

Appendix "A-9"

**Mountain Resort Design Guidelines**  
*for*  
**Crystal Mountain**



*June 2006*

**oberto oberti architecture and urban design inc.**

## TABLE OF CONTENTS

<b>General.....</b>	<b>4</b>
Character .....	5
Building Elements.....	6
Design Review and Approval Authority Requirements – Site Plan And Conceptual Drawings. ....	6
<b>Exterior Building Character.....</b>	<b>8</b>
Roofs .....	8
Snow Management from Roofs .....	11
Chimneys and Mechanical Equipment.....	12
Windows .....	13
Wall Finishes and Forms .....	14
Colours .....	17
Entry Areas .....	18
Building Massing and Components.....	19
Landscape and Streetscape .....	20
Signage .....	22
Night Lighting .....	22
Acoustical Design .....	22
Energy Efficiency .....	22
Screening and Enclosure of Service Areas .....	23
<b>Supplementary Guidelines for Hotels .....</b>	<b>24</b>
Hotel Image.....	24
Hotel Lobbies .....	26
Ground Floor Shopping Areas .....	27
Hotel Terraces .....	27
Hotel Balconies .....	27
<b>Supplementary Guidelines for Townhouses.....</b>	<b>28</b>
Exterior Building Character.....	28
Wall Finishes and Forms .....	28
External Spaces .....	28

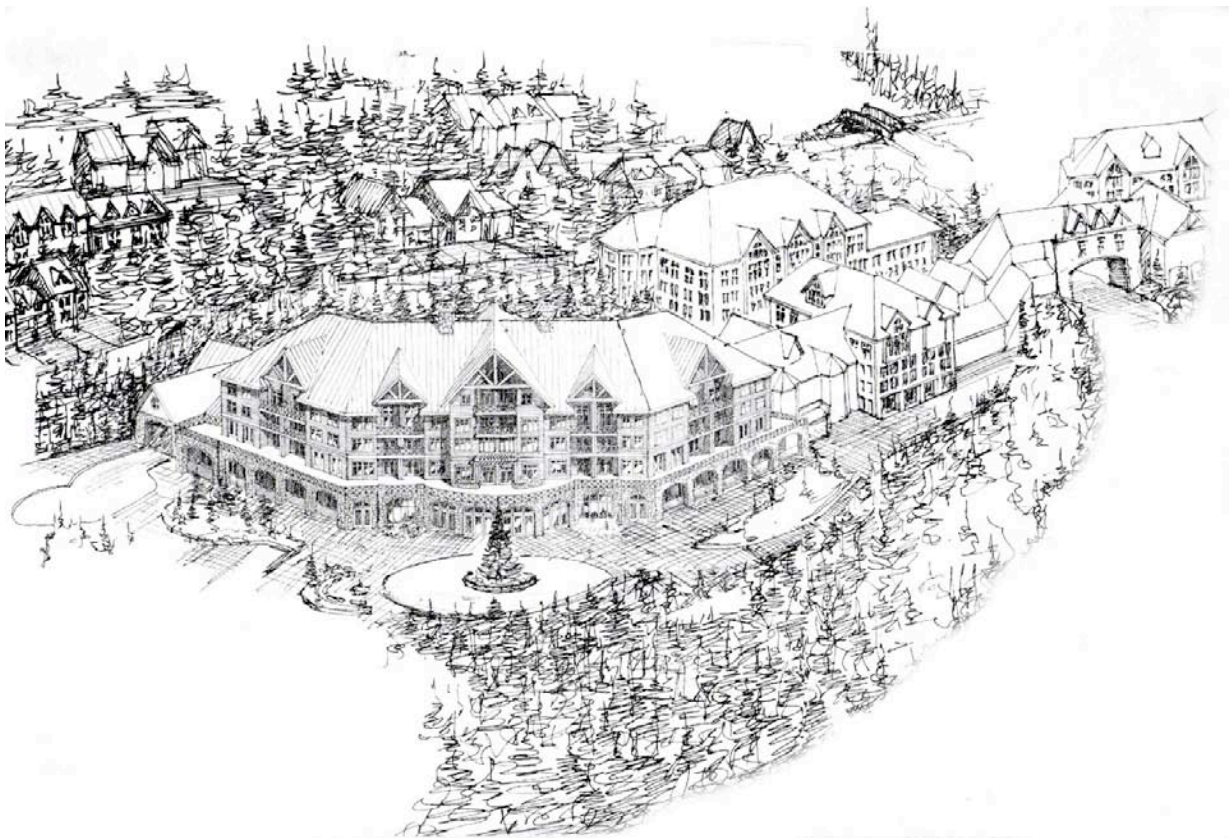
Parking .....	28
<b>Supplementary Guidelines for Chalets.....</b>	<b>29</b>
<b>Supplementary Guidelines for Condominiums and Apartments.....</b>	<b>30</b>
Lobbies .....	30
Balconies.....	30
Commercial Bases .....	30
Garbage .....	30
<b>Siting Guidelines .....</b>	<b>31</b>
For Hotels, Condominiums, and Apartment Buildings.....	31
For Townhouses.....	31
For Chalets, Single Family Dwellings, Duplexes, and Bed and Breakfast Operations.....	31
Central Parking Areas.....	33
Public Outdoor Activities and Spaces .....	33
<b>Interpretation .....</b>	<b>35</b>

## **General**

These Design Guidelines have been prepared by Oberto Oberti Architecture and Urban Design Inc. to create an identifiable and cohesive design character for the resort, utilizing a fairly limited vocabulary of design features that reinforce the notion of a desirable mountain retreat; an escape from the more mundane solutions of urban centres.

The intent is to have each building and other man-made feature contribute to the character of the area so that there is an identifiable mountain resort image instead of a disparate collection of individual components that compete for attention as monuments to a particular individual or corporate taste. The design style is drawn from the better examples of lodges, hotels, and

mountain refuges found in the mountains of Canada and the United States, beginning from the end of the 19<sup>th</sup> century. Most of the truly successful and better-known examples of mountain architecture are the simple buildings that date from pre-1940, which is why it is often referred to as National Parks heritage architecture. The essence of the style is found in the combination of grand forms, forested settings and rustic materials. Heavy timber detailing and natural stone are often combined with grand roofscapes derived from the romantic and picturesque periods of a style of architecture most popular at the beginning of the 20<sup>th</sup> century. This architecture provided a genuine response to natural conditions of mountain settings and has created a simple tradition that is fitting with the natural environment.



## **Character**

The design concept will take inspiration from the mountain architecture tradition of the National Parks, the heritage design tradition of the Western Canadian Mountain Ranges and the rustic architecture of the history of the Okanagan region. It will emphasize sloping roofs, the use of wood and stone and generally abundant use of natural materials – primarily timber and local stone. Design for durability of construction and inherent quality will also be mandatory components. Refer also to Master Plan Section 2 (b) (iv) *Resort Fire Prevention and Control for additional fire protection recommendations and requirements*. Also see the Official Community Plan (OCP) containing the Field Forestry report.

The purpose of these guidelines is to identify some of the key features of that mountain architecture style, so that they can be worked into individual compositions that are both unique and conforming. The goal is the creation of a grand yet warm and rustic impression characteristic similar to the National Parks aesthetic tradition. A successful design must respond favourably to both the spirit and intent of these guidelines.

Quality of design in massing proportions and architectural language will be a fundamental principle in achieving a product that will position Crystal Mountain on the tourist map of the Okanagan Valley visitors. This is planned through encouraging design that will maintain the park-like setting of the area today, and design controls to ensure that all future development will follow the original architectural theme and respect open spaces. The guidelines are provided so that the

architectural concept and execution of each building is in keeping with the desired image as well as with the overall Master Plan for Crystal Mountain.

Authentic style and character will be derived from the successful design tradition of mountain architecture and will reflect a recognized heritage value and mountain tradition.



The guidelines described in the following pages will emphasize the use of heavy timbers, warm, natural finishing materials, and large interior spaces to combine a grand impression and a warm mountain atmosphere. Authenticity will be emphasized by rustic simplicity and by the avoidance of superfluous or added-on features.



## **Building Elements**

The shape of the building will be determined by its functional mass. False appurtenances and decorative architectural elements with no function will not be permitted. Decorations should only apply to real functions. It is intended that the style be rustic, solid and true, with its elegance and grace provided by good proportions, good massing and good relationship to the other buildings. The building mass resulting from the shape of walls, floors and roofs must be broken into smaller scale components to avoid brutal and overpowering proportions. Ornament and decoration will be encouraged only in the direction of sculpting and finishing the functional building elements. The use and appearance of natural elements will be given preference.

### **Design Review and Approval Authority Requirements – Site Plan And Conceptual Drawings.**

Each building component must be designed to fit within the building envelope designated in the Master Plan/OCP and Zoning documents and must comply with other Master Plan/OCP and Zoning documents requirements and guidelines.

A Design Review and Approval Authority (DRAA) will be responsible for design review and arranging for compliance with these guidelines as set out in the Master Plan/OCP and Zoning documents and in the covenants registered on land titles.

Drawings showing building plans, sections and elevations, roof plans, finishes, colours, landscape and

streetscape design must be submitted for preliminary approval to the Design Review and Approval Authority for the resort area prior to application to the authorities having jurisdiction for development and building permits.

The designers of buildings, signs and incidental development components must submit a site plan, conceptual building drawings, colour schemes and all necessary design information to the Design Review and Approval Authority (DRAA) prior to submitting drawings for a Development Permit. Upon approval, the DRAA will provide a written statement confirming to the authorities having jurisdiction that the project is in compliance with the Master Plan Guidelines. Subject to compliance with the OCP and zoning regulations, B.C. Building Code and any relevant local bylaws, the authority having jurisdiction will then issue a Development Permit and a Building Permit.



**Summary of Principles:**

- The resort image will be based on the alpine romantic architecture of the North American National Parks and traditional examples of heritage mountain architecture in a contemporary mountain setting.
- The architecture will combine grand forms and rustic materials such as heavy timber and natural stone.
- Buildings will conform to the Master Plan for the resort.



## **Exterior Building Character**

As indicated above, the design concept will take inspiration from the National Parks heritage design tradition and North American mountain architecture. It will encourage steep sloping roofs, heavy timber or log construction, stone bases and generally abundant use of natural materials comprising primarily timber and local stone. Design for durability of construction and inherent quality will also be mandatory components

### **Roofs**

- One of the most characteristic elements of romantic mountain architecture is a steep sloping roof. Roofs will be of utmost importance to the visual landscape of the resort, as they will be viewed from above further up the mountain. Sloping roofs and overhangs are a required element in all building design.



### **Roof Shapes**

- Roofs will be an essential component of the visual landscape of the resort base area and of the single-family dwellings. Steep roofs will be

encouraged. All roofs must be sloped at a minimum angle of eight to twelve and designed for proper snow management and engineering. Decks and areas of snow collection must be designed to provide a visual balance of design as well as fulfilling practical needs. Locations of snow dumping must be indicated. Chimneys, mechanical and venting requirements of buildings must be shown in the preliminary design with appropriate reinforcements and design treatment. Roof protrusions must be protected against the action of snow accumulation and movement.



- The main roof form should be articulated with a combination of full-scale gables and dormers that provide windows to habitable spaces (rather than being mere ornaments). The main roof volume should contain at least one floor or mezzanine of habitable space generally, rather than appearing to be a token pitched roof on top of a building originally designed to have a flat roof.



## Mountain Resort Design Guidelines - Crystal Mountain, Westbank BC

- The roof forms should tie into the main roof volume and wrap comfortably around corners giving a sense of function to the composition, rather than appearing to be stuck onto the façade or main roof as whimsical appurtenances.
- The composition of roof elements may be symmetrical or strongly asymmetrical, but not purely random.
- Roof finishes are important as they are highly visible from the ski slopes and should preferably be of natural slate, or ribbed (standing seam) metal. Asphalt shingles of approved design and colour may be permitted.
- All hotel buildings and buildings in the base area must have a ribbed standing seam metal roof in a copper green colour.
- Roof forms should provide valleys below which there are safe locations for snow dumping
- The roofs above entrance ways must either form a gable end or provide adequate snow fences or similar protection to guard against falling accumulations of ice or snow.
- Eaves should project at least two feet on all sides of a roof (except where adjacent roofs of two buildings terminate at a common wall or where the chateau style is being used for a hotel).
- Eaves may be supported by stylized brackets such as in the tradition of the arts and crafts movement.

