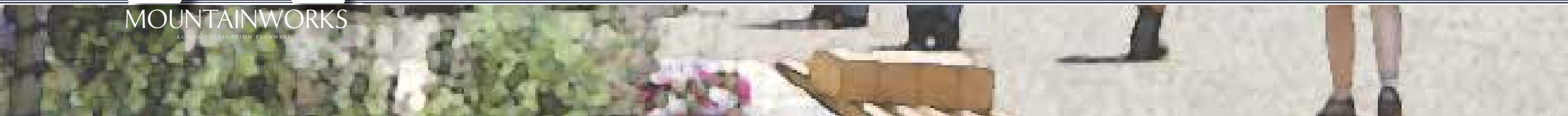




MOUNTAINWORKS
ALPINE DESTINATION PLANNERS

BEITOSTØLEN, NORWAY SENTRUM IMPROVEMENTS PLAN

April 2016





Mountainworks Alpine Destination Planners (*formerly International Alpine Design*) provide specialized and comprehensive expertise in the assessment, planning, design, and strategy for mountain resort, recreation, and real estate based projects throughout the world.

Our expertise in the field of alpine destination planning is founded on over twenty years of internal planning and operations for the renowned Vail Resorts group. We have subsequently worked on thousands of independent projects on nearly every continent in the World, including hundreds throughout Scandinavia in places such as Hemsedal, Trysil, Nesbyen, Oppdal, Salen and Åre, among others. This experience has provided our team with a understanding of the characteristics of successful destination development and preferences of the international, national and regional marketplace.

We recognize and value, however, that each project is unique and requires an equally unique design approach that respects and balances each of our clients specific needs, as well as those of the end-user, community, and environment. We also recognize that our solutions and recommendations must be cost-effective and economically viable. Through blending our expertise and creativity with the project specific environmental, social-cultural and economical influences, we strive to create plans that yield successful, sustainable results and unmatched value.

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How to use this Document

This document captures the process and outcomes of the preliminary master planning effort by Mountainworks Alpine Destination Planners undertaken from March, 2015 through March, 2016. The planning study was completed at the request of the Øystre Slidre Kommune.

The objective was to prepare an assessment and schematic concepts / plans for Beitostølen Center that focus on improvements to traffic, skier, and pedestrian organization, building expansion, activity / skiing integration, and streetscape and signage improvements. The scope of this project included site analysis, a three-day on-site charrette, and the generation and examination of several design scenarios. The process was guided by principles of sustainability, site sensitivity and resort community design as well as the business objectives established by the client and direct needs of the community.

This document provides a visual and textual story of the design analysis, definition and discoveries that led to planning solutions and conclusions. It is intended for client use in presenting the Master Plan vision to municipal officials for approvals, to attract the interest of investors and to serve as the foundation for the next phases of the design process in which the plan will evolve. It is not intended to provide absolute or detailed solutions, rather set the foundation for the ideas to evolve. It would be expected that any idea or solution proposed herein would require further detailed study and approval.

Project Dilemma

A dilemma is a storytelling device that describes the predicament facing a given project. It sums up the major challenges that must be overcome to achieve an outcome that meets the clients' expectations. It answers the question: "What is standing in the way of a project's potential for success?" A dilemma highlights the complexities of a project and the need to create a comprehensive solution.

Beitostølen has a rich history and legacy of being one of Norway's premiere alpine getaways. Over time the area has become increasingly popular for its recreation, health, and tourism benefits. It has all the makings of a truly great resort destination: world class cross-country skiing, high quality ski center, convenient location and access, magnificent alpine views, four-season activities, clean mountain air, and intimate village center. However, its popularity and success have led to challenges on how to successfully interface and improve upon parking locations, traffic flows, pedestrian paths, activity access, public gathering spaces, and landscape elements.

Project Goals

The overarching objective for the project is to create a planning document that considers the current challenges facing Beitostølen Sentrum, identifies strengths and opportunities with the current system, and ultimately offers recommendations and ideas on how to solve these issues. In support of this objective, several goals were identified to guide the plan and process:

Beautification of the Sentrum: There is a desire to create improvements to the visual impact of town so to make it more desirable and appealing for residents and guests. Improvements could include items such as signage, lighting, landscaping, paving, benches, and storefront upgrades.

Traffic and Parking: One of Beitostølen's greatest challenges is to improve the interface of traffic and parking in order to have a better flow and safer environment for guests. Improvements could include items such as parking access, parking lots, and drop off areas.

