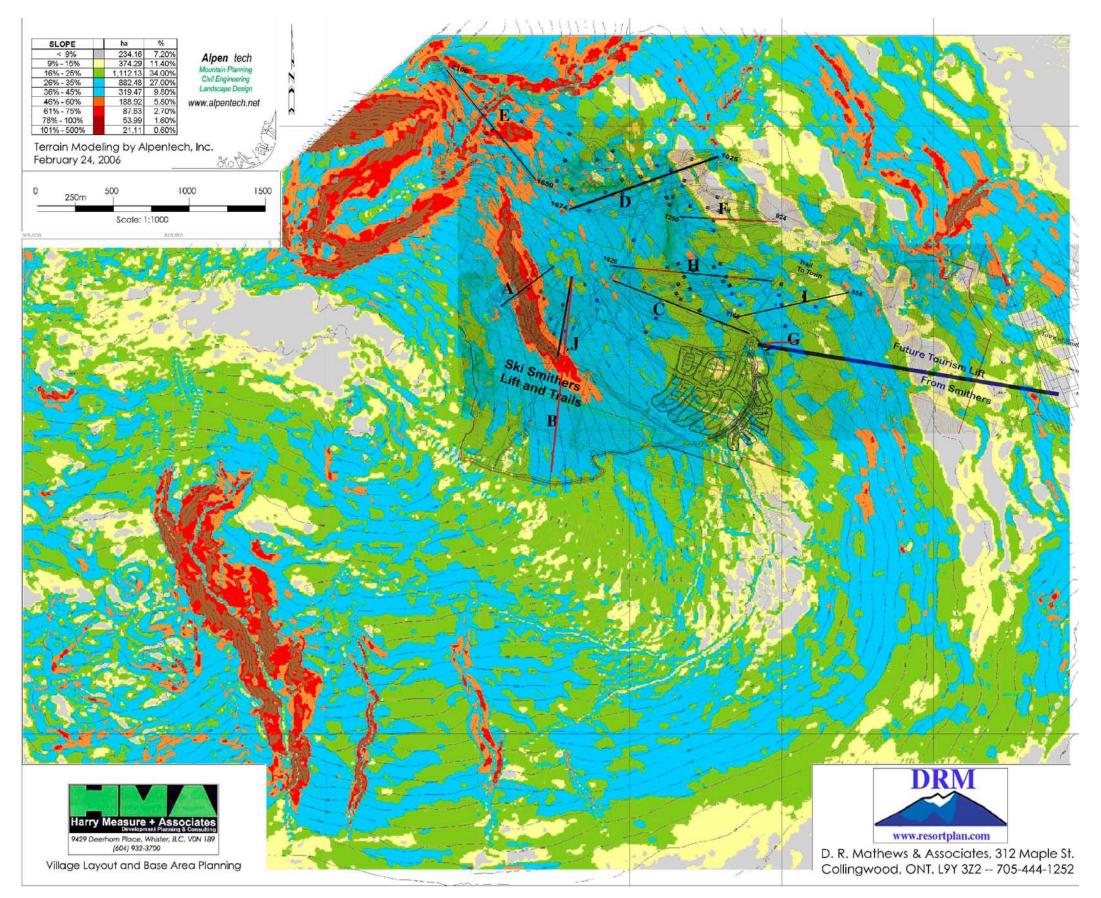


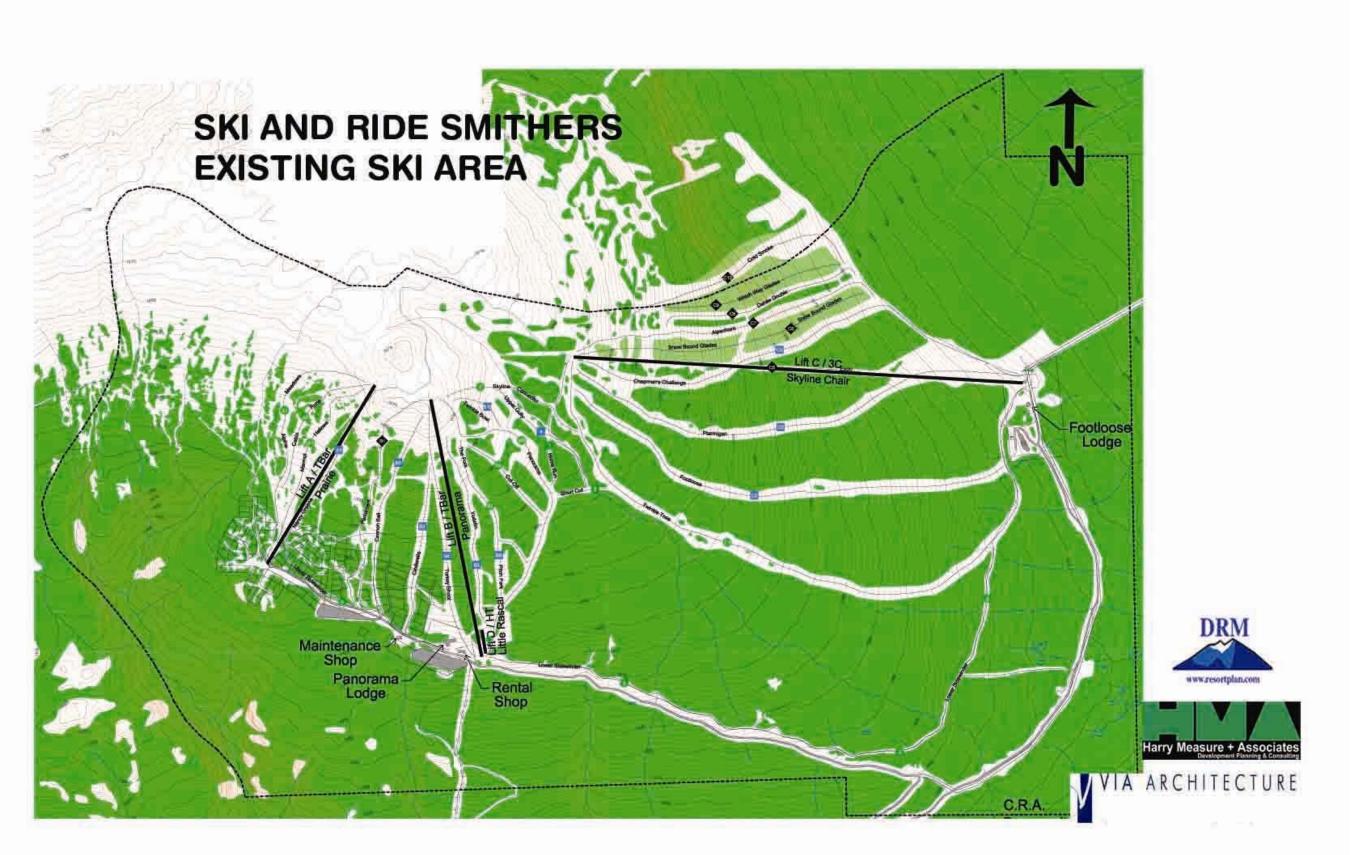
Figure 13 – Terrain Gradient

## 2.3.2. Existing Terrain Review

The existing ski terrain (approximately 113 ha) contains 29 ski trails; 12 Easier, 11 More Difficult and 6 Most Difficult (See Figure 14). The details relating to the existing ski area are noted on Figure 15.

The balance of skier distribution to market or ideal ski terrain is higher in Easier terrain and considerably less in Most and More Difficult terrain. See Figure 16.

Based on the aforementioned, the projected number of skiers per hectare is 33, however based upon actual use the number of skiers per hectare is estimated in the range of 19 skiers/ha.



# 2.4. Existing Ski Area Overview

The details relating to the existing ski terrain at Ski & Ride Smithers are as follows:

|  | SKI SMITHERS SKI AREA TERRAIN ASSESSME<br>EXISTING SKI TERRAIN |                 |              |                     |                              | NT            |
|--|--|-----------------|--------------|---------------------|------------------------------|---------------|
| TRAIL                                  | SKILL LEVEL  | VERTICAL<br>(M) | WIDTH<br>(M) | SLOPE<br>LENGTH (M) | AVERAGE<br>SLOPE<br>GRADIENT | HECTARE       |
| LIFT F, HANDLETOW                      |  |                 |              |                     |                              |               |
| TERRAIN POD F<br>F) LITTLE RASCAL      | EASIER   | 16              | 25           | 110                 | 15%                          | 0.28          |
| TERRAIN POD F TOTALS                   |  |                 |              |                     |                              | 0.28          |
| LIFT A PRAIRIE T-BAR                   |  |                 |              |                     |                              |               |
| TERRAIN POD A                          |  |                 |              |                     |                              |               |
| 1-ALPINE MEADOWS                       | EASIER   | 169             | 42           | 1143                | 15%                          | 4.78          |
| 2-CABIN RUN                            | EASIER   | 120             | 35           | 641                 | 19%                          | 2.23          |
| 3- MARMOT HOLLOW                       | EASIER   | 157             | 46           | 855                 | 19%                          | 3.96          |
| 4- NANCY GREENE                        | MORE DIFFICUL  | 152             | 42           | 716                 | 22%                          | 2.32          |
| TERRAIN POD A TOTALS                   |  |                 |              |                     |                              | 13.29         |
|  |  |                 |              |                     |                              |               |
| LIFT B PANORAMA T-BAR<br>TERRAIN POD B |  |                 |              |                     |                              |               |
| 1- PARLIAMENT                          | MOST DIFFICUL  | 218             | 39           | 1112                | 20%                          | 4.32          |
| 2-CANNON BALL                          | MORE DIFFICUL  | 223             | 31           | 888                 | 25%                          | 2.73          |
| 3-CINDERLLA                            | MORE DIFFICUL  |                 | 22           | 951                 | 18%                          | 2.07          |
| 4-TURKEY SHOOT                         | EASIER   | 253             | 37           | 1070                | 24%                          | 3.97          |
| 5-YODELIN                              | MORE DIFFICUL  |                 | 33           | 880                 | 25%                          | 2.93          |
| 6-PITCHFORK                            | EASIER   | 65              | 44           | 249                 | 27%                          | 1.09          |
| 7-ALPINE PARK/THE FORK                 | -  | 130             | 27           | 590                 | 23%                          | 1.60          |
| 8-CUT OFF                              | EASIER   | 100             | 30           | 481                 | 21%                          | 1.44          |
| 9-PANORAMA                             | EASIER   | 253             | 36           | 1457                | 18%                          | 5.21          |
| 10-TWINKLE BOWL                        | MORE DIFFICUL  | 55              | 66           | 285                 | 20%                          | 1.90          |
| TERRAIN POD B TOTALS                   |  |                 |              |                     |                              | 27.26         |
| LIFT C SKYLINE TRIPLE CH               | AIR  |                 |              |                     |                              |               |
|  |  | 466             | 20           | 2001                | 100/                         | 11.00         |
| 1-TWINKLETOES<br>2-FOOTLOSE            | EASIER<br>MORE DIFFICUL  | 466<br>400      | 39<br>44     | 3001<br>1912        | 19%<br>19%                   | 11.80<br>8.50 |
| 2-PUOTLOSE<br>3-PTARMIGAN              | MORE DIFFICUL  |                 | 44<br>48     | 1912                | 23%                          | 8.50<br>9.39  |
| 4-CHAPMANS                             | MORE DIFFICUL  |                 | 40<br>40     | 1861                | 23%                          | 9.39<br>7.43  |
| 5-EXPO                                 | MOST DIFFICULT   |                 | 27           | 631                 | 30%                          | 1.69          |
| 6-SNOW BOUND GLADE                     | MOST DIFFICUL  |                 | 66           | 1268                | 33%                          | 8.38          |
| 7-ALPENHORN                            | MOST DIFFICULT   |                 | 40           | 1329                | 33%                          | 5.37          |
| 8-DHALIE DOUBLE                        | MOST DIFFICULT   |                 | 30           | 893                 | 26%                          | 2.67          |
| 9-WHICHWAY GLADES                      | MOST DIFFICULT   |                 | 110          | 790                 | 35%                          | 8.71          |
| 10-COLD SMOKE                          | MOST DIFFICUL  |                 | 45           | 1062                | 24%                          | 4.77          |
| TERRAIN POD C TOTALS                   |  |                 |              |                     |                              | 68.71         |
| OTHER TRAIL AND CONNE                  | CTORS  |                 |              |                     |                              |               |
| 1-HOME RUN                             | EASIER   | 57              | 13           | 523                 | 11%                          | 0.66          |
| 2-SHORT CUT                            | EASIER   | 47              | 10           | 206                 | 10%                          | 0.21          |
| 3-LOWER SIDEWINDER                     | EASIER   | 195             | 5            | 2797                | 10%                          | 1.40          |
| 4-UPPER GULLY                          | MORE DIFFICUL  | 80              | 27           | 585                 | 14%                          | 1.59          |
| OTHER TOTAL                            |  |                 |              |                     |                              | 3.86          |
| EXISTING SKI AREA                      |  |                 |              |                     |                              |               |
| TOTAL HECTARES                         |  |                 |              |                     |                              | 113.40        |
| SKIERS PER HECTARE                     |  |                 |              |                     |                              | 33            |

Figure 15 – Existing Ski Area Terrain Assessment

#### 2.4.1. Existing Ski Terrain as compared to the Ideal Ski Area

The graph below indicates that Ski & Ride Smithers is out of balance in terms of the three major skill categories. Future ski area expansion will strive to adjust this imbalance.

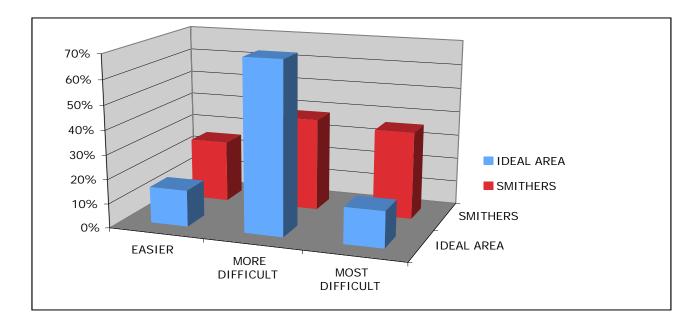


Figure 16 – Terrain Compared to Ideal - Existing

| SKI SMITHERS EXIS | STING TERRAIN | BALANCE  |          |
|-------------------|---------------|----------|----------|
| SKILL LEVEL       | IDEAL AREA    | SMITHERS | HECTARES |
| EASIER            | 15%           | 33%      | 37.03    |
| MORE DIFFICULT    | 70%           | 36%      | 40.46    |
| MOST DIFFICULT    | 15%           | 32%      | 35.91    |
| TOTAL             | 100%          | 100%     | 113.40   |

```
Figure 17 – Terrain Balance – Existing
```

## 2.4.2. Lift Capacity Review

When evaluating existing ski lift capacity, two figures that must be considered are the manufacturer's rated lift capacity and the actual lift capacity. The manufacturer's rated lift capacity defines the figures for the lift operating at 100 percent efficiency. The actual lift capacity is an adjusted figure to provide a more realistic capacity statement.

The manufacturer's rated ski lift capacity for Ski & Ride Smithers is 3,058 skiers per hour. The actual lift capacity of the ski lifts is 2,484 skiers per hour. The reason for this reduction is that there are a number of factors that affect lift capacity throughout an operating day such as skier error, lift access to other ski terrain pods or mechanical inefficiency. The various capacities and the adjustments for each ski lift are defined in the Ski Lift Statement below.

#### 2-Mar-06

#### Ski Smithers Lift Review and Comfortable Capacity

|                     |         |          | Existing     |                  |
|---------------------|---------|----------|--------------|------------------|
| Ski Lift            | Prairie | Panorama | Skyline      | Little<br>Rascal |
| Terrain Pod         | А       | В        | С            | F                |
| Lift Type           | T-Bar   | T-Bar    | Triple Chair | Handle T         |
| Top Elevation m.    | 1658    | 1675     | 1610         | 1438             |
| Bottom Elevation m. | 1484    | 1420     | 1142         | 1422             |
| Vertical m.         | 174     | 255      | 468          | 16               |
| Slope Dist. M.      | 490     | 1013     | 1840         | 101              |
| Average Grade%      | 38%     | 26%      | 26%          | 16%              |
| Rated Capacity      | 458     | 900      | 1100         | 600              |
| Trip Time           | 3.27    | 6.25     | 13.94        | 1.41             |
| Op Hours            | 6       | 6.5      | 6.5          | 6.5              |
| VTM Demand-Day      | 1664    | 2173     | 2957         | 400              |
| Loading Efficiency  | 85%     | 90%      | 90%          | 70%              |
| Access Reduction    | 0%      | 9%       | 4%           | 0%               |
| ссс                 | 240     | 560      | 930          | 100              |
| Cumulative Totals   |         |          |              | 1830             |

Figure 18 – Actual Lift Capacity – Existing

### 2.4.3. Existing Ski Area Comfortable Carrying Capacity

The definition of a ski area's comfortable carrying capacity (CCC) is the most important step in defining the ski area's ability to service the customer, to provide facilities that are sized properly and to assess financial capabilities. The CCC has also been called the Skiers At One Time Calculation. The CCC figure is used to evaluate the skiing demand versus the ability of the ski lift, or lifts, to meet that demand over a period of time. In reality, a skier will use the lift more than once during the one-hour period, or a number of times during a skiing day, to meet their skiing needs.

The ski area's CCC is also used to define specific requirements for ski area facilities from washrooms to parking areas. The estimated existing ski area CCC for Ski & Ride Smithers is 1,830 skiers at one time. See previous chart.

### 2.4.4. Existing Ski Area Facilities

The ski area facilities have been detailed in the Base Area sections. The Base area section includes the parking areas, the maintenance building and the ski area operations facilities, which are part of the village development.

### 2.4.5. Parking

At this time, the existing parking area is meeting the needs of Ski & Ride Smithers. A considerable amount of parking is available at the proposed Base Area 3. The parking area is defined in the Base Area Plan.

### 2.4.6. Site Infrastructure

Site infrastructure will be detailed in the Infrastructure Section.

At this time the ski area has the capacity to meet users' needs through Phase 1 of the mountain development.

### 2.5. Phase 1 Ski Terrain Review

The following information defines a substantial expansion of ski terrain that will allow skiers to enter Terrain Pods B - Extended below the road and Terrain Pod D. In addition, Terrain Pod G will allow for a separate beginner area with carpet lift. See Phase 1 Ski Area Expansion Map – Figure 20 and the Ski Terrain Assessment Chart - Figure 19.

|   | <u>Ski Smithers Ski</u><br>Phase | Area Terra<br>e 1 Ski Terr |                     | <u>nent</u>                   |  |                       |
|---|----------------------------------|----------------------------|---------------------|-------------------------------|--|-----------------------|
| Trail   | Skill Level                      | <u>Vertical</u><br>(M)     | <u>Width</u><br>(M) | <u>Slope</u><br>Length<br>(M) | <u>Average</u><br><u>Slope</u><br>Gradient | <u>Extent</u><br>(Ha) |
|   |                                  |                            |                     |                               |  |                       |
| Lift G - Carpet Lift<br>Terrain Pod G<br>G 1        | EASIER                           | 25                         | 190                 | 200                           | 13%  | 3.8                   |
| Tarrain Dad C Tatal                                 |                                  |                            |                     |                               | г  | 2.0                   |
| Terrain Pod G Total<br>Skiers per Ha                |                                  |                            |                     |                               |  | 3.8<br>35.0           |
| Lift D - Simpsons Detach                            | hable Quad                       |                            |                     |                               |  |                       |
| Terrain Pod D                                       |                                  |                            |                     |                               |  |                       |
| D1  | MORE DIFFICULT                   | 110                        | 20                  | 1109                          | 10%  | 2.2                   |
| D2  | MORE DIFFICULT                   | 585                        | 30                  | 1759                          | 33%  | 5.3                   |
| D3  | MORE DIFFICULT                   | 450                        | 30                  | 1241                          | 36%  | 3.7                   |
| D4  | MORE DIFFICULT                   | 200                        | 30                  | 699                           | 29%  | 2.1                   |
| D5  | MOST DIFFICULT                   | 100                        | 30                  | 465                           | 22%  | 1.4                   |
| D6  | ACCESS                           | 24                         | 30                  | 490                           | 5%   | 1.0                   |
| D7  | MOST DIFFICULT                   | 175                        | 50                  | 414                           | 27%  | 2.1                   |
| D8  | MOST DIFFICULT                   | 300                        | 30                  | 466                           | 64%  | 2.3                   |
| D9  | MORE DIFFICULT                   | 500                        | 35                  | 2276                          | 22%  | 8.0                   |
| D10   | MORE DIFFICULT                   | 275                        | 35                  | 570                           | 48%  | 1.7                   |
| D11   | MOST DIFFICULT                   | 360                        | 60                  | 832                           | 43%  | 4.7                   |
| Terrain Pod D Total                                 |                                  |                            |                     |                               | ſ  | 34.4                  |
| Skiers per Ha                                       |                                  |                            |                     |                               | L  | 12.0                  |
| Lift B - Detachable Quad<br>Terrain Pod B and Pod B |                                  | orama T-Ba                 | r                   |                               |  |                       |
| Terrain Fou D and Fou D                             |                                  |                            |                     |                               |  |                       |
| 1- Parliament                                       | MOST DIFFICULT                   | 218                        | 39                  | 1112                          | 20%  | 4.3                   |
| 2- Cannon Ball                                      | MORE DIFFICULT                   | 223                        | 31                  | 888                           | 25%  | 2.7                   |
| 3- Cinderella                                       | MORE DIFFICULT                   | 172                        | 22                  | 951                           | 18%  | 2.1                   |
| 4- Turkey Shoot                                     | MORE DIFFICULT                   | 598                        | 37                  | 2673                          | 22%  | 8.8                   |
| 5- Yodelin  | MORE DIFFICULT                   | 620                        | 33                  | 2638                          | 25%  | 7.4                   |
| 6- Pitchfork  | MORE DIFFICULT                   | 65                         | 44                  | 249                           | 27%  | 1.1                   |
| 7- Alpine the Fork                                  | EASIER                           | 130                        | 27                  | 590                           | 23%  | 1.6                   |
| 8- Cut Off  | EASIER                           | 100                        | 30                  | 481                           | 21%  | 1.4                   |
| 9 - Panorama<br>10 - Twinkle Bowl                   |                                  | 253<br>55                  | 36<br>66            | 1457                          | 18%  | 5.2                   |
| B 11  | MORE DIFFICULT                   | 55<br>80                   | 66<br>30            | 285<br>310                    | 20%<br>26%                                 | 1.9<br>0.9            |
| B 12  | MORE DIFFICULT                   | 470                        | 30<br>30            | 2128                          | 20%  | 0.9<br>6.6            |
| B13   | EASIER                           | 345                        | 30                  | 2128                          | 16%  | 6.4                   |
| Terrain Pod B Total                                 |                                  |                            |                     |                               | Г  | 50.5                  |
| Skiers per Ha                                       |                                  |                            |                     |                               |  | 18.5                  |
|   |                                  |                            |                     |                               | L  | . 5.0                 |