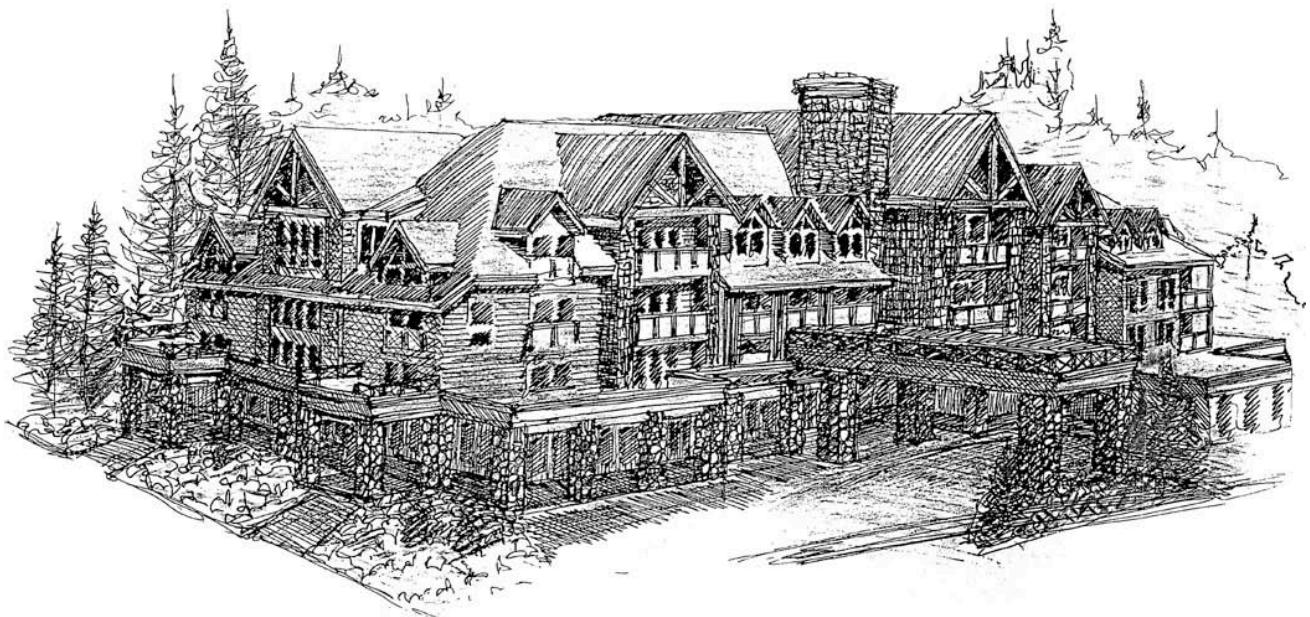


## Mountain Resort Design Guidelines - Crystal Mountain, Westbank BC

- Eaves, fascias, bargeboards, and soffits should be, or appear to be, of natural wood.
- Decorative roof elements such as cupolas, towers, finials, gingerbread tracery and the like are generally discouraged and should be used only in strict moderation and to decorate functional architectural elements.
- Flagpoles incorporated into building or roof designs are encouraged in public base areas to create a sense of place and of visual activity.
- Vented cold roof designs are encouraged in order to minimize maintenance problems.

### Summary of Principles:

- **Roofs must be steeply pitched and articulated without unnecessary decoration.**
- **Roofs must be designed to be viewed from above.**
- **Hazards of snow and ice accumulations must be provided for in design.**
- **Roofs in the vicinity of the main resort base area should be metal with a copper green colour to provide a coherent design.**



## Snow Management from Roofs

Snow accumulation on roofs must be taken into account not only in terms of structural loads but also in terms of the other effects of snow accumulation. Protection must be provided from snow and ice for protruding components such as chimneys and vents. Areas of snow accumulation and of snow removal must be considered and the design accordingly dictated.

Snow management planning is an important aspect of building design for Crystal Mountain – especially with respect to roof design. Pedestrians must be protected from falling snow either by snow retention on roofs or terraces or by providing for the collection and directional shedding of snow from roofs by the prudent use of gables and dormers.

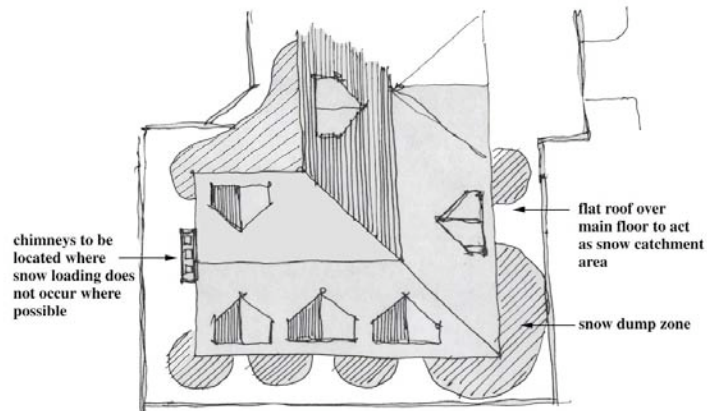
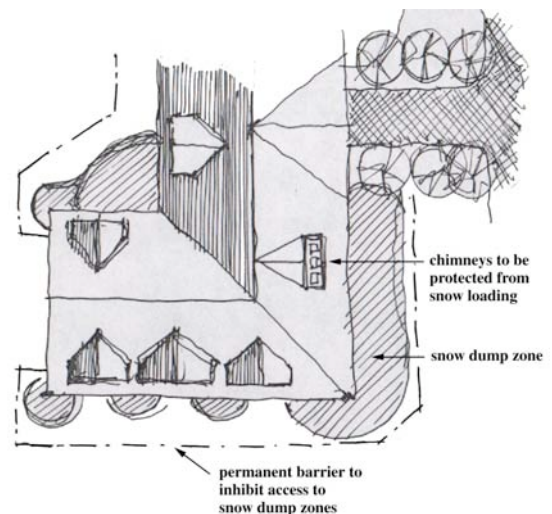
Building entrances for both pedestrians and vehicles must be given special design attention to avoid snow and ice accumulation or injury or damage in those areas.

The weight of snow and ice on a roof, requires that eaves and other appendages be sturdy. Eaves troughs or gutters should be avoided where they are likely to suffer damage from snow and ice. Icicle formation must be avoided or adequately controlled through design. Metal roof materials should be of a substantial gauge to avoid deformity under pressure of ice and snow.

Snow management should be enhanced by provision of “cold roof”

design, achieved through adequate insulation and roof ventilation.

Locations for snow dumping must be indicated on building plans submitted to the DRAA. Snow dumping areas should be within the property lines of the private property – which may require accumulation on perimeter arcade roof decks in some instances. Decks and flat areas of snow collection must be designed to provide a visual balance of design as well as fulfilling practical needs.





## Chimneys and Mechanical Equipment

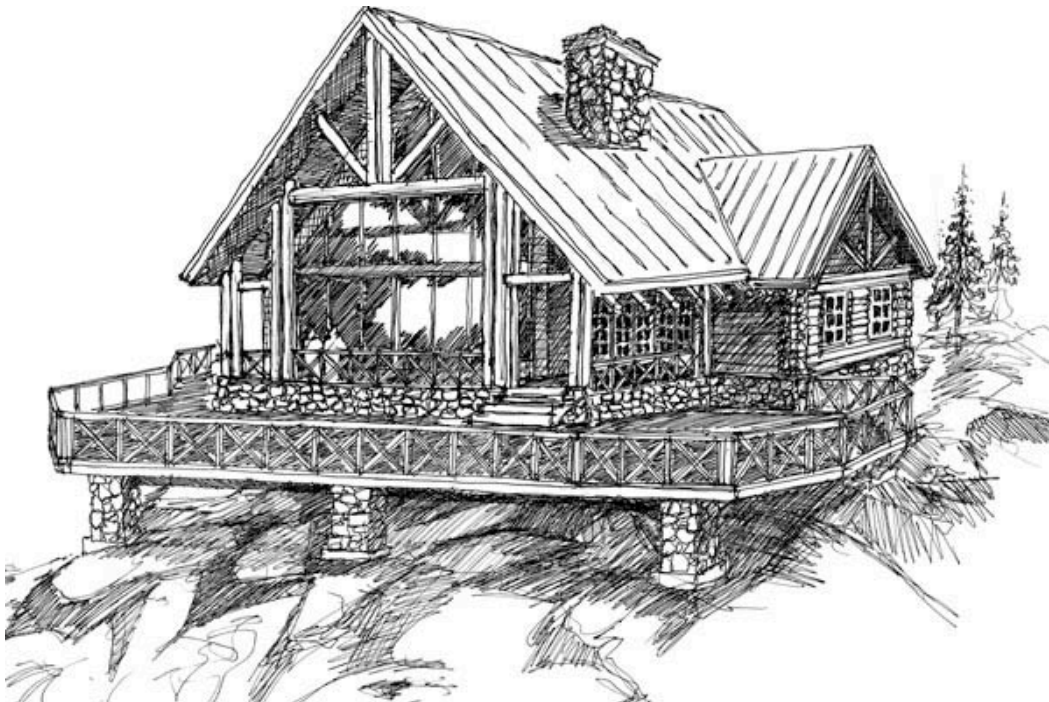
- All chimneys must appear on design and construction drawings submitted to the Design Review and Approval Authority and to the authority having jurisdiction.
- Chimneys should have a stone finish where visible from the exterior of a building. Where desired, chimney stacks may be of black painted metal. Unpainted metal such as stainless steel or galvanized chimneys, chimney pots or chimney caps will not be permitted. Other mechanical shafts and vents must also appear on design drawings and be treated appropriately so as to be as unobtrusive as possible. The preferred metal colour will be flat black.
- Elevator penthouses, exhaust vents

and fans, air handling units and other equipment must be incorporated into the overall building envelope and design such as within the roof forms.

- All such equipment must be screened from view of public areas, whether on a roof or at grade. Mechanical equipment, ventilation grates or motors should not be adjacent to any main pedestrian, commercial or other public area.

### Summary of Principles:

- **Chimneys must be of stone finish and no bright metal chimneys or unpainted metal equipment is to appear on a roof.**
- **Mechanical Equipment is to be screened as part of the building design.**





## Windows

- At ground level, commercial area windows should be of modest size, broken by solid wall elements to reflect the structural rhythm of the building.
- Windows in wall areas above ground level should form part of a pattern of punched windows in the building façade.
- Wood framed windows are encouraged.
- For windows above ground level, casement or double hung windows are preferred to transom windows or sliders. Jalousie windows and glass block windows will not be permitted.

- Mullioned windows are encouraged in dormer and gable windows, whether the mullion panes are square, rectilinear or even diamond shaped.

## Summary of Principles:

- **Large expanses of undivided glass wall are not appropriate.**
- **Fenestration should include some mullioned windows.**



## **Wall Finishes and Forms**

Many good examples of mountain architecture combine different wall finishes, which change from the bottom to the top of the building.

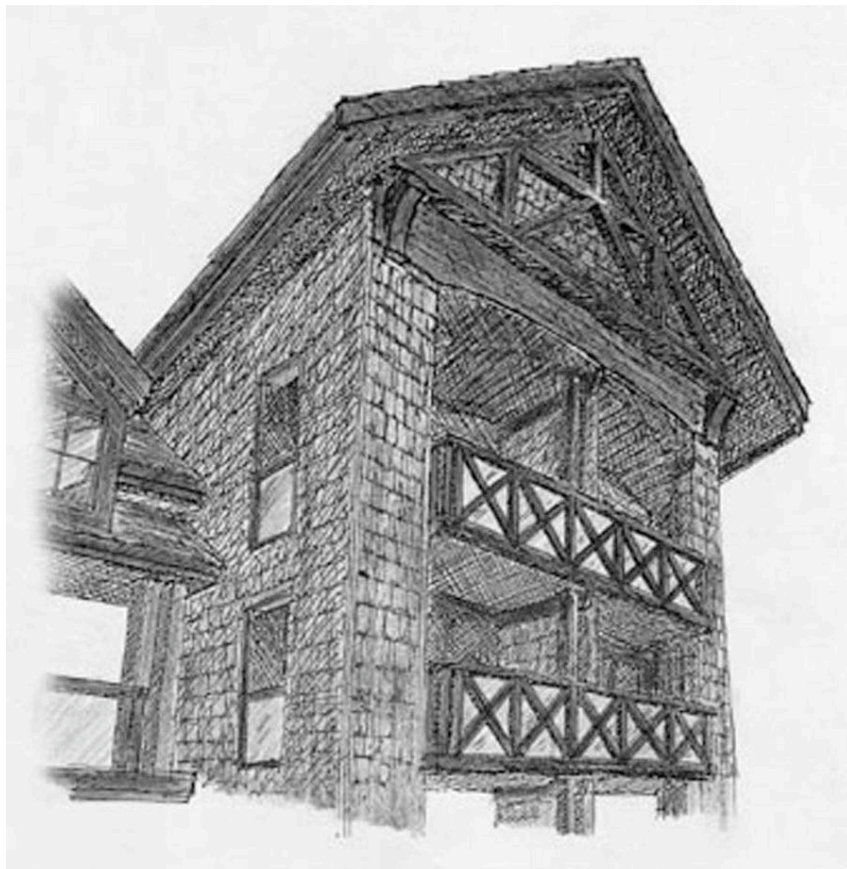
The main floor must create a strong connection to the ground with a solid base rising at least to windowsill height. Although each building will have a different geometry, massing and treatment of elevations, this base will be a continuous cohesive element that provides a visual connection of the buildings to the ground and to each other. It is intended that the base will be constructed with materials that will provide a sense of solidity and mass.