Pedestrian and Gathering Spaces: The village sentrum is already quite quaint and compact but lacks suitable spaces guests to comfortably stroll around and residents to hold events. Improvements could include items such as walkways, plazas, and activity areas, as well as development of a building for community gatherings.

Integrated Skiing and Activities: Beitostølen's cross-country and alpine skiing is not easily accessed directly from the Sentrum and lacks quality children's training and play areas, as well as activities. Improvements could include items such as separated grade access to the south side of the sentrum, cross-country routes up the mountain, beginner and children's learning center, non-skiing activities and improved interface with the alpinsenter.

An Iconic Feature: It is intended to create an iconic feature that creates an impression for tourists and makes Beitostølen memorable. As a gateway to Jotunheimen and the Valdresflye, many visitors pass through and this icon could mark the entryway.

Beitostølen Sentrum is envisioned as a beautiful and intimate pedestrian friendly village with well organized facilities, convenient access to activities, and attractive public spaces that is rooted in its rich culture and history.



Existing Conditions

Beitostølen is a small village located at 900 meters in the Øystre Slidre Kommune of south-central Norway. With only about 500 permanent residents, Beitostølen is largely a destination for cabin owners and tourists. Altogether there are approximately 2000 beds available at Beitostølen. The area has a generally long history but became more developed starting in the 1960's. From humble beginnings, the village was born, and has since developed diverse facilities and amenities, including hotels, downhill pistes and cross-country trails.

Beitostølen Skiområde consists of two separate alpine ski areas. The primary alpine ski area (Beitostølen Skisenter) is located adjacent to the village and accounts for approximately 90% of overall alpine skier visits at Beitostølen. This family, beginner focused area has 7 lifts in operation on 16 named pistes and averages approximately 800 skiers per day (capable of supporting 2,600 skiers per day). An additional area called Raudalen Alpinsenteret is located approximately 5km to the southwest and provides intermediate and advanced level alpine skiing. Beitostølen also offers world class cross-country skiing, having hosted FIS Cross-Country World Cup and Biathlon World Cup tournaments. There are over 300 km of cross-country trails in the area, some of which leading into the Jotunheimen National Park. The cross-country World Cup Arena in Beitostølen is considered the best in Norway and is internationally recognized.

The village sentrum itself consists of a variety of commercial businesses necessary to support the needs of residents and guests (as shown on the existing conditions plan). The village is bisected by highway RV51 that connects Fagernes in the south to Randen to the north through the Jotunheimen Nasjonalpark. With its winter sports facilities, compact village, magnificent views, nature feeling, and high quality accommodations, the overall resort complex is well positioned in the Norwegian market.

Figure 1 - Existing Conditions



Legend - Scale 1:2000

- | | | | | |
|---|-------------------------|--------------------------|---------------------------------|------------------------------------|
| 1. Stølen Bakeri | 8. Turist info | 15. Chen's Beijing House | 22. Motekroken (Clothing) | 29. Steak House |
| 2. Møbler Interiør (Furniture) | 9. Bergo Hotel | 16. Bitihorn Hotell | 23. Intersport | 30. Radisson Blu |
| 3. Beitostølen Leilighetshotell | 10. Restaurant bare KOS | 17. Peppes Pizza | 24. Heiskort/Skiutlei (Tickets) | 31. Bus Drop-off |
| 4. Stølstunet Leiligheter / Kjøpesenter | 11. Sport 1 | 18. Spar (Grocery) | 25. Arnold's Pub | 32. Aasgaard (Varmstue og Skicafé) |
| 5. coop mega (Grocery) | 12. Svingen Pub | 19. Jotunstogo (kafé) | 26. Gjestegaarden | |
| 6. Esso (Gas) | 13. Cabins | 20. Souvenir butikk | 27. Café | |
| 7. Bank | 14. Bergo Leiligheter | 21. Knutstol | 28. Kholes Corner (Restaurant) | |

Opportunities & Constraints

In order to establish a foundation for how Beitostølen can be improved as a destination, A complete assessment of the area was completed. As a starting point, discussions with the Client (Øystre-Slidre Kommune) led to a variety of areas of focus. As discussed in the introduction, these main project goals included:

- Beautification of the sentrum,
- Traffic and parking improvements,
- Development of pedestrian and gathering spaces,
- Well integrated skiing and activities,
- Creation of an iconic feature.

