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The Future Living Experience in Vail, Co

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THE FUTURE LIVING EXPERIENCE IN VAIL, CO

MIX-USE ARCHITECTURE

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Master of Architecture
ARCH 613 | Graduate Thesis Studio
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1. TABLE OF CONTENTS

2. ABSTRACT

Employee housing has become a struggling issue with the U.S. ski industry due to the fluctuation of climate, location and the industry known to have one of the highest carbon footprint. Today, many ski resorts are resorting ways to reduce their carbon footprint by using more environmental friendly equipments and incorporating all-seasons activities. As ski resorts starts to incorporate more activities into their resorts; the architecture and experience has been re-elevated as well.

This thesis project explores the limit of architecture and experience of putting employees and tourism experiences together. The two programs were developed and the similar program was joined together. These “moments” of similarity was design to have a place for the two programs to share one space. This is where architecture starts to push the boundary of comfort. Throughout iterations, the two experiences could not be equal all the time due to the level of expectation and privacy. Overall, the project exploration may have been pushed even further, but was a good experience.

3. MANIFESTO

People have always enjoyed nature's landscape and environment, but the affect on nature has taken its toll due to growth and development of ski resorts and other activities involving natural landscape. It has altered the environment in a negative way from climate change; endanger local vegetation and animals and so forth. Architecture should be used to provide a change to people interaction with nature in a more sustainable and economic way. Mountain huts, complexes or refuge can help introduce a new and more sustainable way for people to interact with nature. These locations usually indicate the need of employee housing during the busy seasons. With the use of architecture, employee housing and hotel complexes could be combined to maximize usage and architectural experiences.

4. INTRODUCTION

HISTORY

The origin of skiing came from the Ural Mountains, Europe and Asia, about more than 8,000 years ago. In its early time, it was a form of hunting and transportation. It eventually got adopted into a sport in the 1800s and is now a quite famous sport many enjoy.
Historically, rural areas and vacation homes in the mountains are utilized only in the summer. During the winter, these areas are closed off and left unoccupied until spring/summer. These areas' roads will be covered with snow and inaccessible for people to travel to. The ski industry first appeared in 1930s to 1950s, during the Great Depression. The sport of Nordic (cross-country) was brought over by Scandinavian immigrants. People began to turn their summer homes and rural town into ski resorts. Initially, during the postwar, ski industries main target is for middle class, but the upper wealthier men found this winter sport of interest.

On the east coast, the White Mountain in New Hampshire was the main hot spot for winter sports. The Peckett on Sugar Hill turned their farmland into an inn. The business did not go as well at first because many local did not know how to ski down the slope. Katharine Peckett, the daughter, persuades

her parents to invest in professional skiers to teach their guest. The family first hired two German skiers and later an Austrian master of the Arlberg crouch technique to teach their guest. This is one of the first movements of incorporating schooling to the business.

During the same time, the Manufacturers Trust Company president Harvey D. Gibson also invested in a ski resort. His focused was how to help his local town economy of North Conway. Gibson resort focuses more on the education part of skiing. His business target was teaching young local boys how to ski at a fairly low price. The resort was a success and in 1939, Gibson hired Hannes Schneider, most famous ski instructor in the world at the time, to teach at North Conway.
On the west coast, the most populated area for winter sporting is the Rocky Mountain area (Yosemite, CA and Yellowstone, MT areas).

Condominiums for ski resorts first appeared 1967. It was a way of bringing luxury living to ski resorts. This allows people to purchase or rent these condos that are near their favorite ski resorts and nature. This helped eliminate lodges and provide a more private and home-like space for people.

In 1970s, America became more environmental conscious and wanted to create ski resort that are more environmental friendly. Historical preservation and land conservation regulation became stricter to enforce that ski resort would not expand larger than it needs to be and to protect the environment. Vernacular design and incorporating landscape and architecture became key factor when designing ski resorts.

ECONOMICS

Ski industries that mainly focuses on snow season is struggling to make ends. Due to global warming and large consumption of energy to operate ski resorts, people stop building them. According to Dave Belin, director of consulting services for RRC Associates (research & business resort consultant) about 54 to 48 percent of revenue generates from lift tickets and passes. About 15 percent comes from ski schools dining and lodging. While rental shops and retail stores only makes up 5 percent of the revenue. Business that depends heavily on season passes/tickets may get a hit during no snow or dry period. Due to this affect, many large ski industries are incorporating summer activities or programs into their resort to have the business function yearlong.

ENVIRONMENTIAL IMPACT

Ski industries have one of the largest carbon footprints due to the site location, construction and global warming. When a ski resort is being built, it is usually in a natural landscape and in order to create the ski runs, the landscape would be clear and grade. This distributes the natural landscape of the site and may affect the vegetation and animals in the area. No only does construction disturb the natural landscape, but ski industries also introduce the land with chemicals to stabilize snow. For the long run of running these ski resorts, it depends a large amount of energy and water (if the resort depends heavily on artificial snow).

SKI INDUSTRY

Ski Industry first appeared in the 1930s National Park Service structures, including Stowe, Vermont, and Timberline Lodge. During the postwar ski resort like Vermont's Mont Snow and Colorado's Vail and Snowmass main target were middle class men. The sports actually attracted wealthy men or upper class/ educated men because they were the ones interest in the wildness and winter activity. It first started off in the summer mountain vacation that was unoccupied

during the winter season. Historically these rural towns will shut down during the winter and reopened in the warmer seasons, Economies stagnated and was unstable. Winter sports offered a way for these areas to stay open for business

Today, there are small and large ski resorts, but due to climate changes and the amount of money that is needed to run a ski resort, people tend to go to the larger resorts. In the US, there are a total of 7 corporations that dominate the ski industries and they are; Vail Resorts, Powdr Corp, Boyne Resorts, Intrawest, Aspen Skiing Company, Peak Resorts and CNL Lifestyle Properties.

EMPLOYEE HOUSING

Ski industries struggles with providing their employees with housing due to the fluctuation of the seasons activities and the work term (full-time, part-time, seasonal, etc.). Some seasons may accumulate less income than others due to climate changes. Many ski resorts has policies to cover and provide housing for limited full-time employees only. Therefore other employees will need to resort in finding their own housing when employed. Many times, employees cannot afford tourism rates and have resulted to rooming with other employees to lower their cost of living.

5. ARCHITECTURAL INTENTIONS

SUSTAINABILITY

Skiing is a popular and active sport, and many people travel to enjoy it. By traveling to these destinations, alone it has already impact earth. According to the U.S. Energy Information Administration, for each gallon of gas, it creates 19.64 pounds of carbon dioxide. Image the impact a ski resort consumes while it uses water to make snow, chairlifts and ski lodges. During construction, ski runs are clear and the topsoil is removed. There are two techniques that are used surface clearing and surface grading. These techniques remove the natural vegetation, topsoil and large boulders/rocks. Ski industry is also facing the problem of global warming and due to it; many rely on snow machine to create artificial snow that is needed for the season. It affects natural landscape and ecosystems. For example ski runs construction impacts soil by introducing the environment with chemicals (artificial snow hardeners) and physical properties that can cause to local plants and animals.

The benefit of ski resorts is it brings in tourism (economic diversification, services and infrastructure) to the area. Restoration is another way to improve the environment. By restoring damage topsoil can help restore ecosystem. There are three steps; store and

reuse original topsoil; apply seed mixtures adapted to site conditions; and manage restoration site curing summers. In order to reduce the environmental impact of ski construction and management, regulations are put to effect to ensure best professional practices.

National Ski Area Association is a sustainable slopes program that the ski industry adopted in 2000. The NSAA provides ski areas consists of a framework for sustainability and enhances environmental performance. The program contains 21 Environmental Principles that encourage ski area operators to make sustainable use of natural resources.

Many ski resorts has resort to sustainable energy to minimize their environmental impact. Such alternatives are solar panels, wind turbines or hydro turbines as energy source. Improvement to waste management and composting program has also been used. Forest management effort is another alternative to improve wildlife habitats.

SUSTAINABLE SKI RESORTS & THEIR SOLUTIONS

Zermatt, Switzerland
Zermtt is a car free ski resort with electric buses, major efforts to re-naturalize and does sustainable construction as well as low CO2 waste disposal systems.

Park City Mountain Resort
Park City Resort was named the most sustainable ski resort in 2013. The resort offsets 100% of its energy using wind credits but also invests heavily into renewable and green technologies. They even have an environmental kiosk at the top of the mountain educating visitors on their practices.

Squaw Valley
Squaw Valley resort works to minimize its CO2 emissions and reduced 111 tons last year (over 1700 tons through lighting and energy efficiency upgrades alone). The resort has installed electric car charging stations and also operates a shuttle between the resorts

Aspen
Aspen Ski Resort has been publishing sustainability reports since 1999. They have maintained ISO 14001

certification for ten years and ensure all new buildings are LEED gold. They support local farmers and education initiatives and their Family Fund donates close to $100,000 annually to support day-care facilities, schools and healthcare access.

Mount Cain
The resort is a small community ski resort with the community at the center of the plan. It is community owned and provides employment for islanders and is a nice example of community governance.

Whistler Blackcomb
A ski resort with a mission to be zero waste, zero carbon and zero net emission. They implemented a Fitzsimmons Renewable Energy Project in 2010 and have a mountain remediation project called operation Green up that has invested more than $1.5 million to protect and conserve natural areas. They produce a CSR report and have detailed sustainability efforts posted on their website. This organization has been named one of Canada's greenest employers of the year. They have undertaken a number of sustainability initiatives including tracking their energy as well as providing funds for ecosystem improvement.

HEALTH

Being healthy is a key factor to longevity. According to World Health Organization, about 2.8 million people each year die from overweight or obese. People appear to become less active per year, therefore skiing allow one to be active during the winter season and may benefit one's health. Skiing helps benefit the physical and mental health of a person.
For physical health; it helps improve a person's cardiovascular system; improve balance, flexibility; and strengthen muscles, bones, and joints. When skiing major muscle are used and a person's heart rate is working hard. Skiing is a workout of it's own and can help strengthen the heart and burn fat.

Mental health benefits of skiing can help improve one's mood. Skiing helps decrease stress and depression. Mayo Clinic stated that moderate to vigorous physical activities results where the brain released endorphins, adrenaline, serotonin and dopamine to relax the body's muscle and make one feels good. Interaction with nature is an important factor to a person's wellbeing. By having an abundant exposure to nature, it helps increase psychological benefits by making one feel pleasure, relaxed and connected to nature.

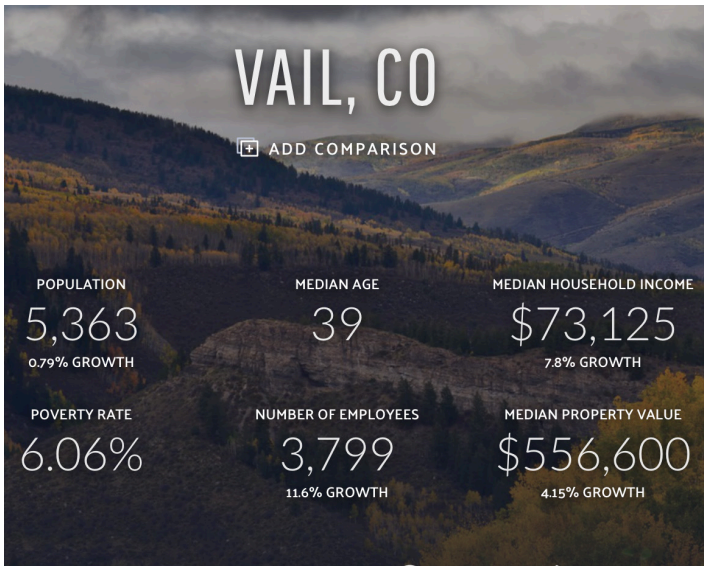
COMMUNITY

Skiing can be for anyone who is willing to learn. The first ski school in the US is Lake Placid Club in Lake Placid, New York, They also hired the first instructor, a Norwegian skier name Henrik Jacobsen to teach people how to ski and enjoy the sport. Today, almost every ski resorts provide ski lessons to kids during the season. With these ski schools, it helps create a sense of community within the resort. Kids now have another place for them to interact with others outside of the normal educational setting.

6. CLIENT: VAIL RESORT, INC.

HISTORY

In the mid 1800s, settlers converted the Bore Creek Valley to agricultural land. During World War II, the United States Army created a training center south of the valley known as Camp Hale. The 10th Mountain Division men trained alpine combat and fought in the Northern Italy Mountains. When they returned back to the states, many expand the ski industry. Pete Seibert and Earl Eaton first climbed Vail Mountain in the winter of 1957 and feel in love with the mountain. Vail Mountain is property of the United States Forest Service. Also along the valley, there were local farmers. At the time, the requirement for purchasing a permit from the USFS to intervene the mountain was $1 million. Seibert and Vail invested in condos units and eventually were able to purchase the permit. The construction for Bell gondola, ski resort, was completed and opened to the public on December 15, 1962. Bob Parker, Vail manager at the time introduced the resort to grooming the trails for better ride. By the 1960s, Bell Gondola became a popular destination for ski enthusiastic and Vail began expanding and developing. On January 1997, Vail Associates purchased Keystone and Breckenridge and expanded the ski area and resort.



GOALS TO BECOMING NET ZERO

Today Vail Resort and other ski industry all face the decline in snowfall due to global warming and how ski resorts itself have largely impact the environment. As snowfall decreased, the number of visitors also decreases; but skiers and snowboarders were still buying seasonal pass this 2017-18 season. Sales revenue was actually up by 1.6% from last year. Even though this may be just luck, ski resorts needs figure out how to solve the issue without making an impact on it's environment.

On July 25, 2017, Vail Resort, Inc. announced their interest in pursing to become more sustainable. The company calls this movement the Epic Promise for a Zero Footprint, which they will produce zero net emission and zero waste to landfill by 2030. Vail Resorts was inspired by Whistler Blackcomb's environmental commitment that vowed to have net zero as well. Vail Resort's solution to zero net emission is to reduce company's electricity and natural gas usage by 15%. They already reduced 19% using more sustainable management. For example, Vail invested $25 million on energy-saving projects and low-energy snowmaking equipment, green building design, construction and grooming practices. Vail also in-

vest in programs that gives back to the environment such as tree planting to offset the use of other energy (gasoline, diesel). Vail Resort also encourage visitors with information on how to reduce their carbon footprint. For the zero waste landfill projects, Vail has improved recycling and compositing program. They also work with local vendors and resort to increase option for reuse and diversion.

VAIL VALLEY EMPLOYEE HOUSING CRISS

As Vail Resort continues to be more sustainable, another issue Vail Resort is facing is employee housing. According to Early County Housing Department, there is a shortage of 2,760 housing. A median household income has increased by 6% since 2007 with an annual income of $80,6000. There has also been a 20% increase in home prices as well. Because of the demand for housing developer are demolishing old and abandoned buildings to new complex. Some of the properties that are in the process of development for the future are Solar Vail, Marriott Residence Inn, Mountain View Residences, East Vail, Indeed, Avon-Former Fire Station, Eagle-Hockett Guch, Broadway Station, Eagle Landing, Wall Street, Soleihomes, Red Mountain Ranch, Haymedow Pud, Gypsum-Spring Creek Village, Red Table Appartments, Siena Lake, and Mountain Gateway at Buckhorn Valley.

7. PROGRAM

CONDOMINIUM

The condominium complex consists of a lobby for tourist/visitors and residences. The lobby is a space tourist and locals' residences of the area can interact and enjoy each other's company. A parking area will be provided for the residences, which will be separated, from visitors. This will prevent any disturbances between both parties. Within the complex, there is a small restaurant/bar area in the social space. This can help generate revenue for the complex as well as provide work for local residences during off seasons. A small retail store will provide essential needs for traveling tourists and local. An office for the administration and managers will help provide workers the essential to run a complex. The complex will contain a number of units just for guest to rent out and a number of units for locals.

EMPLOYEE HOUSING

The employee housing consists of a lobby, office, mail area, community shared space and laundry room. Each unit consists of 2 bedrooms with 4 beds. It's set up as dorms to create a multi-use of the units when they are not used as employee housing. The complex can be use to house summer school/camp

activities; therefore the space is always occupied yearlong. The employee housing does have a balcony to allow views and their own private outdoor space. Employee housing does have parking spaces in the main parking garage.