Figure 19 – Ski Area Terrain Assessment – Phase 1

August 2006

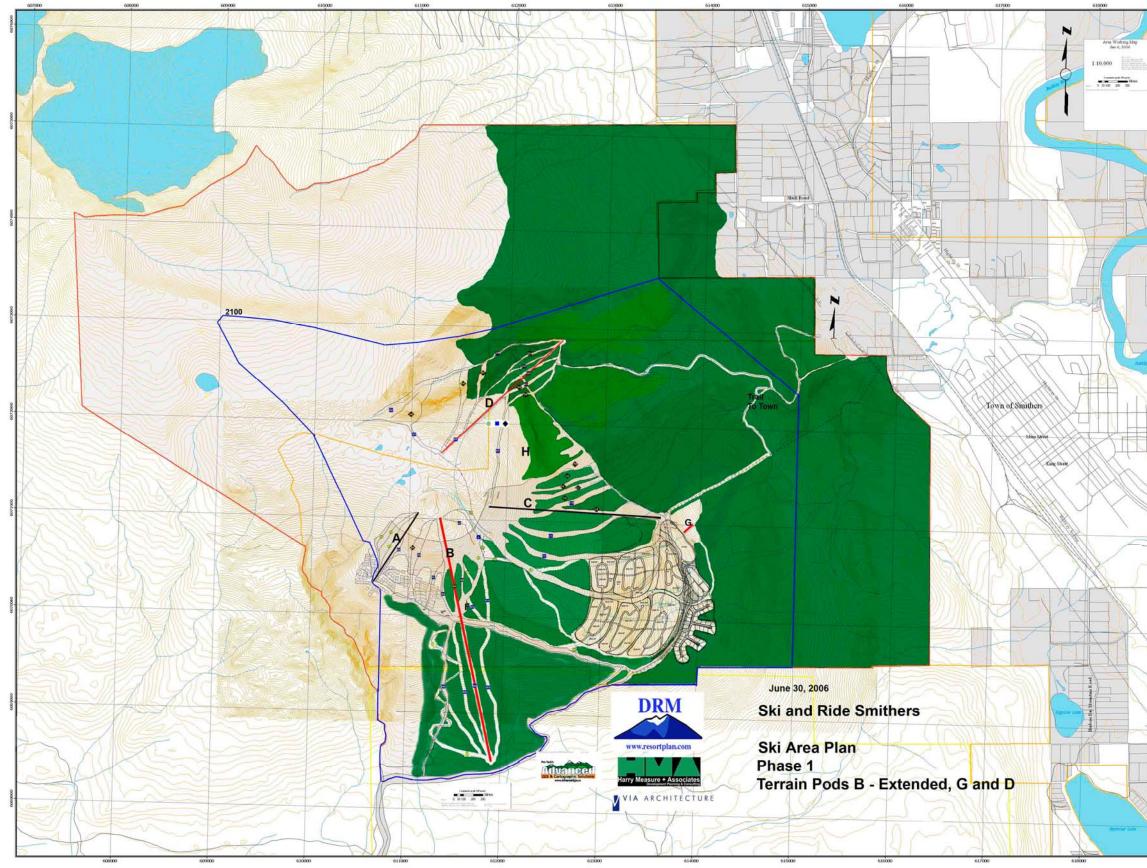
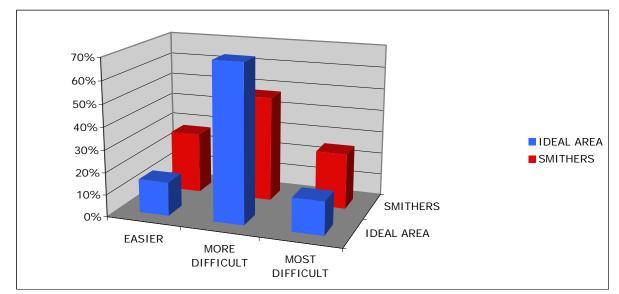


Figure 20 – Ski Area Map – Phase 1



Ski & Ride Smithers will have a total of 53 ski trails at the completion of Phase 1. They are: 16 Easier, 26 More Difficult and 11 Most Difficult. The estimated number of hectares of ski terrain for Phase 1 is 88.68 and the total number of hectares after Phase 1 is completed is 202.08. See Figure 22 - Phase 1 Ski Terrain Assessment Chart.

The balance of skier distribution to market or ideal ski terrain has improved with the substantial addition of the More Difficult – Intermediate category. The Easier terrain has also moved into line with the ideal area ratios.



# **Phase 1 Terrain Balance Chart**

Figure 21 – Terrain Compared to Ideal – Phase 1

| SKILL LEVEL    | IDEAL AREA | SMITHERS | HECTARES |
|----------------|------------|----------|----------|
| EASIER         | 15%        | 27%      | 55.46    |
| MORE DIFFICULT | 70%        | 47%      | 95.94    |
| MOST DIFFICULT | 15%        | 25%      | 50.68    |
| TOTAL          | 100%       | 100%     | 202.08   |

Figure 22 – Terrain Balance – Phase 1

## 2.6. Phase 1 Lift Capacity Review

When evaluating existing ski lift capacity, two figures that must be considered are the manufacturer's rated lift capacity and the actual lift capacity. The manufacturer's rated lift capacity defines the figures for the lift operating at 100 percent efficiency. The actual lift capacity is an adjusted figure to provide a more realistic capacity statement.

The manufacturer's rated ski lift capacity for Ski & Ride Smithers Phase 1 is 3,600 skiers per hour. The actual lift capacity of the Phase 1 ski lifts is 3,243 skiers per hour. The reason for this reduction is that there are a number of factors that affect lift capacity throughout an operating day such as skier error, lift access to other ski terrain pods or mechanical inefficiency. The concept for the new lifts is to provide lower capacity, more efficient, detachable quad chair lifts to improve the quality of the skiing experience. For Phase 1 there are three new lifts. The various capacities and the adjustments for each ski lift are defined in **Figure 23**.

#### Ski Lift and Bed Unit Chart 1-Jul-06

#### Ski Smithers Phase 1 Lifts and Comfortable Capacity Chart

| Ski Lift            | Simpsons    | South<br>Chair | Kids<br>Corral |
|---------------------|-------------|----------------|----------------|
| Terrain Pod         | D           | В              | G              |
| Lift Type           | Detach Quad | Detach Quad    | Carpet Lift    |
| Top Elevation m.    | 1685        | 1675           |                |
| Bottom Elevation m. | 1100        | 1055           |                |
| Vertical m.         | 585         | 620            | 20             |
| Slope Dist. M.      | 1759        | 2638           | 121            |
| Average Grade%      | 33%         | 24%            | 14%            |
| Rated Capacity      | 1500        | 1500           | 600            |
| Trip Time           | 5.9         | 8.8            | 2              |
| Op Hours            | 6.5         | 7              | 7              |
| VTM Demand-Day      | 3832        | 3050           | 300            |
| Loading Efficiency  | 96%         | 96%            | 98%            |
| Access Reduction    | 0%          | 15%            | 0%             |
| Actual Capacity     | 1440        | 1215           | 588            |
| 222                 | 1319        | 1482           | 274            |
| Less Previous T-Bar |             | 560            |                |
| Cumulative Totals   | 3149        | 4071           | 4345           |

Figure 23 – Actual Lift Capacity – Phase 1

## 2.7. Phase 1 Ski Area Comfortable Carrying Capacity

The definition of a ski area's comfortable carrying capacity (CCC) is the most important step in defining the ski area's ability to service the customer, to provide facilities that are sized properly and to assess financial capabilities. The CCC has also been called the Skiers At One Time Calculation. The CCC figure is used to evaluate the skiing demand versus the ability of the ski lift, or lifts, to meet that demand over a period of time. In reality, a skier will use the lift more than once during the one-hour period, or a number of times during a skiing day, to meet their skiing needs.

The ski area's CCC is also used to define specific requirements for ski area facilities from washrooms to parking areas.

Ski and Ride Smithers estimated ski area CCC at the end of Phase 1 is 4,345 skiers at one time. See Figure 23.

### 2.7.1. Phase 1 Ski Area Facilities, Parking & Site Infrastructure

The ski area facilities, parking and site infrastructure have been detailed in the Base Area sections. The Base area section includes the parking areas, the maintenance building and the ski area operations facilities, which are part of the village development.

#### 2.8. Phase 2 Ski Area Expansion

The second phase of expansion provides additional trails and two more detachable quad chair lifts. The new trails are located in the center of the eastern facing slopes, as well as a southerly facing terrain pod, which will provide the maximum vertical for the ski area. See Phase 2 Ski Area Plan Map - Figure 25.

The Phase 2 expansion involves a new Terrain Pod E, the expansion of Terrain Pod C and the Detachable Lift H with access trails. This produces a ski area total of 18 Easier, 36 More Difficult and 19 Most Difficult ski trails. This produces a total of 73 ski trails and 254.20 ha of ski terrain. See Figure 24.

The need for more Intermediate ski terrain has been addressed to a large degree in Terrain Pod E. The extension of the Terrain Pod C ski trails expands the Most Difficult ski terrain. With the addition of the Phase 2 ski terrain Ski and Ride Smithers can provide a substantial ski offering. See Terrain chart below.

| <u>Ski Smithers Ski Area Terrain Assessment</u><br>Phase 2 Ski Terrain |                       |                                 |                  |                               |   |                       |  |  |
|--|-----------------------|---------------------------------|------------------|-------------------------------|---|-----------------------|--|--|
| <u>Trail</u>   | <u>Skill Level</u>    | <u>Vertical</u><br>( <u>M</u> ) | <u>Width (M)</u> | <u>Slope</u><br>Length<br>(M) | <u>Average</u><br><u>Slope</u><br><u>Gradient</u> | <u>Extent</u><br>(Ha) |  |  |
| Lift D - Si  | impsons Detachable Qu | lad                             |                  |                               |   |                       |  |  |
| Terrain  | •                     |                                 |                  |                               |   |                       |  |  |
| E1   | MOST DIFFICULT        | 575                             | 30               | 1,860                         | 31%   | 5.80                  |  |  |
| E2   | MORE DIFFICULT        | 450                             | 30               | 1,847                         | 24%   | 5.54                  |  |  |
| E3   | MORE DIFFICULT        | 450                             | 30               | 1,814                         | 25%   | 5.44                  |  |  |
| E4   | MORE DIFFICULT        | 450                             | 30               | 2,022                         | 22%   | 6.06                  |  |  |
| E5   | MORE DIFFICULT        | 300                             | 33               | 880                           | 34%   | 2.93                  |  |  |
| Trails to I  |                       |                                 |                  |                               | 0.70  |                       |  |  |
| E6   | MOST DIFFICULT        | 700                             | 30               | 1762                          | 40%   | 5.28                  |  |  |
| E7   | MOST DIFFICULT        | 250                             | 30               | 674                           | 37%   | 2.02                  |  |  |
| Terrain  | Pod E Total           |                                 |                  |                               | 1   | 33.07                 |  |  |
| Skiers P   | er Ha                 |                                 |                  |                               |   | 15.65                 |  |  |
| Addition   | s to Terrain Pod C    |                                 |                  |                               |   |                       |  |  |
| C4   | MORE DIFFICULT        | 135                             | 35               | 663                           | 20%   | 2.32                  |  |  |
| C7   | MOST DIFFICULT        | 175                             | 30               | 580                           | 30%   | 1.74                  |  |  |
| C8   | MOST DIFFICULT        | 135                             | 35               | 487                           | 28%   | 1.70                  |  |  |
| C9   | MOST DIFFICULT        | 100                             | 30               | 290                           | 34%   | 0.87                  |  |  |
| C10  | MOST DIFFICULT        | 50                              | 30               | 414                           | 12%   | 1.24                  |  |  |
| C11  | MOST DIFFICULT        | 150                             | 30               | 300                           | 50%   | 0.89                  |  |  |
| C12  | MORE DIFFICULT        | 175                             | 30               | 580                           | 30%   | 1.74                  |  |  |
| C13  | EASIER                | 125                             | 30               | 777                           | 16%   | 2.72                  |  |  |
| Terrain  | Pod C Additions       |                                 |                  |                               | Г   | 13.22                 |  |  |
| Skiers P   | er Ha                 |                                 |                  |                               |   | 14.81                 |  |  |
| Access 1   | Trails from Lift H    |                                 |                  |                               |   |                       |  |  |
| H1   | EASIER                | 75                              | 30               | 700                           | 11%   | 2.09                  |  |  |
| H2   |                       | 75<br>20                        |                  | 150                           | 11%   | 2.09<br>0.45          |  |  |
| H3   | MORE DIFFICULT        | 20<br>50                        | 30<br>30         |                               | 33%   |                       |  |  |
|  |                       |                                 |                  | 150                           |   | 0.45                  |  |  |
| H4<br>H5   | MORE DIFFICULT        | 100<br>100                      | 30               | 500<br>450                    | 20%<br>22%  | 1.49                  |  |  |
| GD   |                       | 100                             | 30               | 450                           | 2270  | 1.35                  |  |  |
| Lift H Access Trails   |                       |                                 |                  |                               |   | 5.83                  |  |  |
| Skiers Pe  | er Ha                 |                                 |                  |                               |   | 19.99                 |  |  |

Figure 24 – Ski Area Terrain Assessment – Phase 2

August 2006

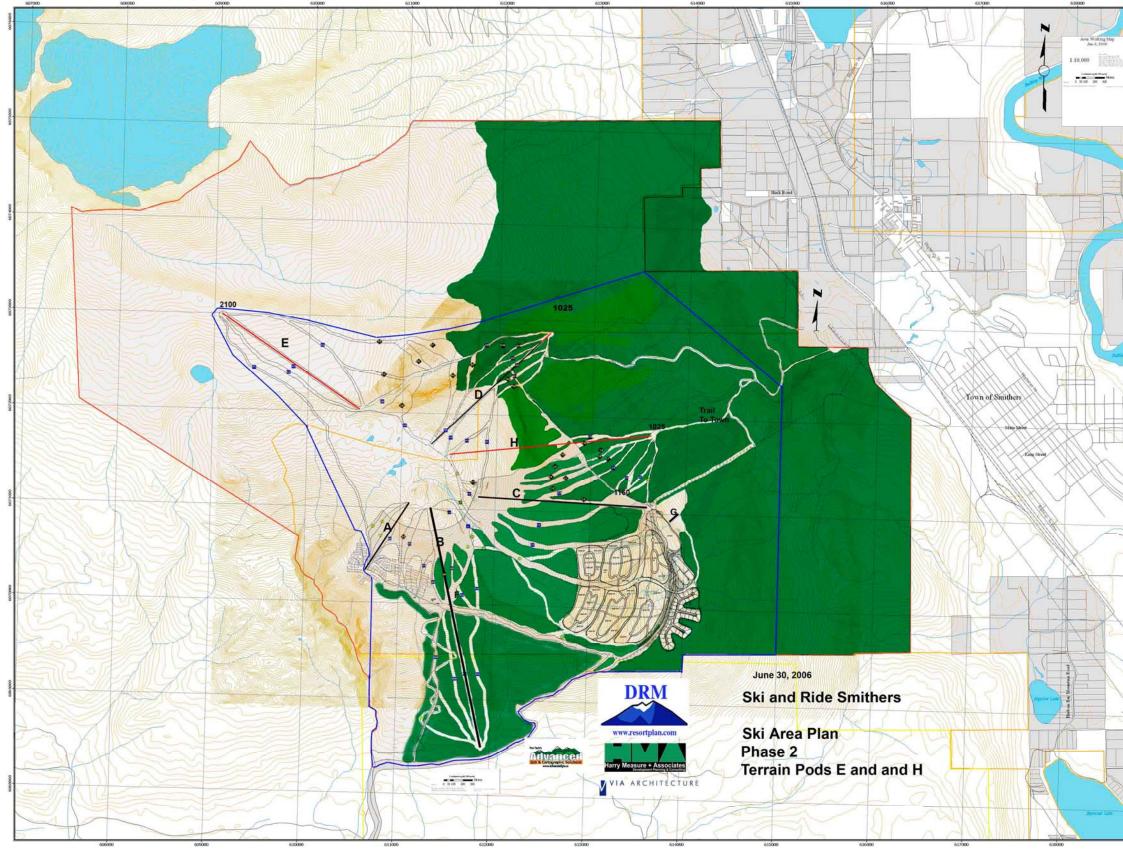


Figure 25 – Ski Area Map – Phase 2



| SKI SMITHERS PH | ASE 2 TERRAIN | BALANCE ALL PO | DS       |
|-----------------|---------------|----------------|----------|
| SKILL LEVEL     | IDEAL AREA    | SMITHERS       | HECTARES |
| EASIER          | 15%           | 24%            | 60.27    |
| MORE DIFFICULT  | 70%           | 51%            | 129.06   |
| MOST DIFFICULT  | 15%           | 26%            | 64.87    |
| TOTAL           | 100%          | 100%           | 254.20   |

Figure 26 – Terrain Balance – Phase 2

# Ski & Ride Smithers Phase 2 Ski Terrain Balance Graph.

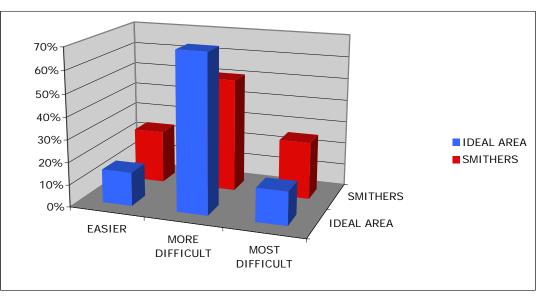


Figure 27 – Terrain compared to Ideal – Phase 2

# 2.8.1. Phase 2 Lift Capacity Review

When evaluating existing ski lift capacity, two figures that must be considered are the manufacturer's rated lift capacity and the actual lift capacity. The manufacturer's rated lift capacity defines the figures for the lift operating at 100 percent efficiency. The actual lift capacity is an adjusted figure to provide a more realistic capacity statement.

The manufacturer's rated ski lift capacity for Ski & Ride Smithers Phase 2 is 3,000 skiers per hour. The actual lift capacity of the Phase 2 ski lifts is 2,625 skiers per hour. The reason for this reduction is that there are a number of factors that affect lift capacity throughout an operating day such as skier error, lift access to other ski terrain pods or mechanical inefficiency. See Figure 28.

## 2.8.2. Phase 2 Ski Lift Review

#### 2-Jul-06

#### Ski Smithers Phase 2 Lift and Comfortable Capacity Chart

|                     | Phase 2         |                 |
|---------------------|-----------------|-----------------|
| Ski Lift            | The Tent        | Hudson Bay      |
| Terrain Pod         | E               | н               |
| Lift Type           | Detachable Quad | Detachable Quad |
| Top Elevation m.    | 2100            | 1675            |
| Bottom Elevation m. | 1636            | 1025            |
| Vertical m.         | 464             | 650             |
| Slope Dist. M.      | 1503            | 1150            |
| Average Grade%      | 31%             | 57%             |
| Rated Capacity      | 1500            | 1500            |
| Trip Time           | 6.2             | 7.4             |
| Op Hours            | 6               | 6               |
| VTM Demand-Day      | 3050            | 3600            |
| Loading Efficiency  | 96%             | 96%             |
| Access Reduction    | 0%              | 15%             |
| Actual Capacity     | 1425            | 1200            |
| CCC                 | 1314            | 1398            |
| Cumulative Totals   | 5659            | 7057            |

Figure 28 – Phase 2 Lift Capacity

# 2.8.3. Phase 2 Ski Area Comfortable Carrying Capacity

The definition of a ski area's comfortable carrying capacity (CCC) is the most important step in defining the ski area's ability to service the customer, to provide facilities that are sized properly and to assess financial capabilities. The CCC has also been called the Skiers At One Time Calculation. The CCC figure is used to evaluate the skiing demand versus the ability of the ski lift, or lifts, to meet that demand over a period of time. In reality a skier will use the lift more than once during the one-hour period, or a number of times during a skiing day, to meet their skiing needs.

The ski area's CCC is also used to define specific requirements for ski area facilities from washrooms to parking areas. At the end of Phase 2, the estimated total ski area CCC for Ski & Ride Smithers is 7,057. See Figure above.

## 2.8.4. Phase 2 Ski Area Facilities, Parking & Site Infrastructure

The ski area facilities, parking and site infrastructure have been detailed in the Base Area sections. The Base area section includes the parking areas, the maintenance building and the ski area operations facilities, which are part of the village development.

## 2.9. Phase 3 Ski Area Expansion

The Phase 3 ski area expansion provides additional trails in Terrain Pods F and I on what are considered to be the cooler side of the mountain in terms of slope direction and shade. See the Phase 3 Ski Area Plan - Figure 31.