As a next, and possibly most important, step in the process, Mountainworks held a workshop in Beitostølen with the Kommune, community members, and stakeholders. This workshop allowed an opportunity for the community to express their views and exchange ideas on what makes Beitostølen an attractive destination today, as well as what things need to be improved. These informal gatherings are a critical step in providing a forum for listening to the people who live and breath Beitostølen each day.

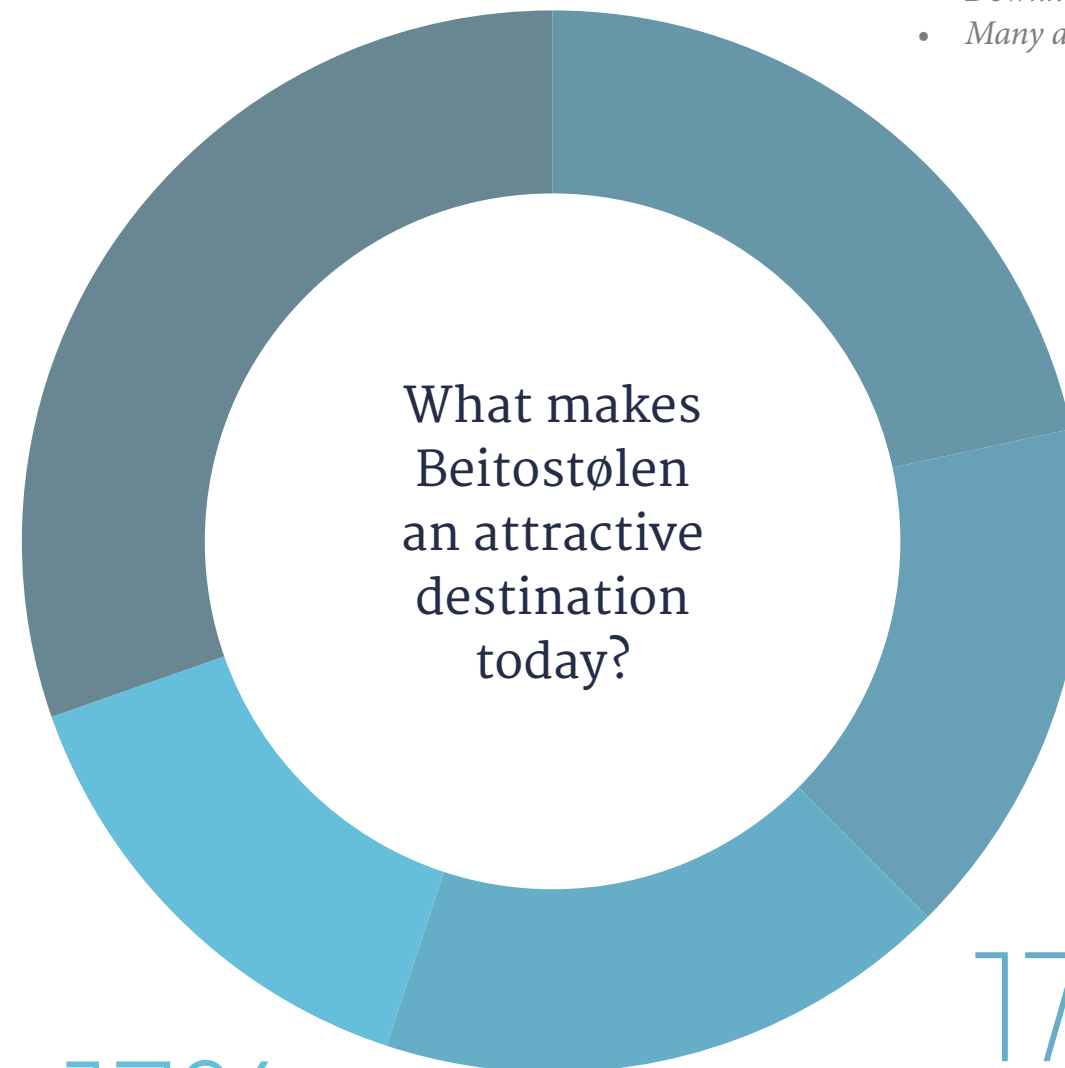
The outcomes of this meeting, as well as several independent conversations, are expressed on the adjacent graphics. First, the question was posed: *"hat makes Beitostølen an attractive destination today?"* Secondly, it was asked: *"What areas need to be improved at Beitostølen to make it a more attractive destination?"*

28% COMPACT SENTER

- A compact senter
- Comfortable walking distances
- Close connection to terrain / skiing