HOTEL

The hotel consists of 3 ballrooms, 2 main kitchens; one for catering the ballroom and the other is for the restaurants on the main floor. On the second level, there are a section of rooms, ranging from 1-3 bedrooms suites. There is also an indoor/outdoor swimming pool and lap pool. Besides the swimming pool, there is also a bar lounge for parents and adults to enjoy with their view and experience. In the 3rd to 4th floor, there are rooms with private outdoor balconies. On each floor there is a lounge for people to hang out or just take in the view and experience. The main parking garage is underground and serves for 3 groups.

Condos

#	Program	# of Space	Total Square Footage	Size of Rooms	Gross Square Footage
1	Rooms	300			
	Studio	100	300	20x15	**30,000**
	1 Bedroom	100	500	20x25	**50,000**
	2 Bedroom	50	800	20x40	**40,000**
	3 Bedroom	50	1000	20x50	**50,000**
2	Common Area				
	Entrance	1	120	8x15	**120**
	Storage	1	80	8x10	**80**
	Mail	1	100	10x10	**100**
3	Multi-purpose room				
	Vending Area	1	50	5x10	**50**
	Public bathroom	2	800	20x20, 20x20	**1,600**
4	Administrative Area				
	Conference room	1	180	12x15	**180**
	Storage	1	500		**500**
	Office	2	200	10x10,10x10	**400**
	Private bathroom	2	25	5x10	**50**
5	Community Area				
	Picnic area	1	300		**300**
	Swimming area	1	500		**500**
	Basketball court	1	500		**500**
6	Parking				
	Space	325	144	8x18	**46,800**
7	Mechnical Room				
	System	1	1000	50x20	**1,000**

Total Gross Square Footage	**221,180**
60% Efficency	**13,270.80**
Total Net Square Footage	**234,451**

Hotel

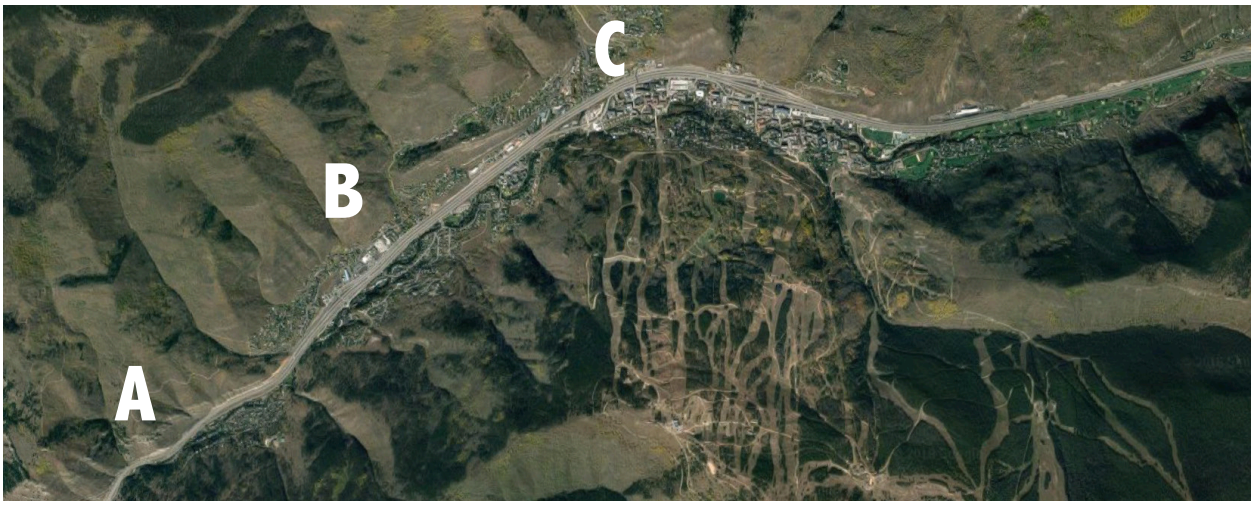
#	Program	# of Space	Total Square Footage	Size of Rooms	Gross Square Footage
1	Rooms	100			
	1 Bedroom	60	300	20x15	**18,000**
	2 Bedroom	40	500	20x25	**20,000**
2	Common Area				
	Entrance	1	120	8x15	**120**
	Laundry	1	100	10x10	**100**
	Storage	1	80	8x10	**80**
3	Multi-purpose room				
	Vending Area	1	50	5x10	**50**
	Public bathroom	2	800	20x20, 20x20	**1,600**
4	Administrative Area				
	Conference room	1	180	12x15	**180**
	Storage	1	500		**500**
	Office	2	200	10x10,10x10	**400**
	Private bathroom	2	25	5x10	**50**
5	Community Area				
	Workout facility	1	800	35x15	**800**
	Swimming area	1	1200	60x20	**1,200**
	Retail Area	2	1200	30x40	**2,400**
6	Parking				
	Space	125	144	8x18	**18,000**
7	Mechnical Room				
	System	1	1000	50x20	**1,000**

Total Gross Square Footage	**64,480**
60% Efficency	**3,868.80**
Total Net Square Footage	**68,349**

Employee Housing

#	Program	# of Space	Total Square Footage	Size of Rooms	Gross Square Footage
1	Rooms	50			
	Dorm	50	200	20x10	**10,000**
2	Common Area				
	Entrance	1	120	8x15	**120**
	Laundry	1	100	10x10	**100**
	Storage	1	80	8x10	**80**
	Mail				
3	Multi-purpose room				
	Vending Area	1	50	5x10	**50**
	Public bathroom	2	800	20x20, 20x20	**1,600**
4	Administrative Area				
	Conference room	1	180	12x15	**180**
	Storage	1	500		**500**
	Office	2	200	10x10,10x10	**400**
	Private bathroom	2	25	5x10	**50**
5	Community Area				
	Picnic area	1	300		**300**
6	Parking				
	Space	100	144	8x18	**14,400**
7	Mechnical Room				
	System	1	1000	50x20	**1,000**

Total Gross Square Footage	**28,780**
60% Efficency	**1,726.80**
Total Net Square Footage	**30,507**



8. SITE ANAYLSIS

SITES

All the lot are located across from Vail Resort. This are contain more of the local residences and service buildings. The lot size is large and the proposal project willl not take the whole site.

Site A:

Address: 3700 North Frontage Road West
Size Lot: 1.2 arces
Land Value: $1,699,850.00(Will need to be purchase from Town)
Border the highway and local residences. The land has a trail and is part of the protected and reserved forest.

Site B:

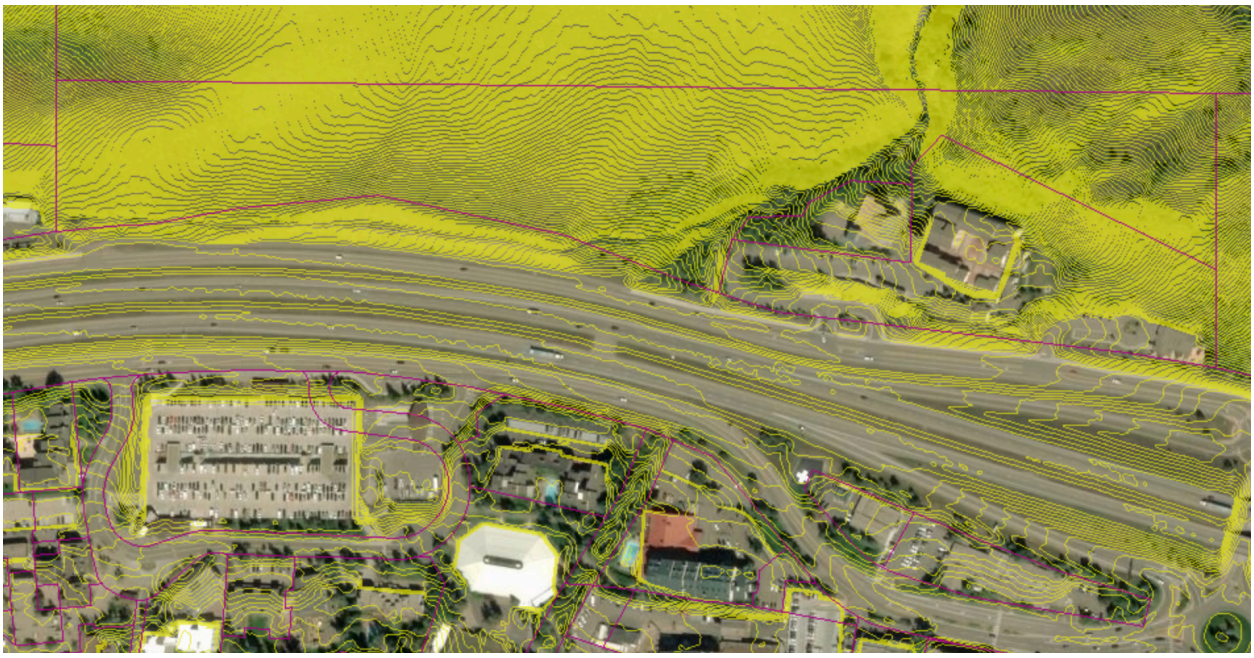
Address: 1783 N. Frontage Road West
Size Lot: 1.932 arces
Land Value: $7,350,000.00 (Vail's land)
Border the highway and local residences.

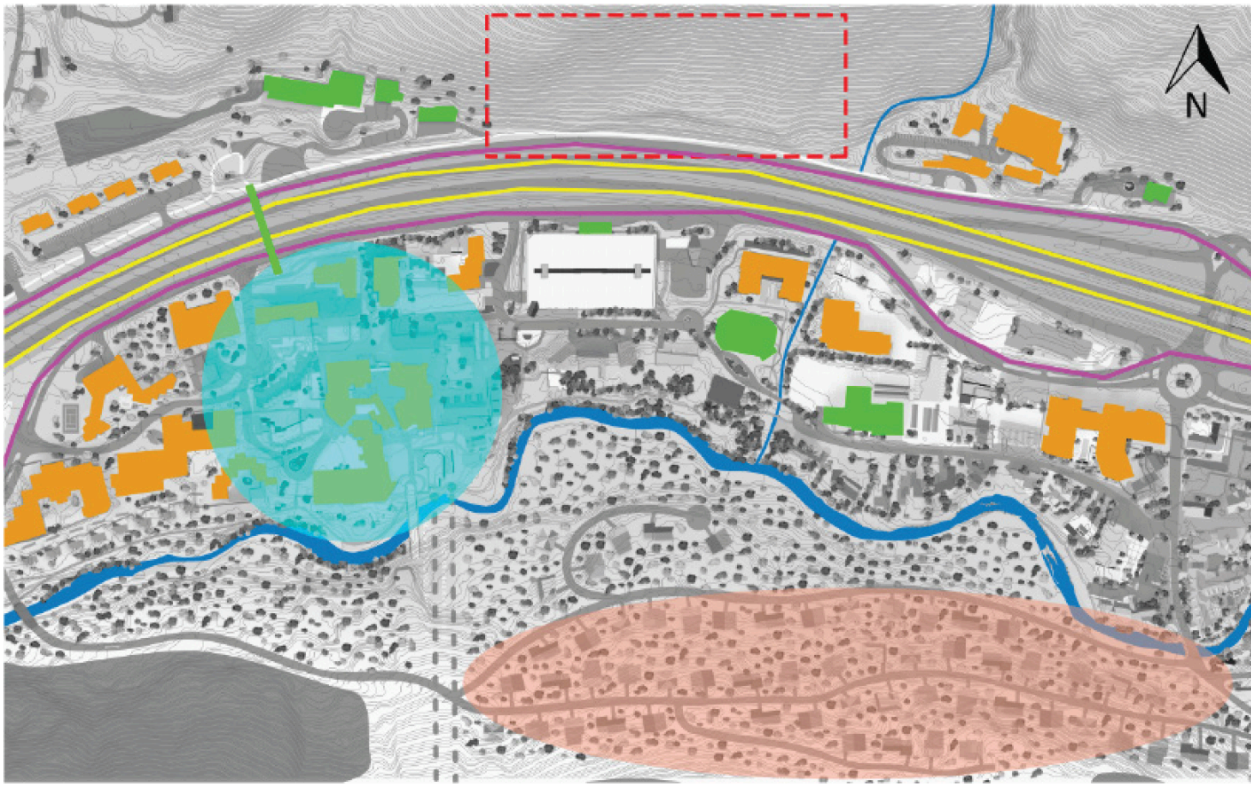

A


B

Site C:

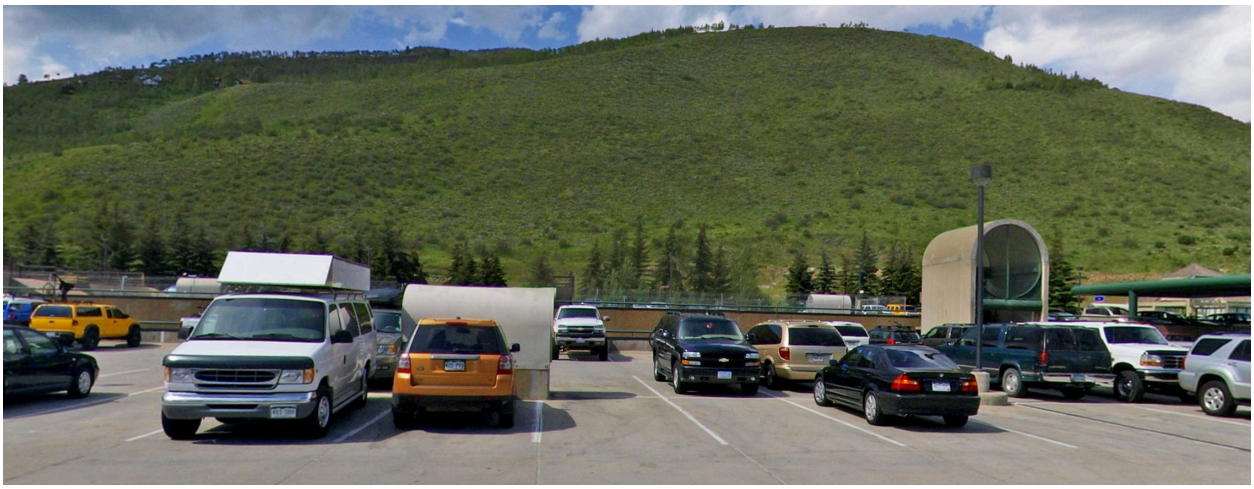
Address: 75 S Frontage Road West
Size Lot: 17.226 arces
Land Value: $60,290 (Will need to be purchase from Town)
Borders the highway and Red Sandstone Elementary School and Vail Gymnastics Center. On the east, it borders Middle Creek Village, an apartment complex.

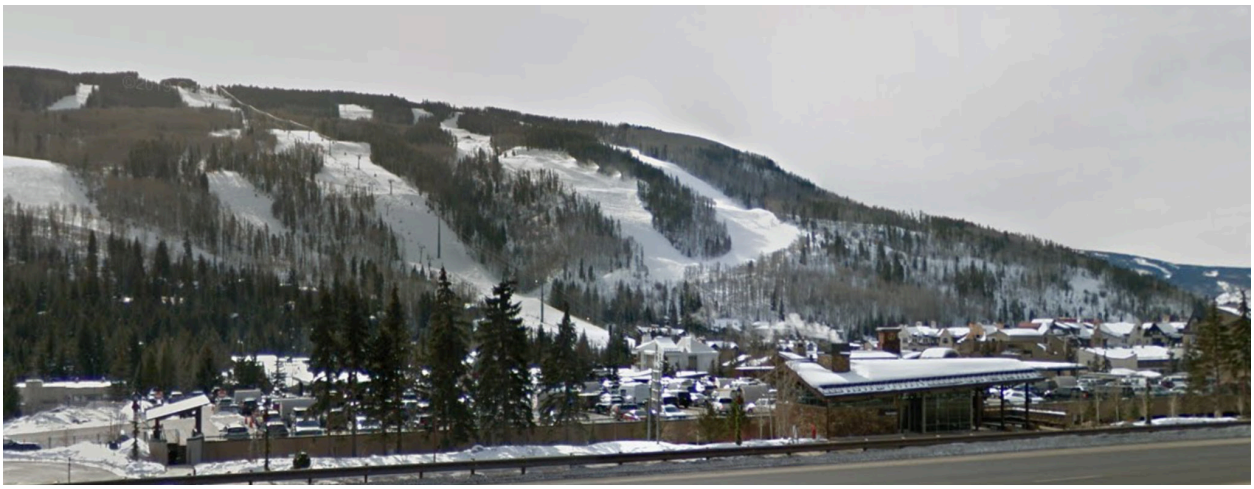




WATER
ROADS
SMALL ROADS
HIGHWAY
PEDESTRIAN BRIDGE
SITE LOCATION

HOTEL/RESTAURANT/RETAIL
PUBLIC PLACES
VAIL RESORT CAMPUS
VACATION HOMES






COME TO VAIL

9. ZONING & BULDING CODES

BUILDING CODES

Vail Colorado has adopted:2018 International Building Code (IBC); 2018 International Residential Code (IRD); 2018 International Fire Code (IFC); 2018 International Plumbing Code (IPC); 2018 International Mechanical Code (IMC); 2018 International Fuel Gas Code (IFGC); 2018 International Energy Conservation Code (IECC); 2017 National Electrical Code (NEC); 2010 ADA Standards; Fair Housing Act Design Manual.