The Phase 3 expansion provides for 11 new ski trails. This produces a ski area total of 84 ski trails, including 19 Easier, 44 More Difficult and 21 Most Difficult, with an estimated 291.67 ha of ski terrain. The charts and graphs for Phase 3 reflect the addition of more Intermediate and Advanced ski terrain. See the Phase 3 Terrain Assessment Chart - Figure 29 and the Terrain Balance Chart - Figure 30.

| Ski Smithers Ski Area Terrain Assessment |                           |                        |                  |                               |  |                       |
|--|---------------------------|------------------------|------------------|-------------------------------|--|-----------------------|
|  |                           | Phase 3                | Ski Terrain      | <u>l</u>                      |  |                       |
| <u>Trail</u>                             | <u>Skill Level</u>        | <u>Vertical</u><br>(M) | <u>Width (M)</u> | <u>Slope</u><br>Length<br>(M) | <u>Average</u><br><u>Slope</u><br>Gradient | <u>Extent</u><br>(Ha) |
|  |                           |                        |                  |                               |  |                       |
| Lift I Deta                              | achable Quad              |                        |                  |                               |  |                       |
| Terrain I                                |                           |                        |                  |                               |  |                       |
| 11                                       | EASIER                    | 270                    | 20               | 1,970                         | 13%  | 3.93                  |
| 12                                       | MORE DIFFICULT            | 300                    | 30               | 1,399                         | 21%  | 4.20                  |
| 13                                       | MORE DIFFICULT            | 210                    | 30               | 1,244                         | 17%  | 3.73                  |
| <b>I</b> 4                               | MORE DIFFICULT            | 305                    | 30               | 1,503                         | 20%  | 4.50                  |
| 15                                       | MORE DIFFICULT            | 145                    | 30               | 518                           | 28%  | 1.55                  |
| 16                                       | MORE DIFFICULT            | 300                    | 30               | 165                           | 18%  | 4.97                  |
| Terrain I                                | Terrain Pod I Total 22.88 |                        |                  |                               |  |                       |
| Skiers P                                 |                           |                        |                  |                               |  | 17.58                 |
|  |                           |                        |                  |                               | L  |                       |
| LIFT F Q                                 | uad                       |                        |                  |                               |  |                       |
| Terrain I                                | Pod F                     |                        |                  |                               |  |                       |
| F1                                       | MOST DIFFICULT            | 326                    | 30               | 1,285                         | 25%  | 3.85                  |
| F2                                       | MORE DIFFICULT            | 326                    | 30               | 1,254                         | 26%  | 3.76                  |
| F3                                       | MORE DIFFICULT            | 326                    | 30               | 1,182                         | 28%  | 3.54                  |
| F4                                       | MORE DIFFICULT            | 250                    | 30               | 726                           | 34%  | 2.17                  |
| F5                                       | MOST DIFFICULT            | 175                    | 35               | 362                           | 48%  | 1.27                  |
| Terrain I                                | Pod F Total               |                        |                  |                               | 1  | 14.59                 |
| Skiers P                                 |                           |                        |                  |                               |  | 11.49                 |
|  |                           |                        |                  |                               |  |                       |

Figure 29 – Ski Area Terrain Assessment – Phase 3

| Ski Smithers Phase 3 Terrain Balance All Pods |       |                 |           |  |
|---|-------|-----------------|-----------|--|
| Skill Level                                   | Ideal | <u>Smithers</u> | Extent Ha |  |
| EASIER  | 15%   | 22%             | 64        |  |
| MORE DIFFICULT                                | 70%   | 54%             | 157       |  |
| MOST DIFFICULT                                | 15%   | 24%             | 70        |  |
| TOTAL   | 100%  | 100%            | 292       |  |

Figure 30 – Terrain Balance – Phase 3

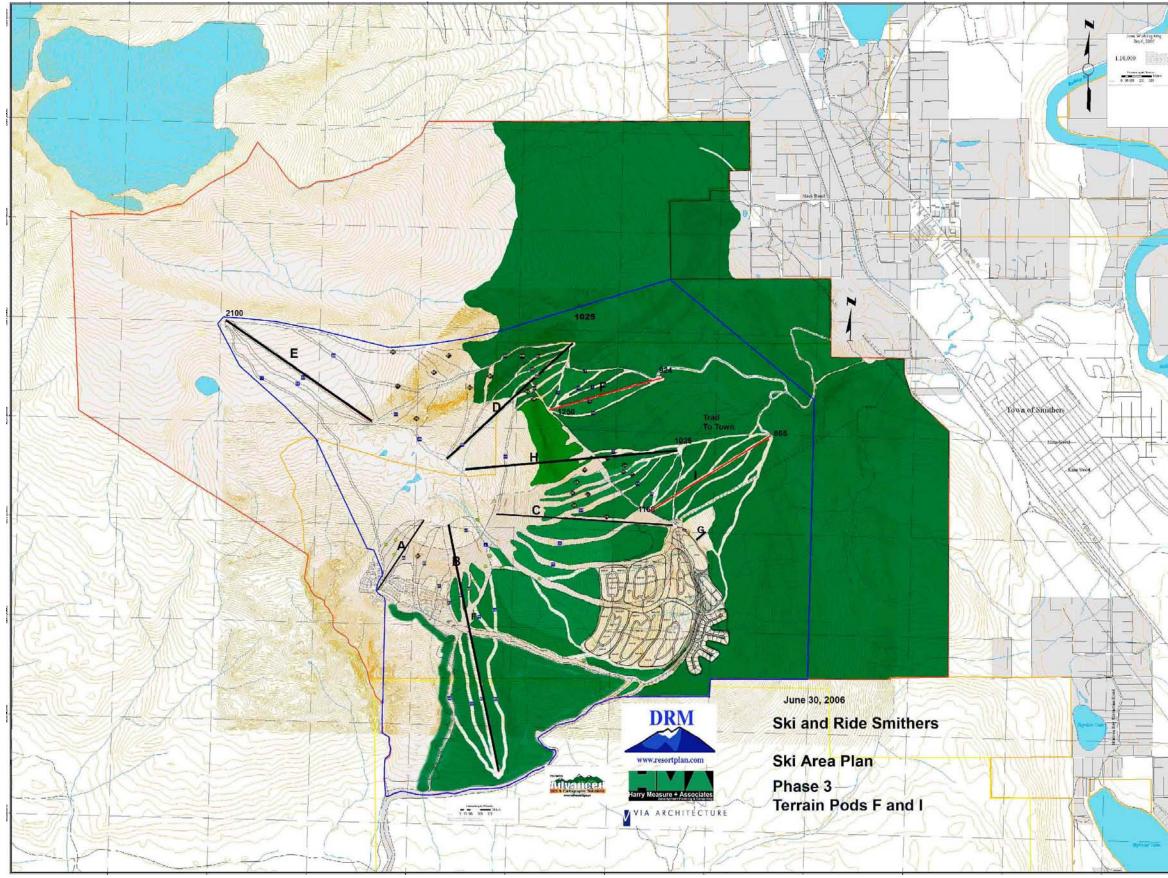
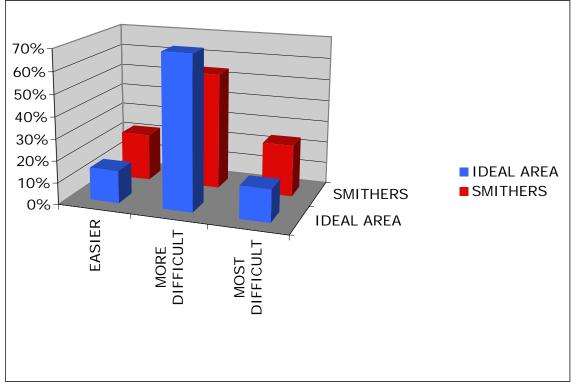


Figure 31 – Ski Area Map – Phase 3





**Phase 3 Terrain Balance Graph** 

Figure 32 – Terrain Compared to Ideal – Phase 3

## 2.9.1. Phase 3 Lift Expansion

In Phase 3 two quad chair lifts will be installed. With this addition Ski & Ride Smithers will have a very competitive Destination Resort skiing and boarding product. See Figure 33.

## 2.9.2. Lift Capacity Review

When evaluating phase 3 ski lift capacity two figures that must be considered are the manufacturers rated lift capacity and the actual lift capacity. The manufacturers rated lift capacity defines the figures for the lift operating at 100% efficiency. The actual lift capacity is an adjusted figure to provide a more realistic capacity statement. The manufacturers rated ski lift capacity for the Phase 3 lift is 3,600 skiers per hour. The actual lift capacity of this ski lift is 3,276 skiers per hour. The reason for this reduction is that there are a number of factors that impact lift capacity throughout an operating day such as skier error, lift access to other terrain pods, or mechanical inefficiency. The various capacities and the adjustments for this ski lift are defined below. See Figure 33.

#### 2-Jul-06

| Ski Smithers Phase 3 Lift and Comfortable Capacity Cl | nart |
|---|------|
|   |      |

| Ski Lift            | Town View  | Hudson Bay |
|---------------------|------------|------------|
| Terrain Pod         | I          | Н          |
| Lift Type           | Detachable | Quad       |
| Top Elevation m.    | 1160       | 1275       |
| Bottom Elevation m. | 855        | 924        |
| Vertical m.         | 305        | 351        |
| Slope Dist. M.      | 1500       | 1241       |
| Average Grade%      | 20%        | 28%        |
| Rated Capacity      | 1800       | 1800       |
| Trip Time           | 10.9       | 9          |
| Op Hours            | 6          | 6          |
| VTM Demand-Day      | 2438       | 2438       |
| Loading Efficiency  | 90%        | 90%        |
| Access Reduction    | 0%         | 4%         |
| Actual Capacity     | 1728       | 1548       |
| ccc                 | 1216       | 1337       |
| Cumulative Totals   | 8273       | 9610       |

Figure 33 – Phase 3 Lift Capacity

## 2.9.3. Phase 3 Ski Area Comfortable Carrying Capacity

The definition of a ski area's comfortable carrying capacity is the most important step in defining the ski area's ability to service the customer, provide facilities that are sized properly and to assess financial capabilities. It has also been called the Skiers At One Time calculation.

The ski area's comfortable carrying capacity is also used to define specific requirements for ski area facilities from washrooms to parking areas.

The estimated comfortable carrying capacity for Ski & Ride Smithers at the completion of Phase 3 is 9,610 skiers.

## 2.9.4. Phase 3 Ski Area Facilities

The extent of facilities in Phase 3 will depend upon the status of the tourism gondola from the Town of Smithers and how it will impact the ski area facilities and the ski area infrastructure. In the event the gondola is constructed, the concept is to reduce the ski area and related village facilities, assuming they are provided within the Town of Smithers.

#### 2.10. Ski & Ride Smithers – Additional Study For Future Phases

The planning horizon for the CASP is 20 years. This allows the proponent to define the areas potential for recreation and residential development.

The potential future phases for Ski & Ride Smithers define three distinct planning sectors. They are:

- The sector to the North of the ski area as defined in this plan,
- The sector to the West of the ski area as defined in this plan,
- The sector to the East between the town of Smithers and the ski area as defined in this plan.

See Hudson Bay Mountain Study Area Map – Figure 3.

#### 2.11. Controlled Recreation Area

There is a need to adjust the Controlled Recreation Area in order to allow the ski area concept to be changed to a multi season destination resort. See Figures 35 and Figure 3.

In the first phase there is one terrain pod B, which has been studied and noted in previous plans. This terrain pod will also provide access to a point considerably lower on the access road allowing for skier drop offs.

The Northerly part of Terrain Pod D there is a section of the "Simpson's" drainage which has been included as part of the revised plan and CRS. This area has been very popular with hikers and those involved with mountain touring. This drainage has an access road, which serviced a mining site.

In Phase 2, Terrain Pod E is not within the current CRA.

Both of these areas are primarily in the upper alpine with minimal tree cover. The above noted activities would be continued and there will be no summer lift service to these areas.

It is proposed that the existing CRA be adjusted near the cabin colony to allow the public direct, unimpeded access to the public lands to the West of the cabin colony. This access begins at the existing parking area.

Ski & Ride Smithers will only restrict access to the public when it relates to public safety, environmental considerations or a specific event that requires an admission fee, such as an outdoor concert. It is not the intention of the resort to restrict access for activities which the public have historical or are currently participating in, such as hiking or back country ski touring. Ski and Ride Smithers does have the legal responsibility to operate the ski area in a prudent manner, and in similar ways, comparable to other ski areas throughout BC.

In Phase 3 the two terrain pods, Pod F and I, are not within the existing CRA. However both of the terrain pods have been studied in the two previous master plans.

## 2.12. Public Access Plan

Following extensive discussions with public and private user groups, Ski & Ride Smithers as the tenure holder will allow access to the CRA as follows (See Figures 34 and 36):

#### 2.12.1. Cabin Properties - Access

Whereas there are deeded and leased ski cabin properties within the existing and proposed controlled recreation area (CRA) and not all properties have formal right of way access, the tenure holder shall allow access, including by way of snowmobile, to all ski cabin properties. Snowmobile access across ski runs during lift operation hours will be controlled to meet safety requirements.

#### 2.12.2. Cabin Parking

Adequate parking will be made available for cabin owners and guests.

#### 2.12.3. Prairie (area above tree line) – Public Access

The prairie has historically experienced significant public use during all seasons. Public use of that portion of the prairie included in the CRA shall not unreasonably be restricted.

#### 2.12.4. West of Cabins and Prairie Tee Bar

Excluding the treed area west of the ski cabins and the prairie tee bar ski runs from the CRA will avoid the tenure holder having to manage the access to the prairie and ski touring in the trees

## 2.12.5. Reality Check Climbing Area – Public Access

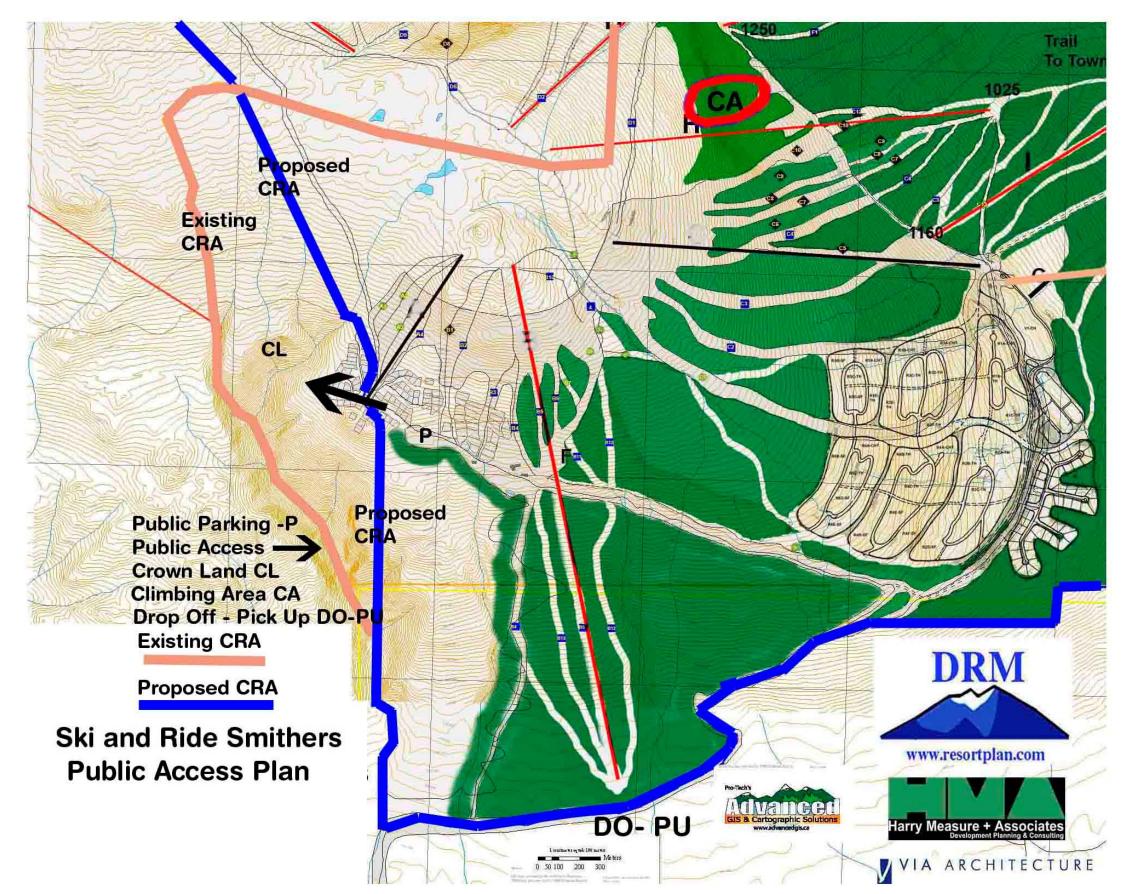
It is proposed that the Reality Check Climbing Area be excluded from the CRA and designated as a recreation site under the Forest and Range Act. Reasonable access through the CRA to this climbing area will not be denied.

#### 2.12.6. Controlled Recreation Area – General Access

The tenure holder shall not unreasonable restrict public access to and within the controlled recreation area for purposes of private, non-motorized recreation, including but not limited to hiking, mountain biking, snowshoeing and backcountry skiing.

## 2.12.7. Study Zones

The resort intends to request that the Province establish reserves (Section 12 of the Land Act) for public use recreation and enjoyment and therefore public access will be unrestricted in the study zones (See Figure 3).



## 2.13. Ski & Ride Smithers Phasing Program

As previously stated the proposed expansion plan has been divided into three phases.

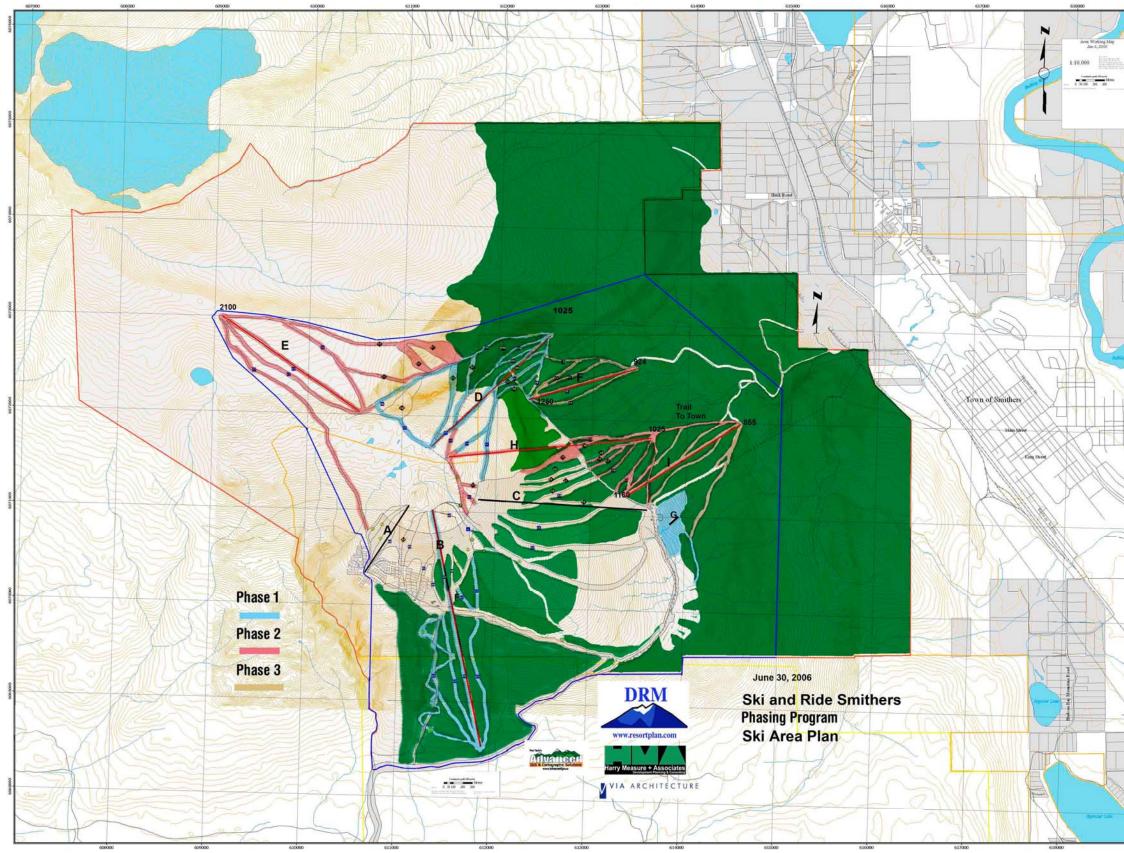
The Phasing program is as follows:

Phase 1 Terrain Pods B - Extended, D and G.

Phase 2 Terrain Pods E, C- Extended and H Ski Lift and Access Trails

Phase 3 Terrain Pods F and I

See Figure 20, 25 & 31.





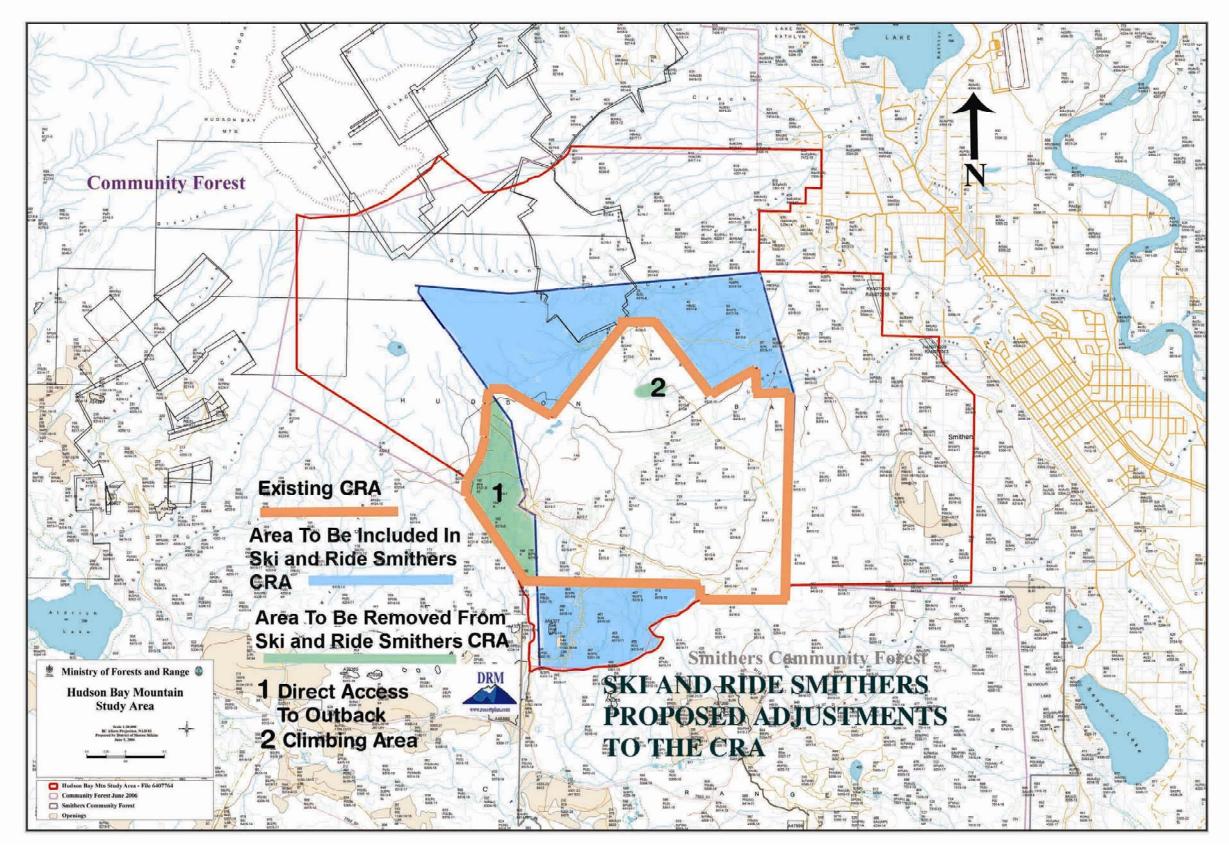


Figure 36 – CRA and Study Area Map

## 2.14. Multi Season Activities

Due to the relocation of Base Area and village closer to the Town of Smithers, it has become obvious that Ski & Ride Smithers can become a hub from which those staying in the region can participate in a wide variety of activities. This is also part of the thinking behind the multi season tourism gondola lift from downtown Smithers.