22% SKIING & ACTIVITIES

- One of worlds best cross-country areas
- Early start to ski season
- Downhill & cross-country tracks close to the Senter
- Many activities



17% ALPINE LOCATION & 4 SEASONS

- Beautiful alpine views
- Located in the mountains
- 4 true seasons
- All year destination

17% OTHER

- A place for families
- Great services & facilities
- Off-piste skiing opportunities

17% PROXIMITY TO VALDRESFLYE / JOTUNHEIMEN

- Gateway to Valdresflye & Jotunheimen
- Basecamp for the national park
- Road to Valdresflye closed in winter creating intimate setting

INTEGRATED SKIING

While there are extensive cross-country & alpine tracks around Beitostølen they aren't effectively integrated the village & accomodation

PARKING

Day skier and short-term parking isn't effectively organized leading to congestion & underutilization

STREETSCAPE

The village center lacks landscaping, features, & design consistency that make for an inviting environment

What areas need to be improved at Beitostølen to make it a more attractive destination?

It is clear that Beitostølen has many wonderful attributes that make it a special place. The overall goal of this report is not to criticize the current situation or foundation of what the sentrum is today. Like all destinations and communities there are always opportunities and ways to improve upon its operation and offerings. These observations were the main results of the question "What areas need to be improved at Beitostølen to make it a more attractive destination?" and highlight some of the main factors limiting Beitostølen's full potential.

ACTIVITY & CULTURE

The village doesn't have a suitable central gathering place for activities & events

TRAFFIC & PEDESTRIANS

Poorly organized side roads, parking areas, and walking paths lead to dangerous & chaotic interactions between vehicles & pedestrians

BEGINNER SKI TRAINING

The alpine ski center does not have a suitable beginner ski training area close to the village causing a poor experience for first time ski guests

Proposed Concept

The proposed plan for Beitostølen Sentrum (as shown on the opposing page - Figure 2: Proposed Sentrum Plan) represents an exciting vision for the future. Through a carefully balanced design process solutions for nearly all of the Kommune and community goals and desires have been identified.

Beginning upon arrival along highway 51 from the east, a new entry statement sign and improved landscaping will set the tone for arrival into Beitostølen. A new roundabout at the turist office will allow skiing and visiting guests to be quickly diverted onto a proper and dedicated road to parking around the back (north) of the sentrum. For those continuing into the sentrum, the roundabout will act as the starting point for the village beautification program consisting of improved signage, landscape, lighting, paving, and other features

intended to create a more attractive environment (see Figure 4: Beautification Plan later in this report). Along the core of the sentrum it is expected that slower speeds will be required and, through various improvements, attention to pedestrians will be accentuated. The western end of the sentrum near the Intersport/Arnolds building will be characterized by improved parking and flow, a new gathering plaza for events and activity, and a new building to house restaurants, services, commercial outlets, and/or community gathering space (see Figure 3: Gathering Plaza Plan later in this report).

The termination of the core village area will be defined by an iconic bridge. This bridge effectively creates a skiable connection to both sides of the sentrum for high quality cross-country and alpine skiable access: to cross-country trails, to the new beginner area behind the

Bergo Hotel, and to/from the Radisson hotel (see Figure 4: Skiing and Activity Plan later in this report). While fully functional, the bridge will also act as a signal gateway to Valdresflye & Jotunheimen.

The backside of sentrum to the north will see notable parking improvements to the existing lots, intended to improve flow, reduce traffic congestion, maximize skier/commercial spaces, and allow for long-term structured parking development options (see Figure 5: Parking Plan later in this report). This Sentrum plan identifies and integrates the potential accomodation development of several strategic zones, all of which will require careful detailed study to ensure consistency with the overall plan (see below: Potential Future Accommodation Development Zones).