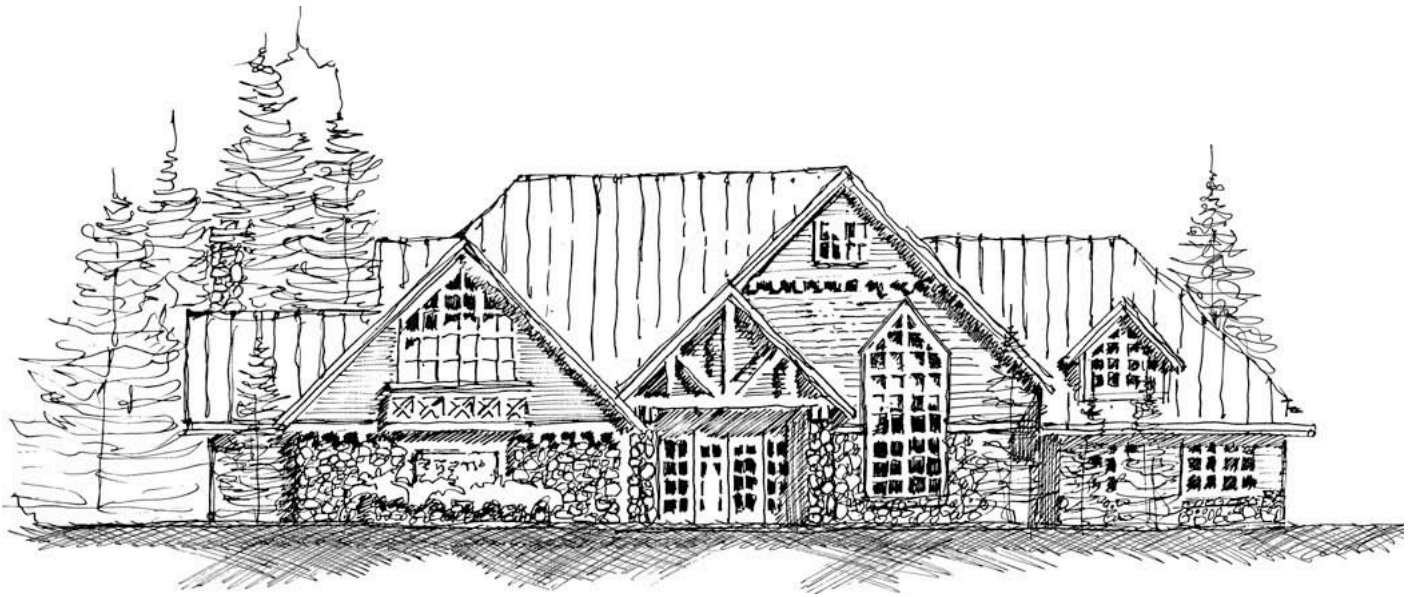
The base of all buildings should be finished in natural stone, randomly rather than geometrically set, at least to

the window sill height of the main floor. Stone is encouraged as a finish over the entire height of the main floor. Stone supports are also encouraged to sustain arcade, pergola and porte cochère elements at the ground floor of buildings.

Likewise, heavy timber members should be evident through generous use as support beams for overhangs, pergolas or aspects of arcades, and portes cochères, to reinforce the wood theme of other timber details.

Finishes above the main include the use of treated wood, including vertical board and batten siding, various gauges of horizontal wood siding, or highlights of wood shingles. Stucco and concrete finishes should be restricted to no more than 50 % of wall areas of each façade not occupied by fenestration or





entries (except where required for fire separation or other Code requirements). Fenestration itself should be limited to a maximum of about 50 % of a wall area, except on the ground floor. Curtain wall forms of glass, metal, or concrete panels will not be permitted.

Wall forms should be continuous in commercial areas, the base area and along pedestrian oriented routes to help enclose the public spaces they define. Walls of adjacent buildings should meet at common property lines and actually touch, and public access around buildings should be provided by covered archways of appropriate width, usually at one end of a building.

Roof gables and dormers, support brackets, fascias and eave features should reinforce the image of timber construction through form, texture, colour and detail.

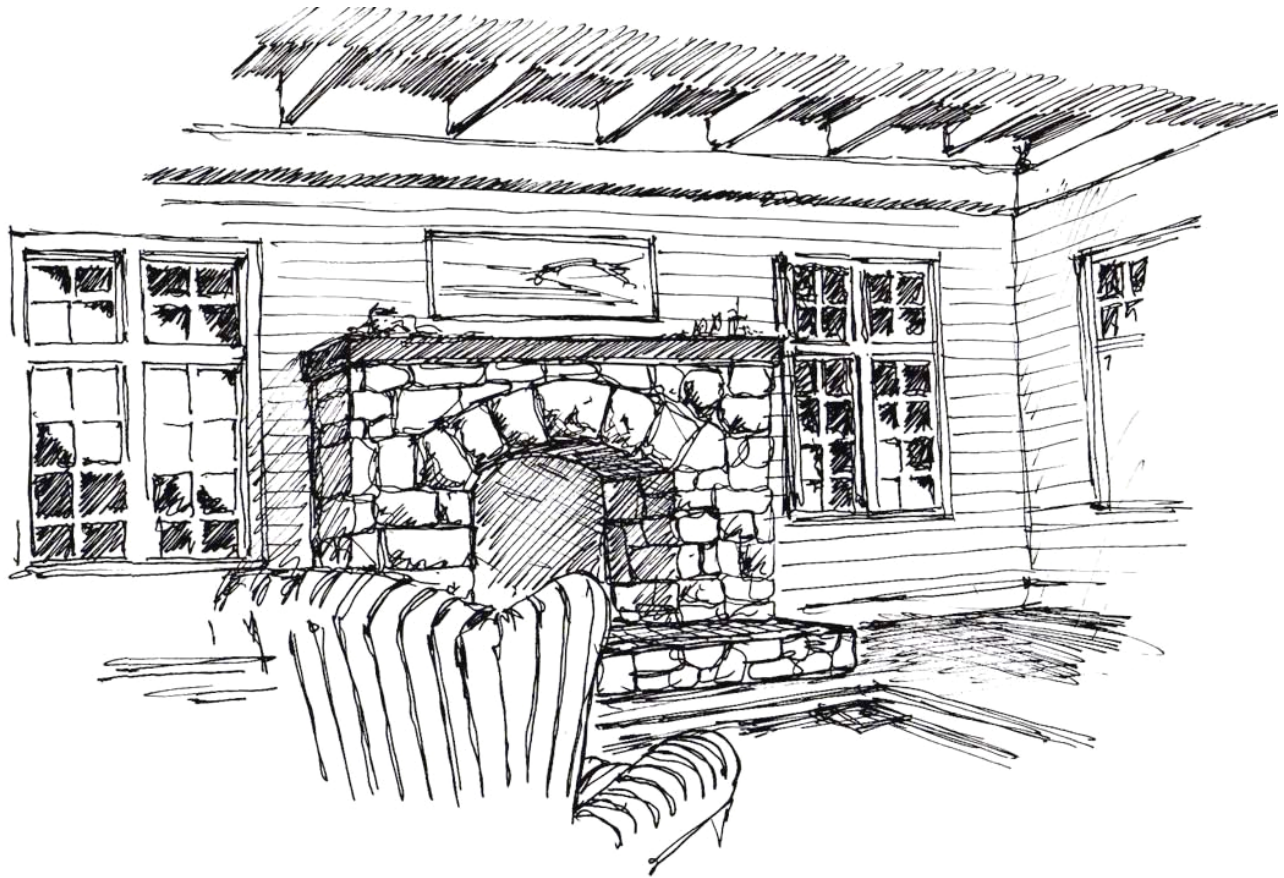
Components of building facades such as wood frame doors and windows, will contribute to the timber theme and are strongly encouraged.

On the interior, especially in lobby spaces of hotels and other multiple unit buildings, elements of heavy timber construction should be evident in wood post columns, sawn beams and natural wood detailing in features such as doorways, stair rails, etc.



**Summary of Principles:**

- Buildings should have a solid and continuous base preferably of stone.
- Upper walls should emphasize wood components.
- Curtain wall systems are not acceptable.
- Wall forms must be continuous wherever possible to define pedestrian oriented areas.





## **Colours**

Wood finishes on walls should be stained in quiet natural finishes or subdued earth tones with highlights of other subtle colours. Doors should be of natural wood colours or colours that match window frame colours.

Window frames and mullions in traditional colours of natural wood, brown, black, white, forest green or pompeii red (i.e. a low chroma red rather than a bright orange red) are preferred over other colours. Brass coloured mullions, and anodized or aluminum window and door frame finishes are strongly discouraged.

All colour schemes must be submitted for approval to the Design Review and Approval Authority. Earth tones that are compatible with other buildings will be encouraged. Colours in glaring contrast with other buildings will be discouraged.

### **Summary of Principles:**

- **Colours for walls are to be based on subtle earth tones.**
- **Natural finished wood is encouraged.**

## Entry Areas

Entry areas should have a high quality of finish and detail as these areas leave some of the most lasting impressions and are subject to the greatest scrutiny.

Buildings should have main entrances that are easily identifiable and which evoke a sense of entry - again combining the grand and the rustic.

Entries should be weather protected either by overhanging gable eaves, portes cochères, arcades, or veranda elements. Materials about the entry way should again include stone and wood elements.



### Summary of Principles:

- **Entry areas should be grand, rustic, well detailed and weather protected.**

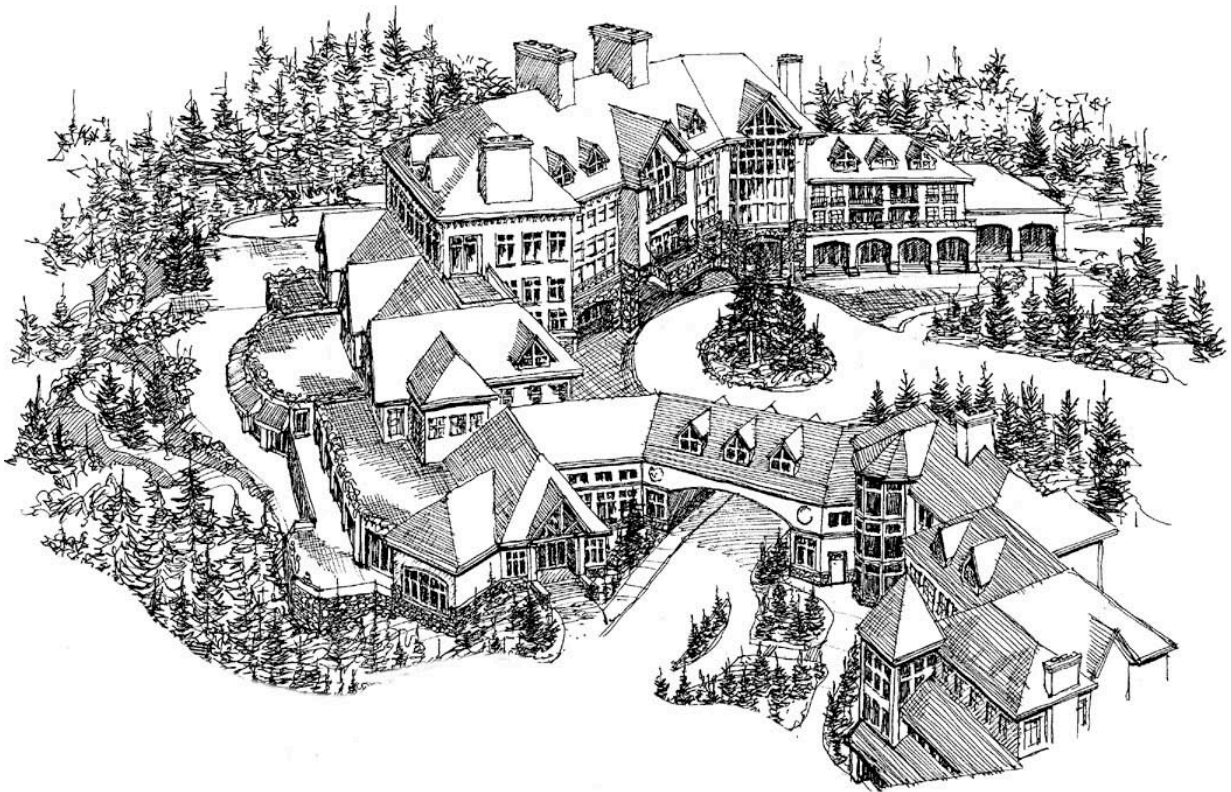


## Building Massing and Components

The shape of a building will be determined by its functional mass. False appurtenances and decorative architectural elements with no function will not be permitted. Decorations should only apply to real functions. It is intended that the style be rustic and solid, with elegance and grace provided by good proportions, good massing and a good relationship to the other buildings. The building mass resulting from the shape of walls, floors and roofs must be broken into smaller scale components to avoid brutal and overpowering proportions. Ornaments and decoration should be used only in the direction of sculpting and finishing the functional building elements.