The concept is to use the attributes of the resort site, in terms of recreation, and the attributes of the region to form a link which will allow Ski & Ride Smithers to become a main recreation / resort center in the area.

A critical component for Ski & Ride Smithers to becoming a multi season attraction would be the installation of a tourism gondola from the Town of Smithers to the Ski & Ride Smithers new base area. See Figure 40 - 43 as examples from Heavenly Valley in Nevada.

#### 2.14.1. Summer – Fall Activities and Attractions

- Trail riding
- Mountain biking with link to the regional trails system
- Ski lift link for riders and hikers to regional trails
- Climbing center with excursions to other climbing zones within the region
- Back country excursions
- BMX facilities
- Canopy walks
- Other attractions

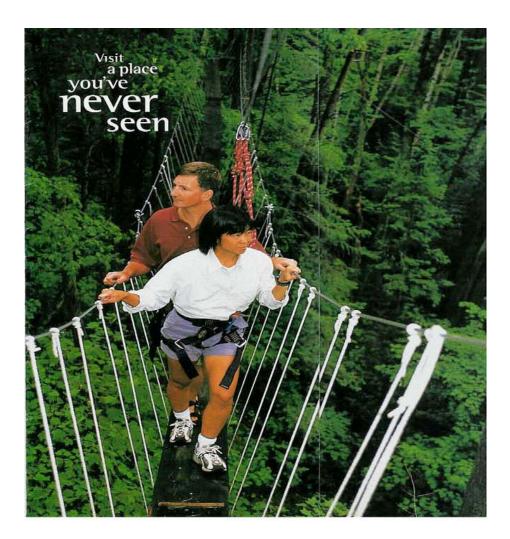


Figure 37 – Canopy Walk

#### Multi Season Trails Use

Ski & Ride Smithers is committed to improving, developing and maintaining a multi season trails network.

In the upper alpine, this will include restricting access during certain time periods due to impacts to wildlife and the environment. In addition, there will be no lift access in the upper alpine. The multi season access will include chair lift chair lifts C and D for special events and the proposed tourism gondola lift from Smithers.

At present there are well established trails throughout the region, as well as the existing and proposed CRA. In the future Ski & Ride Smithers will be working with the various "trails" groups to produce a trails network map.

The Multi Season Trails map provided by the North East Slope Trails Association, on the following page, highlights the potential trails network.

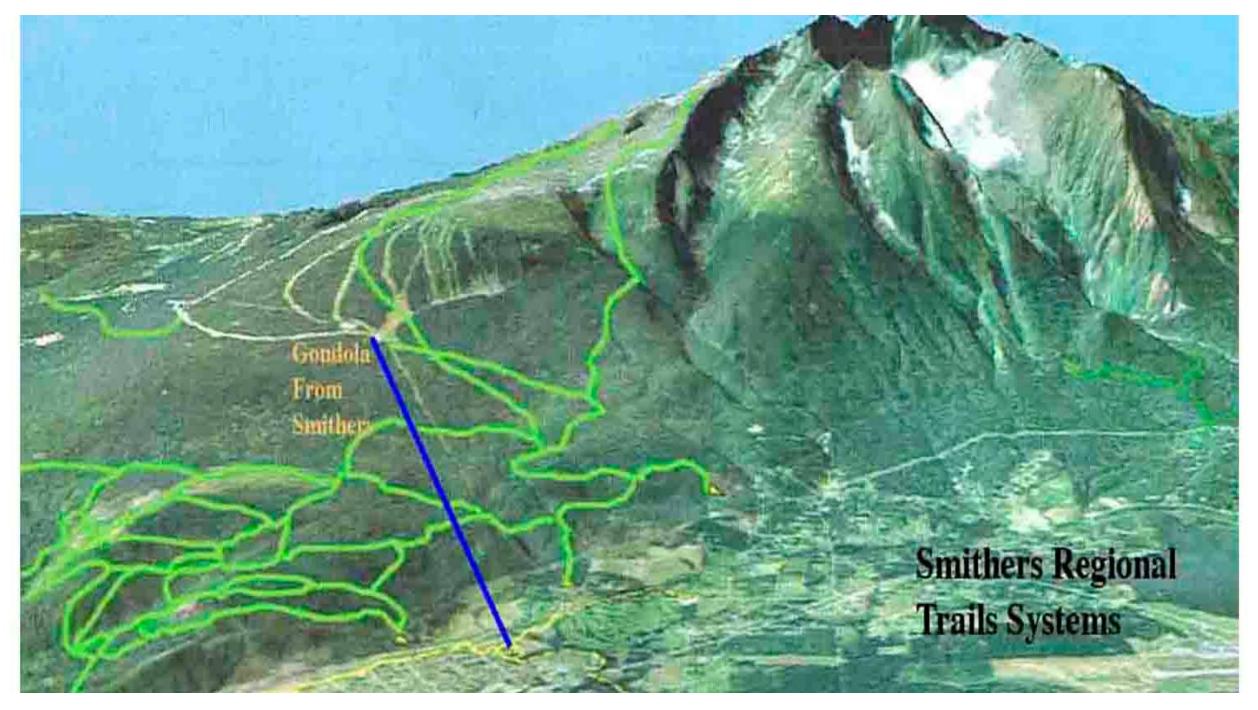


Figure 38 – Trail System

## 2.14.2. Winter Activities and Attractions



#### Figure 39 – Snow Tubing

In addition to skiing and snowboarding the following activities will be conducted at Ski & Ride Smithers, or in the region.

- cross country skiing with links to local trail systems
- snow shoeing on traditional routes
- winter snow play activities such as tubing
- mountain touring on traditional routes
- ice climbing
- dog sled tours

# 2.14.3. Multi Season Tourism Gondola

A tourism gondola from the Town of Smithers to the village has been included as part of the plan. See Figure 40-43. This concept is similar to the gondola in Breckenridge, Co which was announced this spring and construction is planned to go ahead immediately. The gondola which will connect the Town of Breckenridge to the Breckenridge Ski Resort is viewed as a Public Transit System and will not be used as a ski lift. A further example is the newly installed gondola in South Lake Tahoe, which runs from the town to

Heavenly Valley ski area. This facility has a parking garage, real estate and retail. In addition, there is a shuttle bus drop off for the region. See photos and map below.

It is contemplated that this enterprise would be a municipal or regional facility, due to the positive impact on the Town of Smithers and its retail, food, beverage and accommodation facilities in the region. It is contemplated that the majority of visitors to the region would either park or be dropped off at the bottom terminal of the gondola, thus reducing the need for additional improvements to the road up to the resort as well as reducing potential environmental impacts associated with additional vehicles driving up to the mountain.

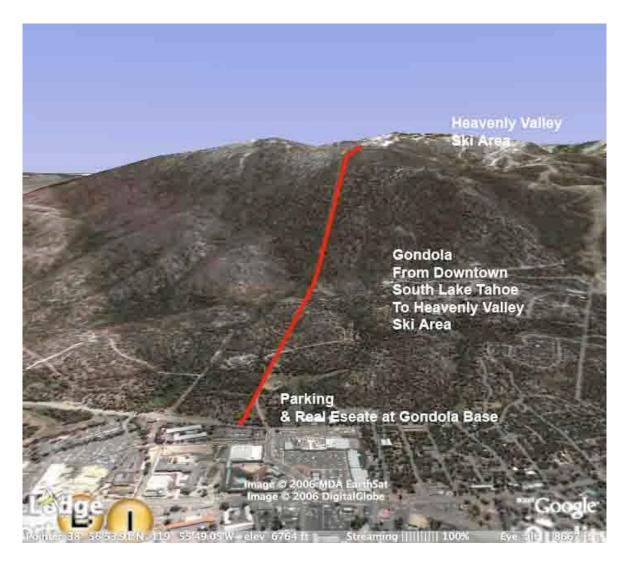


Figure 40 – Heavenly Gondola

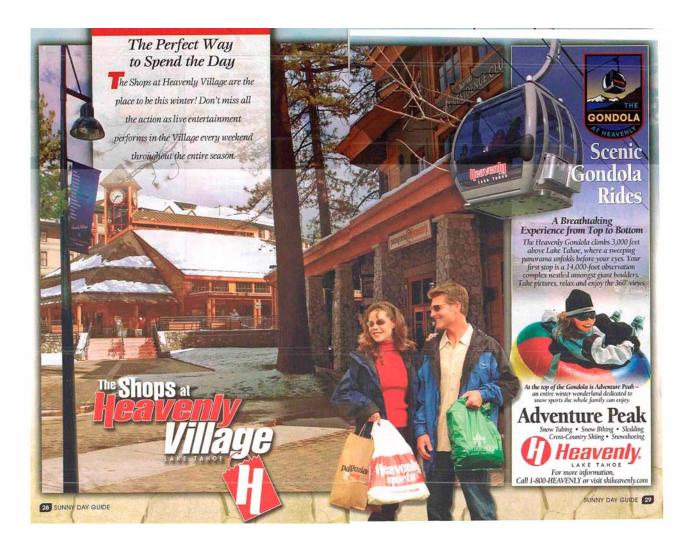


Figure 41 – Heavenly Gondola Terminal



**Figure 42 – Base Retail and Accommodation** Down Town Gondola, Retail and Accommodation



**Figure 43 – Drop off and Parking** Bus Drop Off and Parking Garage

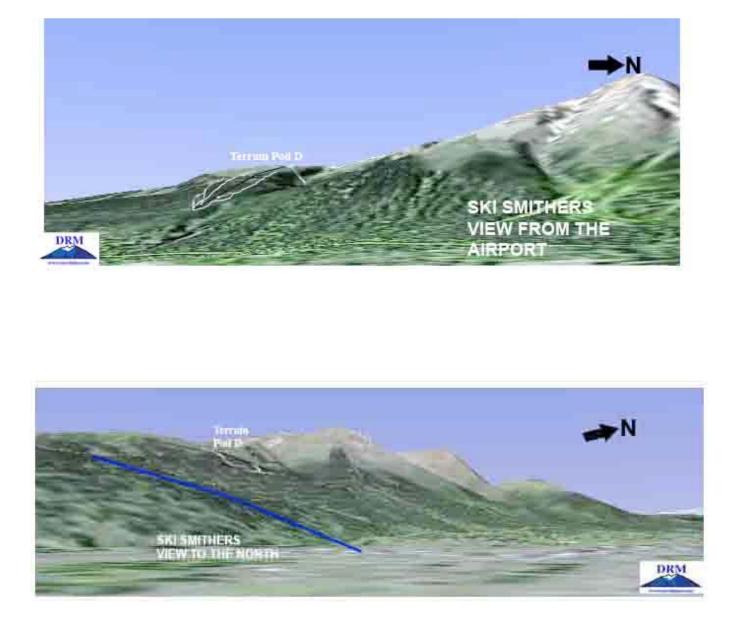


Figure 44 – View scapes

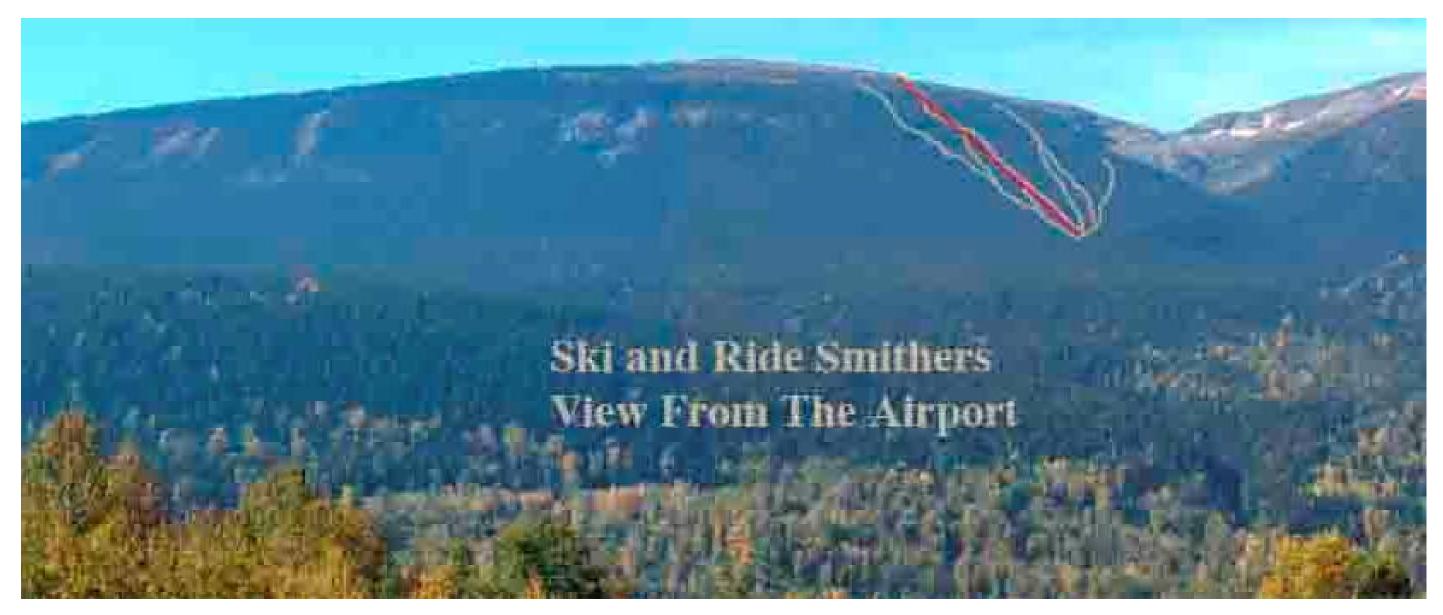


Figure 45 – Airport View

# 3.0 Base Area Section

#### **3.1 Introduction**

There are a number of items that need to be highlighted in order to define the base area plan at the resort, including:

- At present there are approximately 104 cabins located on Crown land adjacent to the ski area. They are not part of the ski area proper. Ski & Ride Smithers, as the tenure holder, will not be held responsible for any required upgrade to the infrastructure requirements in the Cabin Colony.
- The proposed conceptual plan is developed in accordance with the Commercial Alpine Skiing Policy.
- Due to Ski & Ride Smithers being a community based / owned facility, there is an opportunity to provide additional facilities that meet specific community needs that may not be considered as part of a private sector ski area.
- The Multi Season Tourism Gondola described above will have a significant impact on the evolution and development of the base area. If the Gondola goes ahead, it is envisaged that the Village Center will be scaled down due to the proximity of the existing Main Street in the Town of Smithers.

#### **3.1.1. Base Plan Objectives**

There are a number of objectives that were considered in terms of developing a base area plan. They are:

- Define areas of potential use.
- Define development zones to be studied for future development.
- Provide Smithers with a conceptual base area plan.
- Adjust the ski areas Controlled Recreation Boundary so that the development zones are protected for the uses as defined.

## 3.1.2. The All Seasons Resort and Commercial Alpine Ski Policies

The vision of the All Seasons Resort Policy (ASR) is to develop British Columbia as a world – class all seasons resort destination. The Province of BC recognizes the need to encourage the development of all seasons resorts while ensuring sustainable land use, equity and consistency of applications and receiving a fair return to the Crown.

In addition to the ASR principles and objectives, the CASP is aimed at promoting and encouraging the economic development and continuous operation of ski areas and related all seasons activities in British Columbia and to allocate land in a planned and phased manner in accordance with an approved Resort Master Plan.

#### All Seasons Resort Guidelines – Chapter II: Mountain Resorts

The All Seasons Resort Guidelines are intended to assist in the implementation of the ASR and CASP policies. Of specific interest in the guidelines is the Alpine Skiing Bed Unit Calculation Model. The model is defined as follows:

"The Alpine Skiing Bed Unit Calculation Model is intended to assist in determining the number of bed units that may be warranted for application to the mountain resort that is primarily driven by lift serviced alpine skiing. Based on their perceived attributes, Regional and Destination Mountain Resorts are eligible to build a specified number of bed units within their proposed base area. Based on designed site plans, bed units can be assigned to specific sites within the base area. If the specific sites are Crown land, the resort may purchase Crown land from the Province based on the terms and conditions of CASP".

The initial step in the Bed Unit Calculation Model is to assign point values based on the specific existing and proposed attributes of the mountain resort under consideration of its Balanced Resort Capacity (BRC) or more commonly known as the comfortable carrying capacity. This is outlined on the table below.

| Attribute                 | Existing | Phase 2 |
|---------------------------|----------|---------|
|                           |          |         |
| Ski Terrain               | 2        | 3       |
| Average Skier Density     | 3        | 3       |
| Accessibility             | 6        | 6       |
| Access Reliability        | 2        | 2       |
| Population                | 2        | 2       |
| Unique Qualities          | 2        | 2       |
| All Season Facilities     | 3        | 3       |
| Length of Season          | 4        | 4       |
| Type of Snow              | 3        | 3       |
| Weather (sunshine)        | 3        | 3       |
| Express Lifts             | 0        | 1       |
| Need for Employee Housing | 0        | 1       |
|                           |          |         |
| Total                     | 31       | 33      |

#### Figure 46 – Total Points Rating

Based on the Total Points Rating, as noted above, Ski & Ride Smithers would be entitled to 79% and 95% of its' Balanced Resort Capacity in the form of bed units.

| 17-Jul-06   | Ski and Ride              | Smithers Bed   | Unit Calculatio | ons     |
|---|---------------------------|----------------|-----------------|---------|
|   | Existing                  | Phase 1        | Phase 2         | Phase 3 |
| CCC<br>Revised due to T-Bar<br>Replacement<br>As a % of CCC | 1830                      | 4345<br>2515   | 2712            | 2553    |
| 79.00%  | 1446                      |                |                 |         |
| 95.00%  |                           | 2389           | 2576.4          | 2425    |
| Cumlative Total<br>For Bed Units                            |                           | 3835           | 6411            | 8837    |
| Note: Phase 1 has been adjuste                              | ed for the replacement of | the T-Bar with | a Detachable    | Quad    |

Figure 47 - Bed Unit Calculation

## 3.1.3. Base Area Development

The proposed Base Lands are accessed from the road to the existing Ski & Ride Smithers base area by a 1.5 km unpaved gravel road. The proposed base area at Ski & Ride Smithers is sited along a gently sloping bench that is terminated to the north at an existing triple chairlift and satellite day skier parking area. The proposed Base Lands primarily consist of undisturbed forest cover other than areas cleared for lift alignment, ski runs and parking. Seasonal watercourses flow through the site.

## 3.2 Base Lands Design Components

The following components form the basis for the Base Lands Master Plan at Ski & Ride Smithers Resort.

## 3.2.1. Access Road

The main access road to the proposed Village Base Lands currently serves as an unpaved access to the existing Ski & Ride Smithers base area. The access to the proposed Village Base Lands is approximately 18 kilometers from downtown Smithers.

The Ministry of Transportation and Highways is responsible for maintenance of the existing access road to the resort. Improvements to the road, including paving, are part of the phased development plan for the resort Village Base Lands. Ski & Ride Smithers will continue to seek government support for funding to improve this access route.

## 3.2.2. Skier Drop Off

The primary skier drop off is located between the day skier parking lot and the southern edge of the Village main pedestrian street. The Village Pedestrian Street is at grade following the contours to the lift staging area

located at the northern edge. All facilities including the gondola access from downtown Smithers are located along the pedestrian street within comfortable walking distances.

A secondary convenience drop off area has been located fronting the Skier Services Building on the western edge of the Village, and another convenience drop off area has been located adjacent the gondola terminal on the eastern edge of the Village. These secondary drop - off areas provide service, emergency and convenience access.

# 3.2.3. Parking

With reference to Table: <u>Ski & Ride Smithers Base Area Facilities Program</u>, 364 stalls for automobiles (10,920 m2) and 7 bus stalls (336 m2) are located in the original base area. These stalls will be maintained to serve that operation.

The new day skier parking lots illustrated in the Base Lands concept drawing is located to the south of the Village immediately adjacent the Skier Drop off area. These parking lots are designed to be built on a phased basis in response to parking demand. Snow dump areas have been integrated into the parking lot design for maintenance efficiencies. The snow dump areas will be heavily landscaped to reduce the visual impacts of a large expanse of vehicles upon the surrounding areas. The landscaped snow dump areas will also serve as bio- filtration zones for snowmelt. Bus parking will be located adjacent the proposed the Maintenance Facility. The parking area dedicated to buses will be constructed when full utilization of the day skier parking lots is required for automobiles.

With reference to Table: <u>Ski Smithers Base Area Facilities Program</u>, approximately 863 car stalls and 5 bus stalls need to be constructed in Phase 1, 824 car stalls in Phase 2, and 776 stalls in Phase 3 to achieve the acceptable comfortable carrying capacity associated with each phase. The proposed day skier parking lots are approximately 6.77 ha, and can accommodate approximately 2256 stalls. Combined with the 364 stalls of parking existing in the original base, a shortfall of 207 stalls from the 2827 stalls required to meet a comfortable capacity at 8837 skier will exist. This shortfall can be resolved in a variety of ways.

Parking is a situation that will be assessed on a phase by phase basis to maintain Ski & Ride Smithers comfortable carrying capacity. Ongoing assessment of parking requirements will ensure that sufficient parking locations are identified to meet the future needs of the area. A variety of options that will also be considered to reduce parking requirements may include:

- Recruiting parking attendants to direct parking operations on days of peak demand for maximum efficiency
- Establishing a public shuttle bus system from the Town of Smithers
- Increasing the number of ski in/ski out units
- Constructing an access lift from downtown Smithers to the Village Center
- Creating additional parking lots to the east (downhill) of the Day Skier Parking Lots identified in the Village Plan.