Potential Future Accomodation Development Zones

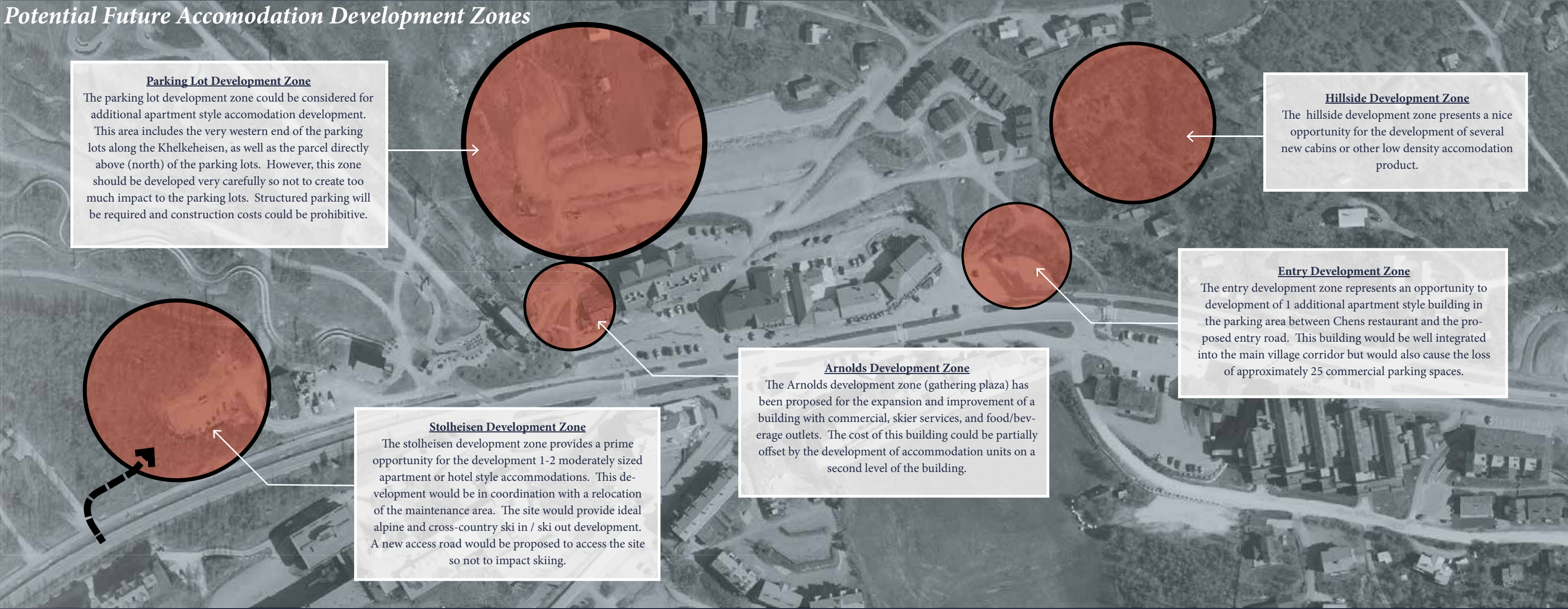


Figure 2 - Illustrative Sentrum Improvements Plan



- Legend**
- 1. Entry Signage
 - 2. Roundabout
 - 3. Parking Entry Road
 - 4. Parking Redevelopment/Improvements
 - 5. Gathering Plaza
 - 6. New Culture / Arnold's Buildings
 - 7. Activity Zone
 - 8. Bridge Overpass
 - 9. Bus Drop off / Pickup
 - 10. Radisson Access / Snowplay
 - 11. Cross-Country Connections
 - 12. Beginner Area Alpine Connection
 - 13. Beginner Training Area
 - 14. New Ski School Building
 - 15. Parking Access Walkway / Stairs
 - 16. Pedestrian Plazas / Walkways
 - 17. Service Delivery Access
 - 18. Streetscape Improvements Corridor
 - 19. Potential Accomodation Development
 - 20. Radisson Service Access
 - 21. Special Events Transition Area



SCALE 1:1500 @ A3

The Gathering Plaza Perspective

The Gathering Plaza area is envisioned as a focal point of the Beitostølen redevelopment. Solving functional issues related to traffic flow and pedestrian interface, the parking access road has been relocated to the east end of the village. In its place carefully placed stairs have been planned that lead to better plaza and useable spaces around the back of the existing buildings. Accordingly, the 'come and go' commercial parking lot has been formalized for one way flow. Considering the limited space available in the core of the Sentrum for special events and parking, part of the overall concept is to close this parking lot as needed for gathering events such as markets, concerts, and festivals.

To formalize the western (skiing) side of the plaza area, a wall and stairs should be installed adjacent to the Ola Expressen to make up the existing 3-4 meter height difference between the plaza and skiing and formalize the area. This walled area represents a nice opportunity for the development of additional shops. The existing Arnold's restaurant building should be removed as part of this redevelopment. On the large area created above the shops, there are two options - The first, as shown here, is the develop-

ment of a new building that could house restaurant, restrooms, skier services, shops, and/or a community gathering room. Accommodation units or additional gathering space could be developed in the second story of this building. This building was specifically requested by the Kommune in the explanation of project goals and is supported by Mountainworks. It should be noted that architectural character and style of the building would be designed to meet community preferences. The second option could be a larger flat plaza area to house additional activities. It is proposed that activities could occur around the outer edges of the building surrounding the Ola Express, on the lower plaza, and on the sloping bank near the Radisson.