Zone: Natural Area Preservation (NAP)
Land Use: Open space
Hazard Level: Medium Severity Rock fall
Occupant Load Factor:

Parking garages	- 200 gross
Residential	- 200 gross
Kitchen/commercial	- 200 gross
Exercise rooms	- 50 gross
Assembly w/o fixed seats	- 15 net

Classification:
Assembly Group A-2 (Banquet hall, Restaurants, Bars)
Assembly Group A-4 (Swimming pools)
Residential Group R-1 (Hotel – short-term)

Ground Snow Load	Speed (mph)	Topographic Effects	Seismic Design Category	Weathering	Frost Line	Termite	Winter Design Temp	Ice Barrier Underlayment Required	Air Freezing Index
142	115	B	B	Severe	48	Slight/Mod.	-5	Yes	2500

TABLE 601 FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A	B	A	B	HT	A	B
Primary structural frame[f] (see Section 202)	3[a]	2[a]	1	0	1	0	HT	1	0
Bearing walls									
Exterior[e, f]	3	2	1	0	2	2	2	1	0
Interior	3[a]	2[a]	1	0	1	0	1/HT	1	0
Nonbearing walls and partitions Exterior	See Table 602								
Nonbearing walls and partitions Interior[d]	0	0	0	0	0	0	See Section 602.4.6	0	0
Floor construction and associated secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and associated secondary members (see Section 202)	$1^1/_2$[b]	1[b,c]	1[b,c]	0[c]	1[b,c]	0	HT	1[b,c]	0

Residential Group R-2 (Apartment)
Storage Group S-2 (Parking garage – enclosed)

Means of Egress:

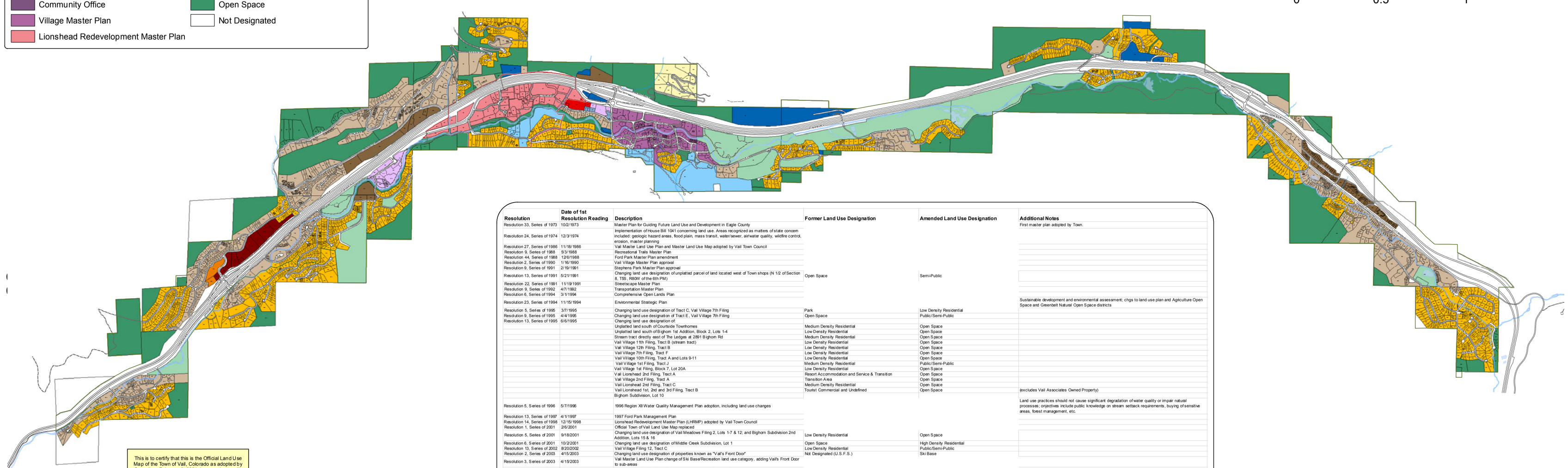
2 means of egress for each building (Path shall not exceed 75 feet)

LAND USE DESIGNATIONS

- Hillside Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Resort Accommodations and Services
- Community Commercial
- Community Office
- Village Master Plan
- Lionshead Redevelopment Master Plan
- Chamonix Master Plan
- Vail Valley Medical Center Master Plan
- Transition Area
- Public/Semi-Public
- Ski Base
- Park
- Open Space
- Not Designated

Official Land Use Plan Map

Town of Vail, Colorado



Resolution	Date of 1st Resolution Reading	Description	Former Land Use Designation	Amended Land Use Designation	Additional Notes
Resolution 33, Series of 1973	10/2/1973	Master Plan for Guiding Future Land Use and Development in Eagle County			First master plan adopted by Town.
Resolution 24, Series of 1974	12/3/1974	Implementation of House Bill 1041 concerning land use. Areas recognized as matters of state concern included: geologic hazard areas, flood plain, mass transit, water/sewer, air/water quality, wildfire control, erosion, master planning			
Resolution 27, Series of 1986	11/18/1986	Vail Master Land Use Plan and Master Land Use Map adopted by Vail Town Council			
Resolution 9, Series of 1988	5/3/1988	Recreational Trails Master Plan			
Resolution 44, Series of 1988	12/6/1988	Ford Park Master Plan amendment			
Resolution 2, Series of 1990	1/16/1990	Vail Village Master Plan approval			
Resolution 9, Series of 1991	2/19/1991	Stephens Park Master Plan approval			
Resolution 13, Series of 1991	5/21/1991	Changing land use designation of unplatted parcel of land located west of Town shops (N 1/2 of Section 8, T5S, R80W of the 6th PM)	Open Space	Semi-Public	
Resolution 22, Series of 1991	11/19/1991	Streetscape Master Plan			
Resolution 9, Series of 1992	4/7/1992	Transportation Master Plan			
Resolution 6, Series of 1994	3/1/1994	Comprehensive Open Lands Plan			
Resolution 23, Series of 1994	11/15/1994	Environmental Strategic Plan			Sustainable development and environmental assessment; chgs to land use plan and Agriculture Open Space and Greenbelt Natural Open Space districts
Resolution 5, Series of 1995	3/7/1995	Changing land use designation of Tract C, Vail Village 7th Filing	Park	Low Density Residential	
Resolution 9, Series of 1995	4/4/1995	Changing land use designation of Tract E, Vail Village 7th Filing	Open Space	Public/Semi-Public	
Resolution 13, Series of 1995	6/6/1995	Changing land use designation of:			
		Unplatted land south of Courtside Townhomes	Medium Density Residential	Open Space	
		Unplatted land south of Bighorn 1st Addition, Block 2, Lots 1-4	Low Density Residential	Open Space	
		Stream tract directly east of The Ledges at 2891 Bighorn Rd	Medium Density Residential	Open Space	
		Vail Village 11th Filing, Tract B (stream tract)	Low Density Residential	Open Space	
		Vail Village 12th Filing, Tract B	Low Density Residential	Open Space	
		Vail Village 7th Filing, Tract F	Low Density Residential	Open Space	
		Vail Village 10th Filing, Tract A and Lots 9-11	Low Density Residential	Open Space	
		Vail Village 1st Filing, Tract J	Medium Density Residential	Public/Semi-Public	
		Vail Village 1st Filing, Block 7, Lot 20A	Low Density Residential	Open Space	
		Vail Lionshead 2nd Filing, Tract A	Resort Accommodation and Service & Transition	Open Space	
		Vail Village 2nd Filing, Tract A	Transition Area	Open Space	
		Vail Lionshead 2nd Filing, Tract C	Medium Density Residential	Open Space	
		Vail Lionshead 1st, 2nd and 3rd Filing, Tract B	Tourist Commercial and Undefined	Open Space	(excludes Vail Associates Owned Property)
		Bighorn Subdivision, Lot 10			
Resolution 5, Series of 1996	5/7/1996	1996 Region XII Water Quality Management Plan adoption, including land use changes			Land use practices should not cause significant degradation of water quality or impair natural processes; onjectives include public knowledge on stream setback requirements, buying of sensitive areas, forest management, etc.
Resolution 13, Series of 1997	4/1/1997	1997 Ford Park Management Plan			
Resolution 14, Series of 1998	12/15/1998	Lionshead Redevelopment Master Plan (LHRMP) adopted by Vail Town Council			
Resolution 1, Series of 2001	2/6/2001	Official Town of Vail Land Use Map replaced			
Resolution 5, Series of 2001	9/18/2001	Changing land use designation of Vail Meadows Filing 2, Lots 1-7 & 12; and Bighorn Subdivision 2nd Addition, Lots 15 & 16	Low Density Residential	Open Space	
Resolution 6, Series of 2001	10/2/2001	Changing land use designation of Middle Creek Subdivision, Lot 1	Open Space	High Density Residential	
Resolution 13, Series of 2002	8/20/2002	Vail Village Filing 12, Tract C	Low Density Residential	Public/Semi-Public	
Resolution 2, Series of 2003	4/15/2003	Changing land use designation of properties known as "Vail's Front Door"	Not Designated (U.S.F.S.)	Ski Base	
Resolution 3, Series of 2003	4/15/2003	Vail Master Land Use Plan change of Ski Base/Recreation land use category, adding Vail's Front Door to sub-areas			
Resolution 11, Series of 2004	3/16/2004	Lionshead Public Facilities (Reinvestment) and Urban Renewal Plan			
Resolution 15, Series of 2005	9/6/2005	Lionshead Redevelopment Master Plan amended to include Evergreen Lodge			LHRMP Area boundary expanded to include the "Evergreen Lodge Development Site"
Resolution 23, Series of 2005	12/20/2005	Lionshead Redevelopment Master Plan amended to include Evergreen Lodge repealed/reenacted			LHRMP Area boundary expanded to include the "Evergreen Lodge Development Site"
Resolution 3, Series of 2006	3/21/2006	Changing land use designation of all properties which were identified as being included in the Lionshead Redevelopment Master Plan boundaries at the time.	Tourist Commercial; Community Office; Resort Accommodations & Services; Medium Density Residential; Public/Semi-Public; and Transition Area	Lionshead Redevelopment Master Plan	Addition of "Lionshead Redevelopment Master Plan" (LHRMP) Land Use Designation, deletion of "Tourist Commercial" Land Use Designation, and corresponding amendments to the Land Use Plan Map
Resolution 4, Series of 2007	2/6/2007	Lionshead Redevelopment Master Plan amended to include two new pacels and identify as West Lionshead			LHRMP Area boundary expanded to include "Cascade Crossing," "Vail Professional Building," North Day Lot and former gas station site with potential realignment of S. Frontage Road, a Simba Run Underpass and addition of a ski/gondola portal.
Resolution 19, Series of 2008	9/2/2008	Changing land use designation of properties known as "Cascade Crossing", "Vail Professional Building" (EverVail) and "Glen Lyon Office Building" at 953, 1031 and 1000 S. Frontage Road West	Community Office	Lionshead Redevelopment Master Plan	
Resolution 26, Series of 2008	2/3/2009	Lionshead Redevelopment Master Plan amended to include the Glen Lyon Office Building at 1000 S. Frontage Road West/Lot 54, Glen Lyon Subdivision			LHRMP Area boundary expanded to include "Glen Lyon Office Building"
Resolution 2, Series of 2009	1/6/2009	Changing land use designation of Vail Das Schone Filing 1, A Resubdivision of Tract D, Parcel A (former "Wendy's Parcel")	Community Commercial	Chamonix Master Plan	Chamonix Master Plan (CMP) adopted by Vail Town Council; addition of "Chamonix Master Plan" Land Use Designation, and corresponding amendments to the Land Use Plan Map
		Changing land use designation of Vail Das Schone Filing 1, A Resubdivision of Tract D, Parcel B ("Chamonix Parcel")	Medium Density Residential	Chamonix Master Plan	
Resolution 6, Series of 2011	10/18/2011	Lionshead Redevelopment Master Plan addition of Evervail			
Resolution 15, Series of 2011	8/2/2011	Changing land use designation of Vail Intermountain Development Subdivision, Block 9, Lot 1 ("Ruder Cemetery"), 2846 Basingdale Blvd	Low Density Residential	Open Space	Effective upon adoption of related Ordinance affecting zoning (Ordinance 18, Series of 2011)
		Changing land use designation of Vail Potato Patch, Block 2, Lot 9 (Red Sandstone Park Parking Lot), 715 N. Frontage Road W	Medium Density Residential	Open Space	Effective upon adoption of related Ordinance affecting zoning (Ordinance 18, Series of 2011)
		Changing land use designation of Residences at Briar Patch Subdivision 5th Addition, Parcel G; 1448 Buffehr Creek Rd.	Medium Density Residential	Open Space	Effective upon adoption of related Ordinance affecting zoning (Ordinance 18, Series of 2011) and recording of associated Fifth Amendment to the Residences at Briar Patch final plat (Sept. 1, 2011)
Resolution 4, Series of 2015	3/17/2015	Changing land use designation of Vail Valley Medical Center campus	Transition Area; and Lionshead Redevelopment Master Plan	Vail Valley Medical Center Master Plan	Vail Valley Medical Center Master Plan (VVMCMP) adopted by Vail Town Council; addition of "Vail Valley Medical Center Master Plan" Land Use Designation, and corresponding amendments to the Land Use Plan Map

This is to certify that this is the Official Land Use Map of the Town of Vail, Colorado as adopted by Council on February 6, 2001, in accordance with Resolution No. 1, Series of 2001.