## **3.2.4.** Maintenance and Storage Buildings

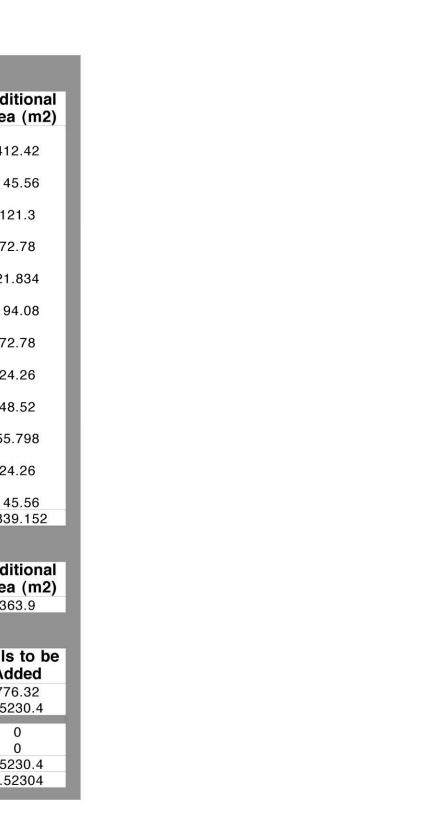
The maintenance and storage buildings are currently located in the original base area and provide services for all resort maintenance functions. At 575 square meters, the maintenance building will continue to serve this role in some capacity, even after a new maintenance facility is constructed adjacent the proposed Village.

Approximately 220 square meters are need to be built in Phase 1, 742 square meters in Phase 2, and an additional 363 square meters in Phase 3 to meet increased maintenance requirements. The proposed site of the maintenance and storage building is located on a shelf to the southeast of the future day skier lots. This site is set within a forest with sufficient area for the building footprint as well as outside storage, circulation and parking needs.

# Ski Smithers Base Area Facilities Program

| Component                        | Mulitiplier          | Existing                  | Phase 1             | Area to be               | Phase 2              | Additional              | Phase 3              | Additional              |
|----------------------------------|----------------------|---------------------------|---------------------|--------------------------|----------------------|-------------------------|----------------------|-------------------------|
| (m2)                             |                      | (Areas in M2)             | CCC=3835            | added (m2)               | CCC= 6411            | Area (m2)               | CCC= 8837            | Area (m2)               |
| Food Service Seating             | 0.17                 | 276                       | 651.95              | 375.95                   | 1089.87              | 437.92                  | 1502.29              | 412.42                  |
| Kitchen + Scramble               | 0.06                 | 101                       | 230.1               | 129.1                    | 384.66               | 154.56                  | 530.22               | 145.56                  |
| Lounge Service                   | 0.05                 | 157                       | 191.75              | 34.75                    | 320.55               | 128.8                   | 441.85               | 121.3                   |
| Toilets                          | 0.03                 | 34                        | 115.05              | 81.05                    | 192.33               | 77.28                   | 265.11               | 72.78                   |
| First Aid                        | 0.009                | 72                        | 34.515              | -37.485                  | 57.699               | 23.184                  | 79.533               | 21.834                  |
| Rentals / Retail                 | 0.08                 | 112                       | 306.8               | 194.8                    | 512.88               | 206.08                  | 706.96               | 194.08                  |
| Lockers                          | 0.03                 | 41                        | 115.05              | 74.05                    | 192.33               | 77.28                   | 265.11               | 72.78                   |
| Child Minding                    | 0.01                 | 40                        | 38.35               | -1.65                    | 64.11                | 25.76                   | 88.37                | 24.26                   |
| Ski School / Racing              | 0.02                 | 51                        | 76.7                | 25.7                     | 128.22               | 51.52                   | 176.74               | 48.52                   |
| Tickets / Admin                  | 0.023                | 40                        | 88.205              | 48.205                   | 147.453              | 59.248                  | 203.251              | 55.798                  |
| Employee Lockers                 | 0.01                 | 17                        | 38.35               | 21.35                    | 64.11                | 25.76                   | 88.37                | 24.26                   |
| Mech, Storage, Circ.             | 0.06<br>Totals:      | 80<br>1021                | 230.1<br>2116.92    | 150.1<br>1095.92         | 384.66<br>3538.872   | 154.56<br>1421.952      | 530.22<br>4878.024   | 145.56<br>1339.152      |
|                                  |                      | 1021                      | 2110.02             | 1000.02                  | 0000.072             | 1421.002                | 4070.024             | 1003.132                |
| Maintenance Facilities           |                      |                           |                     |                          | <i>n</i>             |                         |                      |                         |
| Component<br>(m2)                | Mulitiplier          | Existing<br>(Areas in M2) | Phase 1<br>CCC=3835 | Area to be<br>added (m2) | Phase 2<br>CCC= 6411 | Additional<br>Area (m2) | Phase 3<br>CCC= 8837 | Additional<br>Area (m2) |
| Maintenance Shop                 | 0.15                 | 356                       | 575.25              | 219.25                   | 961.65               | 742.4                   | 1325.55              | 363.9                   |
| Parking: (80 % CC)               |                      |                           |                     |                          |                      |                         |                      |                         |
| Component                        | Mulitiplier          | Existing                  | Phase 1             | Stalls to be             | Phase 2              | Stalls to be            | Phase 3              | Stalls to be            |
| (m2)                             |                      | stalls                    | CCC=3835            | Added                    | CCC= 6411            | Added                   | CCC= 8837            | Added                   |
| Autos @ 2.5/car                  | 0.32                 | 364                       | 1227.2              | 863.2                    | 2051.52              | 824.32                  | 2827.84              | 776.32                  |
| Total Stall Area (30.0 m2/stall) |                      | 10920                     | 39884               | 28054                    | 66674.4              | 26790.4                 | 91904.8              | 25230.4                 |
| Buses @ 40/bus                   | 0.01                 | 7                         | 12                  | 5                        | 12                   | 0                       | 12                   | 0                       |
| Total Bus Stall Area (m2/bus)    | 48                   | 336                       | 576                 | 240                      | 0                    | 0                       | 0                    | 0                       |
|                                  | Area Required (m2) : | 11256                     | 40460               | 28294                    | 66674.4              | 26790.4                 | 91904.8              | 25230.4                 |
| Total Parking                    | Area Required (ha) : | 1.1256                    | 4.046               | 2.8294                   | 6.66744              | 2.67904                 | 9.19048              | 2.52304                 |

Figure 48 – Base Area Facilities Program



## **3.3. Village Center Design**

The Village Center has been located to the south of the existing lift and runs. This site is a gently sloping bench and offers dramatic long distance views of the Bulkley Valley to the North, East and South.

The significant aspects of the Village Center Design consist of the following components:

#### **3.3.1.** Pedestrian Street

The Village Center has been designed as a pedestrian Village that features a vehicle free main street. The pedestrian main street will incorporate plazas and other areas that will be the stage set for outdoor entertainment and cultural events.

Buildings within the Village will be designed to not exceed four stories in height, and will feature retail and other commercial operations on the ground floor with nightly accommodations above. To maintain important view corridors to the ski runs and to the Bulkley Valley, spaces between buildings have been established and the massing of specific buildings will be stepped down. Parking associated with the nightly accommodation units will be located beneath each building in an underground parking structure.

## 3.3.2. Base Lodge

Currently, approximately 950 square meters of space is allocated to skier services (food services, lounge toilets, rental and retail, lockers, child minding, ski school, ticketing and employee lockers) in several buildings in the original base area. These services will continue to operate from these buildings as satellite operations to the proposed Village.

The new day lodge, defined as the Skier Services Building in the proposed Village Center Plan, is located to offer services to day skiers and longer-term visitors. The Skier Services Building has a footprint of 1900 square meters and will have full basement and a full second floor. At 5700 square meters in area, it has sufficient area to accommodate the 4878 square meters specific to Ski & Ride Smithers comfortable carrying capacity required at the end of Phase 3 (refer to Ski & Ride Smithers Base Area Facilities Program). Additional skier services such as retail, food and beverage, lockers and equipment rental, and retail will be dispersed throughout the ground level of all buildings in the Village Center.

## 3.3.3. Ski Patrol and First Aid Building

With reference to the Ski & Ride Smithers Base Area Facilities Program, approximately 72 square meters are presently allocated to ski patrol and first aid functions in the original base area. These services will continue to operate in this location.

A ski patrol and first aid building will be contained in a dedicated structure across the convenience drop off road to the west of the Skier Service Building. This building will front the drop off area to the east, and provide sufficient outdoor circulation for emergency vehicles. It will also front the ski runs and lift staging area. Siting of this building allows direct emergency vehicle access, high visibility to the public, and a location independent of the Village's main pedestrian area. Approximately 80 square meters of space for ski patrol and first aid services are required to meet a comfortable carrying capacity of 8837 skiers at build out

of the Phase 3 expansion. Because this demand has already been met for these services in the original base area, the new facility will be in addition to the comfortable capacity requirements but necessary.

#### 3.3.4. Village Residential/Commercial Buildings

Hotel and Condominium-hotel buildings within the Village Center (illustrated on the village centre plan as H1-H8) front the pedestrian street and have been sited to not impede views or solar access.

Service and vehicular access for visitor drop off are located to the east and west of the village core. This effectively separates the pedestrian from the vehicle and improves safety, accessibility and ambience of the Village Center.

The massing of individual buildings will be modulated at strategic points along the Village pedestrian street to optimize views to the mountain and valley. Buildings are also articulated in plan to add variety to the streetscape, improve solar access to outdoor spaces, and to assist in reducing the visual impact of the Village centre in the landscape context when viewed from a distance.

The proposed Village Center Landscaping concept includes integration of the natural landscape with introduced vegetation. Retaining walls and ground structures will further blend the overall form into the existing topography.

The density of the Village Centre has been established achieve the critical mass of resident population necessary to support the proposed commercial retail component. Specific data is documented in the Ski & Ride Smithers Development Data Summary.

Materials and architectural style will reflect local context and respond to the design determinants of the mountain setting.

#### **3.4. Base Lands Residential**

The Base Lands Residential development consists of eight (8) neighborhoods strategically located uphill from the Village Centre The development program varies the density mix to accommodate implementation of the phasing program along the existing topography. A network of roadways, pedestrian pathways and skiin/ski-out trails connect these neighborhoods with the Village Center, lift staging areas and other amenities.

The residential neighborhoods range in size, density and land use to offer various development types during the phasing program. Higher density land uses have been located adjacent the Village Centre and primary ski trails. Lower density land uses, such as single family and duplex residential lots, have been located on the periphery of the development area.

As identified in the Ski & Ride Smithers Development Data Summary, building types include generic allocation of hotel, condominium, lodge, town home and single family residential. Within these subgroups, variation in units per acre, applied density designations, and building type will offer a range of accommodations that respond to terrain and to market conditions.

#### 3.4.1. Ski trail network

The residential neighborhoods are integrated into existing and future trails that maximize ski access for residential development. Existing and future lift access, trail layout, and terrain considerations are incorporated into this system, which directs ski out traffic to Village Centre entry portals and amenities.

## 3.4.2. Pedestrian Trail Network and Greenways

In conjunction with the ski network, the residential neighborhood layout includes a network of seasonallyutilized trails and greenways that serve;

- to connect residents to ski trails in winter, and to walking trails in summer
- as landscape buffers between separate development clusters, and
- as transitions between roadways and residential areas

## **3.4.3.** Hillside Terrain Design

The residential neighborhood planning reflects hillside design criteria and the effect of built form on existing contours. Individual lot layout and roadway design responds to topographic conditions to minimize the requirement for grading and the visual and physical impacts of development. Building design will be required to conform to design guidelines that are founded upon proven hillside design criteria.

These principles ensure through all phases to build-out:

- Protection of the natural environment
- Quality landscaping and building construction, and
- Maintaining views from residential buildings over those located below

## 3.4.4. Preservation of the Natural Environment

Where possible, natural landscape features will be preserved in common areas within the Neighborhood Residential zones. Preservation of the natural environment on private lands will be achieved through restrictive covenants that establish preservation setback areas from the each property boundary.

# 3.4.5. Phasing

Phased implementation of bed units from Phase 1 through build-out is identified in the Ski & Ride Smithers Development Phasing Plan and in the Ski & Ride Smithers Development data summary. The phasing philosophy is based on sound development practices of establishing early phase density closest to the Village Centre, and developing outward. This effectively balances infrastructure costs with real estate sales. It also maintains sequential development of the residential neighborhoods to ensure the resort evolves as a cohesive, centralized, and integrated community - regardless of the phasing schedule.

Phasing of development through provision of bed units – as relative to introduction of on-mountain capacity increase phases – is illustrated in the Residential Phasing Plan and further quantified in the Development Data Summary. In summary, resort build-out is modeled as follows;

| Phased Development Pods;      | Village and eight (8) residential neighborhoods |
|-------------------------------|---|
| Developable Residential Land; | 61.927 hectares (152.9 acres)                   |
| Proposed Bed Units Total;     | 8,837   |

| Proposed Dwellings Total;   | 2,638   |
|-----------------------------|---|
| Average Dwellings per acre; | 17.2 (including Village Centre and Residential Lands) |

#### **3.4.6.** Employee Housing:

Ski & Ride Smithers is approximately fifteen minutes by car from the Town of Smithers - the region's largest population center. The Town of Smithers provides a full range of local services including schools, health care, transportation, cultural and recreation community amenities, and diverse retail offerings.

Due to the close proximity of the Town of Smithers to the resort, and the affordability of a broad range of accommodation types, employees of Ski & Ride Smithers have historically chose to live in town. The Town of Smithers will continue to be the choice of location where the majority of Ski & Ride Smithers employees reside given the full spectrum of community services and amenities available. The Town of Smithers also has substantial housing stock, vacant land and infill opportunities to respond to the accommodation needs of the additional staff required in future phases of the resort. Due to the significant amount of existing housing stock and vacant land available, housing prices will remain affordable.

It is also beneficial and necessary to have some employees residing at the resort. In some of the privately held dwellings at Ski & Ride Smithers, there will be provision for secondary suites to accommodate those full time and seasonal employees who need to, or wish to, live 'on the mountain'. In many resort towns, secondary suites have not only met the housing requirements of staff, but the presence of seasonal and year round residences has reduced crime and contributed to public safety issues such as quick response to fire fighting.

# 3.5. Master Plan

The MASTERPLAN – Figure 49 – identifies graphically a representation of an illustrative plan of the resort concept including;

- Village and residential development pods,
- Roadways and parking,
- Existing base,
- Runs and infrastructure improvements in proximity to the resort,
- Context of vegetation and topography.

Information noted includes identification of development pods; V1, P1, R1, R2, R3, R4, R5, R6, R7 and R8.

- Pod V1 represents Village Pod 1
- Pod P1 represents Parking Pod 1
- Pods R1, R2, R3, R4 represent Residential Pods 1 to 4 respectively
- Pods R5, R6, R7 and R8 represent Future Reserves 5 to 8 respectively

Pod colour identifies land use as noted on the drawing legend.

Specific use type and detailed density allocations for each development pod sub area are further identified in columns 4, 10, 11, 12 13, 14, 15 and 16 of the DEVELOPMENT DATA SUMMARY. Refer to drawing PARCELIZATION LAYOUT for identification of sub areas, and to the DENSITY MODEL PLAN and PHASING PLAN for further development detail.

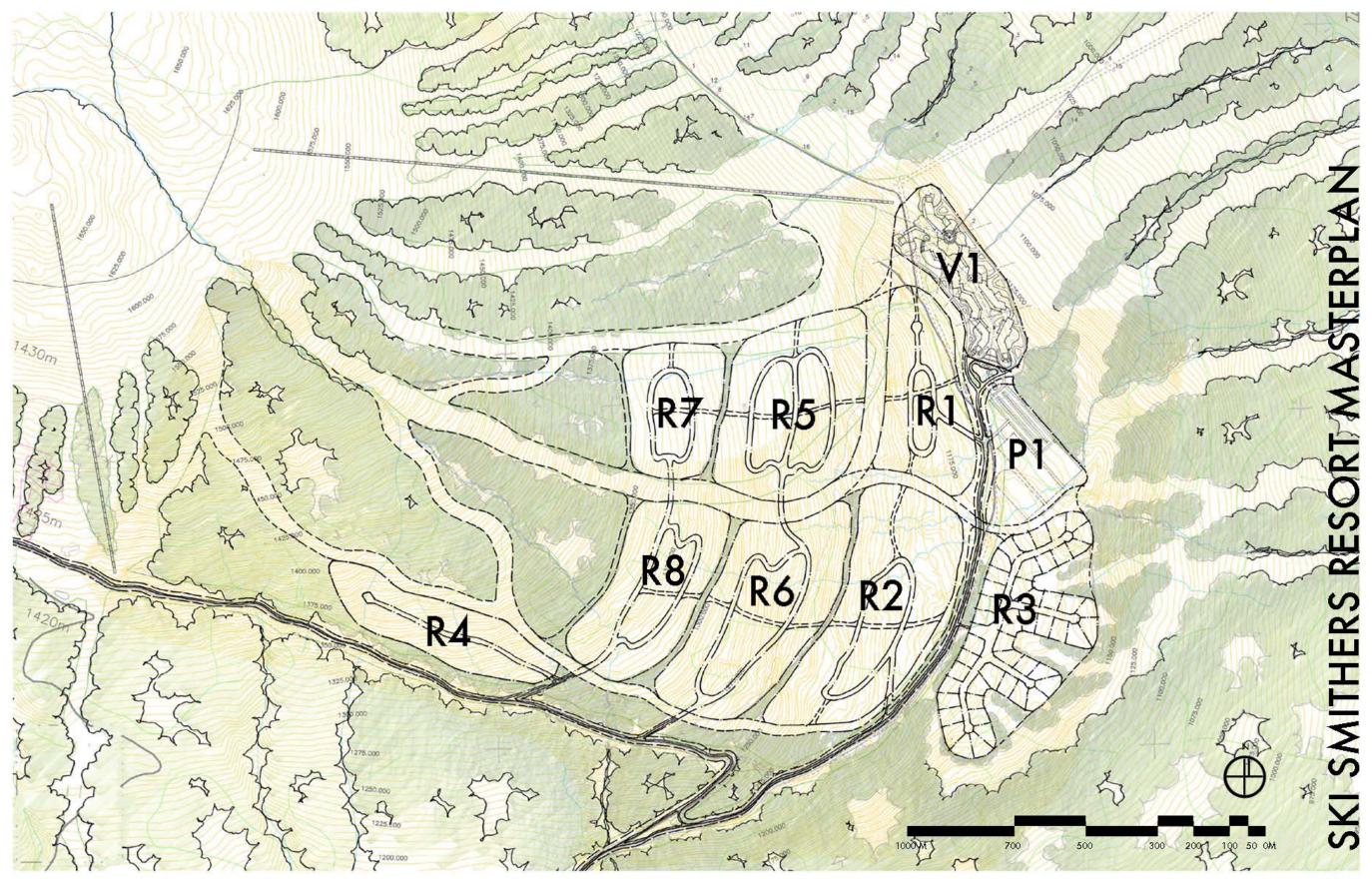


Figure 49 – Master Plan

# 3.6. Density Model Plan

The DENSITY MODEL plan – Figure 50 identifies graphically the density allocation identified in the DEVELOPMENT DATA SUMMARY and represents the resort density modulation concept described in Section 3.4.1; Base Lands Residential Design Statement.

This plan directly illustrates general density allocation the resort residential land use types identified in the resort concept;

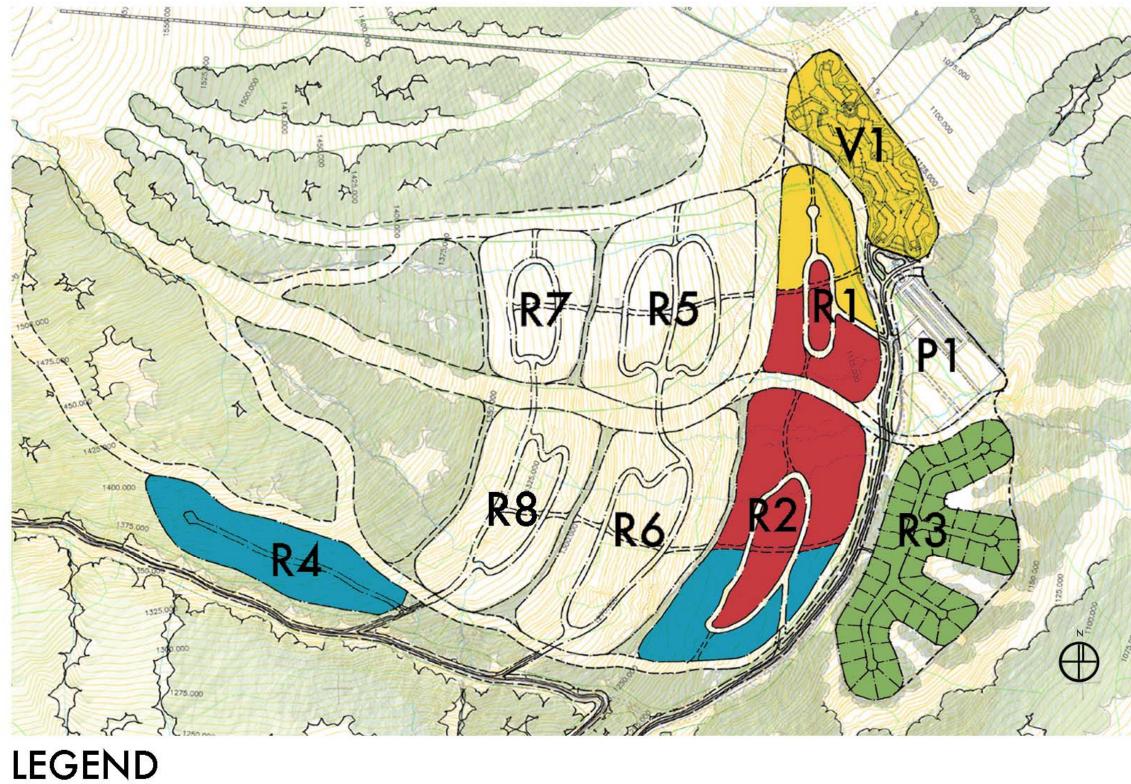
- condominium/hotel/lodge,
- town home,
- single family,
- estate lot.

Specific use type and detailed density allocations for each development pod sub area are further identified in columns 4, 10, 11, 12, 13, 14, 15 and 16 of the DEVELOPMENT DATA SUMMARY. Refer to drawing PARCELIZATION LAYOUT for identification of sub areas.

Information noted includes identification of development pods; V1, P1, R1, R2, R3, R4, R5, R6, R7 and R8.

- Pod V1 represents Village Pod 1
- Pod P1 represents Parking Pod 1
- Pods R1, R2, R3, R4 represent Residential Pods 1 to 4 respectively
- Pods R5, R6, R7 and R8 represent Future Reserves 5 to 8 respectively

Pod colour identifies land use as noted on the drawing legend.