### Summary of Principles:

- **Building massing should be broken down and display good proportions without false architectural features.**
- **Decoration should highlight structure and function.**

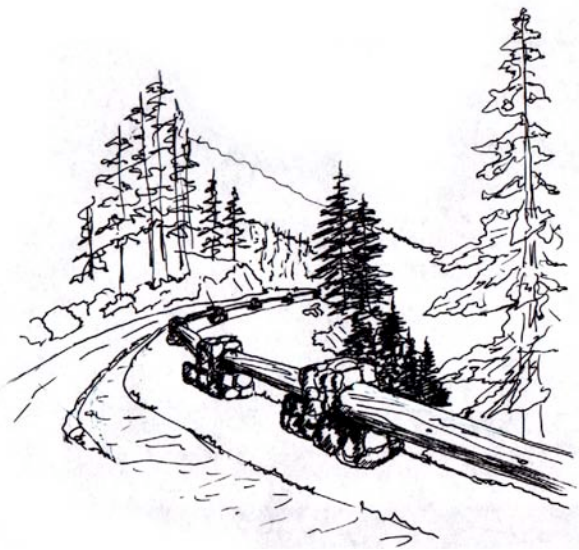




## **Landscape and Streetscape**

Landscape elements should reinforce the rustic themes of a park like setting.

Road barriers should not be steel or concrete, but made of simple stone posts supporting horizontal logs. Where fences are necessary they should also be of stone and timber but continuous outdoor spaces are encouraged, rather than fenced areas.



Road surfaces and driveway surfaces should minimize expanses of earth, asphalt or concrete. In private driveway and entrance areas, consideration should be given to crushed gravel and stone or concrete pavers.

Landscape design concept drawings must be submitted for approval. The main criteria to be followed will be the retention or regeneration of the natural landscape, enhanced to create an air of quality to the resort. Sun consideration must be given to decks and patios.

Crystal Mountain may require compliance with more detailed landscape guidelines, which may be prepared before the start of each development area.

New trees and shrubs should reinforce the natural species. Existing trees should be preserved, especially mature evergreen species, care being taken not to harm the roots or stability of the trees. Seasonal highlights may include some deciduous trees. In single-family chalet areas the buildings should be partly hidden by evergreen trees. Natural groundcovers and natural wild alpine flowers should reinforce the natural theme of the resort.

In the more urban areas of the resort base area, seasonal colour may be added through summer window boxes of geraniums or other typical alpine themes that are conducive to a National Parks environment.

Pedestrian interest is an important factor at the ground level of buildings. That interest is retained through a variety of uses, well detailed finishes, transparency and frequent access to building interiors.

Street furniture items should be of rustic materials such as stone and solid wood - in benches, kiosks and barriers.

Some weather protection should be provided at all building entries. In commercial areas, weather protection for pedestrians may be provided by arcades, roofed pergolas, verandas, overhangs, or similar elements.

View of the shops, lighting and transparency, however, are also emphasized. Weather protection should not be oppressive or obscure the



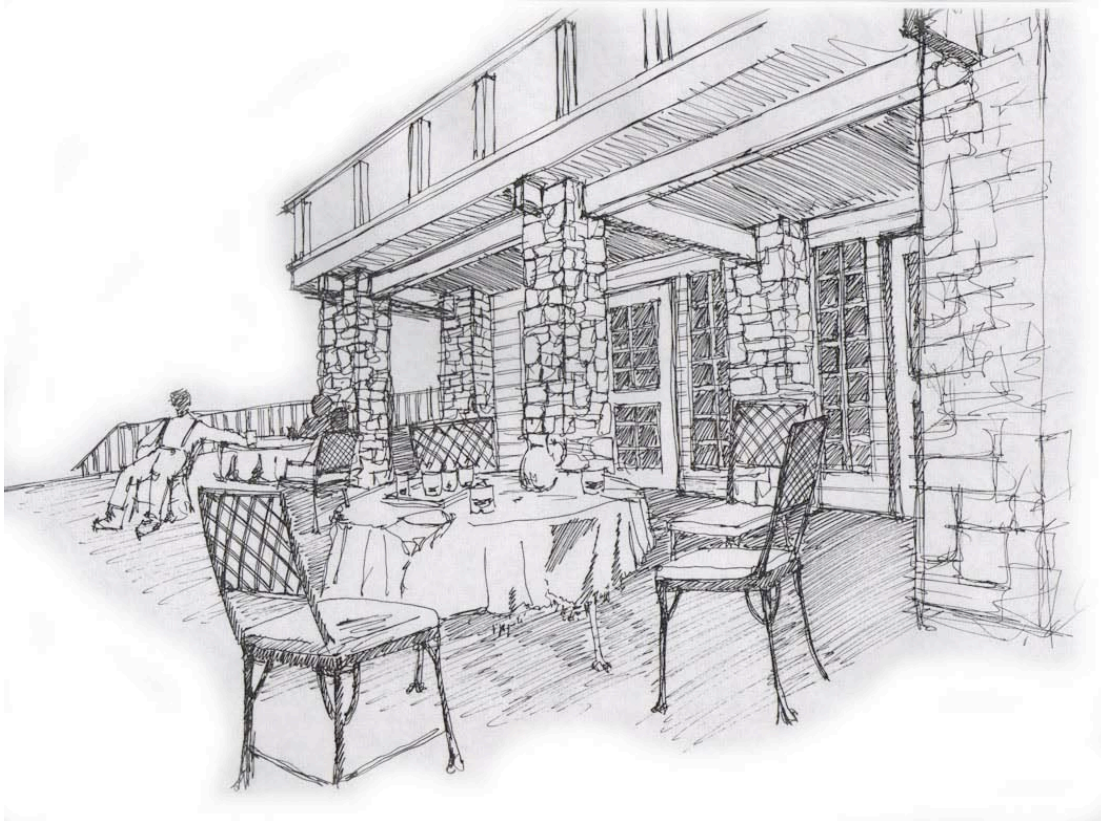
commercial areas. Simple overhangs may be preferred in a variety of locations.

Textured surface treatments for pedestrian walkway and plaza areas should be small in scale, durable and attractive.

Asphalt will not be permitted as a walkway finish. Plain concrete is discouraged. Concrete pavers and paving stones are encouraged.

**Summary of Principles:**

- **Outdoor areas should allow for sun penetration.**
- **Some mature trees should be preserved where possible.**
- **New planting should reflect native species.**
- **Unnatural ground surfaces should be small in scale.**
- **Street furniture, barriers and fences should all be of rustic natural materials.**
- **Weather protection should be provided at entries and in commercial areas, but this is not intended to decrease transparency.**



## **Signage**

All sign designs must be approved by the Design Review and Approval Authority prior to installation. Signs may only be of solid materials and may only utilize front lighting. Backlighting of exterior signs will not be permitted. Signs extending out from buildings will be solid, in the shape of a banner or large shingle of no more than one meter by one meter. The use of wood is encouraged in signs.

## **Night Lighting**

Night lighting should be adequate for comfort and safe movement, and designed for an intimate, aesthetic effect. It should not be bright and obtrusive and it should only illuminate what needs to be lit. Where possible, light sources should be shielded and directional. All light fixtures must be in keeping with the architectural character. All exterior lighting design and fixtures must be submitted for approval by the Design Review and Approval Authority.

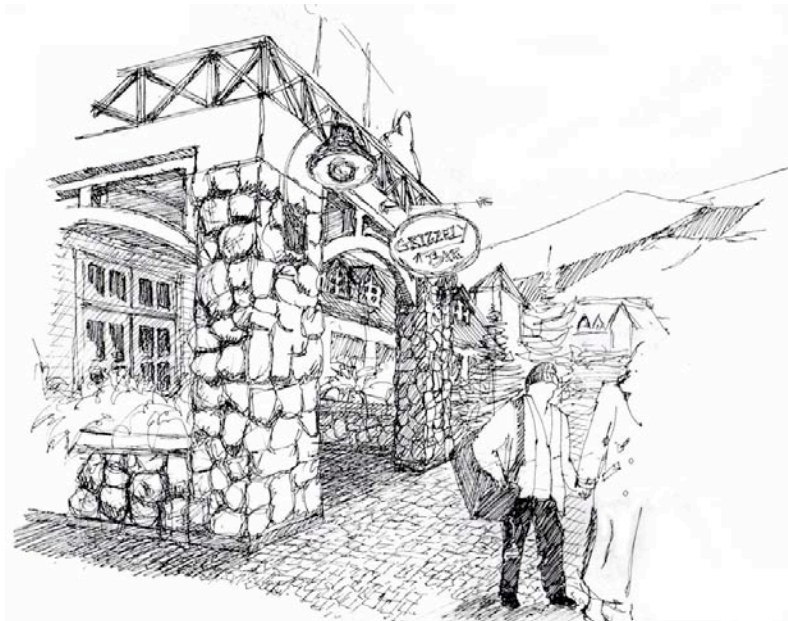
Harsh vapour bulbs in orange, pink, blue, etc., will not be permitted and the preference is for incandescent tones. Street lighting should be attached to buildings where possible to avoid the necessity for large and often unattractive lamp standards.

## **Acoustical Design**

Except for single family chalets, a review of the design by an acoustical engineer may be required prior to approval of design drawings by the Design Review and Approval Authority, to ensure the peace and quiet enjoyment of the resort by vacationing guests.

## **Energy Efficiency**

Energy efficient design is encouraged in all buildings. It is recommended that single-family chalets and townhomes comply with the general directions of the B.C. Hydro PowerSmart program while that program is in place.



## **Screening and Enclosure of Service Areas**

Entry to garages and other enclosed areas must be part of the overall building design. Garage doors and service areas must be unobtrusive and in keeping with the pedestrian, small-scale character of the mountain resort. Storage, mail-box areas, compactors, garbage collection, snow removal equipment, mechanical or electrical equipment, transformers, utility tanks, propane gas meters, solar collectors, antennae, satellite dishes, etc. must be designed appropriately to be contained inside building areas, placed underground, or suitably screened, and must be part of the initial approved design.





## Supplementary Guidelines for Hotels

### Hotel Image

The hotels within a resort area, as buildings frequented most by the public, will often create the most lasting impression, whether one experiences a resort area for a few hours or a few days. For that reason, the design guidelines will be monitored very carefully for hotels, as their impact is greater than that of the single family chalets, town-houses, or other more private resort buildings.

Hotels within the resort area will fall within one of two broad categories of National Parks architecture. The most prevalent, and generally preferred for hotels up to about 150 rooms, is the grand rustic lodge. The other category is the less common, although perhaps more magnificent style exemplified by the Canadian Pacific chateau hotel.



To complement the outdoor setting, hotel design should incorporate elements of rough or rusticated natural stone. The rustic lodge category will use more heavy timber elements and exterior timber treatment, while the chateau will use more stone. Both will have steeply pitched roofs, with the

rustic lodge utilizing roof pitches of about 12 in 12 for the main roof components and no less than 4 in 12 for most other minor roof components. The roofscape of the lodge style may be either symmetrical or strongly asymmetrical, with one main gable dominating the other roof elements. The chateau style is often asymmetric with greater height and a main hipped and dormered roof element dominating the composition.

The chateau style usually employs some roof elements that are steeper than 12 in 12. The roofscape of the rustic lodge generally incorporates both gable and dormer elements in a variety of compositions and with the overall form of the massing being more horizontal than the chateau style. The rustic lodge utilizes horizontal bands of different (mostly wood and shingle) finishes and often employs a horizontal arcade, terrace, or veranda at the base to reinforce the horizontal elements and to protect from snowfall. The chateau style employs more dormers and hipped roof forms. It may have combinations of different exterior finishes but the chateau exterior is generally solid with a base, a middle and cantilevered band below the roof. Its overall proportions usually emphasize the vertical rather than the horizontal.

To be convincing, the lodge style should not normally exceed five or six storeys plus underground levels. The chateau style can effectively be higher, with a main centre block rising up to above 7 storeys. However, care should be taken not to seriously block views from other hotels or buildings behind. Stand alone highrise tower forms are not appropriate and will not be permitted. Higher building design will require an analysis of



view angles for surrounding areas and buildings.