Mayor, Town of Vail

Attest: Town Clerk, Town of Vail

SEAL

Official Town of Vail
Land Use Map

Adopted by Town Council
Resolution No. 1, Series of 2001
February 6, 2001

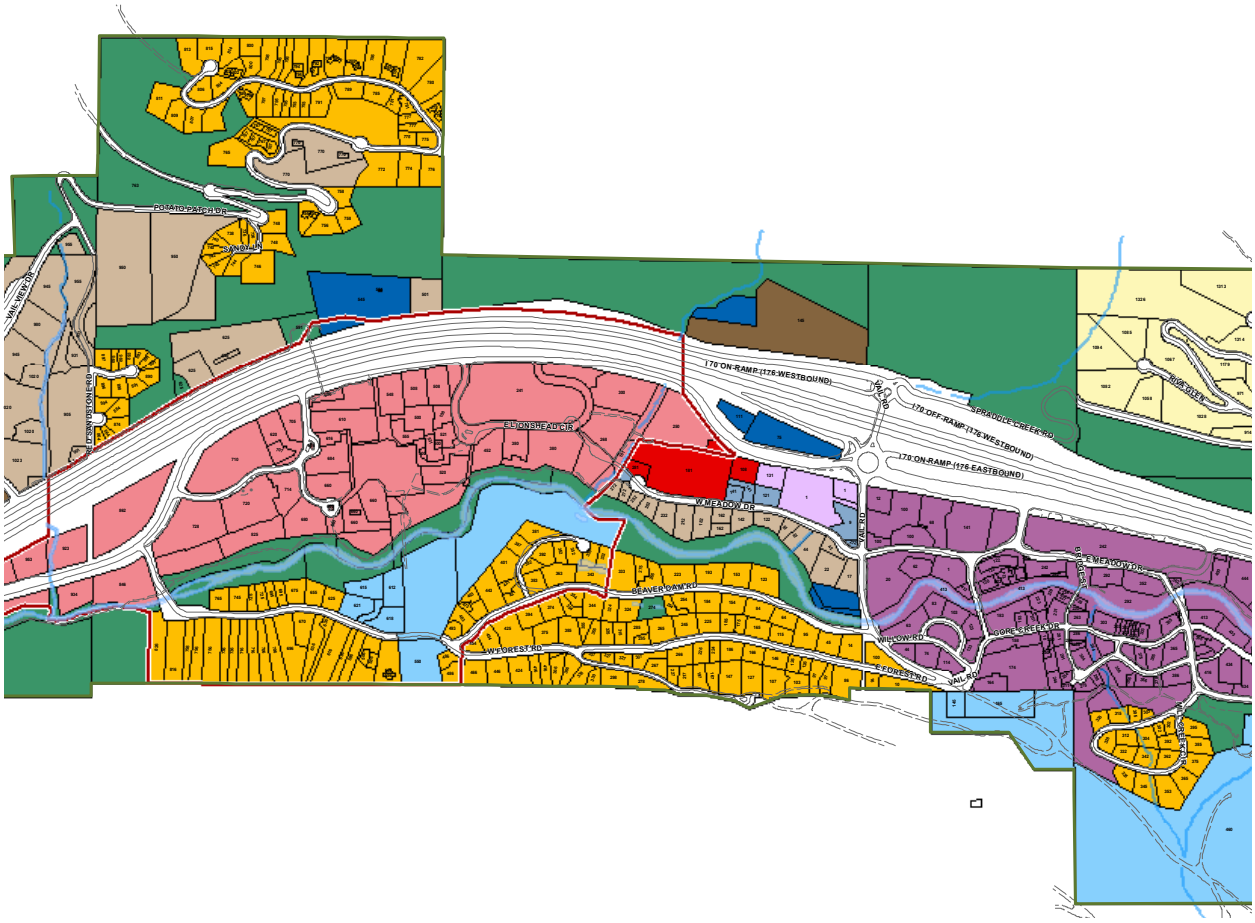
Map Updated: June 2, 2017

This map was produced by the Town of Vail GIS Team. Use of this map should be for general purposes only. The Town of Vail does not warrant the accuracy of the information contained herein.
(where shown, parcel line work is approximate)

TOWN OF VAIL

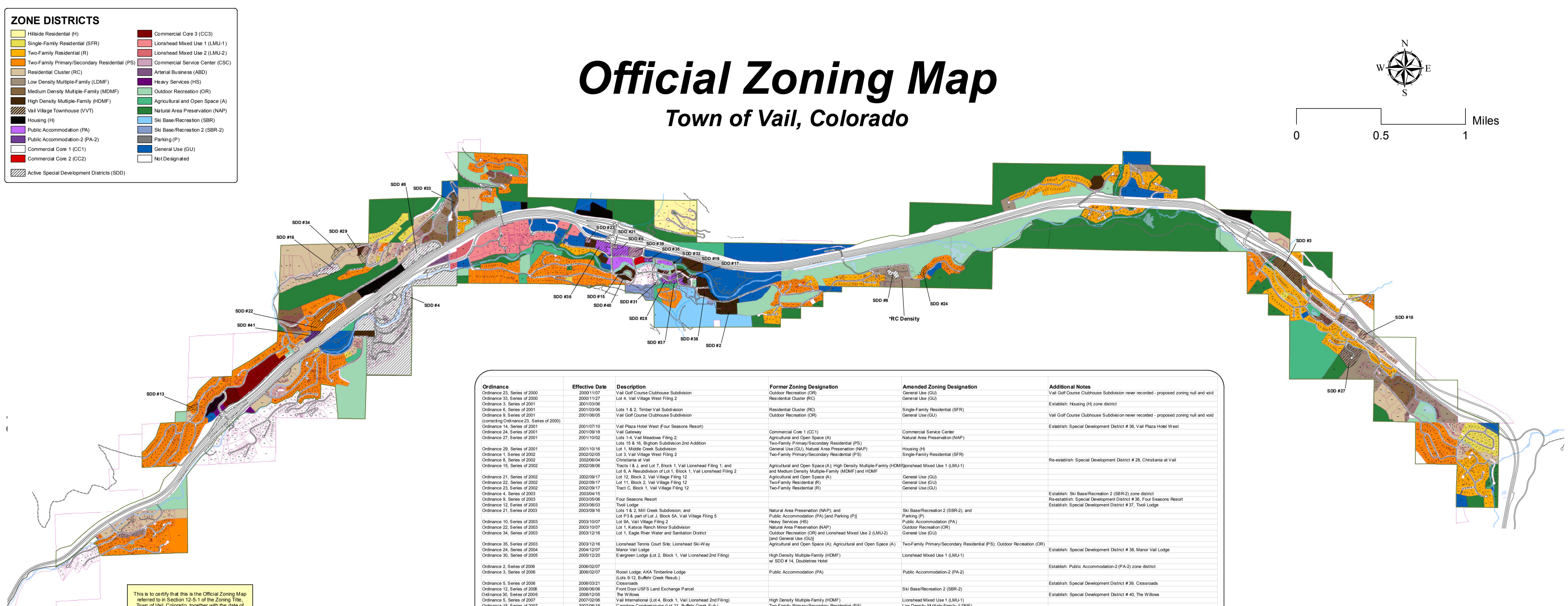
LAND USE DESIGNATIONS

- Hillside Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Resort Accommodations and Services
- Community Commercial
- Community Office
- Village Master Plan
- Lionshead Redevelopment Master Plan
- Chamonix Master Plan
- Vail Valley Medical Center Master Plan
- Transition Area
- Public/Semi-Public
- Ski Base
- Park
- Open Space
- Not Designated



Official Zoning Map

Town of Vail, Colorado



Ordinance	Effective Date	Description	Former Zoning Designation	Amended Zoning Designation	Additional Notes
Ordinance 23, Series of 2000	2000/11/07	Vail Golf Course Clubhouse Subdivision	Outdoor Recreation (OR)	General Use (GU)	Vail Golf Course Clubhouse Subdivision never recorded - proposed zoning null and void
Ordinance 33, Series of 2000	2000/11/27	Lot 4, Vail Village West Filing 2	Residential Cluster (RC)	General Use (GU)	
Ordinance 3, Series of 2001	2001/03/06				Establish: Housing (H) zone district
Ordinance 6, Series of 2001	2001/03/06	Lots 1 & 2, Timber Vail Subdivision	Residential Cluster (RC)	Single-Family Residential (SFR)	
Ordinance 9, Series of 2001	2001/06/05	Vail Golf Course Clubhouse Subdivision	Outdoor Recreation (OR)	General Use (GU)	Vail Golf Course Clubhouse Subdivision never recorded - proposed zoning null and void
(correcting Ordinance 23, Series of 2000)					
Ordinance 14, Series of 2001	2001/07/10	Vail Plaza Hotel West (Four Seasons Resort)			Establish: Special Development District # 36, Vail Plaza Hotel West
Ordinance 24, Series of 2001	2001/09/18	Vail Gateway	Commercial Core 1 (CC1)	Commercial Service Center	
Ordinance 27, Series of 2001	2001/10/02	Lots 1-4, Vail Meadows Filing 2;	Agricultural and Open Space (A)	Natural Area Preservation (NAP)	
		Lots 15 & 16, Bighorn Subdivision 2nd Addition	Two-Family Primary/Secondary Residential (PS)		
Ordinance 29, Series of 2001	2001/10/16	Lot 1, Middle Creek Subdivision	General Use (GU), Natural Area Preservation (NAP)	Housing (H)	
Ordinance 1, Series of 2002	2002/02/05	Lot 3, Vail Village West Filing 2	Two-Family Primary/Secondary Residential (PS)	Single-Family Residential (SFR)	
Ordinance 8, Series of 2002	2002/06/04	Christiania at Vail			Re-establish: Special Development District # 28, Christiania at Vail
Ordinance 15, Series of 2002	2002/08/06	Tracts I & J, and Lot 7, Block 1, Vail Lionshead Filing 1; and	Agricultural and Open Space (A); High Density Multiple-Family (HDMF)	Lionshead Mixed Use 1 (LMU-1)	
		Lot 6, A Resubdivison of Lot 1, Block 1, Vail Lionshead Filing 2	and Medium Density Multiple-Family (MDMF) and HDMF		
Ordinance 21, Series of 2002	2002/09/17	Lot 12, Block 2, Vail Village Filing 12	Agricultural and Open Space (A)	General Use (GU)	
Ordinance 22, Series of 2002	2002/09/17	Lot 11, Block 2, Vail Village Filing 12	Two-Family Residential (R)	General Use (GU)	
Ordinance 23, Series of 2002	2002/09/17	Tract C, Block 1, Vail Village Filing 12	Two-Family Residential (R)	General Use (GU)	
Ordinance 4, Series of 2003	2003/04/15				Establish: Ski Base/Recreation 2 (SBR-2) zone district
Ordinance 9, Series of 2003	2003/05/06	Four Seasons Resort			Re-establish: Special Development District # 36, Four Seasons Resort
Ordinance 12, Series of 2003	2003/06/03	Tivoli Lodge			Establish: Special Development District # 37, Tivoli Lodge
Ordinance 21, Series of 2003	2003/09/16	Lots 1 & 2, Mill Creek Subdivision; and	Natural Area Preservation (NAP); and	Ski Base/Recreation 2 (SBR-2); and	
		Lot P3 & part of Lot J, Block 5A, Vail Village Filing 5	Public Accommodation (PA) [and Parking (P)]	Parking (P)	
Ordinance 10, Series of 2003	2003/10/07	Lot 9A, Vail Village Filing 2	Heavy Services (HS)	Public Accommodation (PA)	
Ordinance 22, Series of 2003	2003/10/07	Lot 1, Katsos Ranch Minor Subdivision	Natural Area Preservation (NAP)	Outdoor Recreation (OR)	
Ordinance 34, Series of 2003	2003/12/16	Lot 1, Eagle River Water and Sanitation District	Outdoor Recreation (OR) and Lionshead Mixed Use 2 (LMU-2)	General Use (GU)	
			[and General Use (GU)]		
Ordinance 35, Series of 2003	2003/12/16	Lionshead Tennis Court Site; Lionshead Ski-Way	Agricultural and Open Space (A); Agricultural and Open Space (A)	Two-Family Primary/Secondary Residential (PS); Outdoor Recreation (OR)	
Ordinance 24, Series of 2004	2004/12/07	Manor Vail Lodge			Establish: Special Development District # 38, Manor Vail Lodge
Ordinance 30, Series of 2005	2005/12/20	Evergreen Lodge (Lot 2, Block 1, Vail Lionshead 2nd Filing)	High Density Multiple-Family (HDMF)	Lionshead Mixed Use 1 (LMU-1)	
			w/ SDD # 14, Doubletree Hotel		
Ordinance 2, Series of 2006	2006/02/07				Establish: Public Accommodation-2 (PA-2) zone district
Ordinance 3, Series of 2006	2006/02/07	Roost Lodge; AKA Timberline Lodge	Public Accommodation (PA)	Public Accommodation-2 (PA-2)	
		(Lots 9-12, Buffehr Creek Resub.)			
Ordinance 5, Series of 2006	2006/03/21	Crossroads			Establish: Special Development District # 39, Crossroads
Ordinance 12, Series of 2006	2006/06/06	Front Door USFS Land Exchange Parcel		Ski Base/Recreation 2 (SBR-2)	
Ordinance 30, Series of 2006	2006/12/05	The Willows			Establish: Special Development District # 40, The Willows
Ordinance 5, Series of 2007	2007/02/06	Vail International (Lot 4, Block 1, Vail Lionshead 2nd Filing)	High Density Multiple-Family (HDMF)	Lionshead Mixed Use 1 (LMU-1)	
Ordinance 15, Series of 2007	2007/06/19	Capstone Condominiums (Lot 21, Buffehr Creek Sub.)	Two-Family Primary/Secondary Residential (PS)	Low Density Multiple-Family (LDMF)	
Ordinance 17, Series of 2007	2007/07/03	Timber Ridge Apartments (Lots C1-C5, Lions Ridge 1st Filing)	Non-designated w/ SDD # 10, Timber Ridge Village Apartments	Housing (H)	
Ordinance 34, Series of 2007	2007/12/04	Solar Vail Condos (Lot 8B, Block 2, Vail Potato Patch)	High Density Multiple-Family (HDMF)	Housing (H)	
Ordinance 16, Series of 2008	2008/10/21	Tract A and a 430 square foot portion of Tract A, Vail Village 7th Filing	No Zoning and High Density Multiple-Family (HDMF)	General Use (GU)	
Ordinance 26, Series of 2008	2008/11/18	Parcel A, a Re-Subdivision of Tract D, Vail Das Schone Filing 1	Commercial Core 3 (CC3)	General Use (GU)	A.K.A. the former Wendy's site
Ordinance 27, Series of 2008	2008/11/18	Parcel B, a Re-Subdivision of Tract D, Vail Das Schone Filing 1	Two-Family Primary/Secondary Residential (PS)	Housing (H)	A.K.A. the Chamonix Parcel (formerly known as the Hud Wirth site)
Ordinance 18, Series of 2011	2011/08/16	Ruder Cemetery (Vail Intermountain Development Subdivision, Block 9, Lot 1)	Two-Family Primary/Secondary Residential (PS)	Outdoor Recreation (OR)	
		Red Sandstone Park Parking Lot (Vail Potato Patch, Block 2, Lot 9)	Medium Density Multiple-Family (MDMF)	Outdoor Recreation (OR)	
		Residences at Briar Patch Subdivision, Lot G	Residential Cluster (RC)	Natural Area Preservation (NAP)	Effective upon adoption of ordinance and recording of associated Fifth Amendment to the Residences at Briar Patch final plat (Sept. 1, 2011)
Ordinance 1, Series of 2012	2012/03/06	Change zone boundary for part of Tract B, Vail Village Filing 7	Ski Base/Recreation (SBR)	Ski Base/Recreation 2 (SBR-2)	598 Vail Valley Drive
Ordinance 22, Series of 2012	2012/05/21	Golf Course parking lot	General Use (GU)	Outdoor Recreation (OR)	1775 Sunburst Drive
Ordinance 2, Series of 2012	2012/08/21				Establish: Vail Village Townhouse (VVT) District
Ordinance 9, Series of 2014	2014/04/01	ROW Houses and Texas Townhomes	High Density Multiple-Family (HDMF)	Vail Village Townhouse (VVT)	303 & 483 Gore Creek Drive
Ordinance 35, Series of 2016	2017/02/21	Marriott Residence Inn (formerly The Roost Lodge property)			Establish: Special Development District # 41, Marriott Residence Inn
Ordinance 11, Series of 2017	2017/10/02	Golden Peak Ski Base and Recreation District Parcel, Parcel 1 (Ski Club Vail)	Partially Ski Base/Recreation (SBR) & partially Ski Base/Recreation 2 (SBR-2)	Ski Base/Recreation 2 (SBR-2)	598 Vail Valley Drive
Ordinance 13, Series of 2017	2017/10/13	East Vail Workforce Housing Subdivision	Two-Family Residential (R)	Housing (H) & Natural Area Preservation (NAP)	3700 N Frontage Rd E
Ordinance 6, Series of 2017	2017/12/29	Vail Health / Evergreen Lodge	Lionshead Mixed Use 1 (LMU-1) & General Use (GU)	Lionshead Mixed Use 1 (LMU-1) & General Use (GU)	180 & 250 South Frontage Road West