ESTATE LOTS

Figure 50 - Density Model



## DENSITY MODEL

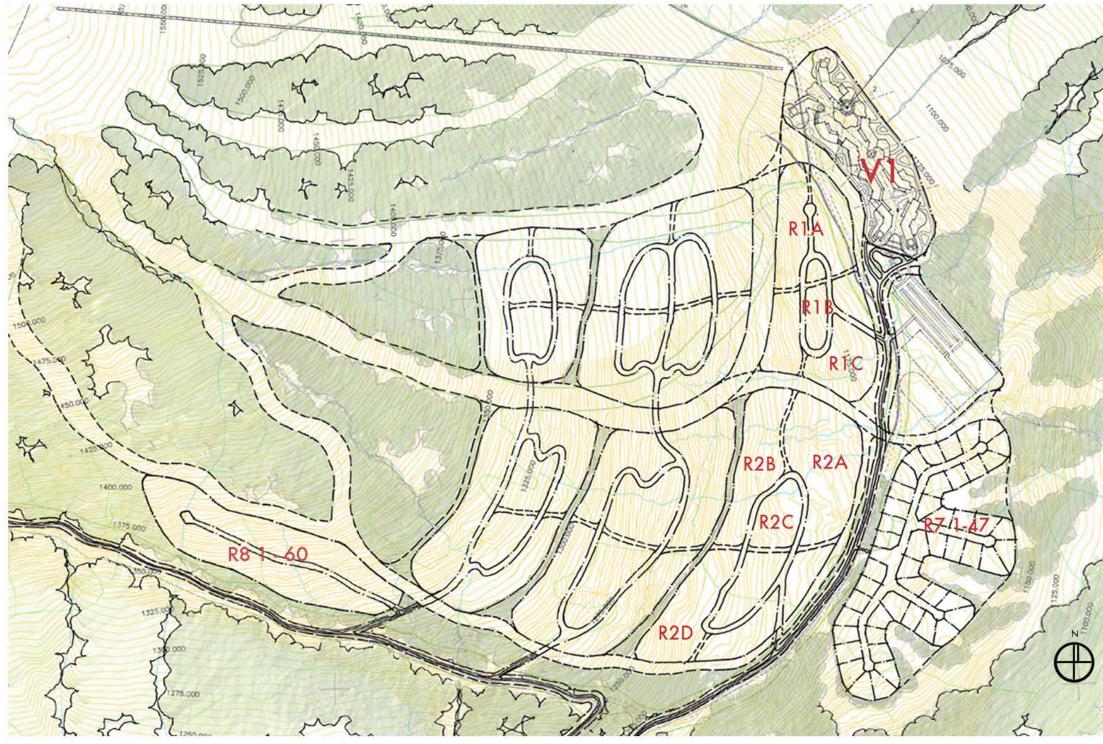
### 3.7. Parcelization Layout Plan

The PARCELIZATION LAYOUT plan – Figure 51 identifies graphically the Residential Pod and Residential Pod Sub areas identified in the DEVELOPMENT DATA SUMMARY.

Specific use type and detailed density allocations for each development pod sub area are further identified in columns 4, 10, 11, 12, 13, 14, 15 and 16 of the DEVELOPMENT DATA SUMMARY.

Information noted includes identification of following development pods and sub areas; V1, R1, R2, R3, R4.

- Pod V1 represents Village Pod 1.
- Pods R1, R2, R3, and R4 represent residential development pods outside the village core area.



### LEGEND

TEXT IDENTIFIES NEIGHBOURHOOD NUMBER (i.e.; R1), FOLLOWED BY PARCEL NUMBER (i.e.; R1A)

Figure 51 – Parcelization Layout Plan



# PARCELIZATION LAYOUT

### 3.8. Phasing Plan

The PHASING PLAN – Figure 52 identifies graphically the resort phasing concept described in 3.4.

This plan directly illustrates phasing of density allocation for all use types throughout the village and residential development pods identified in the resort concept. Phasing of residential land development is related directly to implementation of resort infrastructure as identified in Section 2.0.

Specific use type and detailed density allocations for each development pod sub area are further identified in columns 4, 10, 11, 12 13, 14, 15 and 16 of the DEVELOPMENT DATA SUMMARY Figure 58. Refer to drawing PARCELIZATION LAYOUT Figure 51 for identification of sub areas.

Information noted includes identification of development pods; V1, P1, R1, R2, R3, R4, R5, R6, R7 and R8.

- Pod V1 represents Village Pod 1
- Pod P1 represents Parking Pod 1
- Pods R1, R2, R3, R4 represent Residential Pods 1 to 4 respectively
- Pods R5, R6, R7 and R8 represent Future Reserves 5 to 8 respectively

Pod colour identifies development pod phasing as noted on the drawing legend.

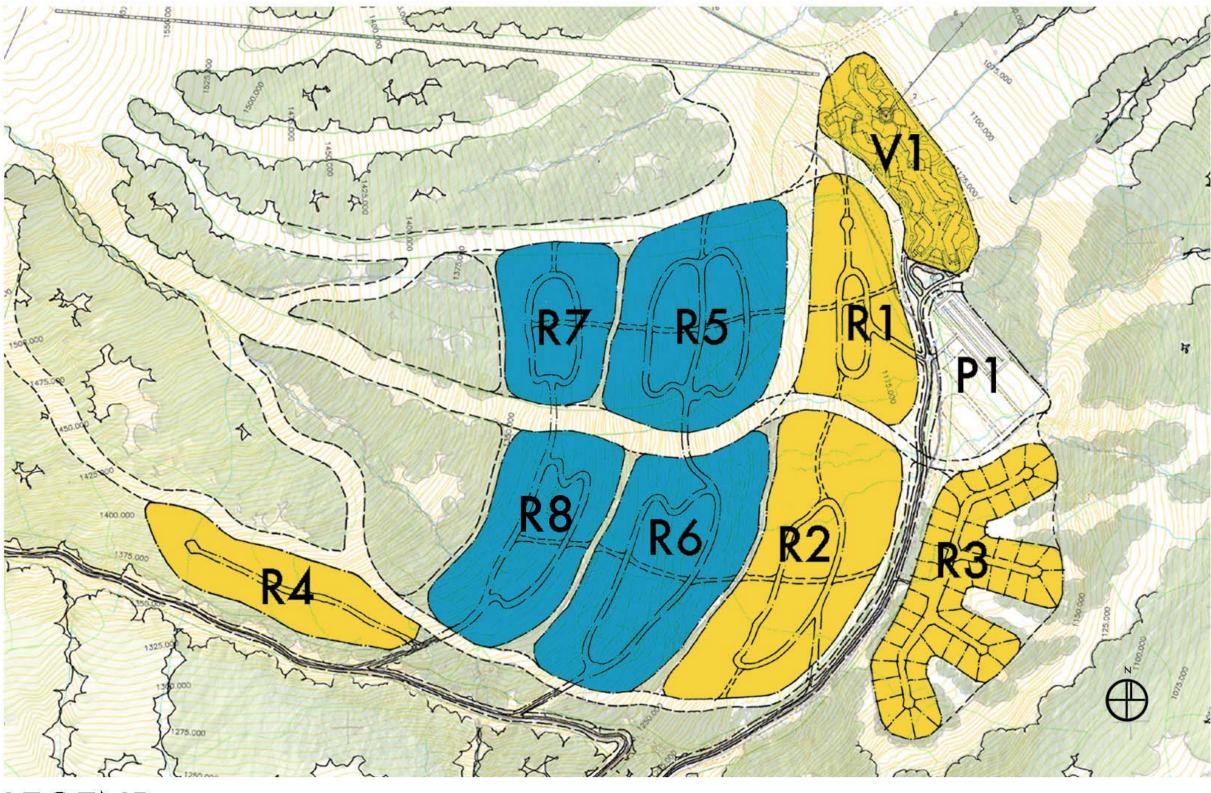




Figure 52 – Residential Phasing

## **RESIDENTIAL PHASING**



Landmark Hotel: (H2) The Landmark Hotel is in the most prominent location in the Village fronting the ski run to the west, north and east. It also anchors the northern end of the Village Core and is adjacent the arrival lift from the Town of Smithers. The Landmark Hotel is to be the highest structure in the Village and the only structure visible from the valley below. The western edge of the Landmark Hotel is to be a major merge zone with outdoor patios for dlining and apres skiing. The aspect of this area will provide good solar exposure from 2 pm to sunset and is ideal far apres ski activities.

A swimming pool and outdoor jacuzzi's can be placed at the northern end of the hotel fronting the ski runs. The orientation of the hotel enables the afternoon sun to penetrate this area. Ground level of the hotel fronting the pedestrian street will feature retail shops, while restaurants and bars will front the plaza area to the northwest. A quality spa and exercise facilities should be located adjacent the pool terrace and can also extend to the second floor. Accommodation units can be at ground level on the western elevation.

<u>Arrival Plaza</u> The Arrival Plaza is to be a highly animated introduction to the Village Core when arriving by gondala lift. The plaza will feature the gondala lift's top terminal that is to be a transparent structure of glass and steel that allows views to the operating lift components. A water feature in the farm of a boulder pond and fountain will surround the lift structure and can be used as an ice sheet or show dump area during winter months. Buildings fronting the Arrival Plaza will contain retail uses at grade. In locations of sunny exposure, outdoor cafes and dining areas are encouraged.

### Condominium Hotels (H4+H6):

Buildings H4 and H6 are condaminium hotels with retail on the ground floor and nightly accommodation units above. As with the Landmark Hotel, the lobby and underground parking structure are located on the eastern elevation 1 level beneath the pedestrian street. Some accommodation units may also be located along the eastern side of the building on the pedestrian street level.

### Gateway Condo Hotel (H8):

Building HB is condeminium hotel with retail on the ground floor and nightly accommodation units above. As with the Landmark Hotel and buildings H9 and H6 the lobby and underground parking structure are located on the eastern elevation 1 level beneath the pedestrian street.

Accommodation units may also be located along the southeastern side of the building on the pedestrian street level. Accommodations in this location will b very desirable as the pool and outdoor tenace facilities will be adjacent this building edge.

<u>Pedestrian Street</u>. The pedestrian street links the drop off and arrival area with the north end of the Village and the skierstaging area. The street meanders through the village at a pedestrian rate. With each turn in the street, plazas, points of interest and featured elevations will draw pedestrians to the skier staging area. From building H3 to the north, the pedestrian street will be below the

grade of the ski slopes to the west by between 1.5 and 2 meters to create a solar trap and protect the street from northerly winds.

### Mixed Use Condo -tels (H3, H5 + H7):

The condominium hotels fronting the western edge of the pedestrian street after retail use on the ground floar and nightly accommodation units above. The lobbies are accessible at grade from the adjacent frontage road to the west. The underground parking structures and entrances for these buildings are accessed through the parking structure associated with buildings H4, H6 + H9. Accommodation units are located at grade along the western edge.

of these buildings while retail use fronts the pedestrian street level. The southern end of Building H7 will exhibit special architectural elements such as a tower to demark the main entranceway to the village pedestrian street and public spaces. Landscaping along the western boundary of these parciels will ensure privacy from the frontage road and provide a transition to the forest.

<u>North Village Edge Merge Zone</u> The northern edge of the Village provides the opportunity to create a vibrant slopeside merge zone. This area will be highly animated with restaurants and cafes spilling out from buildings onto sun-lit patios. This area will also be the major venue for outdoor concerts and other events. Constant pedestrian and skier traffic will increase the activitity in this zone. Amenities such as outdoor firepits will be featured to extend comfortable use of these spaces <u>Slopeside Hotel (H1):</u>

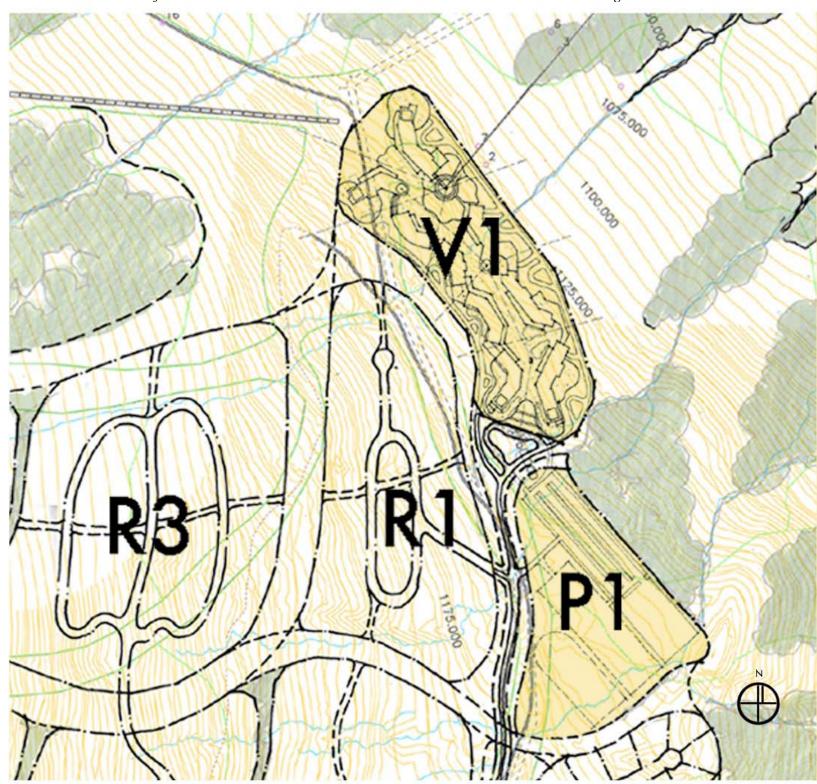
The Slopeside Hotel features retail on the ground level fronting the pedestrian street with restaurants and outdoor patics at the building ends. A large patio and skier circulation area is located between the hotel and skier staging areas to the west and north. The hotel is to be designed not to impede long distance views to the slopes from the upper levels of the Landmark Hotel.

### LEGEND

H1-H7: HOTEL/CONDOMINIUM SS: SKIER SERVICES AP: ARRIVAL PLAZA DP: DROP=OFF PLAZA

Figure 53 – Village Concept

### CONCEPT VILLAGE



Skier Services Building (SS). The Skiers Services building will contain functions associated with skiing operations such as isoles of lift flokets, equipement rental, guest services, the ski school, administration, central reservations, activities bookings, and a children's center. Some retail, food services and a real estate discovery center/sales office may also be included on the area red level. ground level.

<u>Drop off + Artival Area</u>. The pedestrian drop off and artival area is located 2.5 meters below the pedestrian street that winds through the village. This area will include wayfinding signage, and an sinear that which introduce the stinger. Inits the disministrate wayshalling signing a disa din information klock. Landscopping of the drop off and arrival area will be well buffered from the access road to the Landmark Hotel and buildings H4. H6, and H9, and He day skier parking area. Other landscope elements that may be integrated into this area include a watercourse.

Day <u>Skier Parking</u>. The day skier parking lots are located to not visually impact the anival area at the southern end of the Village. The parking lots are terraced down from the elevation of the main entry road and will be well landscaped with coniferous trees. Generous areas for snow dump have also been accommodated. A phased expansion of day skier parking is illustrated to meet demand as required

**Figure 54 – Village and Parking** 

### + PARKING VILLAGE



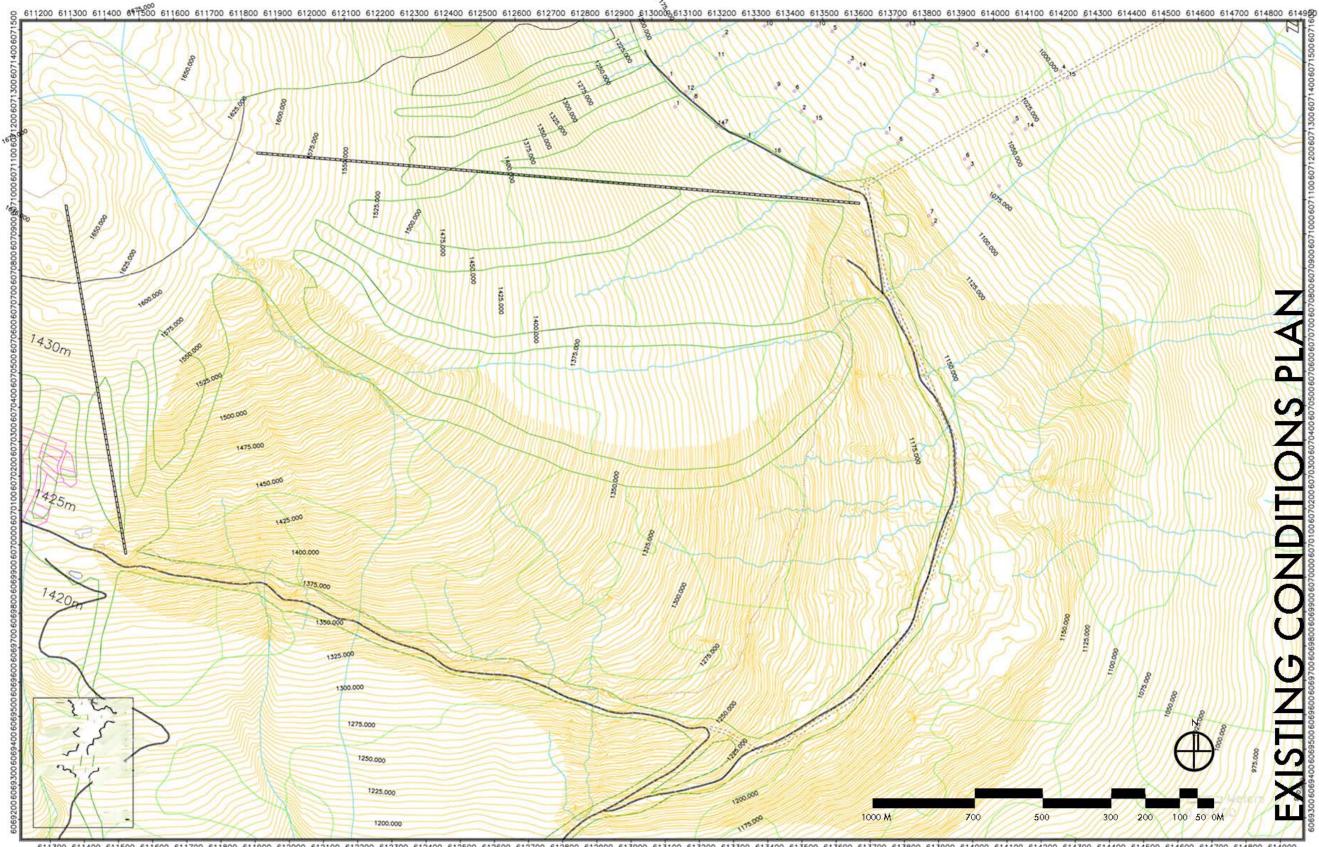
Multi-Season Tourism Gondola; Linking Downtown And Ski Smithers Village

Figure 55 – Gondola Concept

### **3.9. Existing Conditions Plan**

The **EXISTING CONDITIONS** plan – Figure 56 identifies existing contour, topographic features, vegetation, roadways and other existing physical and infrastructure improvements within the proposed resort development boundary.

The plan illustrates the above items as noted on the drawing legend.



611300 611400 611500 611600 611700 611800 611900 612000 612100 61200 61200 612400 612600 612600 612600 61200 61300

### 3.10. Overlayed Conditions Plan

The **OVERLAYED CONDITIONS** plan – Figure 57 identifies existing contour, topographic features, vegetation, roadways and other existing physical and infrastructure improvements within the proposed resort development boundary – with the master plan outline of all proposed village and residential development pods, parking and roads superimposed for reference.

The plan illustrates the above items as noted on the drawing legend.



611300 611400 611500 611600 611700 611800 611900 612000 612100 612200 612300 612400 612500 612600 612600 612900 613000 613100 613200 61300 613500 613500 613600 613900 614000 614100 614200 614300 614500 614500 614600 614600 614600 614800 614800 614800 614900

### 3.11. Development Data Summary

The **DEVELOPMENT DATA SUMMARY** – Figure 58 following quantifies in applicable data all proposed developable and non-developable resort land areas and residential development by location and phasing. The DEVELOPMENT DATA SUMMARY is structured as follows;

**Column 1** identifies the development **pod.** The pod nomenclature indicates general land use allocation and identity number, and relates directly to pod layout as illustrated on the drawing **SKI SMITHERS RESORT MASTERPLAN**. For reference;

- Pod V1 represents Village pod 1,
- Pod P1 represents Parking pod 1,
- Pods R1, R2, R3, R4, R5, R6, R7 and R8 represent resort Residential pods 1 to 8 respectively.

Column 2 identifies in square metres the gross land area of each pod.

**Column 3** identifies the **sub area identity of each pod** as illustrated on drawing **PARCELIZATION LAYOUT.** Sub areas are identified as part of the master planning which identifies differing densities and uses within pod areas.

Column 4 identifies the zoning land use for each identified sub area. For reference;

- ch represents condo/hotel use,
- cht represents condo/hotel/town home use,
- th represents town home use,
- sf represents single family use.

Column 5 identifies net land area of each pod sub area. Net land area is gross land area minus neighbourhood road reserves as illustrated on the drawing DENSITY MODEL.

**Column 6** identifies **pod efficiency** as a percentage of net pod area versus gross pod area. This identifies proportionately the portion of gross land area allocated to road reserves.

Column 7 identifies net pod sub areas in hectares.

Column 8 identifies net pod sub areas in square feet.

Column 9 identifies net pod sub areas in acres.

**Column 10** identifies proposed target **dwelling units per acre.** These targets are industry and residential planning standards.

**Column 11** identifies allocated **bed units per dwelling unit**. These allocations are industry and residential planning standards.

Column 12 identifies the bed units per acre resulting from multiplication of columns 10 and 11.

**Column 13** identifies **total proposed bed units per pod sub area**. This figure is derived by division of net sub area land area by bed units per acre.

Column 14 identifies the cumulative count of total proposed bed units, with total bed units at completion of column.

Column 15 identifies extrapolated total dwelling units per pod sub area.