Finally, the icon bridge would act as a skiable link across RV51. This bridge is designed to meet 4-5 meter height clearance regulations over the highway and its specific style (eg stone, wood, arching, flat, etc.) would be adjusted to community preferences. Overall, this bridge solves functional elements of a ski in / ski out village and signal feature that make Beitostølen memorable.



NOTE: Conceptual artist rendering of GENERAL form and character, not intended to exhibit specific or defined architectural styles.

Figure 3 - Gathering Plaza Area Enlargement



Village Beautification Overview



Characteristics of a beautiful resort village

A modern alpine resort village should emanate the beauty of the place in which it is set. An extension of the magnificent surrounding natural landscape, the village should grow out of the mountainside through the use of stone and organic hardscape materials and forms. Equally, it should be softened through the strategic use of both perennial and annual vegetation. The natural elements should make way for functional elements such as signage, lighting, benches, and pavement that provide purposeful direction and flow. In summer, flowers can provide added color and life while in winter, elements of color should be added through banners, flags, awnings, and umbrellas. The village must always consider impacts of the often harsh high alpine landscape, including the storage and management of snow. Gathering plazas and pedestrian spaces should be present and create an inviting environment to draw people in and create interest. A thoughtful design guideline document should inform all of these elements to ensure consistency throughout the village.