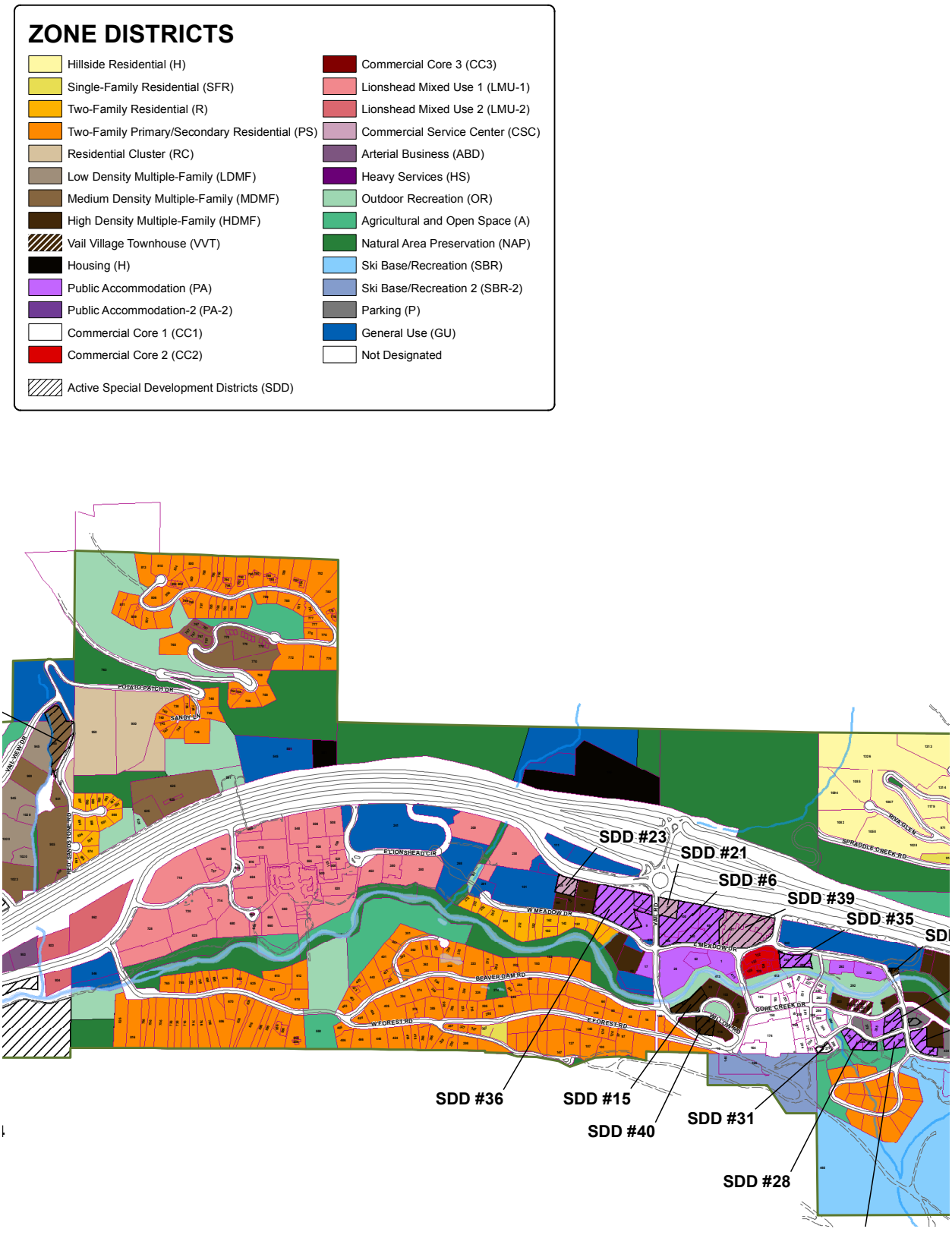
This is to certify that this is the Official Zoning Map referred to in Section 12-5-1 of the Zoning Title, Town of Vail, Colorado, together with the date of the adoption of the ordinance codified in the Zoning Title and the date of the most recent change in district boundaries shown thereon.

Official Town of Vail Zoning Map

Adopted by Town Council Resolution No. 13, Series of 2000 October 17, 2000

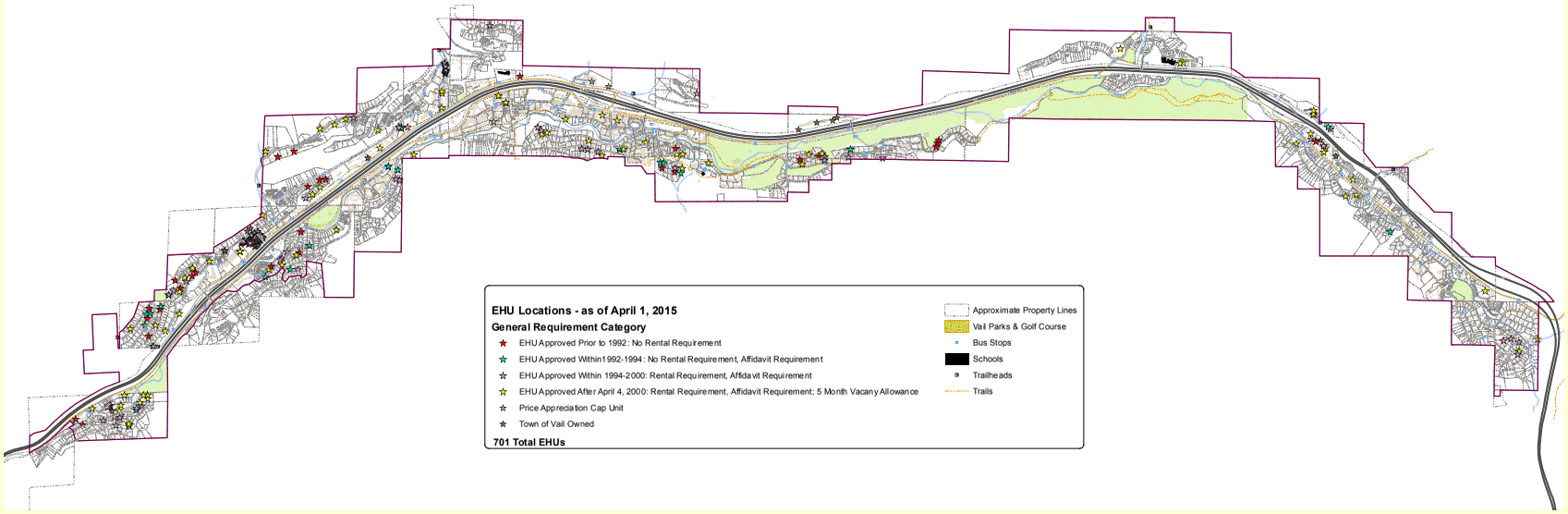
Map Updated: February 7, 2018

TOWN OF VAIL


ZONE DISTRICTS
Hillside Residential (H)
Single-Family Residential (SFR)
Two-Family Residential (R)
Two-Family Primary/Secondary Residential (PS)
Residential Cluster (RC)
Low Density Multiple-Family (LDMF)
Medium Density Multiple-Family (MDMF)
High Density Multiple-Family (HDMF)
Vail Village Townhouse (VVT)
Housing (H)
Public Accommodation (PA)
Public Accommodation-2 (PA-2)
Commercial Core 1 (CC1)
Commercial Core 2 (CC2)
Commercial Core 3 (CC3)
Lionshead Mixed Use 1 (LMU-1)
Lionshead Mixed Use 2 (LMU-2)
Commercial Service Center (CSC)
Arterial Business (ABD)
Heavy Services (HS)
Outdoor Recreation (OR)
Agricultural and Open Space (A)
Natural Area Preservation (NAP)
Ski Base/Recreation (SBR)
Ski Base/Recreation 2 (SBR-2)
Parking (P)
General Use (GU)
Not Designated
Active Special Development Districts (SDD)
SDD #23
SDD #21
SDD #6
SDD #39
SDD #35
SDD #36
SDD #15
SDD #40
SDD #31
SDD #28

Town of Vail
Employee Housing Unit (EHU) Locations

(As of April 1, 2015)



Additional Notes:
* For exact requirements, please see deed restriction recorded for specific property
- Please contact the Town of Vail Community Development Department for general questions or further information regarding EHU requirements
- Price-capped EHUs established after April 4, 2000, are not assigned an EHU "Type"
- Recorded Date does not always coincide with the applicable legislative date range
  (e.g. a deed restriction approved in 1999 but recorded in 2001 is subject to conditions for EHUs approved between 1994 and April 3, 2000)

Data Sources:
Town of Vail Community Development Department - Housing Division
Town of Vail Community Development Department - Planning Division
Town of Vail Public Works Department - GIS Team
Eagle County Assessor / GIS Department

Map Last Modified: March 31, 2015

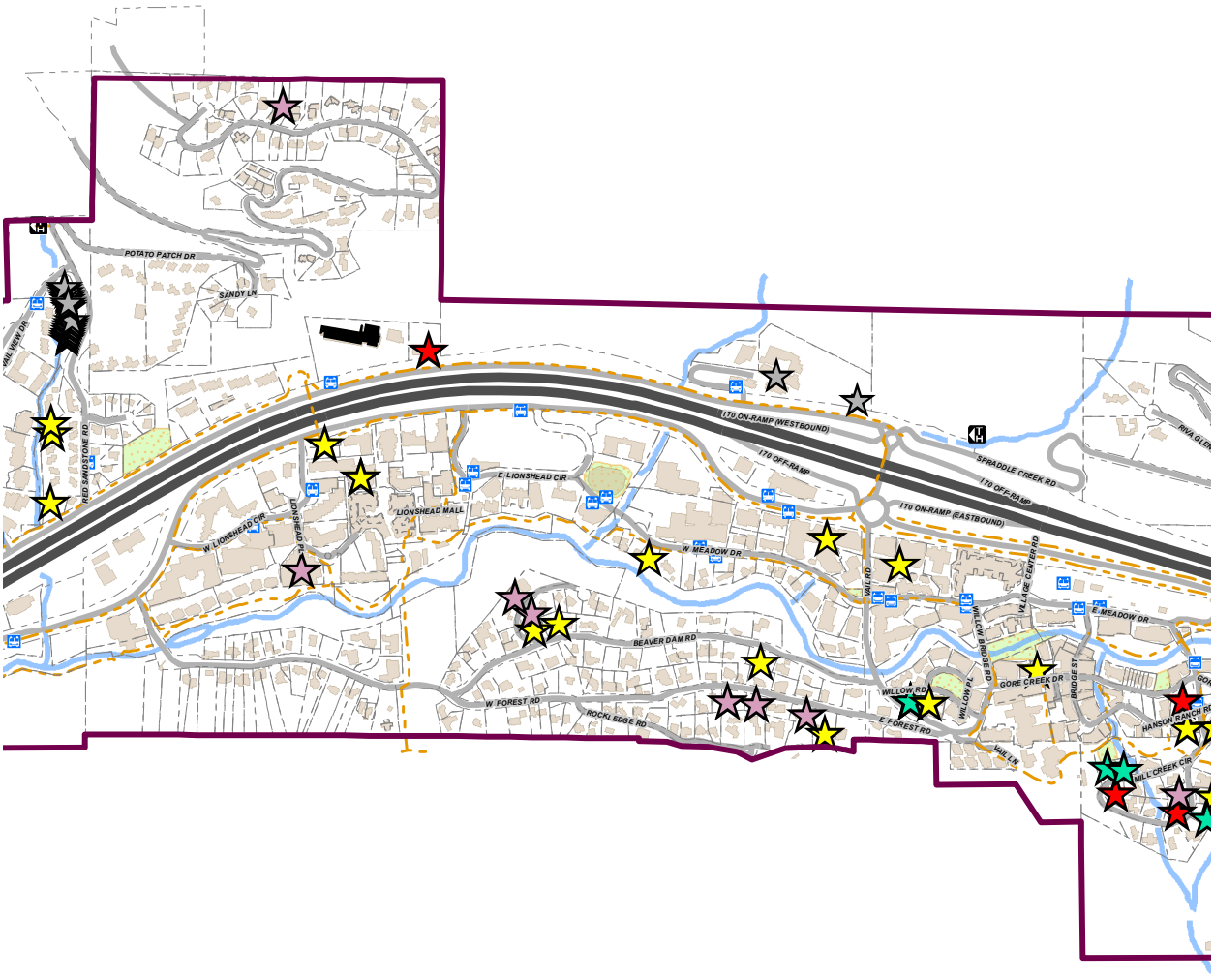
EHU Locations - as of April 1, 2015

General Requirement Category

- EHU Approved Prior to 1992: No Rental Requirement
- EHU Approved Within1992-1994: No Rental Requirement, Affidavit Requirement
- EHU Approved Within 1994-2000: Rental Requirement, Affidavit Requirement
- EHU Approved After April 4, 2000: Rental Requirement, Affidavit Requirement; 5 Month Vacany Allowance
- Price Appreciation Cap Unit
- Town of Vail Owned

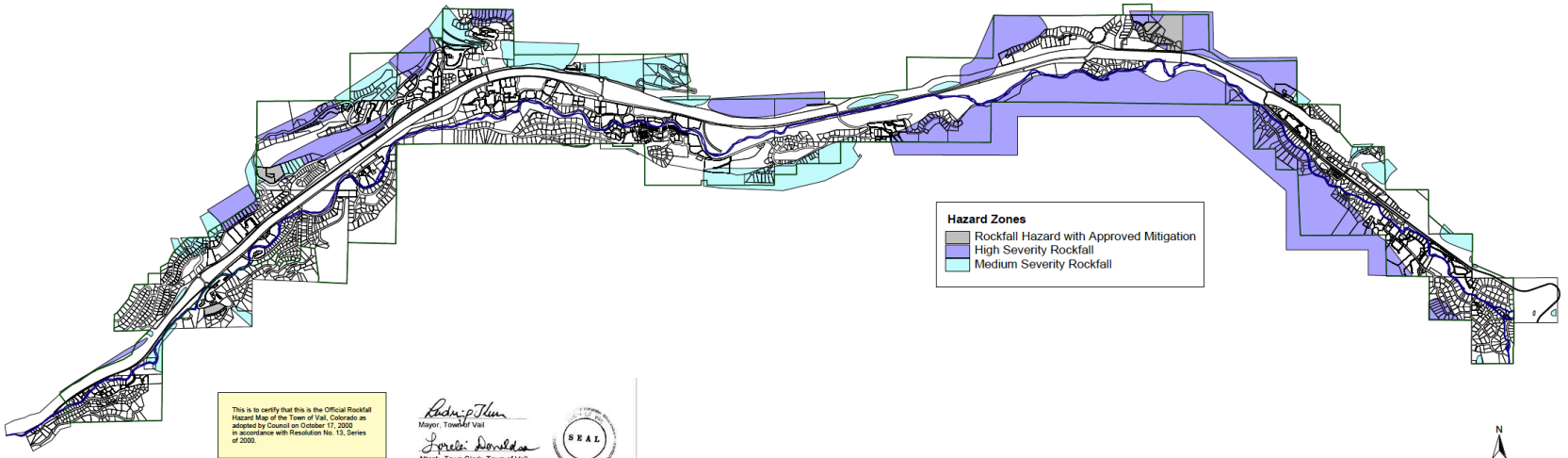
701 Total EHUs

- Approximate Property Lines
- Vail Parks & Golf Course
- Bus Stops
- Schools
- Trailheads
- Trails



Official Rockfall Hazard Map

Town of Vail, Colorado



This is to certify that this is the Official Rockfall Hazard Map of the Town of Vail, Colorado as adopted by Council on October 17, 2000 in accordance with Resolution No. 13, Series of 2000.