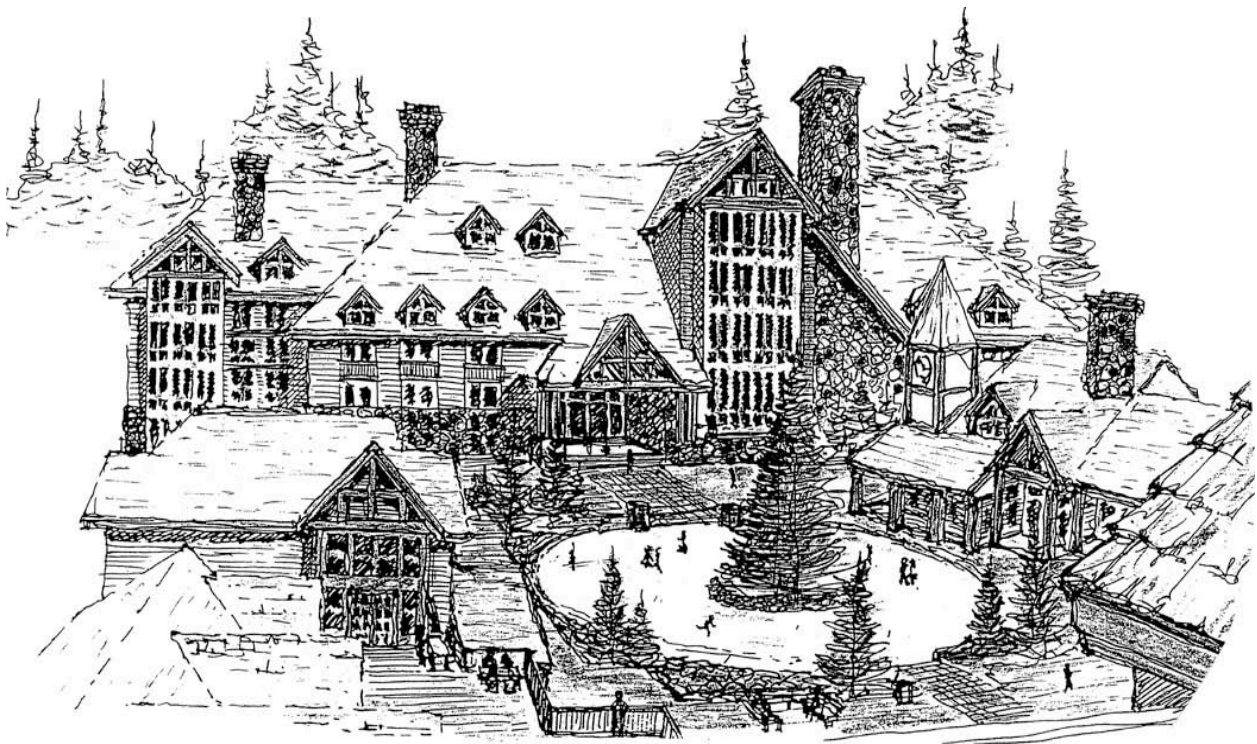
Brutal highrise blocks with token sloped roofs are not permitted. Both the Canadian chateau and the rustic lodge usually have horizontal wings of rooms stretching from a main focal point, and are not point tower forms.

The Canadian chateau is not really a copy of French or Scottish castles, despite allusions to those forms. The chateau style, as used by the Canadian Pacific Railway, is simpler in form, devoid of too many unnecessary turrets, cone topped towers, crenellated parapets, or stepped gables, and those elements may not generally be appropriate. Similarly, a propensity to use Queen Anne style towers with cone roofs is not generally conducive to the more restrained National Parks style image, and such forms may be discouraged.

Generally, caution must be used in designing chateau style hotels, which may, with poor proportions, details or inappropriate materials, appear to be simply grotesque and overpowering rather than grand and dramatic.

### Summary of Principles:

- **Hotels should be based on the image of a large rustic lodge or possibly a small mountain chateau.**
- **Finishes should include natural stone and rough timber.**

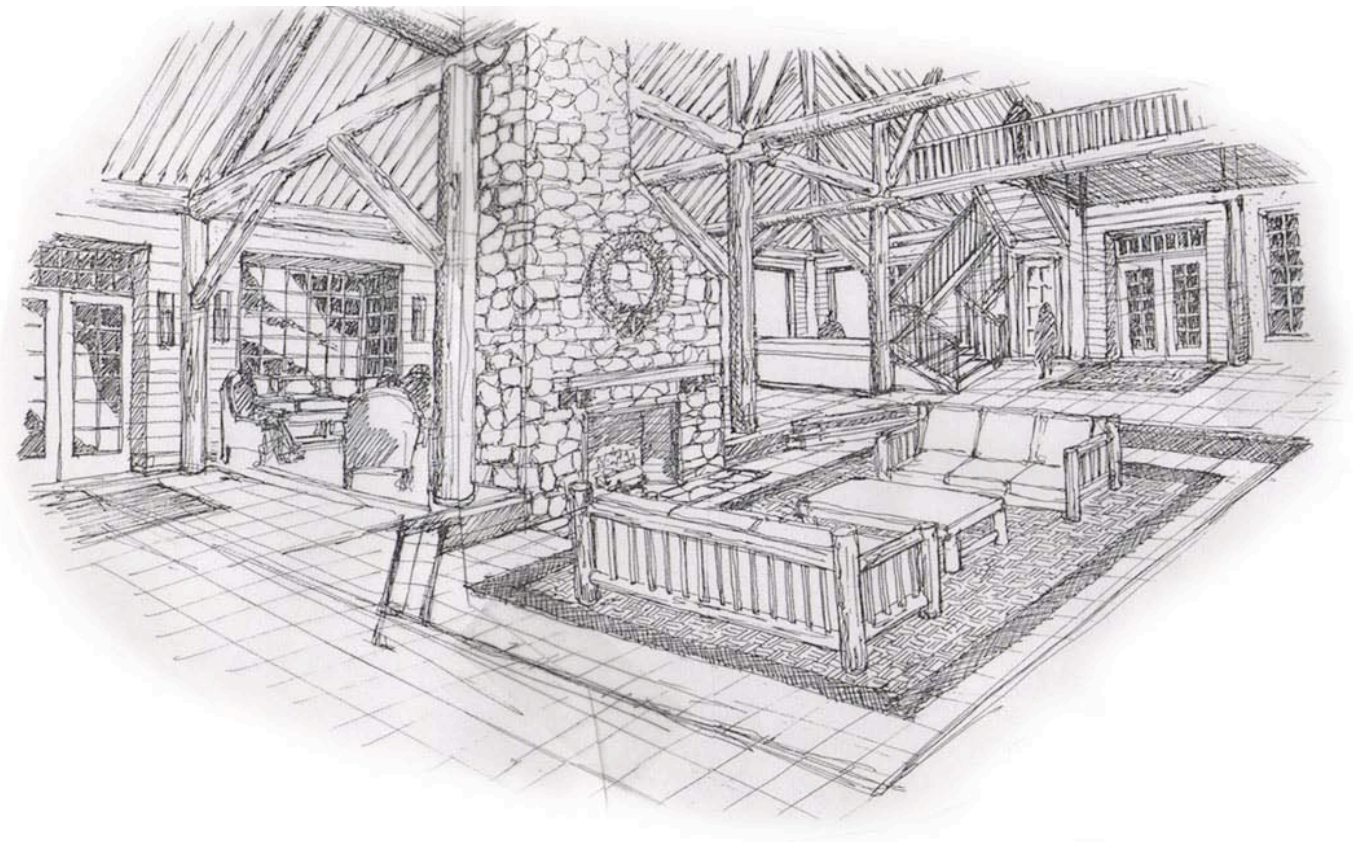


## **Hotel Lobbies**

Interior design and the standard of hotel accommodation will vary depending on the target market and on changes in standards and fashion over time. However, the lobby design and character should reinforce the National Parks theme. This may be achieved through elements such as a stone fireplace, natural wood features in the form of beamed ceilings, feature stairs, doorways, wood trim around doorways, and some paneling or cabinet work in the reception area. The lobby areas should evoke a grand impression, utilizing two storey volumes where possible and tall windows capturing the outdoor scenery. View-through lobbies are encouraged.

## **Summary of Principles:**

- **Hotel lobbies should be grand in scale with wood detailing and a fireplace.**



## **Ground Floor Shopping Areas**

Hotels, Condotels and other buildings which incorporate commercial / retail shops or food and beverage services on the ground floor should provide for some access from the exterior to vitalize the streetscape.

Retail shop frontages should be limited to a maximum of about 25 feet in width on the pedestrian oriented exterior façade to provide pedestrian scale interest and rhythm to the streetscape. Restaurants and pubs would perhaps be larger, but may expand behind other street front uses. Frequent access, transparency and a variety of uses are encouraged within all shopping areas.

In pedestrian oriented areas, broad expanses of solid wall should be avoided to provide for both natural light as well as pedestrian scale, interest and rhythm to the streetscape. Frequent access, transparency and a variety of uses are encouraged within all shopping areas.

Signage for shops, as elsewhere, should be front lit and in the form of or similar to banners. Signage for shops should be secondary to the main hotel signage; that is, small and tasteful. Otherwise the general signage guidelines apply.

### **Summary of Principles:**

- **Hotels should have ground floor shopping or food service facilities accessible from the outside pedestrian area.**

## **Hotel Terraces**

Exterior terraces, arcades, and verandas, whether for drinking, dining or appreciating the view, should be incorporated in hotels. They should be planned to capture sun or views of activity nodes or characteristic scenery. Requirements will vary according to the hotel size, location and orientation.

## **Hotel Balconies**

Individual cantilevered balconies are not part of the National Parks heritage design vocabulary and are discouraged. Recessed balconies, galleries, French doors behind flat railings, covered verandas, small terraces, building protrusions and other solidly supported types of balconies and open spaces are encouraged.



## Supplementary Guidelines for Townhouses

### Exterior Building Character

Beyond the general guidelines for the resort area, the townhouses should be grouped together in multiples of three or four up to a max of six units in an overall composition that appears to be a single structure with a unified form. Each unit should be identifiable through the use of individual entries and some secondary or subordinate roof form such as a gable or dormer that the owners will recognize as part of their own unit. For the majority of the townhouse units, the overall impression should be of a single large home in the characteristic architecture described in these guidelines.

### Wall Finishes and Forms

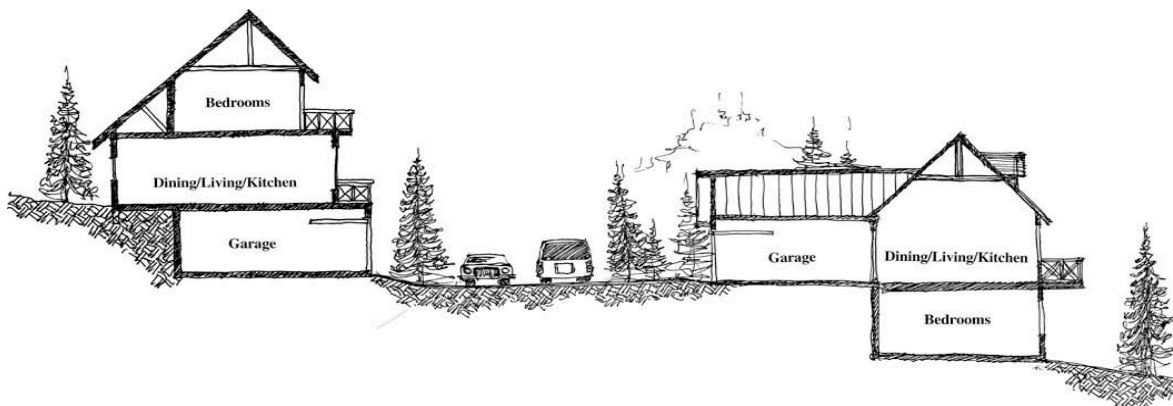
Exterior finishes should include generous amounts of natural finishes, such as natural wood trim and stone finish, which will tie the neighbourhood composition of the townhouse enclave together, even if the other finishes are changed in colour or finish treatment over time by different strata councils or individuals. Window units should likewise be uniform within each grouping of townhouses.

### External Spaces

Each individual unit should have a semi-private exterior space such as a patio or deck that is screened from direct overlook by the neighbouring units within the same grouping, whether that screening is achieved through building form, overhanging roof, lattice or pergola elements.

### Parking

Parking should be at grade or as close to road level as possible to accommodate winter driving conditions. Garages may be either under the main body of the townhouse grouping or to the side of the grouping. Individual carports or garages as separate elements in front of the townhouse units will not be permitted.



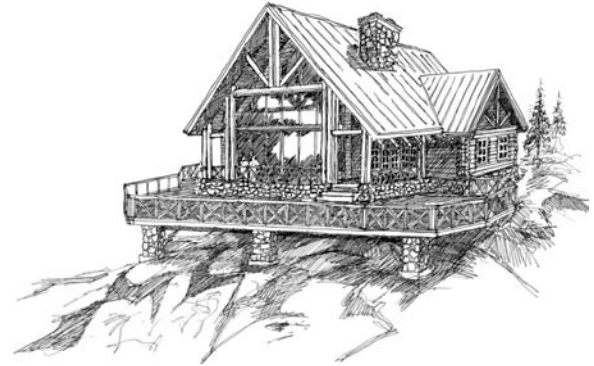


## Supplementary Guidelines for Chalets

### *(Single Family Dwellings in Detached Residential Buildings or Duplexes or Bed and Breakfasts Establishments)*

In addition to the general guidelines for the resort, individual chalets should respond to the National Parks architectural theme by drawing finishes from a broad selection, which may include logs, shingles and board siding in addition to the other natural wood and stone material available. Metal or vinyl wall finishes are not permitted here or elsewhere in the resort area. Stucco in chalet design is permitted, but not as the prevalent wall finish. Roofs must be of a steep pitch and may include slate roofs, asphalt shingle roofs of approved colour, style and appearance, or painted metal roofs. Roofs must be designed for viewing from further up the mountain in terms of form and freedom from a clutter of mechanical or technological appendages. Consideration should be given to verandas and enclosed garages.