Figure 4 - Village Beautification Recommendations



Village Beautification Detail Examples



Raised Planter Beds with Seat Walls



Raised Planter Beds with Seat Walls



Public Art Installation/Sculpture



Bus Stop Bench and Ski Rack



Ski Rack and Rock Wall



Promenade Staircase



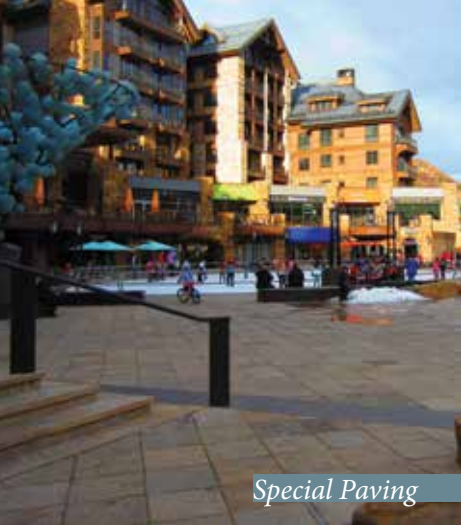
Public Outdoor Fire Pit



Cut Stone Retaining Wall



Wide Stair Treads for Ski Boots

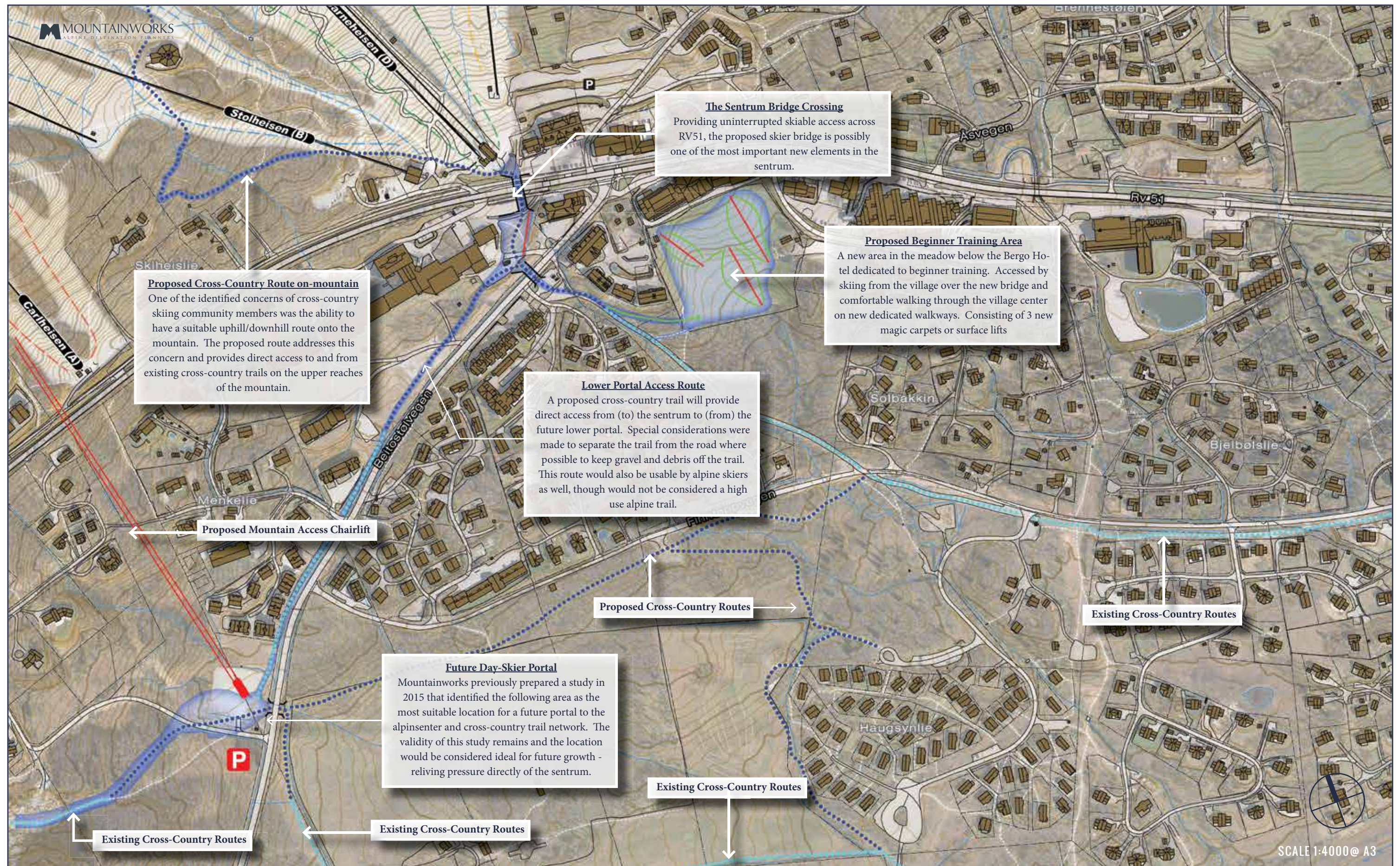


Special Paving



Cut Stone Retaining Wall

Figure 6 - Skiing



Parking

Through direct observation and comments received at the community meeting and subsequent survey results, traffic and parking issues were identified as one of the biggest constraints at Beitostølen. During peak times, both skier and commercial parking creates unsafe conditions for pedestrians in the village and an overall poor experience for residents and visitors.

One of the primary observations was that roadway access to the main parking lots was occurring up a steep road between the intersport and spar buildings at the heart of most pedestrian activity. As such, Mountainworks found it was necessary to identify a new primary access to the parking lots that effectively removed or reduced congestion in the Sentrum. This result was achieved by creating a new access road to the parking lots off of the new roundabout at the east end of the village near the turist office.

The parking plan attempts to maximize parking spaces through the regrading, improvement, and expansion of the 3 existing lots. This redevelopment effectively increases the day skier spaces from 230 (existing) to 265 (proposed). Based on community feedback and the goals of the project, it was decided within the proposed plan to reduce or remove many of the existing 'come and go' commercial spaces along the front of RV51 and convert them to pedestrian plazas or walkways. Understanding the need for businesses to retain this parking, several dedicated commercial lots have been identified. Part of this concept considers the creation of new entrances and plaza ways along the parking (back) side of (intersport/kafe/spar) buildings.

Importantly, this parking plan has been developed with the intention of future covered parking structure in the place of the existing surface lot. Extensive and detailed studies by Mountainworks have been completed for structured parking solutions and it has been determined that through careful design, it could be incrementally constructed in place of these lots. It is believed that structured parking will likely be required to eventually support commercial and accommodation demands. **It would be expected in the Sentrum area that at a minimum approximately 300-350 day skier parking spaces should be developed and an additional 75-100 commercial spaces developed through 1 lower structured level.**

However, it is not considered viable that structured parking should be built or used completely for day skier use. As such, an additional 200-300 spaces have been identified and planned at the future portal where direct access to both the alpinsenter and cross-country trails would be viable. This area is not intended to replace sentrum parking described above but rather supplement growth in the future. In general we see a long-term target of approximately 700-750 public parking spaces at Beitostølen.