Mayor, Town of Vail

Attest: Town Clerk, Town of Vail

SEAL

N

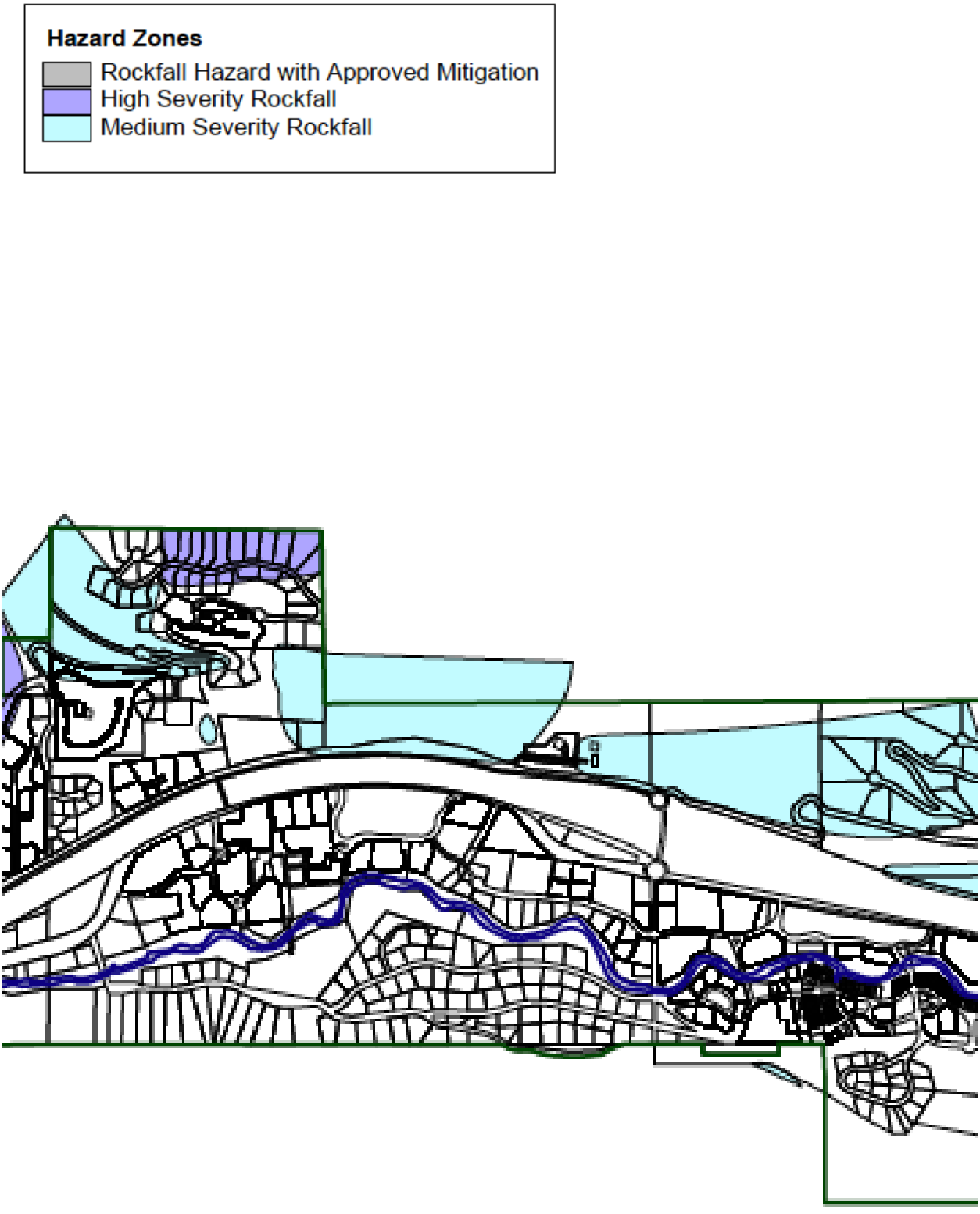
MAP NOT TO SCALE

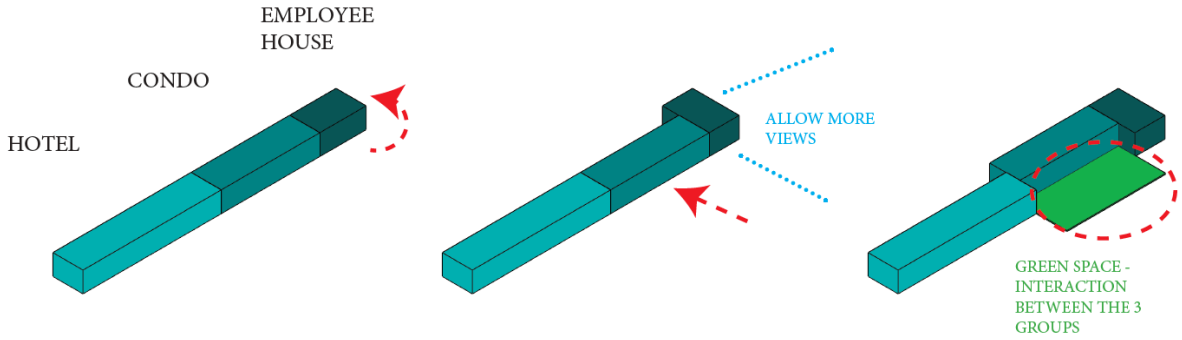
Official Town of Vail Rockfall Hazard Map

Adopted by Council Resolution No. 13, Series of 2000 October 17, 2000

TOWN OF VAIL

Produced by the Department of Community Development


Hazard Zones
Rockfall Hazard with Approved Mitigation
High Severity Rockfall
Medium Severity Rockfall

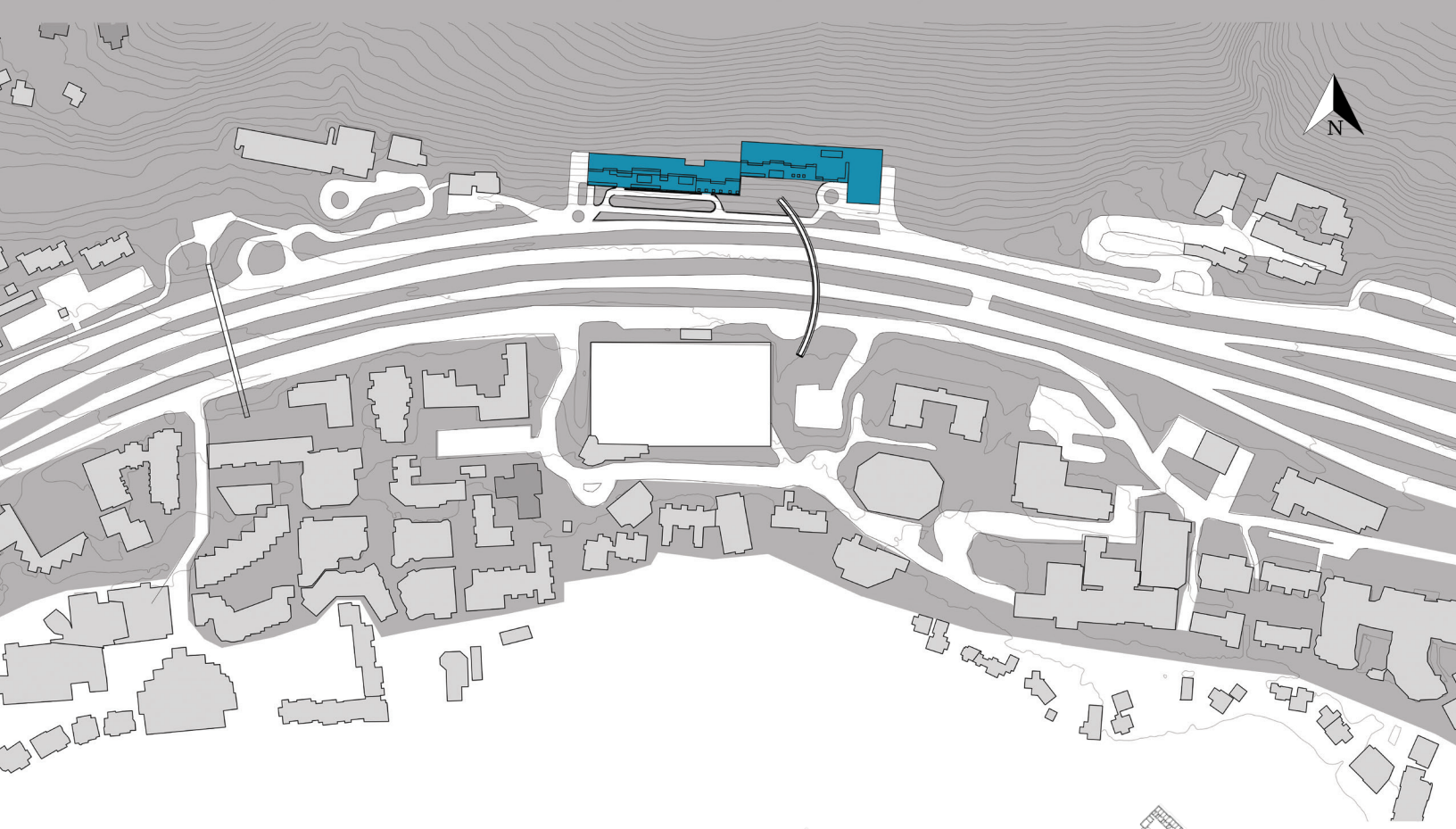


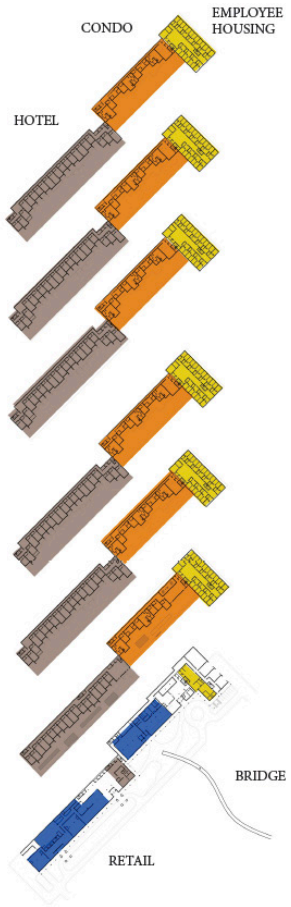
FORM DIAGRAM

10. CONCEPTUALIZATION

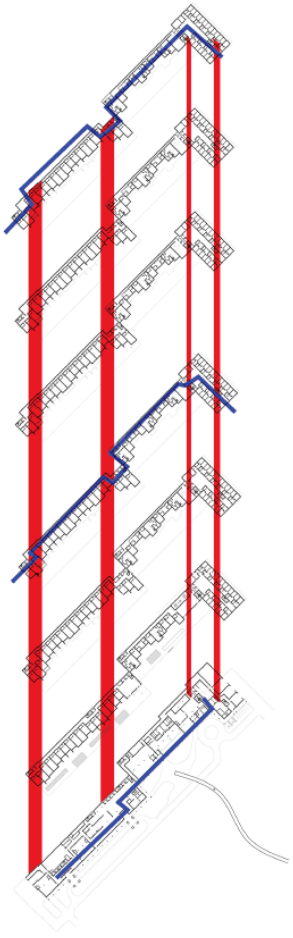
The concept of the project is to bring 3 types of people sharing one experience. The 3 types are tourism, employee and residents. All of them are there to experience the slopes and nature. The site is located on a steep slope and it was necessary to maximize the slope to give the people the experience of heights and nature.

The 3 types was broken up into 3 masses and placed on the site. The first move be to keep the 3 separated and then slowly intergrade them in places such as swimming pool area, shopping areas and green space. The concept was to weave the 3 together and still allow each group to have their own privacy during their stay. The reason was that not all spaces could be intergraded together. These pockets of interaction are either by physical contact, view or sound. On the main level, everyone physically can see and touch each other, but once each group breaks into their own section, they are once again interacted by view or sound. As one group climbs up into their private rooms, they are given the view of the slopes and mountains.

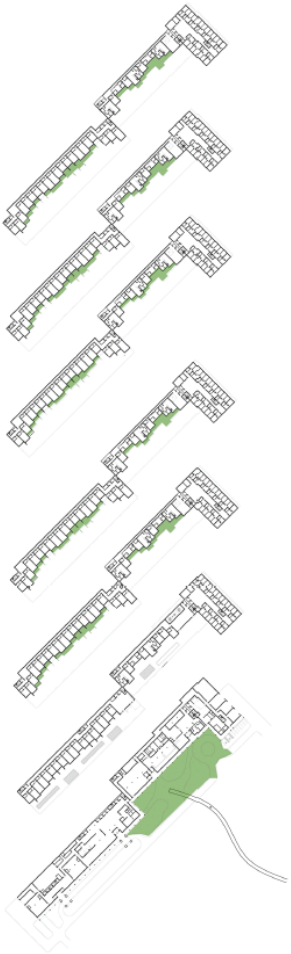




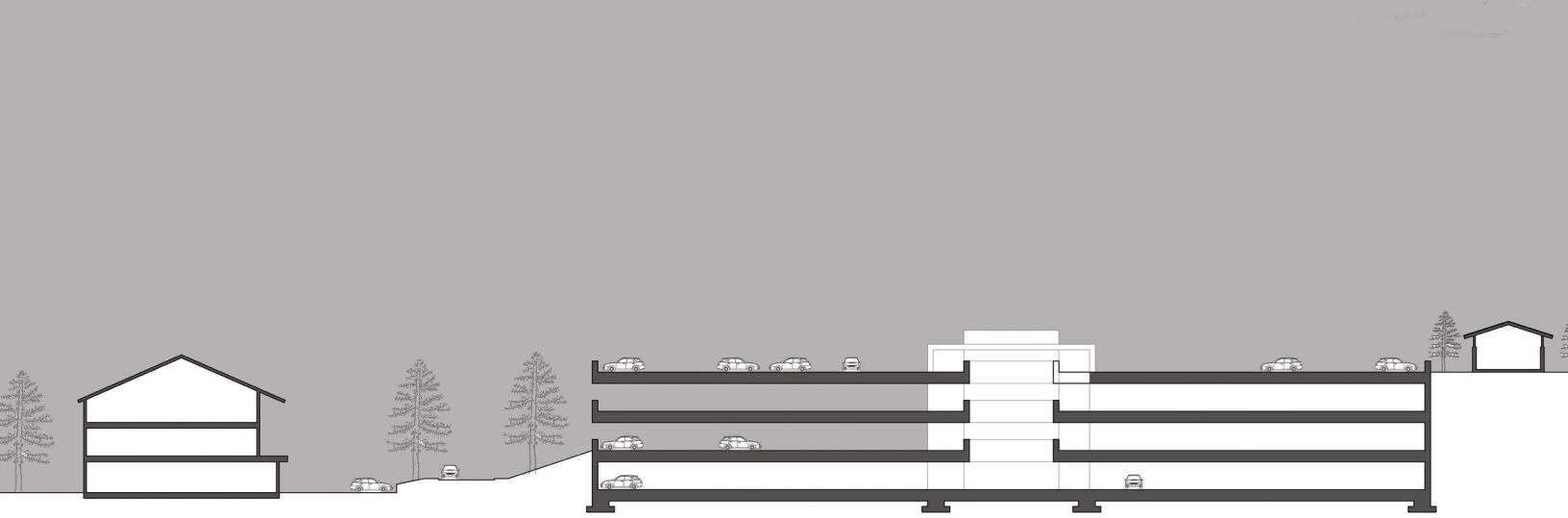
ORGANIZATION

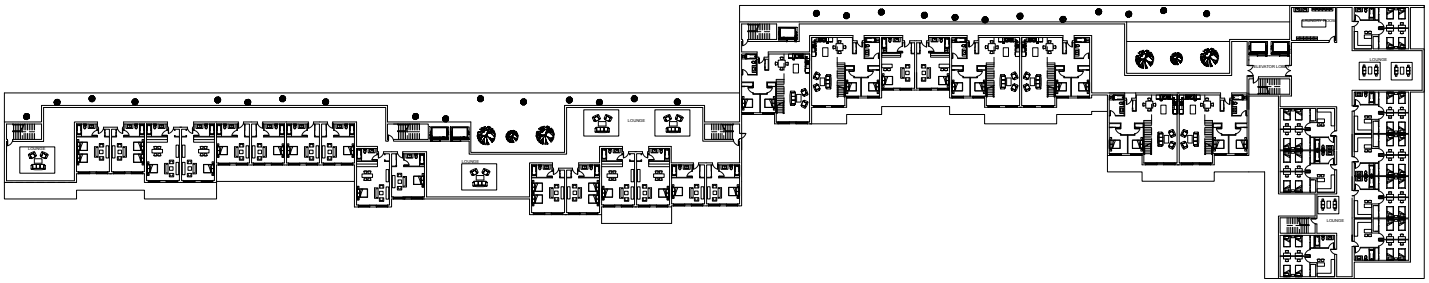


CIRCULATION



GREEN SPACES





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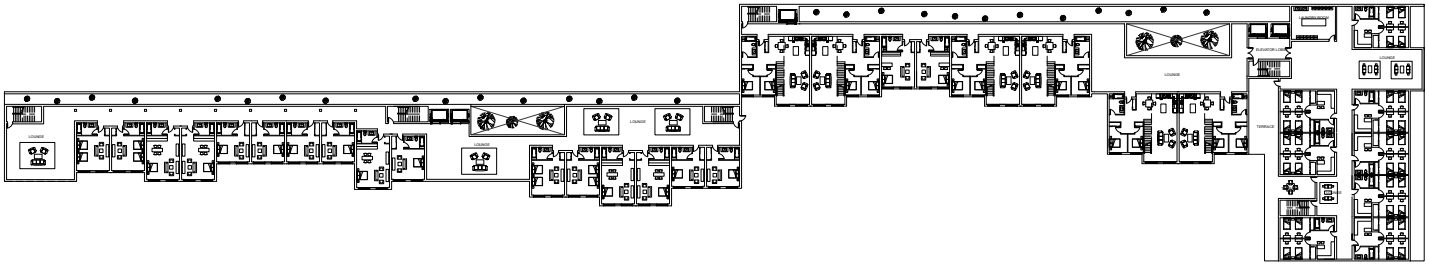