House interiors should provide for secure vermin and animal proof temporary garbage storage, possibly in a freezer unit.



All the design guidelines will apply generally to permitted accessory buildings, such as garages, etc., as well as to the main buildings.



## Supplementary Guidelines for Condominiums and Apartments

Apartment and Condominium buildings in the resort area should be of the same form and character as hotel buildings. As condominium units may function as hotel units they are referred to in the Master Plan as condotel units. Exterior finishes should be the same for hotels as for Condominium and Apartment buildings. The supplementary guidelines for hotels should apply generally except with respect to lobby and balcony finishes.

### Lobbies

Where most of the units in the building contain individual kitchen facilities and more than one main living space, the buildings are more likely to function as private spaces than semi-public spaces, and the need for large two storey lobby areas with fireplaces accessible to the public will be optional.

### Balconies

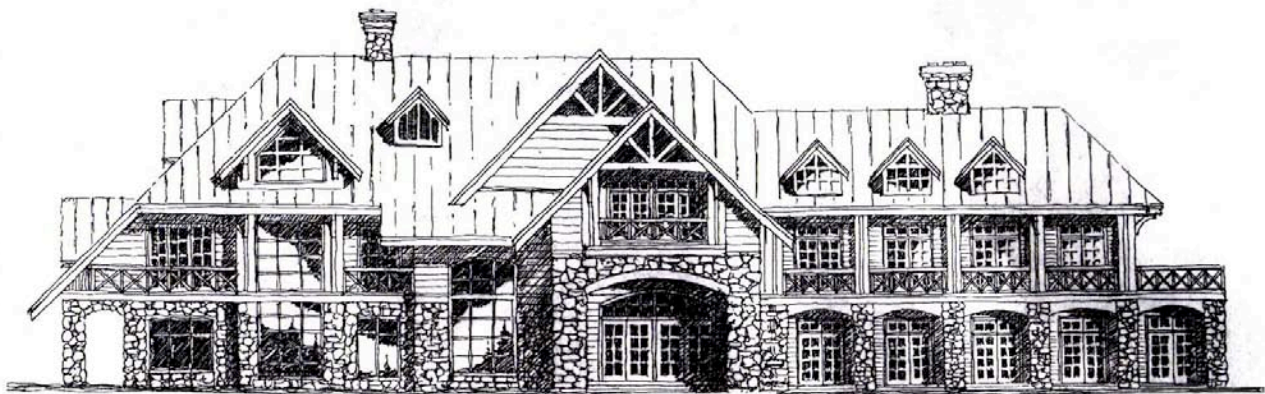
Similarly, there will be a stronger case for individual balconies from the units, in which case the balcony spaces should be semi-enclosed and covered in a form similar to a verandah.

## Commercial Bases

The base of the condominium buildings in the core of the base area should contain continuous commercial spaces at grade where adjacent to a street, plaza or right of way that is intended to provide pedestrian oriented commercial outlets to respond to the intent of the Master Plan.

### Garbage

In mountain resort areas, special care must be taken with kitchen waste in multi-unit residential buildings such as condominium and apartments. Each multi-unit residential building must provide a predator and vermin proof interior space for garbage collection and transfer, located for easy access by garbage hauling contractors. Use of strong airtight metal doors and freezer storage units is encouraged, yet exterior finishes should employ a minimum appearance of metallic finishes. No external areas are to be used for the storage of garbage. Ventilation for garbage rooms should be through high level vents (such as roof vents) rather than through low level wall vents to further discourage scavenging animals.



## **Siting Guidelines**

Siting setbacks are regulated by minimum distances set out in siting covenants and zoning requirements for each parcel of land. However, the following guidelines are intended to illustrate the desired image of each area beyond the minimum requirements of the zoning bylaw.

### **For Hotels, Condominiums, and Apartment Buildings**

The hotel form should reinforce build-to-lines where it fronts on pedestrian oriented streets or where it forms the defining wall of a public open space. Likewise, the form should stretch across all or almost all of its lot width where it is intended to help define either a street or plaza wall. Archways and subtle linkage elements should be used over most access routes to pedestrian plazas to complete the sense of enclosure. Roofed archways, portes cochères, arcades, pergolas and the like may link adjacent buildings.

The building envelope for hotels should comply with the general indications in the Master Plan, which may be amended from time to time.

Siting should be based on the main principle of reinforcing the street wall of the adjacent public space, especially at ground level. Where possible, siting should also provide for some private space by way of a terrace or park-like garden that captures the essence of the natural surroundings. Where a hotel or other building fronts on two or more pedestrian oriented streets, plazas or rights of way, it must build up to the approximate edge of all those pedestrian areas and provide the

appropriate interface such as weather protection and pedestrian access. Where such buildings are shown in the Master Plan as helping to define only some of the bordering public space, the other building faces should overlook areas of integrated terrace and treed landscape area that includes native tree species, natural alpine ground covers, and a park-like setting.

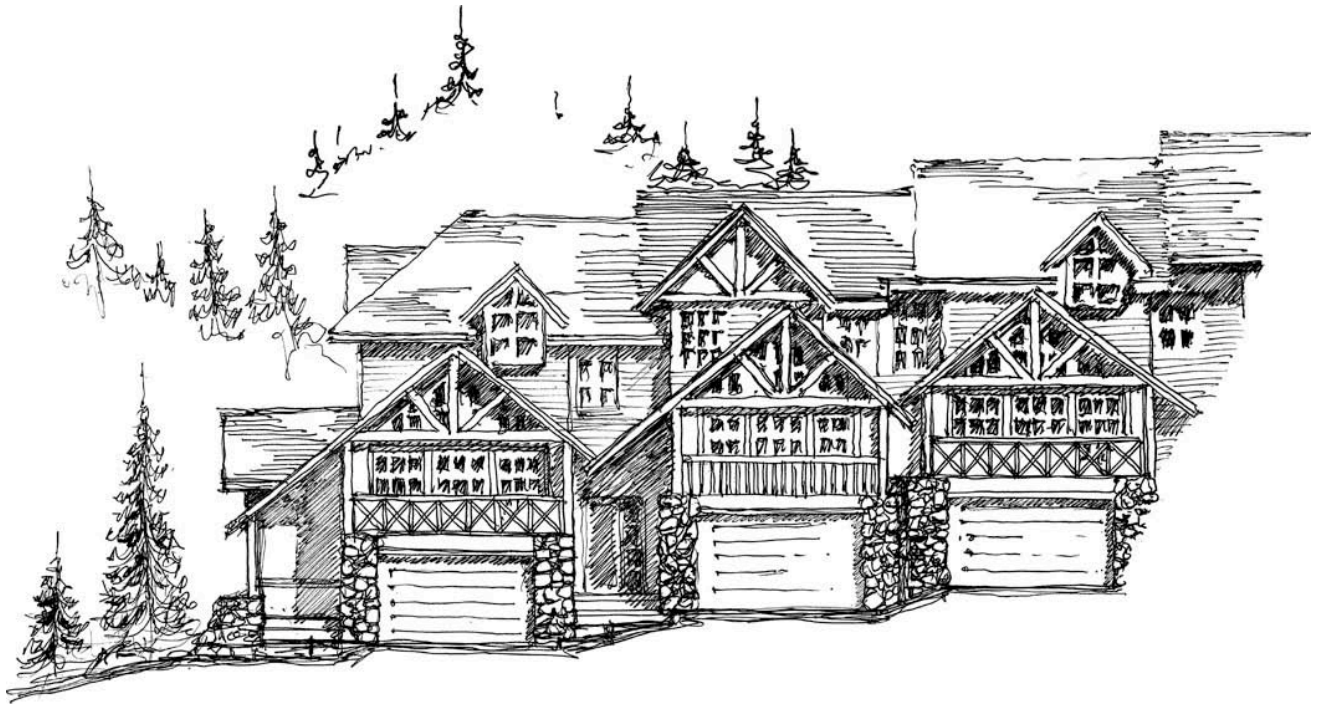
### **For Townhouses**

The intent is to create clusters of resort homes that contribute to the resort's streetscape, therefore setbacks, which are detailed in the zoning regulations, are relatively close to the resorts' roadways.

### **For Chalets, Single Family Dwellings, Duplexes, and Bed and Breakfast Operations**

Siting for both chalets and bed and breakfast operations should be designed so as to surround individual buildings with abundant stands of trees and to screen them from each other, and partially from the road. The individual buildings are intended to nestle into the landscape rather than to dominate the landscape. Ample setbacks should be provided on all sides of these buildings. Surface parking areas for bed and breakfast operations should be out of view of the road and chalet parking areas should provide screening for vehicles other than cars so they are not visible from the road. Driveways should curve into the site to re-emphasize the romantic country image that the resort is intended to convey, as well as to partially screen the building area of the site. No more than fifty percent (50%) of the site should be cleared for the building site, parking





and access driveway. In order to facilitate this, only large building lots will be made available.

Chalets, Single Family Dwellings, and Duplexes should be no more than three storeys high as defined in the B.C. Building Code and have a building area with a footprint of no more than thirty-five percent (35%) of the lot area as described in the zoning regulations.

A detached garage or carport of up to six hundred (600) square feet of building area of an acceptable design may be permissible based on the fact that lot sizes are relatively large. No other structures, buildings or attachments of any kind will be permitted, except that in planned portions of the development designed for residential living in condominium ownership, special parking arrangements and structures for common use of appropriate design may be permitted.

Dwelling designs will need to be in compliance with siting guidelines and submission for design approval must include a report on the design contribution to the restoration of the landform and the resettlement of the forest, as well as the relationship to the ski runs, where applicable.

Whenever possible, existing features that may exist prior to development should be restored and reinforced after construction. The intent is to fit the buildings to their sites in a way that recreates the natural setting, treating the buildings as an integral component of the site, with fitting landscape that will create the impression of homes naturally nestled in the forest, among the trees of the regrown forest.

Homes should be located to generate the best possible views from the living areas and to capture as much sunlight as possible. Because the plan is mostly for large lots, there is every opportunity

to preserve privacy and avoid loss of view to other dwellings, which will be mandatory. Energy efficient design and water conservation measures will be encouraged.

### **For Commercial Retail and Related Areas**

The siting of buildings in commercial retail areas should have no setback from the pedestrian areas or rights of way except for small external display areas of no more than four feet. In retail areas the buildings may include a base arcade or other similar building element such as a canopy, verandah, covered pergola or overhangs to provide some pedestrian weather protection. View of the shops, lighting and transparency, however, are also emphasized. Weather protection should not be oppressive or obscure the commercial areas. Simple overhangs may be preferred in a variety of locations. The buildings should touch each other at grade to form a continuous street wall and street edge, so that side setbacks are eliminated where feasible, except where required from place to place for thoroughfare or emergency vehicle access, in which case the building forms should step over that access with an arch or visually complete the street wall image by proximity. On the fringes of the central base area, and on the mountainside, some buildings may be appropriate as pavilion forms (for example a restaurant or refuge on the mountain, or an interfaith chapel, information kiosk, ticket booth, etc.), in which case they should be integrated into both the pedestrian environment and natural environment as closely as possible.

### **Central Parking Areas**

The attempt is to provide ample and reasonably visible surface parking areas. By using numerous smaller parking areas there should be an attempt to break up the expanses of the bare parking area as much as possible. When parking areas are laid out in detail they should incorporate areas of retained natural growth and trees and be separated from roads by leave strips of well-maintained native trees and shrubs.

Guidelines for underground parking access are covered under "Screening and Enclosure of Service Area."

### **Public Outdoor Activities and Spaces**

In the resort base area, outdoor space should be provided either on a commercial building site or on a public area adjacent to that site for various activities to enliven the resort.

In sunny areas on public plazas or squares, provision should be made for public outdoor restaurant dining during good weather, by agreement with the ownership or authority having control of that area. Likewise the building owners should cooperate with the mountain operator or mountain resort association to ensure that all public plaza areas have a program of activities including entertainment, displays, and spaces assigned for educational activities, meeting places and starting points for walking and hiking tours. Some provisions should be made at the time of individual building design to accommodate these activities. The building design adjacent to such public pedestrian areas should provide for sun penetration to the public areas,

especially from 12 noon to 2 p.m.,  
wherever reasonably possible.