Column 16 identifies the cumulative count of total proposed dwelling units, with total dwelling units at completion of column.

| pod        |         | subarea | zoning   | net area       |              | area ha net  | sq/ft net  | acres net    | dwellings/ | bu's/    | bu's/ | bu's total | Support States and the second second second second | dwellings | cumulative |
|------------|---------|---------|----------|----------------|--------------|--------------|------------|--------------|------------|----------|-------|------------|--|-----------|------------|
|            | (sq/m)  | (no.)   |          | (sq/m)         | % efficiency |              |            |              | acre       | dwelling | acre  |            | bu's   | total     | dwellings  |
| V1         | 87040   |         | ch       | 87040          | 87040        | 8.70         | 936550.4   | 21.50        | 50         | 2.4      | 124   | 2661       | 2661   | 1109      | 1109       |
| -          | 0/010   |         |          | 0/010          | 07010        | 0.70         | 556556.1   | 21.50        |            |          | 1     | 2001       | 2001   | 1105      | 1105       |
| P1         | *67745  |         | parking  | 67745          | (h.          | 6.77         | 728936.2   | 16.73        | 0          | 0        | 0     | 0          | 0  | 0         |            |
|            |         |         | periory  |                |              |              | ,          |              | -          |          | -     |            | -  |           |            |
| R1         | 114023  | A       | cht      | 51307          | 102517       | 5.13         | 552063.32  | 12.67        | 40         | 3        | 120   | 1521       |  | 507       |            |
|            |         | В       | th       | 10524          |              | 1.05         | 113238.24  | 2.60         |            | 4        | 80    |            |  | 52        |            |
|            |         | С       | th       | 40686          | 90           | 4.07         | 437781.36  | 10.05        |            |          | 80    | 804        | 5194   | 201       | 1869       |
|            |         |         |          | 3              |              |              |            |              |            |          |       |            |  |           |            |
| R2         | 189288  | A       | th       | 47860          |              |              |            | 11.82        |            |          | 80    |            |  | 236       |            |
|            |         | В       | th       | 34514          |              | 3.45         | 371370.64  | 8.53         |            |          | 60    |            |  | 128       |            |
|            |         | С       | th       | 33032          |              | 3.30         |            | 8.16         |            |          | 60    |            |  | 122       |            |
|            |         | D       | sf       | 60665          | 93           | 6.07         | 652755.4   | 14.99        | 6          | 6        | 36    | 539        | 7680   | 90        | 2445       |
| <b>D</b> 2 | 116120  | 4       | -6       | 0.574          | 100007       | 0.00         | 27662.06   | 0.54         |            | -        |       |            |  |           |            |
| R3         | 146428  |         | sf       | 2571           | 120837       |              |            | 0.64         |            | 6        | 24    |            |  | 3         |            |
|            |         | 2 to 47 | sf       | 118266         |              | 11.83        | 1272542.16 | 29.21        | 4          | 6        | 24    | 701        | 8397   | 117       | 2565       |
| R4         | 92500   | 1 to 60 | sf       | 74250          | 74250        | 7.42         | 798930     | 18.34        | 4          | 6        | 24    | 440        | 8837   | 73        | 2638       |
| <b>K</b> 4 | 82500   | 1 10 00 | 51       | 74250          | 90           |              | 790930     | 10.54        | 4          | 0        | 24    | 440        | 0057   | / / /     | 2030       |
|            |         |         |          |                | 90           |              |            |              |            |          |       |            |  |           |            |
| R5         | 174236  | A       | cht      | 32666          | 155344       | 3.27         | 351486.16  | 8.07         |            |          |       | 0          |  |           |            |
|            | 17 1200 |         | cht      | 21676          |              | 2.17         | 233233.76  | 5.35         |            |          |       | 0          | 1  |           |            |
|            |         | C       | th       | 25982          |              | 2.60         | 279566.32  |              | FUTURE     |          |       | 0          |  |           |            |
|            |         | D       | th       | 26473          |              | 2.65         | 284849.48  |              | RESERVE    |          |       | 0          | )  |           |            |
|            |         | E       | th       | 24308          |              | 2.43         | 261554.08  | 6.00         |            |          |       | 0          |  |           |            |
|            |         | F       | th       | 24239          | 89           |              | 260811.64  | 5.99         |            |          |       | 0          | 8837   |           | 2638       |
|            |         |         |          |                |              |              |            |              |            |          |       |            |  |           |            |
| R6         | 178614  | A       | cht      | 35376          | 161755       |              | 380645.76  | 8.74         |            |          |       | 0          | Î.   |           |            |
|            |         | В       | th       | 22077          |              | 2.21         | 237548.52  | 5.45         |            |          |       | 0          | Ê.   |           |            |
|            |         | С       | th       | 23816          |              | 2.38         | 256260.16  |              | FUTURE     |          |       | 0          |  |           |            |
|            |         | D       | sf       | 26408          |              | 2.64         | 284150.08  |              | RESERVE    |          |       | 0          | )  |           |            |
|            |         | E       | sf       | 25172          |              | 2.52         | 270850.72  | 6.22         |            |          |       | 0          |  |           | 9. 500 a   |
|            |         | F       | sf       | 28906          | 91           | 2.89         | 311028.56  | 7.14         |            |          |       | 0          | 8837   | -         | 2638       |
|            | 07460   |         | 10121    | 10107          | 7007.1       | 1.00         | 2005200    |              |            |          |       |            |  |           |            |
| R7         | 87460   |         | cht      | 19195          |              |              |            | 4.74         |            |          |       | 0          |  |           |            |
|            |         | B       | sf       | 26512          |              | 2.65         |            |              | FUTURE     |          |       | 0          |  |           |            |
|            |         |         | th       | 9000           |              | 0.90         |            |              | RESERVE    |          |       | 0          |  |           |            |
|            |         | E       | sf<br>th | 11200<br>12147 |              | 1.12<br>1.21 |            | 2.77<br>3.00 |            |          |       | 0          | 8837   |           | 2638       |
|            |         |         | ui       | 1214/          | 89           | 1.21         | 130/01./2  | 5.00         |            |          |       | 0          | 6637   |           | 2038       |
| R8         | 129755  | Δ       | cht      | 23112          | 115831       | 2.31         | 248685.12  | 5.71         |            |          |       | 0          |  |           |            |
|            | 125755  | В       | sf       | 40550          |              | 4.06         |            |              | FUTURE     |          |       |            |  |           |            |
|            |         | C       | th       | 15052          |              | 1.51         |            |              | RESERVE    |          |       |            |  |           |            |
|            |         | D       | sf       | 13389          |              | 1.34         | 144065.64  | 3.31         |            |          |       |            | Ĩ.   |           |            |
|            |         | E       | sf       | 23728          | 89           |              | 255313.28  | 5.86         |            |          |       | 0          | 8837   |           | 2638       |
|            |         |         |          |                |              | ,            |            | 0.00         |            |          |       |            |  |           |            |
|            |         |         |          |                |              |              |            |              |            |          |       |            |  |           |            |
| total      | 619279  |         |          |                | 560715       |              |            | 264.73       |            |          |       |            | 8837   |           | 2638       |

chcondo/hotelchtcondo/hotel/townhome

townhome

sf single fa

th townhome

sf \*

th

single family non residential/developable land area

Figure 58 – Development Summary

### 4.0 Environmental Assessment

Environmental reviews for most of the study area were previously completed by qualified professionals. It is noted that due to Ski & Ride Smithers being an existing ski area, an Environmental Impact Study is not required.

A study of the terrain classification and soil erosion potential was completed by Ms. Irene Weiland, P. Geo of Weiland Terrain Sciences located in Smithers. The detailed terrain classification and soil erosion potential study is listed in Appendix A. An assessment of the soil resource within the study area was completed by Mr. David W. Yole, MSc, P. Ag., of Telkwa, B.C. The soil resource study is listed in Appendix B. A

These studies indicated no major impediments to the proposed phase 1 ski area development. No rare or endangered species have been found within the study area. Best practices for timber removal, ski trail and road construction, and real estate/accommodate will be used to minimize soil disturbance. Areas of instability will be avoided.

The upper area of Simpson's Drainage, Terrain Pod D, was not part of the above noted studies. It is a well used area for hiking and mountain touring. There is also an access road leading into the bottom of this drainage. Due to this area being in the upper alpine, Ski & Ride Smithers would be developing ski trails from the snow pack. In addition, additional studies will be completed relating to the winter – spring habitat of the mountain goat in this area.

The only terrain pod was not included as part of the last two master plans is Terrain Pod E. This pod is popular in terms of hiking and mountain touring. It is upper alpine with minimal overburden and tree cover. Additional research in terms of mountain goat migration will be conducted prior to the development of this terrain pod.

Ski & Ride Smithers has adopted the following measures defined in the Management Section (Appendix C – Preliminary Habitat Assessment) of the Ecoscape Biological Consulting:

- 1) Implement a comprehensive bear education and management program.
- 2) Develop, upgrade and maintain a comprehensive system of well marked hiking trails throughout Hudson Bay Mountain.
- 3) Summer zoning of the entire ski hill into high, low and no use recreational activities.
- 4) Late winter and early spring snow tracking of the mountain goat population.
- 5) Continue to limit alpine disturbance during the construction period by using best practices for timber removal, ski trail and road construction, and real estate/accommodate will be used to minimize soil disturbance. Areas of instability will be avoided.

A review of the previous master plan by provincial and federal agencies identified a series of environmental issues and/or studies that maybe required as part of the overall assessment of the proposed resort development. These issues and requirements are noted below:

### **Ministry of Environment**

1 Preparation of a Bear Education and Management Plan prior to implementation of any development within the proposed CRA.

- 2 Preparation of a mountain goat habitat use/seasonal movement study prior to ski run development in Phase 2.
- 3 Terrestrial ecosystem mapping of the Phase 1 area will be required prior to development.
- 4 Develop an access management plan for both motorized and non-motorized activities within the proposed CRA. Resort operator will be responsible for signage and monitoring at specific access points within the CRA.
- 5 Appropriate sediment control mechanisms will need to be implemented during construction.
- 6 Septic disposal must be in compliance with the Municipal Sewage Regulations.

### **Ministry of Forests**

- 1. Development of the resort is to be consistent with the visual quality objectives of the Bulkley LRMP.
- 2 Adequate drainage structures are to be designed and installed along all roads within subdivisions and ski runs to minimize potential erosion.

### **Department of Fisheries and Oceans**

All development activities must comply with Federal Fisheries Act to ensure fish bearing streams are not impacted, particularly in terms of sedimentation arising from development activities within the resort area.

### 5.0 Infrastructure, Utilities and Servicing

### 5.1. Roads

All roads within the subdivision will meet the Ministry of Highways and Transportation design criteria for public roads or strata roads. The detailed design of the roadways will be undertaken by a qualified engineer.

Street lighting will be installed at intersections only. These locations include the intersections between the main access road and the subdivision access roads, as well as all intersections within subdivisions. Lighting will be provided at the base area parking lots and around the base day lodge facilities.

### 5.2. Water Supply

A qualified engineer will be engaged to undertake the design of the water supply system for the development. The design will include:

- 1. The location and elevation of the water storage reservoirs,
- 2. The sizing of main and distribution lines
- 3. The location of fire hydrants
- 4. Demand analysis (volume per day) for the development at the anticipated phases
- 5. Pressure analysis requirements for water distribution and fire suppression
- 6. Location and sizing of pressure reduction stations.

### 5.2.1. Existing Systems

The Panorama Day Lodge is currently serviced with a system of drilled wells and cistern. The Lower Lodge is currently serviced be two drilled wells. The development has a total elevation change of approximately 1000 feet and will have the requirement to provide for fire protection.

Drilled wells are the preferred source of water for the development. A single or series of drilled wells in the area of the Gully Creek is anticipated. Engineering services are to be retained to evaluate the potential of this area for ground water production.

### 5.3. Sanitary Sewer

A qualified engineer will be retained to design the sanitary sewer services for the development.

### 5.3.2. Existing Systems

The Panorama Day Lodge is currently serviced by a lagoon system for primary treatment of the sewage. It is understood that lagoons are permitted for the existing and expected capacity of the lodge for the foreseeable future.

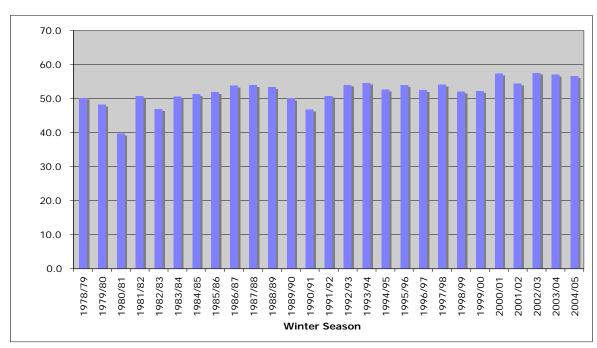
The existing Lower Lodge area has an existing lagoon located below the lodge. The lagoon is anticipated to meet the needs of the lodge for the foreseeable future.

Engineering services will be retained for the design, construction and certification of a sewer collection and disposal system for the entire development. The design will meet the requirements for sewage discharge as set by the Ministry of Environment.

### 6.0 Market Assessment of Winter Alpine Skiing and Snowboard Market

### 6.1 American Ski Industry Trends

The American skier-snowboard market has become relatively mature and stable. The 2004/2005 season results were relatively good given an exceptionally bad year in the Pacific Northwest. Figure 59 presents skier-snowboard visits for American ski areas.



### American skier visits (millions)

Source: Kottke National End of Season Survey Reports Figure 59 – American Skier Visits

For the American market as a whole, there has been modest growth over the last four years. Escalation of lift prices, equipment, the cost of ski holidays, and a reduction in the number of ski areas in the eastern and Midwest regions of the United States has hindered growth and tended to transfer growth to those areas that have a greater chance of providing a better quality skiing and resort experience.

Skier visits include all visits utilizing the lifts during the ski season (skier, snowboarder and foot passenger visits are not separated). The various regions of the American market have experienced significant volatility in skier visit volumes because of varying weather and snow accumulation amounts from year to year. The eastern and Midwest regions and some Pacific areas have been particularly prone to large weather-related swings in annual skier visit volumes. The larger resorts that are predominantly in the Rockies and Lake Tahoe area are also subject to weather fluctuations but the swings are generally not as large.

Extraneous factors to the industry including air travel costs and inconvenience, terrorism and health scares, and America's international unpopularity (Middle East conflicts and international tensions) have also contributed to this lack of total growth for the American industry. Despite these market and industry problems, the ski industry has not experienced the decline that was predicted in the late 1990's. In fact the

opposite has happened as the industry has established a higher plateau beginning in 2000/2001. The industry has found ways to keep the baby boomers skiing (skiers are more active than the general population), attract the younger generation and the sport is making inroads with the non-white segments of North American society.

The advent of detachable quad chairs along with substantially more snowmaking and superior grooming has enabled ski areas to comfortably handle larger volumes while improving the skiing experience for a broader range of skiers (particularly for beginner and older skiers). These technological changes have also been accompanied by extensive resort development at a number of the leading ski areas. As a result, there has been a net transfer of skiers to the areas and regions that provide a more consistent and higher quality experience. The large more developed regions and resorts have generally experienced reasonably good growth at the expense of less developed areas. The largest 112 skier areas representing 22.8% of the American ski areas accounted for 66.6% of the total American skier visits.<sup>1</sup>

The Rocky Mountain and selected areas in the Pacific and Northeast regions have been the main benefactor of the shifts in ski area business. Many ski areas in these two regions contain substantially larger terrain, more alpine environments, more consistent snow and heavier investment in on-mountain and resort facilities.

Over the last two decades, a number of the Rocky Mountain resorts have grown to the 1,000,000 skier visit level. Colorado, Lake Tahoe and Utah ski areas have also benefited from having a number of good ski resorts relatively close to each other. Washington State ski areas have not experienced growth like a number of other western states. Nearly all Washington areas are on Forest Service lands and the practice of the Forest Service in this region is to not allow resort development and the building of overnight accommodation. Washington State skier visits have ranged for the period 1994/95 to 2004/05 from a high of 2,151,544 to a low of 1,399,869 (except for the 491,537 visits last year). Total visits in 2003/04 were 1,860,180, a relatively good year, while last year's visits of 491,537 were the result of the worst weather year for Washington State ski areas.

Figure 60 illustrates the historic growth or lack of growth for the five American ski sub-regions. The Northeast and Rockies had good years. California had a phenomenal snow year, which helped to compensate for the Pacific Northwest's terrible snow year.

<sup>&</sup>lt;sup>1</sup> Kottke National End of Season Survey 2004/05, Table 3

### US skier visits by region

| <u>YR.</u> | <u>USA</u> | Pacific    | <u>Rockies</u> | <u>Midwest</u> | Southeast | Northeast  |
|------------|------------|------------|----------------|----------------|-----------|------------|
| 04/05      | 56,882,299 | 10,578,599 | 19,606,365     | 7,532,897      | 5,503,915 | 13,660,522 |
| 03/04      | 57,067,320 | 11,945,750 | 18,868,323     | 7,773,218      | 5,588,292 | 12,891,738 |
| 02/03      | 57,593,611 | 10,912,819 | 18,728,294     | 8,128,526      | 5,832,703 | 13,991,269 |
| 01/02      | 54,410.802 | 12,126.135 | 18,123,401     | 6,979,935      | 4,993,753 | 12,187,577 |
| 00/01      | 57,337,114 | 11,277,590 | 19,323,540     | 7,580,361      | 5,458,264 | 13,697,359 |
| 99/00      | 52,198,398 | 10,451,127 | 18,109,291     | 6,421,761      | 5,191,255 | 12,024.964 |
| 98/99      | 52,089,107 | 11,083,714 | 18,439,840     | 6,004,792      | 4,261,266 | 12,299,495 |
| 97/98      | 54,122,398 | 11,169,249 | 19,191,410     | 6,706,958      | 4,343,244 | 12,711,537 |
| 96/97      | 52,519,912 | 9,841,438  | 18,904,015     | 7,136,894      | 4,230,889 | 12,406,676 |
| 95/96      | 53,983,048 | 9,033,528  | 18,147,559     | 7,283,985      | 5,693,266 | 13,824,710 |
| 94/95      | 52,677,000 | 11,346,000 | 18,412,000     | 6,907,000      | 4,746,000 | 11,265,000 |
| 93/94      | 54,637,000 | 10,244,000 | 17,503,000     | 7,364,000      | 5,808,000 | 13,718,000 |
| 92/93      | 54,032,000 | 10,575,000 | 18,602,000     | 6,978,000      | 4,660,000 | 13,217,000 |
| 91/92      | 50,835,000 | 9,936,000  | 17,687,000     | 6,535,000      | 4,425,000 | 12,252,000 |
| 90/91      | 46,722,000 | 8,115,000  | 16,706,000     | 6,486,000      | 4,257,000 | 11,157,000 |
| 89/90      | 50,020,000 | 9,311,000  | 16,048,000     | 6,915,000      | 4,447,000 | 13,299,000 |
| 88/89      | 53,335,000 | 11,556,000 | 16,601,000     | 7,013,000      | 5,424,000 | 12,741,000 |
| 87/88      | 53,908,000 | 10,255,000 | 16,564,000     | 6,783,000      | 5,885,000 | 14,421,000 |
| 86/87      | 53,749,000 | 9,564,000  | 16,680,000     | 6,944,000      | 5,816,000 | 14,745,000 |
| 85/86      | 51,921,000 | 9,797,000  | 16,869,000     | 7,201,000      | 5,218,000 | 12,836,000 |
| 84/85      | 51,354,000 | 11,352,000 | 17,626,000     | 6,899,000      | 4,394,000 | 11,083,000 |
| 83/84      | 50,630,000 | 9,606,000  | 16,801,000     | 6,961,000      | 5,175,000 | 12,087,000 |
| 82/83      | 46,861,000 | 12,061,000 | 14,808,000     | 6,213,000      | 4,256,000 | 9,523,000  |
| 81/82      | 50,718,000 | 11,004,000 | 15,337,000     | 7,846,000      | 5,064,000 | 11,467,000 |
| 80/81      | 39,700,000 | 8,401,000  | 10,486,000     | 7,688,000      | 4,172,000 | 8,953,000  |

Source: Kottke National End of Season Survey Final Reports

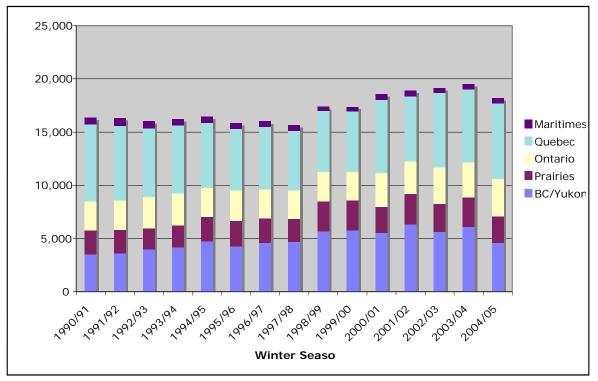
Figure 60 – US Skier Visits by Region

### 6.2 Canadian Ski Industry Trends

The overall Canadian market, like the American market, has produced modest growth. **Figure 61** presents skier visit totals for Canada's respective regions. British Columbia ski areas have been the largest generator of Canadian market growth as illustrated by the bottom bar on each year's column. This last season saw a significant drop in skier visits to BC, the result of the worst weather year (lack of snow) in BC ski areas history.

British Columbia has several advantages over Quebec, the current largest skier visit region. Additional analysis of skier survey results reveals that the British Columbia market is a younger market than Quebec's. BC is also the fastest growing region and it has the best mountain terrain, snow quality and quantity. Expansion of the Okanogan and Kootenay ski areas and more emphasis on the destination market should enable BC to eventually pass Quebec as the leading generator of skier visits.

### Canadian skier visits ('000)



Source: Canadian Ski Council "Facts & Stats" Figure 61 – Canadian Skier Visits

### 6.2.1. Market Size

Although a reasonable understanding of market size can be obtained by examining skier visit numbers, a more thorough analysis requires examination of a number of other variables. One of these variables is the total number of potential and active skiers/snowboarders. Canada as a whole has more skiers per capita than the United States mainly due to its colder winter climate. The Canadian Ski Council estimates that between 13.8% and 15.4% of Canadians 12 years of age and over alpine skied, snowboarded and/or cross-country skied over the last three winter seasons. There is a strong correlation between participation and weather (snow). The better the snow conditions, the higher the participation.

By contrast, the National Sporting Goods Association in the United States estimates there are close to 13.0 million skiers and boarders. Although Canada's population is about one-tenth of the United States, Canada's skier percentage of its population is significantly larger than the American skier percentage is of its total population.

### 6.2.2. Current Industry Trends

The ski industry has undergone a substantial amount of change in both philosophy and the level of service it offers. For much of its history, the ski industry saw itself as being in the uphill transportation business. During the 1970's, however, attitudes changed and skiing became more of a recreation outlet rather than purely a sport. Correspondingly, customers and the industry recognized that operators were also in the downhill transportation business. That is, ski operators started spending a lot of effort and money on assisting the skier in getting down the hill. Snowmaking, careful trail design and snow grooming became major thrusts of the industry.