Parking Summary

Location /Type	Existing	Proposed Surface Only	Proposed w/ Structure
Sentrum Day Skier Spaces	± 230	± 265	± 300-350
Sentrum Commercial Spaces	± 150	± 130	± 75-100 (+ 75 surface)
Subtotal Village	± 380	± 395	± 500 (with structure)
Lower Portal Day Skiers Spaces	± 0	± 250	± 250
COMBINED TOTAL	± 380	± 645	± 750

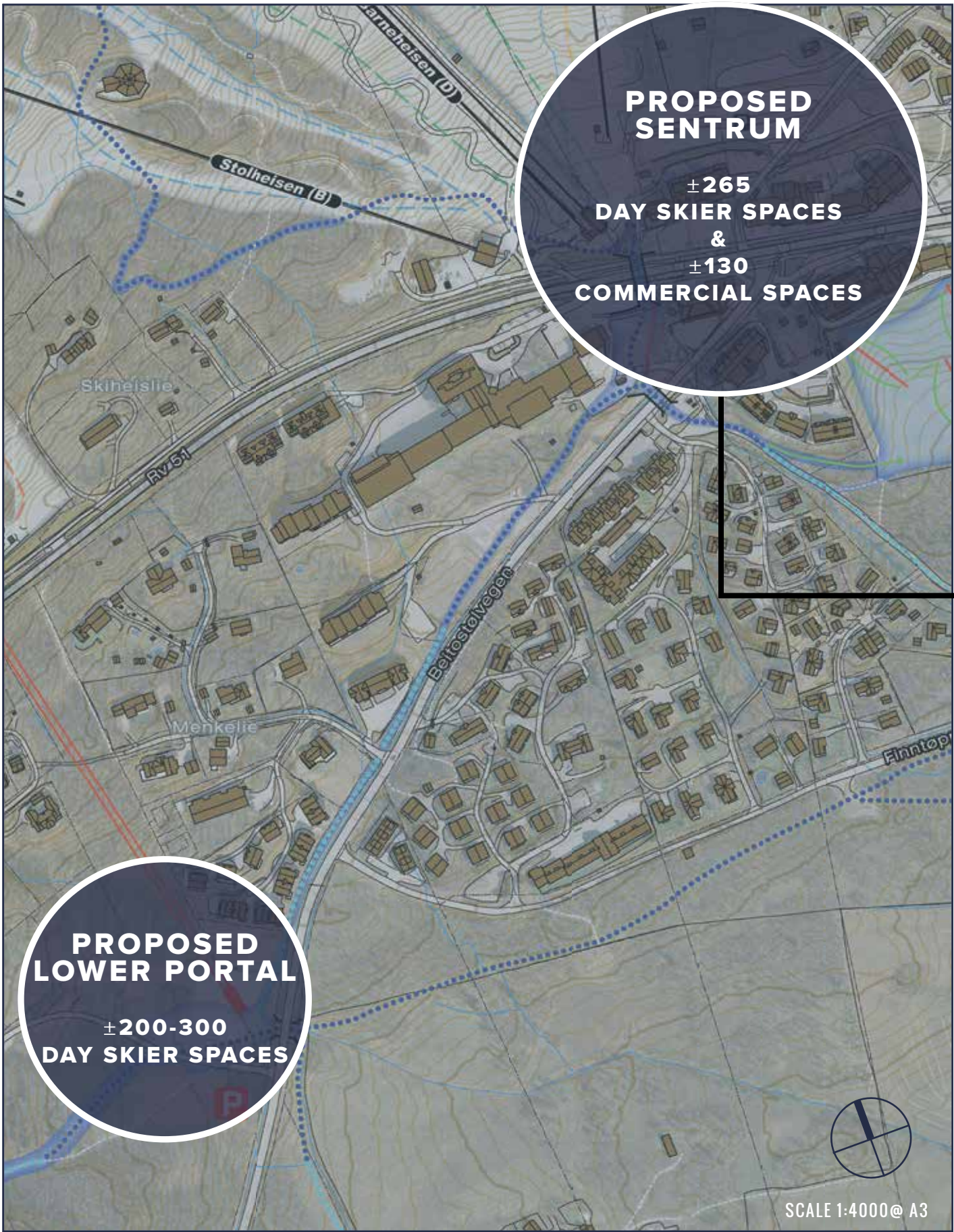


Figure 5 - Parking





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