**Summary of Principles:**

- **Resort buildings should be linked in the base area and commercial pedestrian areas.**
- **Townhouses should be close to the road.**
- **Chalets and Bed and Breakfast areas should be surrounded by trees.**
- **Commercial areas should abut the street.**
- **Parking areas should be landscaped.**



## **Interpretation**

These Guidelines have been prepared for the proposed development of the mountain resort and should be considered as a permanent design direction of its Master Plan and Official Community Plan (OCP).

The Master Plan referred to in these guidelines is the Ski Area Master Plan under the Commercial Alpine Skiing Policy as approved or adapted from time to time by the Province of B.C. through one of its ministries or agencies. These Guidelines have been prepared reflecting the intent of the Master Plan, but in the event of conflict between these Guidelines and other constraints of the Master Plan and/or of the OCP and the zoning bylaw, the Master Plan and/or the OCP and zoning bylaw must prevail and these Guidelines must be viewed as supplementary.

The Master Development Agreement (MDA) between the Province and the owner is based on the Master Plan, and like the Master Plan may change from time to time. Interpretation of these Guidelines is up to the Design Review and Approval Authority established or named by the resort owner from time to time or by such jurisdiction that is successor to the owner, in accordance with the MDA. These guidelines should be read in conjunction with the terms of related restrictive covenants, the Master Plan, the OCP and the zoning bylaw.

## **Appendix “B-8”**

### **CRYSTAL MOUNTAIN SKI AND GOLF RESORT**

#### **1.0 CONTEXT**

The Crystal Mountain Expansion project is an initiative under the BC Commercial Alpine Ski Policy (CASP), the governing policy that is at the basis of the ski area tenure. The ski area is entirely on provincial Crown land.

CASP stipulates that the use of the Controlled Recreation Area of the ski area is granted to the operator under a license. Within the licensed Controlled Recreation Area, the land that is specifically required to operate the ski area (the parking area, the right of way for the lift lines and the ancillary facilities, such as daylodges etc.,) are covered by a lease agreement. The land required for overnight accommodation and tourism services is granted to the license holder as fee simple and may be sold to third parties.

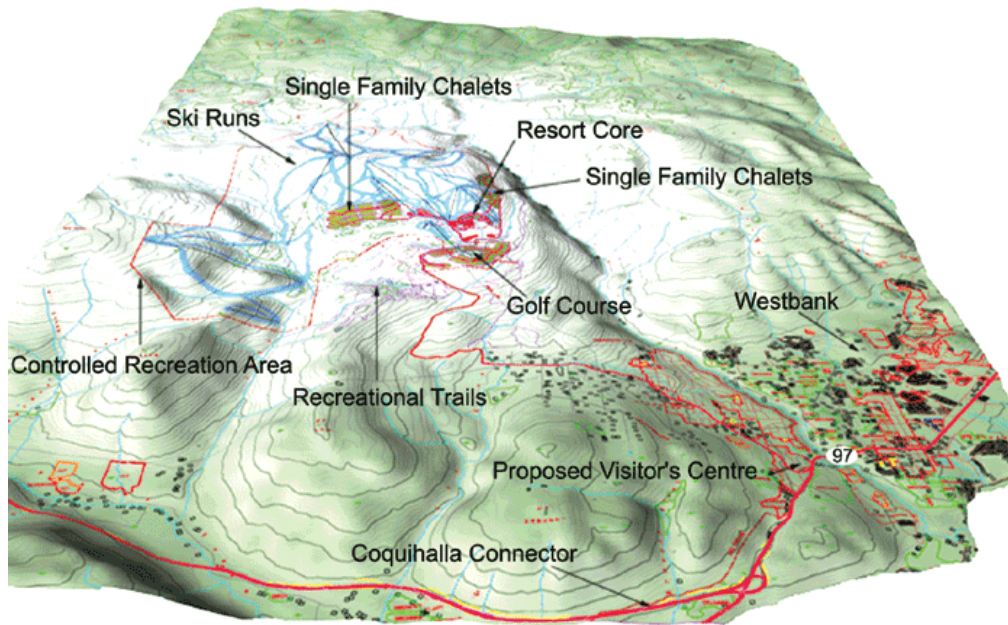
Following acceptance of the Formal Proposal by Crystal Mountain Ski and Golf Resort Inc., the Province provided an Interim Agreement in March 2001 and opened the door to the Master Plan approval process. The ensuing public consultation process lasted from July to November 2001. Government agencies and local government provided their input between July 2001 and March 2002. In May 2002 the Master Plan was approved by the Province.

The Province and Regional District have established a cooperative approval process that works positively with provincial laws and policies and local processes affecting amendments to OCP and rezoning for mountain resorts. The intent is to make the administration of provincial laws and policies, from environmental regulations to B.C. Building Code requirements, easy for both applicants and local authorities. In particular, the OCP is not intended to be an isolated document, but to be the implementation of the Master Plan that flows from the CASP process.

.../2

## 2.0 VISION

The Crystal Mountain Resort envisions a regional destination that is aesthetically appealing, environmentally aware and that is focused on family recreation, skiing and golfing in a peaceful, forested setting that is adjacent to a growing community within one of the most climatically favoured tourism regions in British Columbia.



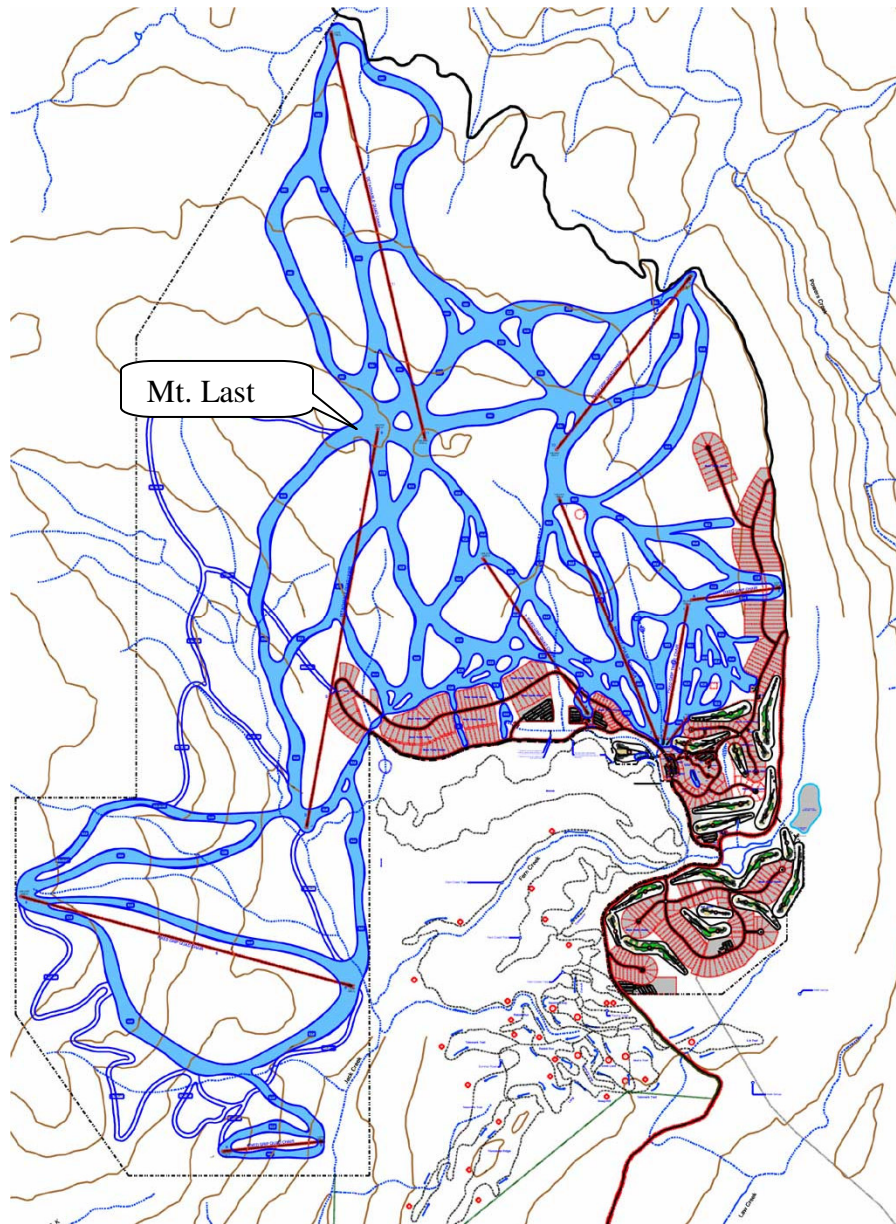
## 3.0 SUMMARY LAND USE

The total resort development area (Figure 1), or “Controlled Recreation Area” surrounds the existing tenure of Crystal Mountain and covers the area of Mount Last, the lower area of Mount Clements and a knoll south of Mount Last and of Jack Creek. It includes approximately 2,900 hectares, including the skiable terrain surrounding all the ski runs (approx. 550 hectares) and the golf course (approx. 65 hectares). Within the resort is a Base Development Area including the single family chalet area, resort accommodation and the expanded ski base and parking facilities, covering approximately 150 hectares.

The Crystal Mountain Resort Master Plan and Master Development Agreement (December 1, 2006) approved by Province of BC is based upon the basic principles as outlined in the Provincial Commercial Alpine Ski Policy (CASP). These principles were derived from extensive study of local and international resorts, input from the public, government committees, and members of the Regional Boards. It is intended to be the basis for preparing land use, zoning, subdivision, development permit, and servicing applications. Servicing and infrastructure is designed for a planned 3,994 bed units and 6088 day use skiers.

Ultimately, the Master Development Agreement of December 2006 and the documents that are part of it, are intended to be the reference point of the long term future of the ski and golf resort.





**Figure 1 Resort Plan Area**

#### **4.0 PHASING**

The OCP for Crystal Mountain is intended to provide policy direction for the duration of Crystal Mountain's projected 15 to 20 year build out period as indicated by the Master Plan. The Phasing Plan for residential development is depicted below.

<b>Dwelling Types by Phase</b>					
<b>Unit Types</b>	<b>Units by Phase</b>				<b>Buildings</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>Total</b>	
Single Family Chalets	42	137	208	387	387
Condominiums / Hotel	124	36	0	160	6
Bed and Breakfasts	4	0	1	5	5
Townhomes	139	0	0	139	139
Hotel (Rooms)	0	200	100	300	3
Employee Housing	0	0	10	10	1
<b>Total (all types)</b>	<b>309</b>	<b>373</b>	<b>319</b>	<b>1,001</b>	<b>541</b>

## **5.0 UTILITIES & SERVICES**

Crystal Mountain Resort Master Plan provides for a mix of public and private utility services. The Jackpine Forest Service access road leading to and beyond the resort will be a public road, designed to Ministry of Transportation standards. Local roads may be a mix of public and strata roads. Proof of water supply for fire suppression, identification of fire response routes to all buildings and undertaking of wildfire reduction activities shall occur at time of rezoning applications. A volunteer fire protection department is proposed, with contribution to a mutual aid agreement with Westside Fire Protection.

Water, storm drainage and waste water services may be by private utility pending approval by provincial agencies, or may include expansion of and connection to existing community services. Provisions for water distribution propose conservation measures, metering and reuse of water for irrigation. Detailed assessment of water supply (water supply plan) will be required at each phase of development. Water conservation and recycling measures, when proven to reduce water demand upon full occupancy of the first phase of development may be considered for purpose of reduced requirements for subsequent phases under the Regional District's Subdivision and Development Servicing Bylaw. Assuming groundwater supply, hydrogeologic studies shall be guided by understanding of the surface-groundwater interaction within Powers Creek watershed.

At each stage of rezoning application, a storm water management plan shall be provided. The first phase of rezoning shall include a detailed terrain stability, surface erosion, and hazard analysis including contingency plans, design of water recycling, design and siting of treatment plant, siltation and irrigation ponds.

Discussions are underway with Westbank Irrigation District and with Westside Fire Protection services. While these negotiations are ongoing, it is anticipated that Crystal Mountain Resort will be fully serviced to resort standards, will contribute to Development Cost Charges and other voluntary developer contributions in effect within the Westside community, and that these provisions will be in place prior to consideration of individual zoning applications.

By full build out, a Kelowna Regional Transit station shall be situated within the resort in a location close to ski school and hotels.

## **6.0 ENVIRONMENTAL PROTECTION**

Environmental analysis conducted within the base development area in 2007 (Figures 2 and 3) identified sensitive ecosystems consisting of watercourses containing fish habitat, wetlands and meadows, and important wildlife habitat that should be protected from the impact of development. Design of the base development, golf course and ski runs will include protection of highly sensitive areas. Where a zoning application demonstrates that development is unavoidable, the impacted lands of high sensitivity (ESA 1) shall be compensated at a 3:1 ratio with lands of similar value; lands of low to medium sensitivity (ESA 2 and 3) shall be compensated at a 1:1 ratio; and compensation shall confirm to No Net Loss principals.