During the 1980's, major resorts developed and the skiing became a vacation activity and a resort experience as well as a recreation activity. Competition to ski areas is now considered to be from any location or activity that attracts the leisure entertainment dollar.

To go along with the high degree of technology that has become commonplace with many ski area operations is the advancement in ski equipment design. Improved comfort in boots, safer bindings and the shaped or parabolic skis are all helping a greater cross-section of the general population to take up skiing. As a result, it takes less time and effort to learn how to ski and consequently skiing is now available to the less-than-athletic as well as the older skier.

A further factor that is increasing participation is snowboarding. This new wave is extremely popular with the young and boarders have represented  $28.6\%^2$  of the American total skier visits the last two seasons, up from only 10% in the early 1990's. The percentage of snowboarders is higher in ski areas that have a younger clientele. Boarders are expected to make up 36.0% of the American alpine market in 5 years time. The percentage of boarders is a little higher in Canada. The Canadian Ski Council has estimated boarders to be 33.9% of total alpine riders in 2003/04. Boarders are estimated to make up 36.5% of the BC alpine

<sup>&</sup>lt;sup>2</sup> Kottke National End of Season Survey 2004/05 Final Report

domestic participants. British Columbia then has a greater percentage of this faster growing segment of the industry.

The negative side to these changes, however, is also important. Skiing has become expensive. The cost of lifts, equipment, lessons and resort vacations has jumped dramatically. Skiing is in danger of becoming elitist. The industry can no longer depend strictly on the sport and recreation side. The general population is aging and the cost of transportation, lodging, etc. means the industry needs middle-aged skiers who have a greater ability to pay. Fortunately, the new thrusts of snowboarding and new ski designs are allowing participants to learn quickly and experience more terrain and types of skiing/riding than many skiers thought possible a generation ago.

Future growth in alpine skiing and boarding is going to require the industry to focus on a number of issues including:

- relationship between price and value
- redevelopment of existing product on the mountain and at the base
- commitment to consistency (snowmaking and grooming are important to keep people skiing and riding as they get older)
- target and niche markets especially for smaller ski areas
- need to regenerate the emotional or passion side of the sport/activity
- ensuring adequate training slopes and opportunities (local "feeder" hills) exist
- cater to women's needs as they are key in deciding/influencing vacation decisions

There is a danger that all the high technology can make the industry approach to marketing too rational or solely based on tangible benefits. Skiing and its accompanying mountain/country lifestyle is also an emotional experience. Ski areas must satisfy an increasingly fragmenting and demanding marketplace with a widely diverse range of customers. Ski and resort industry designers and operators will need to provide more specialized facilities and services and address how to assimilate these customers together on the slopes and in the facilities they share. In addition, it is important to recognize that the ability to attract a broader cross-section of future customers will be based on product availability, affordability and convenience. The product will be compared more to other readily available entertainment options outside of skiing and not other competing ski resorts.<sup>3</sup>

### 6.3. The BC and Regional Ski Markets

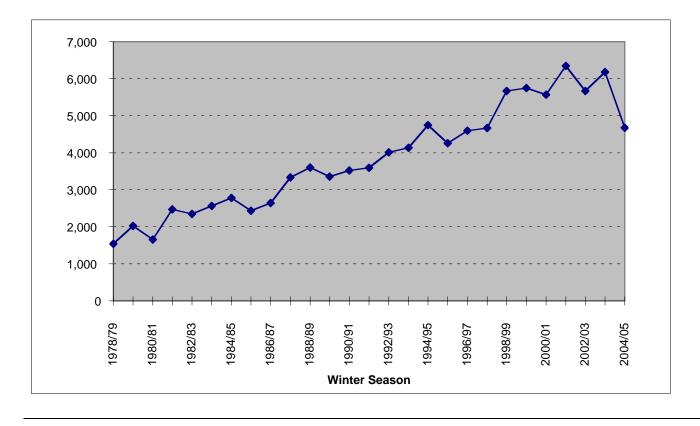
Of even greater relevance to BC is the British Columbia and Alberta position in the total Canadian market. The Canadian Ski Council estimates<sup>4</sup> the total alpine skier/boarder population in British Columbia was 653,000 in 2003. A similar analysis estimates that there were 413,000 Alberta alpine skiers/boarders in 2003. Therefore, the BC and Alberta market is about 1,066,000 skier/boarders at the present time. BC and

<sup>&</sup>lt;sup>3</sup> Bill Jensen, President Fibreboard Resort Group - Ski Area Management, March 1996

<sup>&</sup>lt;sup>4</sup> Canadian Ski Council's Facts and Stats 2004

Alberta's populations have generally grown faster than the rest of Canada over the last decade and consequently, internal population growth should provide a good base for the BC ski areas. With the expansion of the Smithers airport, Ski & Ride Smithers should be able to use a significant part of Alberta's population growth as part of its base.

The demand for downhill skiing has grown over the last two decades as shown on **Figure 62**, except for this last season, which experienced the worst weather (lack of snow) in many of BC ski areas' operating history. Growth slowed a little for the recessions during the early 1980's and 1990's, but weather has been a much more important variable in explaining skier visit fluctuations. British Columbia attracted 31.4% of the total Canadian skier visits in 2003/04 as compared to BC's 19.7% share of the Canadian skier/boarder population. This comparison clearly attests to BC's ability to draw skiers from the rest of Canada and from outside Canada. With BC's population growing faster than the rest of Canada and with BC resorts' success in attracting skier visits from outside of the Province, BC total skiers should continue to grow. Boarders are estimated to make up 36.5% of the BC alpine domestic participants. British Columbia then has a greater percentage of this portion of the industry than the Canadian average. This faster growth segment should also help BC to experience higher growth than most of North America into the future.



### History of British Columbia skier visits (-000-)

Source: CWSAA Figure 62 – BC Skier Visits

The high growth rate in BC ski areas can be attributed to several factors including the strong success of the Province's resort areas including Whistler, Okanogan areas and recent developments in the East Kootenays. The success of BC ski areas is a combination of increasing market recognition of British Columbia's skiing

potential, the capital investment in ski resorts and general population growth. The growth at Mt. Washington on Vancouver Island also attests to the latent demand amongst the local population. This area caters almost exclusively to Vancouver Island residents, and as the ski area has expanded its facilities, it has experienced strong growth.

Recent resort improvements and greater American and European knowledge of BC's ski product and value have combined to produce an estimated 6 million skier visits over two of the last three seasons. The downturn in recent years and the 2004/05 decline has been mainly caused by very low snowfalls. These downturns are thought to be more cyclical in nature rather than a permanent climatic change. Preliminary indications suggest BC's skier visits are rebounding to either 2002/03 or 2003/04 levels this year. BC skier visit growth should also experience positive impetus from the buildup to the Olympics. More international focus will be on BC and the increased spotlight on the alpine sports and the alpine environment should also encourage more residents to try skiing.

### 6.3.1. Constraints to Local Ski Area Expansion - Vancouver, Calgary and Edmonton

The dominant ski area in British Columbia has been Whistler/Blackcomb, which has exhibited strong growth since the construction of the Whistler Village in 1979-1980. There has been strong growth in local, regional and destination skier markets. Whistler's success can be attributed to superior on-mountain and resort facilities, excellent terrain, more abundant snow than most other major resorts and good snowmaking. Growth at Whistler/Blackcomb is now slowing as this municipality is reaching maturity and nearing the municipality's allowable unit build out. If the Resort Municipality prevents accommodation supply becomes a constraining factor. This restriction in supply at Whistler provides an opportunity for other ski areas that are able to expand.

Similarly, constraints to growth exist in Alberta. The Alberta economy has been the strongest economy in Canada and is expected to continue for a number of years (with only BC being a possible challenger over the next few years). Federal and Alberta Parks' restrictions on growth and particularly accommodation expansion have become a constraint to the established ski areas in Alberta. The Calgary demand pressure, for example, has effectively transferred to British Columbia. Demand from Calgary has significantly helped the growth of the BC Rockies and Interior regions.

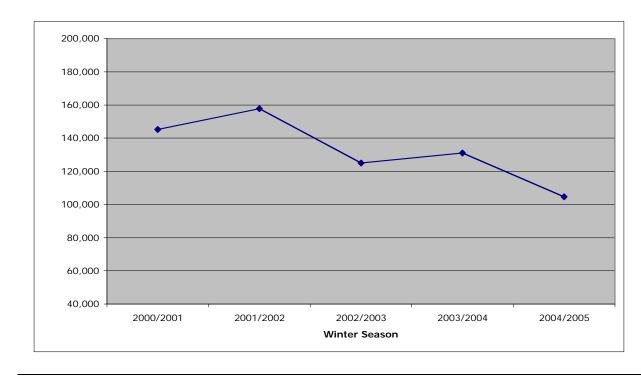
Edmonton skiers face similar problems as Calgary skiers with the added problem of being fours hours or more driving time to the Rockies and BC ski areas. If Smithers can provide a convenient and low cost air travel alternative, Ski & Ride Smithers should have a good opportunity to tap a large potential ski market.

Small areas generate interest in skiing and act as "feeder areas" by providing easily accessible and affordable areas to learn how to ski. As a result, the Canada West Ski Area members (CWSAA) have implemented a policy to adopt and help smaller ski areas. This policy should help sustain many of the feeder areas. For Smithers to successfully expand its regional market, it will become important for the other ski areas along the Highway 16 corridor to continue to introduce new skiers and boarders to the sport.

### 6.4.1. Competition

At the present time, there are seven small ski areas that service north central BC communities from Prince George in the east, Mackenzie in the north to Prince Rupert in the west. With the exception of Ski & Ride Smithers, which draws skiers across its region, all of these ski areas service only their local market areas. Several of the areas are struggling to exist as their limited facilities; low elevation with recent poor snow years has hurt their ability to consistently attract sufficient skier visits to be economically viable.

Last season's extremely low snowfall resulted in five of the seven ski areas being closed or operating for only a few days. The regional skier areas have experienced varying market demand from year to year because of the dramatic swings in snowfall. Presented in **Figure 63** is a graph of the skier visits for the seven regional ski areas.



### North Central BC ski areas' skier visits

Source: CWSAA and Ecosign Figure 63 – North Central BC Skier Visits

The ski areas represented here are Shames near Terrace, Ski & Ride Smithers, Murray Ridge at Fort St. James, Hart Highlands in Prince George, Tabor and Purden Village east of Prince George, Powder King near Mackenzie.

Ski & Ride Smithers has by far the biggest volume of the seven areas operating with 40,000 and 46,000 skier visits over the above period. Smithers' best year was 1989/90 when the ski area experienced 65,612 skier visits.

**Figure 64** presents preliminary critical ski area variables comparing the present ski operations at Ski & Ride Smithers with six of the other regional areas. Hart Highlands is a beginner community ski hill in the city of Prince George that also offers night skiing. The hill is located at 575 meters.

|                     | Peak Sk<br>Elevation | i Base Sk<br>Elevation | i Vertical<br>Drop | Hourly<br>Capacity | Skiable<br>Acres | %<br>Snowmaking |
|---------------------|----------------------|------------------------|--------------------|--------------------|------------------|-----------------|
| Shames Mountain     | 1,189m               | 700m                   | 489m               | 2,365              | 220              | 0               |
| Ski & Ride Smithers | 1,676m               | 1,128m                 | 548m               | 2,858              | 289              | 0               |
| Murray Ridge        | 1,234m               | 701m                   | 533m               | 1,650              | NA               | 0               |
| Purden Village      | 1,372m               | 1,067m'                | 305m               | 2,000              | 487              | 5               |
| Tabor Mountain      | 795m                 | 549m                   | 246m               | 2,000              | 180              | 100             |
| Powder King         | 1,529m               | 914m                   | 615m               | 2,600              | 141              | 0               |
|                     |                      |                        |                    |                    |                  |                 |
|                     |                      |                        |                    |                    |                  |                 |

### **Regional competition to Ski Smithers**

Source: Ecosign & White Book of Ski Areas Figure 64 – Regional Competition

Ski & Ride Smithers, which is located on the large Hudson Bay Mountain massif, is the one area that can be expanded to several times its current size. The present ski development and cabin colony utilize only a small portion of Hudson Bay Mountain. Ski & Ride Smithers also has the advantage of being directly above the Town of Smithers. Smithers is the one community along the Highway 16 corridor that is well focused on tourism, which adds to the ability of the Town and the ski corporation to turn around the region's declining skiers visit totals.

### 6.4.2. Ski & Ride Smithers' Expansion and Improvement Plans

Phase IA will add the Simpson Quad chair, the Tent double chair and a magic carpet near the proposed mountain village. The two lifts will access the ridge northeast of the Skyline chair and the small Simpson Gulch valley. These two lifts will add significant new advanced and expert terrain (178 acres) and enable the company to build a ski trail that will extend to the valley floor near Simpson Creek and next to the Town of Smithers. The two phase IA chairs will change the verticals to:

| Top elevation  | 2100m |
|----------------|-------|
| Base elevation | 1025m |
| Vertical drop  | 1075ņ |

These new vertical drops will clearly outclass the competition in the region and in fact, allow Smithers to compare favourably to most of the destination ski areas in North America. If the new planned trail to the valley is considered, Ski & Ride Smithers would have a vertical drop going from 2100m to 500m or a total drop approaching 1650m (5249ft.). Only Blackcomb has more vertical drop in North America. Future phases may take lift access to the top of the Simpson Creek drainage and Ski & Ride Smithers' vertical drop to the Town of Smithers could be 1825m or just under 6000 feet, considerably higher than other present ski developments in North America. Smithers' higher latitude may also become an important selling feature. If global warming persists, more attention will be focused on good ski areas that are further north.

Phase 2 will add another fixed quad and a detachable quad chair. These lifts open further terrain on the northeast facing slopes near and below the planned mountain village and real estate development. The Town View detachable quad will bring the base elevation down to 855m (excluding the ski trails to town). This development would make the lift-serviced vertical 1245m or 4085 feet. This phase may also include a second trail down to the Town of Smithers.

Future phases will add extensive terrain and further balance the area's terrain. See section 2 above. A further potential development is to connect the mountain village with the Town of Smithers with a gondola. This development would allow Smithers to rival Telluride, Colorado.

### 6.4.3. Short Term Marketing Strategies

To regain the 65,600 skier visit level and to more fully tap the regional market, a number of strategies need to be implemented:

- Continue to build and restore good relations with existing clientele and the local community. Good progress has been made this season.
- Work with the Town of Smithers' accommodation and other tourism operators to market and package to encourage overnight and multi-day visits.
- Implement Phase I mountain plan as soon as possible to build on the current goodwill and create a "bang" to put the mountain and town back on the radar screen.

These initiatives should allow Ski & Ride Smithers to double their skier visits over the next few years.

### 6.5. Smithers' Destination Market Appeal

Smithers and the Bulkley Valley have destination appeal. The Bulkley Valley is one of the most scenic and pastoral spots along the entire Highway 16 corridor that connects Alberta and Edmonton to the east with Prince Rupert, the Queen Charlottes and the Alaska Panhandle to the west. The Bulkley Valley is not only picturesque, but its agricultural industry helps to diversify the local economy. Unlike most northern BC communities, (that are almost solely based on resource extraction), Smithers has a diversified economy. Besides being a central distribution centre for forestry and mining in Northwest BC, Smithers and the Bulkley Valley have agricultural, tourism and outdoor adventure economic sectors. Smithers is the gateway for tourism in the region that includes world-class fishing and hunting, and is an airport connection point for Last Frontier heliskiing and Skeena Heliskiing.

A number of years ago Smithers refurbished and has maintained their main street as an effective tourism and local gathering and service area. Recreation opportunities abound and these include fishing, hunting, road and mountain biking, horseback riding, canoeing and kayaking. In addition there is mountain climbing and excellent hiking in the area. Hudson Bay Mountain has extensive hiking trails on its slopes above town and there is good summer hiking in the alpine regions above the existing base area and cabin colony.

There is also great cross-country potential in the Bulkley Valley including a good cross-country area below the ski area. The access road to the downhill area passes directly by the cross-country area.

### 6.5.1. Smithers - Significant Northwest BC Transportation Hub

Smithers is close to the halfway point on Hwy 16 between Prince George and Prince Rupert. Hwy 16 is a major tourist and commercial highway and is one of three highways crossing BC to the Pacific Coast. It is the easiest drive being a relatively flat highway throughout its length. In addition to this highway, CN Railway's transcontinental route passes through Smithers to Prince Rupert. CN uses Smithers as a train sorting area. Via Rail operates a passenger train on this route, but its full tourism potential has not been developed.

Approximately an hour's drive west of Smithers is the turnoff to Hwy 37 (the Stewart-Cassiar Highway). This is the Province's second highway to the north connecting to the Yukon immediately west of Watson Lake. This highway provides tourists and outdoor adventurers access to spectacular wilderness including Mt. Edziza and Spatsizi Plateau Provincial Parks. It is also the highway that accesses the major heliskiing in this part of the Province.

Smithers' regional airport serves much of Northwest BC. Air Canada offers daily flights to Vancouver. The airport has good approaches and has few weather-related cancellations. The airport in the past had daily jet service to and from Vancouver, but a change in government regulations deemed the runway too short for commercial jets. A major initiative for Smithers that will directly benefit Ski & Ride Smithers is an extension of the runway so that both smaller and mid-size commercial jets can have regular scheduled flights to Smithers.

Because of Smithers' tourist and community services, amenities and airport, nearly all the outfitters, recreation operators, heli-ski operations and many of the Northwest resource companies use Smithers as their base and gateway. Smithers and the immediate region's world class fishing and hunting are known to many northern European and American outdoor adventure travelers. This tourism has resulted in many of Smithers' accommodation properties having strong business in the fall months.

### 6.5.2. Mountain Improvements to attract Destination Visitors

Hudson Bay Mountain has the natural assets to appeal to destination ski markets. The present ski development is not adequate to provide visitors enough terrain and amenities to keep visitors more than a couple of days. A significant expansion as proposed in phase 2 and 3 should dramatically improve the product offering and appeal to destination visitors.

The ski area is also immediately above the Town of Smithers, which has many of the tourist facilities and amenities to attract and help keep destination visitors. The Town's amenities will be essential until the mountain village can be developed to provide accommodation, and other required services. At the same time, the mountain village would be a complement to the Town and both would ensure the visitor has an experience that would help to distinguish Smithers from other boutique and mid-size mountain ski destinations.

Other ski areas in the BC Interior and the Whistler Resort have had substantial skier visitor growth as new mountain, village facilities and recreational real estate have been added to the ski area. **Figure 65** highlights some of the skier visit growth at several of the Interior and Whistler Resorts.

| <u>Resort</u> | <u>Year</u> | Prior expn.<br><u>skier visits</u> | <u>Year</u> | Post expn.<br><u>skier visits</u> | <u>Comment</u>       |
|---------------|-------------|------------------------------------|-------------|-----------------------------------|----------------------|
| Whistler      | 1978/79     | 280,030                            | 1979/80     | 426,000                           | Village plan         |
|               |             |                                    | 1980/81     | 372,000                           | announced 1978       |
|               |             |                                    | 1981/82     | 640,594                           | 1st Phase 1979-81    |
|               |             |                                    | 1986/87     | 812,378                           | Blackcomb exp'n      |
|               |             |                                    | 1987/88     | 1,065,400                         | starts 1987          |
|               |             |                                    | 1988/89     | 1,202,758                         |                      |
| Silver Star   | 1990/91     | 170,000                            | 1991/92     | 208,000                           | Putnam Creek         |
|               |             |                                    | 1992/93     | 220,000                           | Hotel & S. Family    |
|               |             |                                    | 1993/94     | 263,900                           | expansion            |
| Big White     | 1991/92     | 240,000                            | 1992/93     | 350,000                           | Real estate exp'n.,  |
|               |             |                                    | 1993/94     | 395,000                           | start of new village |
|               |             |                                    | 1994/95     | 420,000                           | buildings, etc.      |
| Sun Peaks     | 1992/93     | 69,201                             | 1993/94     | 88,367                            | Start real estate    |
|               |             |                                    | 1994/95     | 112,560                           | Start village & new  |
|               |             |                                    | 1995/96     | 122,772                           | lifts                |
|               |             |                                    | 1996/97     | 136,468                           |                      |
| Panorama      | 1992/93     | 127,500                            | 1997/98     | 148,000                           | Acquired 1993        |
|               |             |                                    | 1998/99     | 165,000                           | Village expansion    |

Source: David A. Hughes & Associates' Interviews Figure 65 – BC Resort Historical Expansion

First year percentage growth after these expansions ranges from a low of 8% to a high of 72%.

### 6.5.3. Demand Considerations and Market Positioning

The proposed mountain and mountain village will give Ski & Ride Smithers and the Town destination appeal. The master plan's terrain and facilities should make Ski & Ride Smithers one of the best ski areas in North America. Besides great terrain and huge expansion potential, the mountain also receives dry quality snow. A number of steps need to be completed for Ski & Ride Smithers to realize on its potential. For the Town and ski area to become a destination resort a number of initiatives and milestones need to be accomplished:

- work to get the airport expansion as quickly as possible
- obtain regular flights to Edmonton, Seattle and Eastern Canada
- get customs and immigration clearance services
- arrange packages, promotions and/or guarantees to secure competing airlines, e.g. WestJet
- reinforce Smithers' tourism industry and work to promote the year-round destination

- develop cross-country and other winter recreation
- develop and promote hiking, biking and other summer recreation on the mountain
- proceed with phases 2 & 3 as the real estate starts to build out. With the completion of the first three phases and the corresponding real estate development, Ski Smithers in conjunction with the Town, should achieve sufficient critical mass to be an attractive boutique destination resort.
- work with the community to secure the gondola connection to the Town
- if demand warrants, build toward phase 4, which should make Smithers one of the finest mountain resorts in North America.

In the short term, the phase I lifts should allow Ski & Ride Smithers to reach its regional potential. The next most important development will be the expansion of the airport and the expansion of air services. This improved transportation access is necessary to effectively attract a sufficient number of destination visitors. Improved access should enable Ski & Ride Smithers in partnership with the Town to attract destination visitors from Edmonton, Vancouver and eastern Canada. There is also potential to build on the European and American visitor base that comes to the area for heliskiing and other outdoor adventure. These advances will allow Ski & Ride Smithers to expand well beyond the 100,000 skier visit level. As later mountain phases develop, the mountain will become better known and attractive to a larger client base across much of North America.