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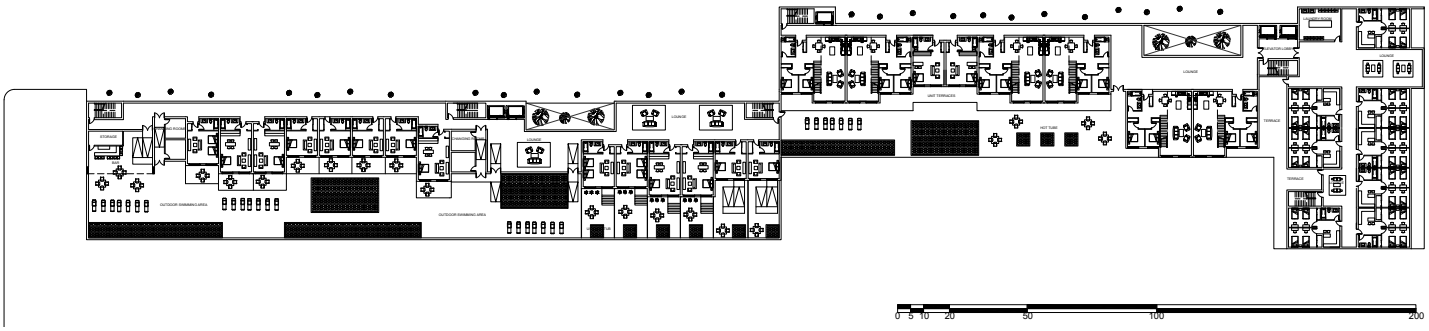

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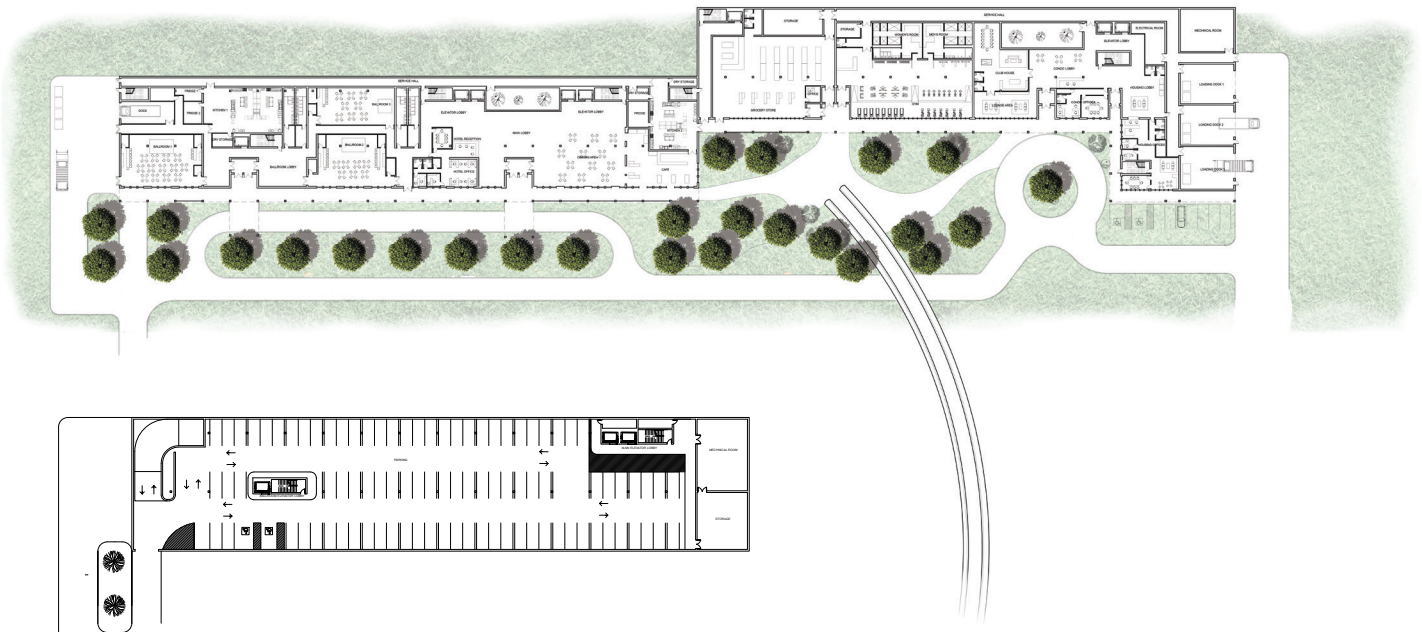

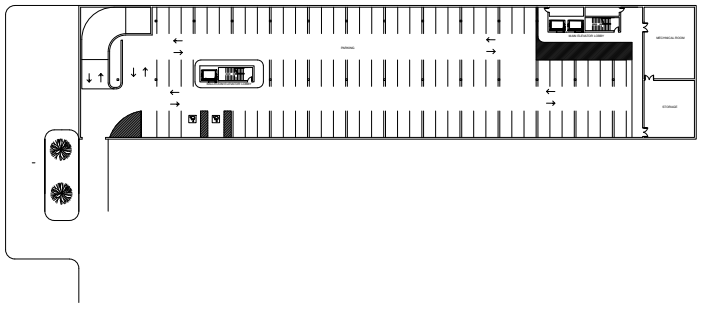


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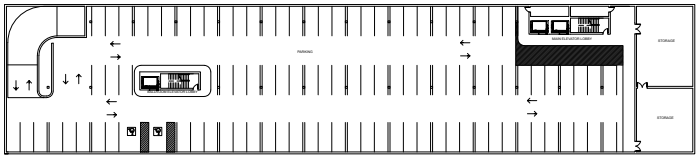

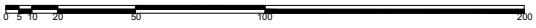
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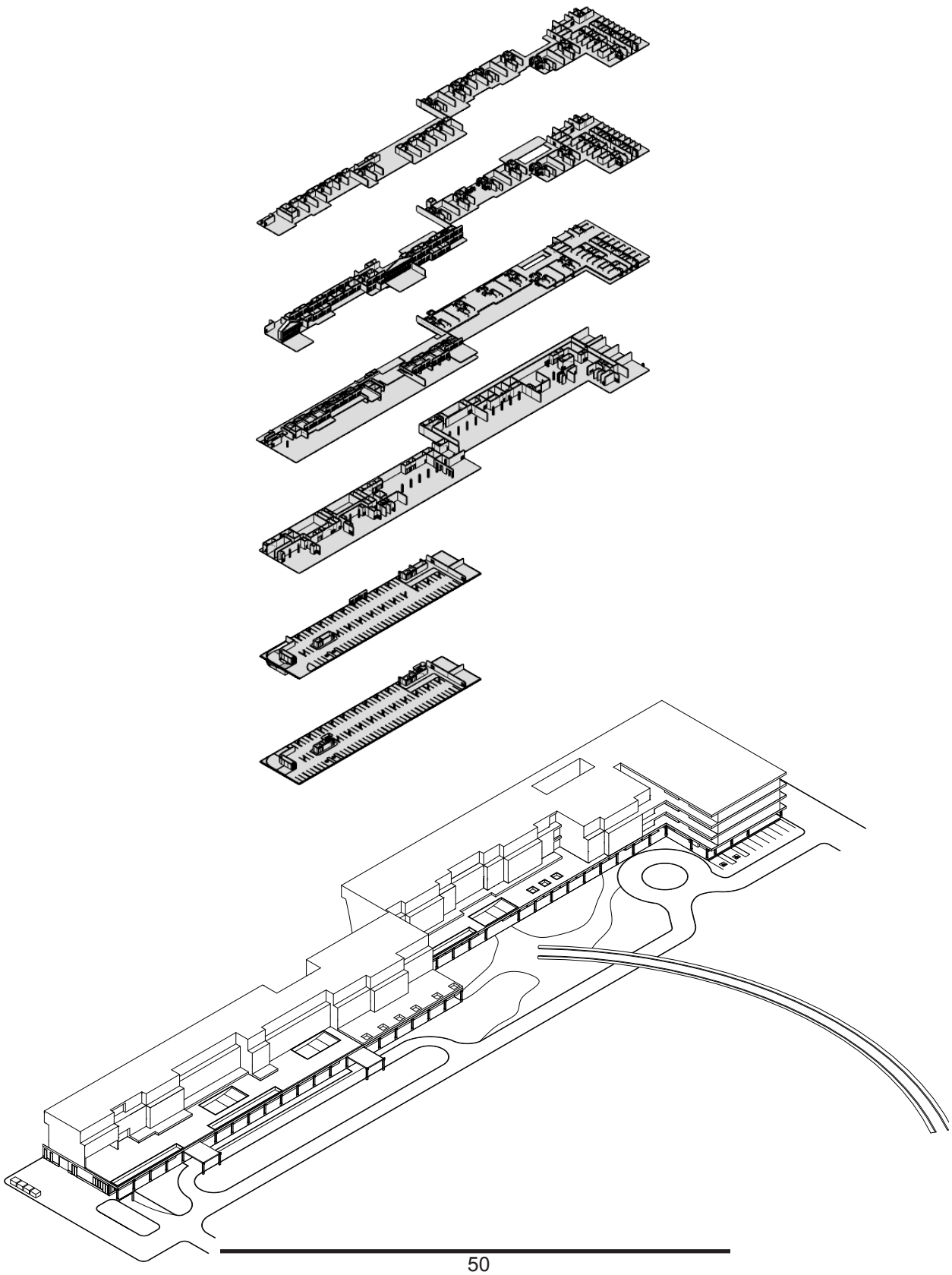

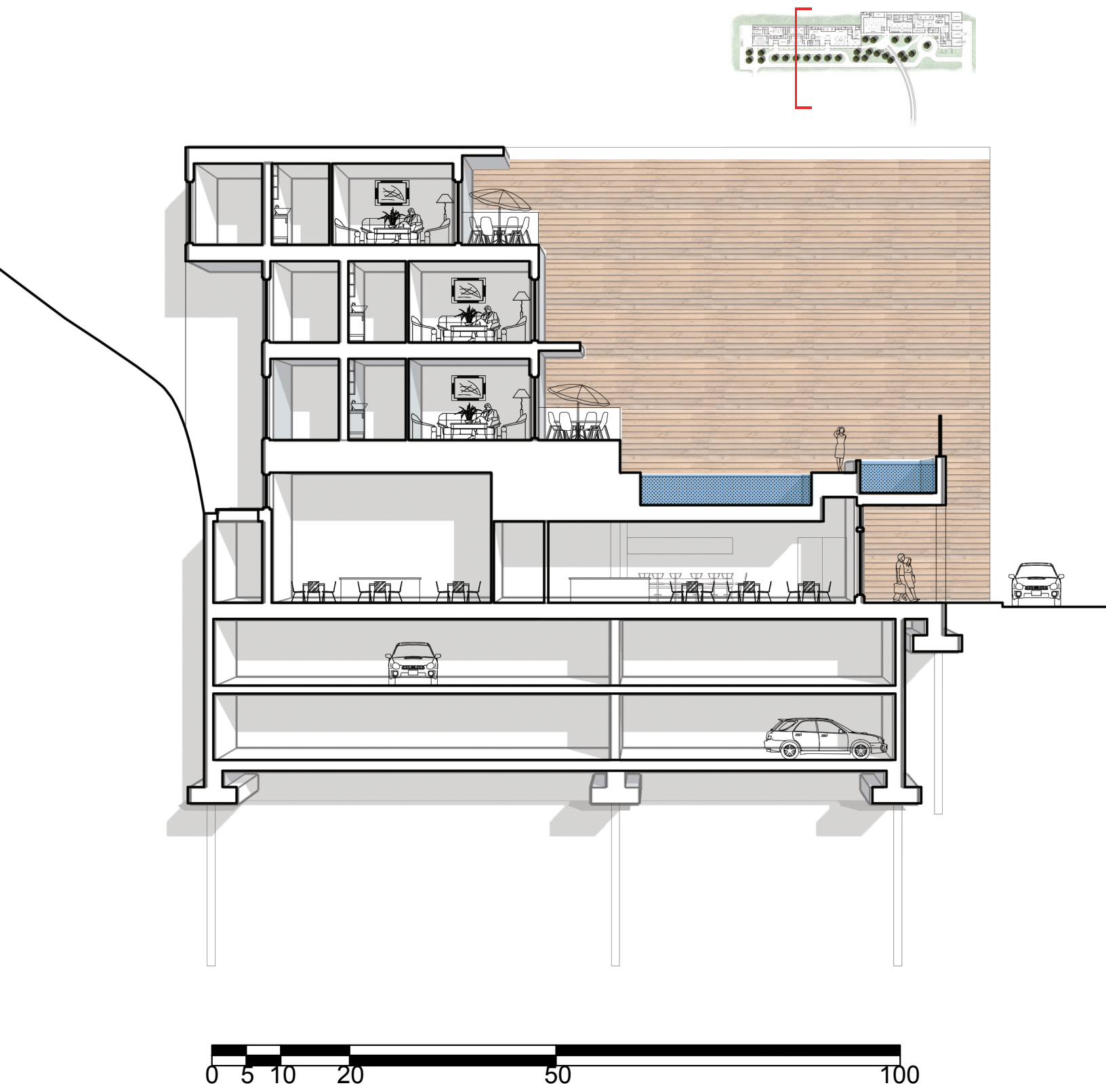

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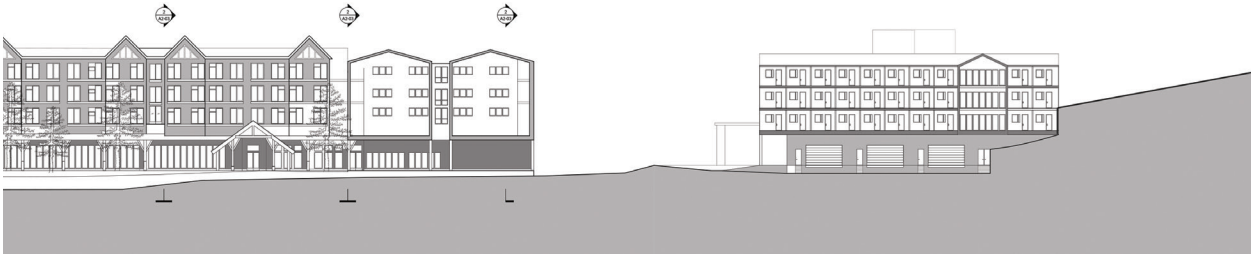
11. PROJECT RESOLUTION

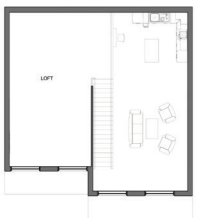
The final project resolution achieved pockets of moments where the 3 groups are allow to interaction with one another. The architecture gave each group a sense of community and privacy a person needs. The project was mostly focused on the types of interactions and how each group can interact through different senses. Due to the major focus on that part, the architecture lack its connection to its site and landscape. Stacked and stagger architecture was studied and applied to earlier experiments and exploration, but the due to the steep slow and code regulations, the typology couldn't fully be used because of the amount of space it would occupied. Overall, the final project could continue to explore more on the architecture typology and material.