Development Permit Areas for the protection of natural environment are established as follows and development shall be designed in accord with the provisions above, with provincial best management practices (including those pertaining to Old Growth Forests), with development permit regulations and guidelines of the Westside Official Community Plan bylaw, and with recommendations of qualified professional reports.

Wildfire Interface Development Permit Area includes the base development area shown in red on Figure 1.

Hillside Development Permit Area includes all lands within the Crystal Mountain Controlled Recreation Area, Resort Master Plan and Master Development Agreement (December 1, 2006), and lands leased for sediment ponds and treatment plant and reservoir.

Sensitive Terrestrial Ecosystem Development Permit and Aquatic Ecosystem Development Permit Areas include all lands within the Crystal Mountain Controlled Recreation Area, Resort Master Plan and Master Development Agreement (December 1, 2006), and lands leased for sediment ponds and treatment plant and reservoir.

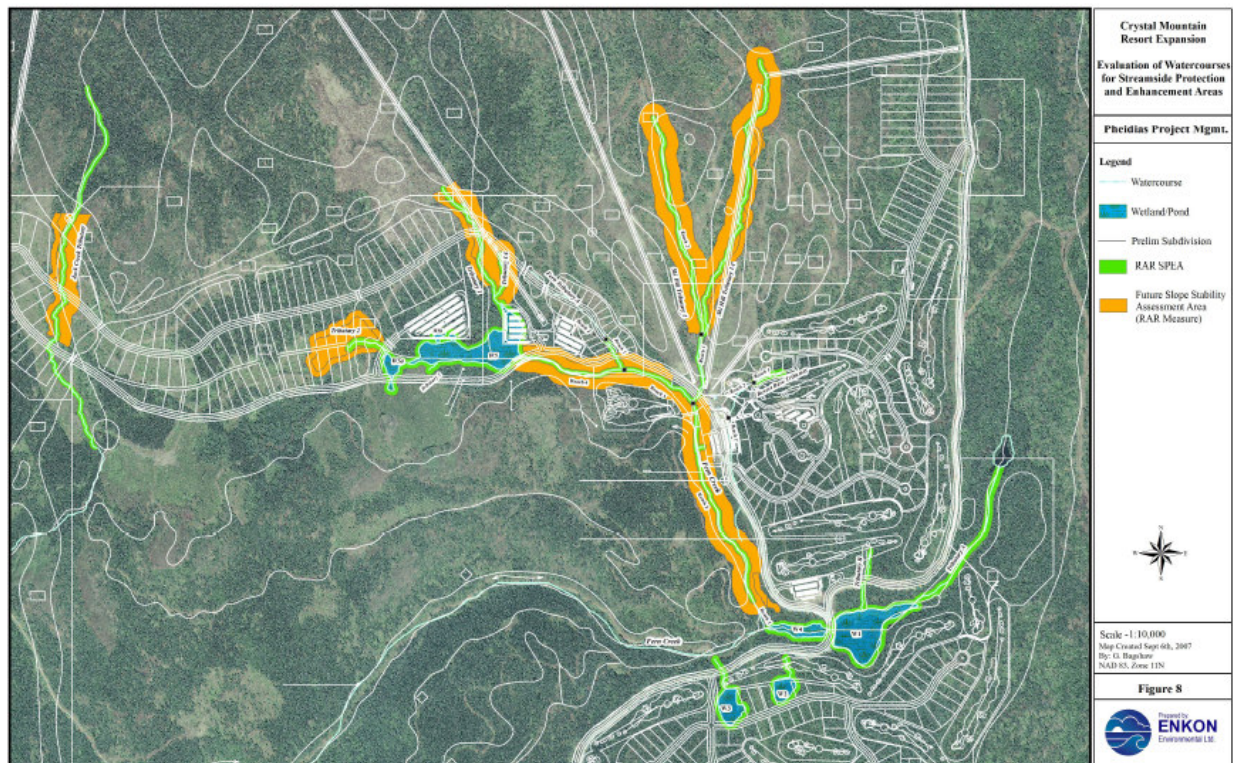


Figure 2: Streamside Protection, Enhancement & Assessment Areas (Enkon 2007)



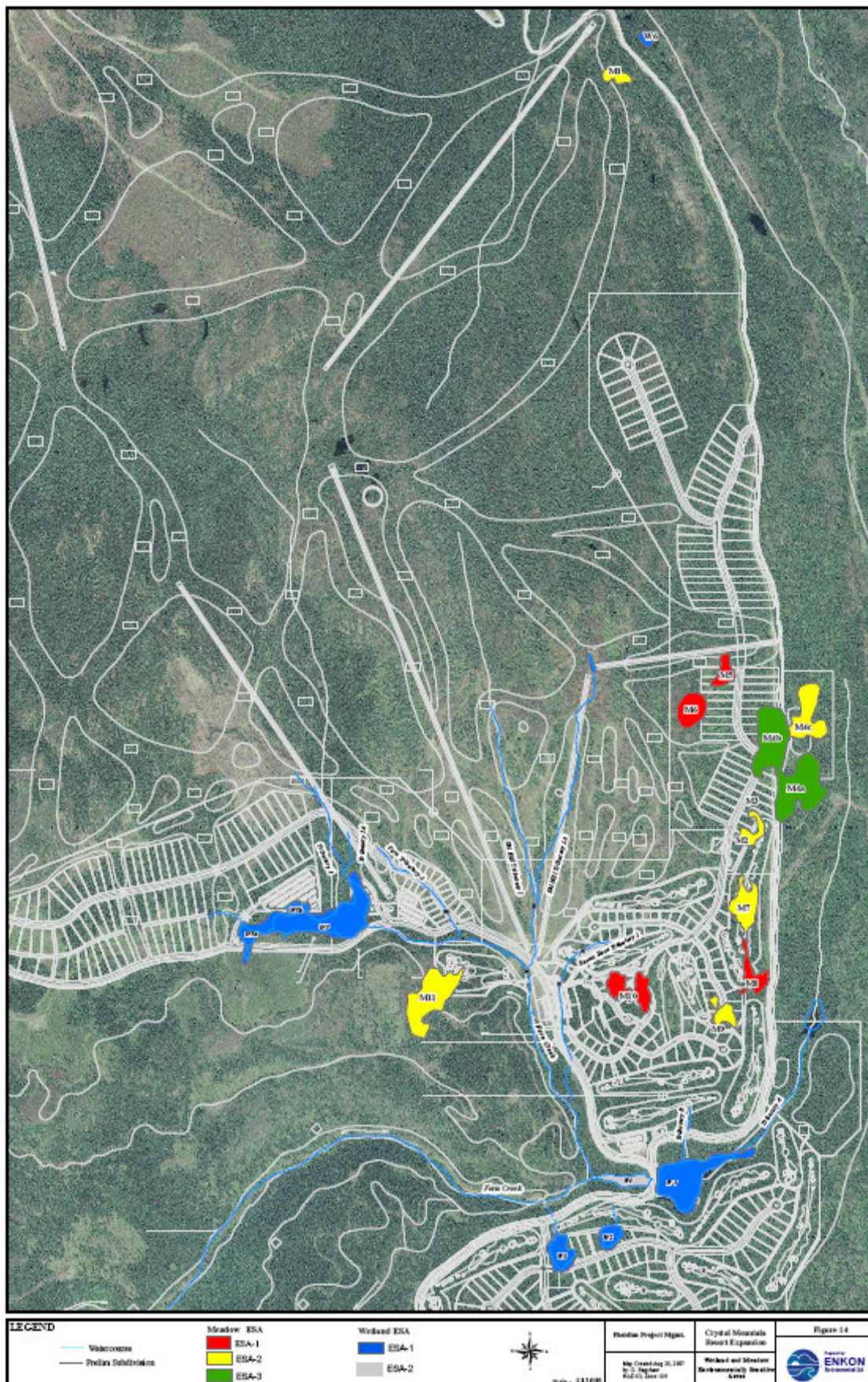


Figure 3: Wetland and Meadow Environmentally Sensitive Areas (Enkon, 2007)



## **7.0 LAND USE, SUBDIVISION AND DEVELOPMENT APPLICATIONS**

Following the approval of the Crystal Mountain Official Community Plan it is expected that rezoning of the first phase to comprehensive development zone including the golf course will take place. In association with this rezoning application, the Regional District and provincial officials will give consideration to the development in accord with designs and recommendations from qualified professionals addressing the following:

- Hydrological assessment on impacts of the golf course irrigation and base development design on channel stability and peak flows in Trepanier Creek and Powers Creek
- Assessment of site specific hydrological loading capacities and site suitability,
- Detailed environmental monitoring plan
- Sediment and Erosion Control Plan
- Storm water management Plan
- Detailed Surface and Groundwater Quality Mitigation Plan
- Spill Prevention and contingency plans,
- Water Master Plan and Water Supply Plan demonstrating hydrological modeling, phased water demand estimates acceptable to the Regional Water Manager, and supply options sufficient for full build out of the resort;
- Fertilizer and Pesticide Management Plan
- Sustainable design principals
- Detailed wildlife management plan
- Old Growth Management Plan
- Visual impact assessment
- Detailed stream mapping
- Detailed fish presence/absence surveys
- Fire response routes to all buildings
- Water supply and storage for fire suppression.

The Regional District will give further consideration to the development in accord with contributions to off site servicing.

Final adoption of any zoning amendment bylaw shall be conditional upon issuance of a Certificate of Public Convenience and Necessity to establish a new or enlarge an existing water service area, issuance of a provincial water license in accord with the Master Development Agreement, establishment of a community fire protection service, and establishment of an alternate route of emergency access.

The Regional District will further consider rezoning as development progresses according to the Master Plan to incorporate the base area lands comprising Phase 2 and Phase 3 of expansion. The province will pursue implementation of the Master Development Agreement and applications for utility services, land transfer and subdivision.

During course of these applications, the province and local government will work in close concert to coordinate requirements and avoid duplication. Further design and detailed agreements will be developed at the appropriate stages to address parking and road design, contaminated site regulations, archaeological site regulation, solid waste management, and relocation of range and any mineral tenures.

Resolution of the boundary between recreation tenures shall occur prior to public hearing of any zoning application where there is a recorded overlap between the Controlled Recreation Area for Crystal Mountain Resort and the Map Notation Area of Telemark Cross Country Ski Club.

A time of creating individual development parcels within the mountain resort community, a covenant shall be registered on title of individual lots noting potential impacts from surrounding crown land resource development and extraction activities including visual impact, dust, traffic and noise. Individual buildings shall be sited and designed to focus on resort attributes and to minimize the impacts on surrounding lands.

## **8.0 CRYSTAL MOUNTAIN COMMUNITY PARKLAND AREAS**

Crystal Mountain Resort will provide to the RDCO the equivalent of 5% or greater of parkland dedication within the resort for future public use. Crystal Mountain agrees to build an estimated length of 2694 meters of a 2.4 meter wide paved asphalt trail to be constructed in three phases within the resort development (see Figure 4 for phasing information). The 2.4 meter wide asphalt trail will be contained within a minimum 7 meter wide parkland tenure zone throughout the resort to further enhance the park space and provide adequate undisturbed parkland between the asphalt trail and adjacent land uses. The combination of land provided and a value added improvements (hard surfacing) will provide a linear park space (trail) for residents of the district to enjoy and use, while keeping building and maintenance costs for taxpayers low. Development and location of the trail will be in accordance with development permit guidelines and provincial Riparian Area Regulations regarding environmentally sensitive (ESA) areas.

### **Parks Concept**

1. Provide a linear park (trail) network for residents and visitors of the resort that connect the major resort areas to all phases of subdivision within the resort.
2. Provide connections to existing Nature Trails on nearby Crown land.
3. Provide opportunity for possible future connections to existing cross-country ski area for winter use.
4. Provide green space in the central resort area to further enhance the “Mountain Feel” of the resort base.
5. Provide a linear park (trail) system in three (3) phases in conjunction with three (3) proposed phases of subdivision. All improvements within the linear park (trail) will be constructed prior to completion of each phase of proposed development

## **Trail Network**

1. RDCO linear parks (trails) will be created within a minimum 7 meter wide park land tenure zone totaling a minimum of 1.88 Ha in size and will contain a minimum 2.4 meter wide paved asphalt trail surface at all times totaling a minimum of 2695 meters in length.
2. RDCO linear parks (trails) that run along side a roadway will have a grade separation as well as a buffer of natural vegetation to enhance the trail experience.
3. Where the trail is adjacent to other forms of land use or Crown tenure, an appropriate post and rail fence will delineate a boundary separation between these lands.
4. Additional undeveloped Green Spaces will be used where available to allow for additional buffering from residential buildings and golf course facilities.
5. Crystal Mountain will connect the proposed (private property) trail network to the RDCO linear parks (trails) system.

## **Green Space**

1. Additional identified Green Spaces will be held and maintained by Crystal Mountain.

**Figure 4 Proposed Community Parkland (Trail System)**