BATHROOM
LIVING AREA
BED


BATHROOM
KITCHEN
DINING AREA
BED
LIVING AREA


BATHROOM
BED
LIVING AREA


LOFT
BATHROOM
DINING AREA
KITCHEN
BED
LIVING AREA


BATHROOM
KITCHEN
DINING AREA
LIVING AREA
BED


KITCHEN
BATHROOM
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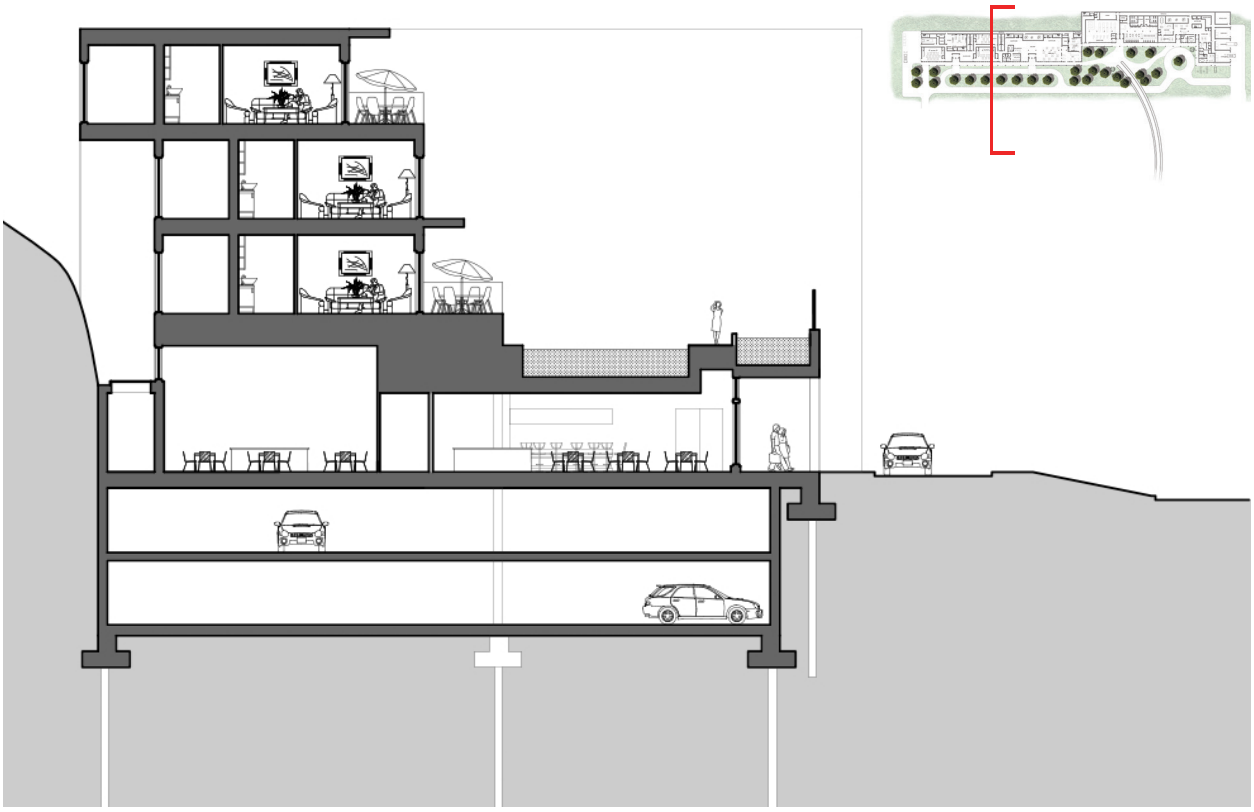
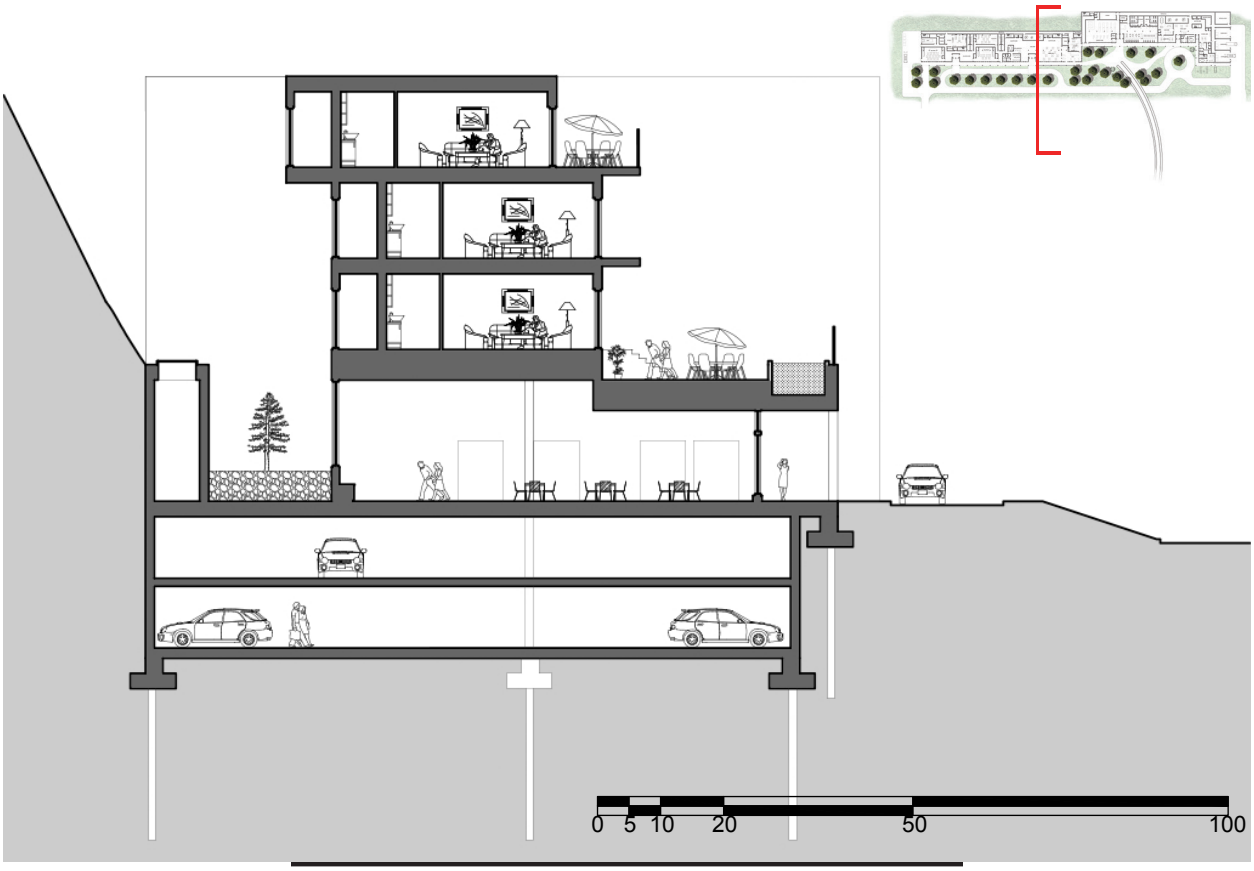
BED
LIVING AREA
BED


KITCHENETTE
BATHROOM
DINING AREA
BED
BED
BED

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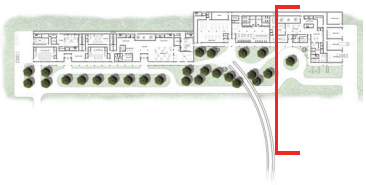

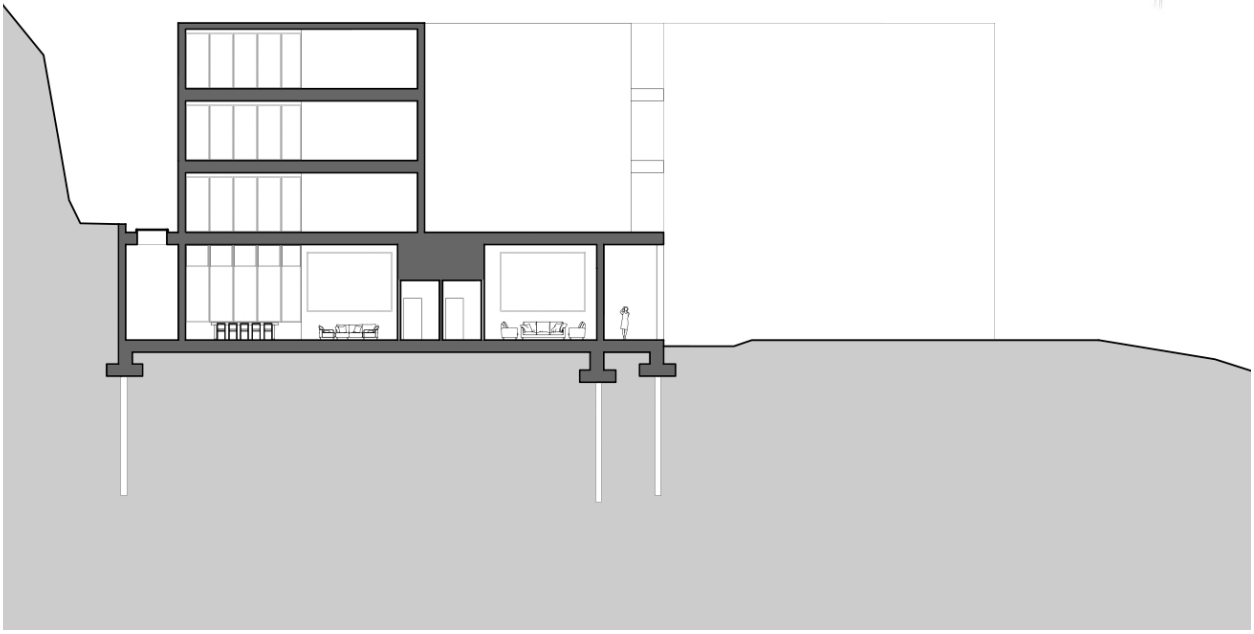

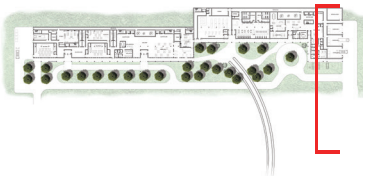

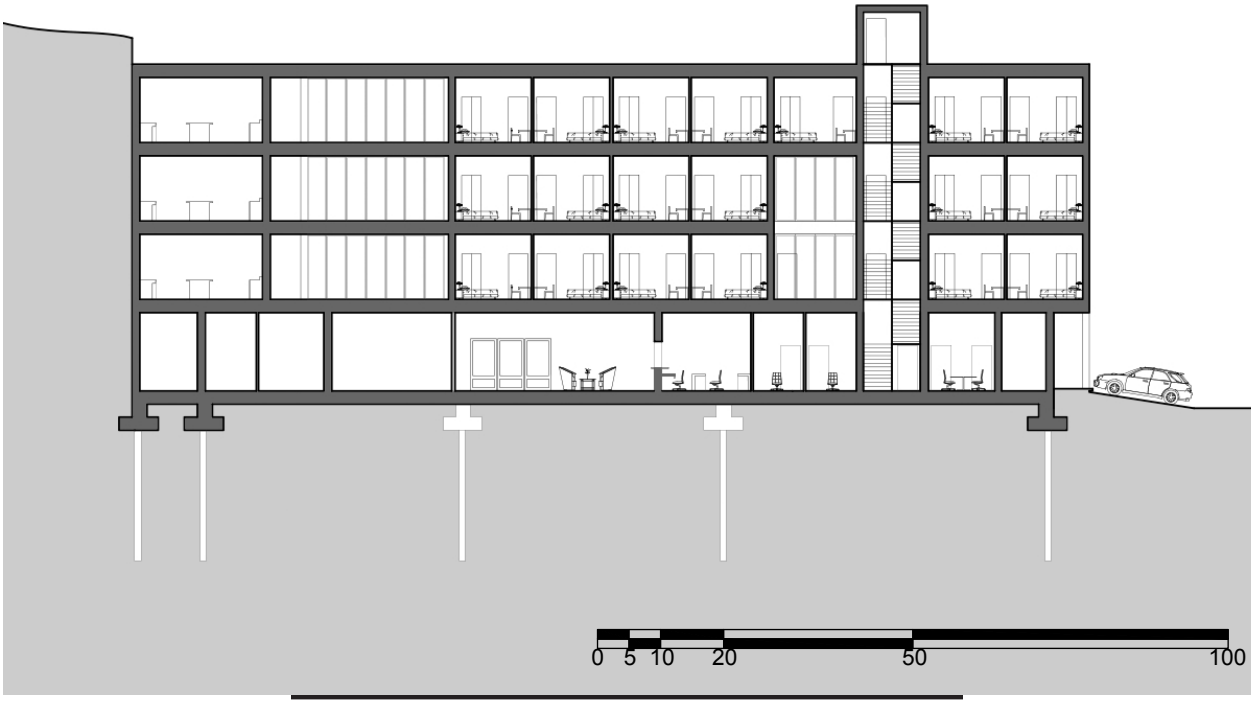
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SECTION MODEL - OVERALL

SECTION MODEL - PERSPECTIVE FROM THE ROAD

SECTION MODEL - PERSPECTIVE OF JUST THE APARTMENT SECTION

SECTION MODEL - PERSPECTIVE OF THE EMPLOYEE HOUSING SECTION

SECTION MODEL -
PERSPECTIVE OF WALKWAY

SECTION MODEL - SECTION OF APARTMENT

SECTION MODEL - PERSPECTIVE OF COURTYARD

SECTION MODEL - SECTION VIEW OF EMPLOYEE HOUSING

SECTION MODEL - PERSPECTIVE - EMPLOYEE HOUSING LOADING DOCK

3D MODEL - WALKWAY OF HOTEL SECTION

HOTEL ELEVATION - MATERIAL FINISHES

12. PRECEDENTS ANALYSIS

INCA LODGE
PORTILLO, CHILE, SOUTH AMERICA
Owner: Michael Purcel
Elevation: 9,450 ft above sea level
Highest Lift: 10,860 ft
Lowest Lift: 8,360 ft

Portillo is one the oldest ski area in South America. The area was used for transporting mail between Chile and Argentina in 1889. Chilean government hired14 Norwegian skiers to conducted the operation. Unfortunately it did not go as successful as the government plan and a railroad was built and completed in 1910. During the construction, the engineers in charge would take the railroad to the top of the mountain of Caracoles and ski down to the Juncal crossing (Portillo ski resort). The Transandean Railway became Chile's first ski lift, a tow lift, similar to the today's Poma lift.

Skiing began to pop up in Chile and many Europeans and Americans skiing enthusiasts would travel to the Andes to ski. Due to the popular sports, the development of Hotel Portillo was established. Grand Hotel Portillo started to developed in the early 1940s by Hoteles de Cordillera S.A, A stock company, but due to World War II the project was held off and completed by 1949 by the Corporation for Development

of the Chilean government. The hotel consists of 125 rooms, a ski school, 2 single chairlifts and one surface lift.

In the mid-1950s, the government struggled running Portillo ski area and was unable to make a profit. By 1961, Portillo was sold to two North Americans, Bob Purcell and Dick Aldrich. Both individuals enjoyed long travels and worked in Latin America. Purcell and Aldrich hired Olympic gold medalist Othmar Schneider as Director of Skiing and the U.S. firm Needham and Grohmann to campaign Portillo. Many US group skiers showed up to Portillo and were obvious that the new management on June 15, 1961 was a success. When the Alpine World Ski Championships for 1966 announced that it would be held in Portillo, the facilities prepared and installed new systems. Unfortunately a typhoon hit Portillo and destroyed most of new equipment, killed 5 skiers on August 15, 1965. Portillo reacted quick and rebuilt the damaged equipment for the event.

Today Portillo has hosted man great national ski team who comes and train for the world events. The Purcell continued to take care of Portillo. The area still has its same charm 60 years ago. Unfortunately the railroad no longer operates and the main form of transportation is by road.

HIGHLIGHTS

VERTICAL DROP
762m

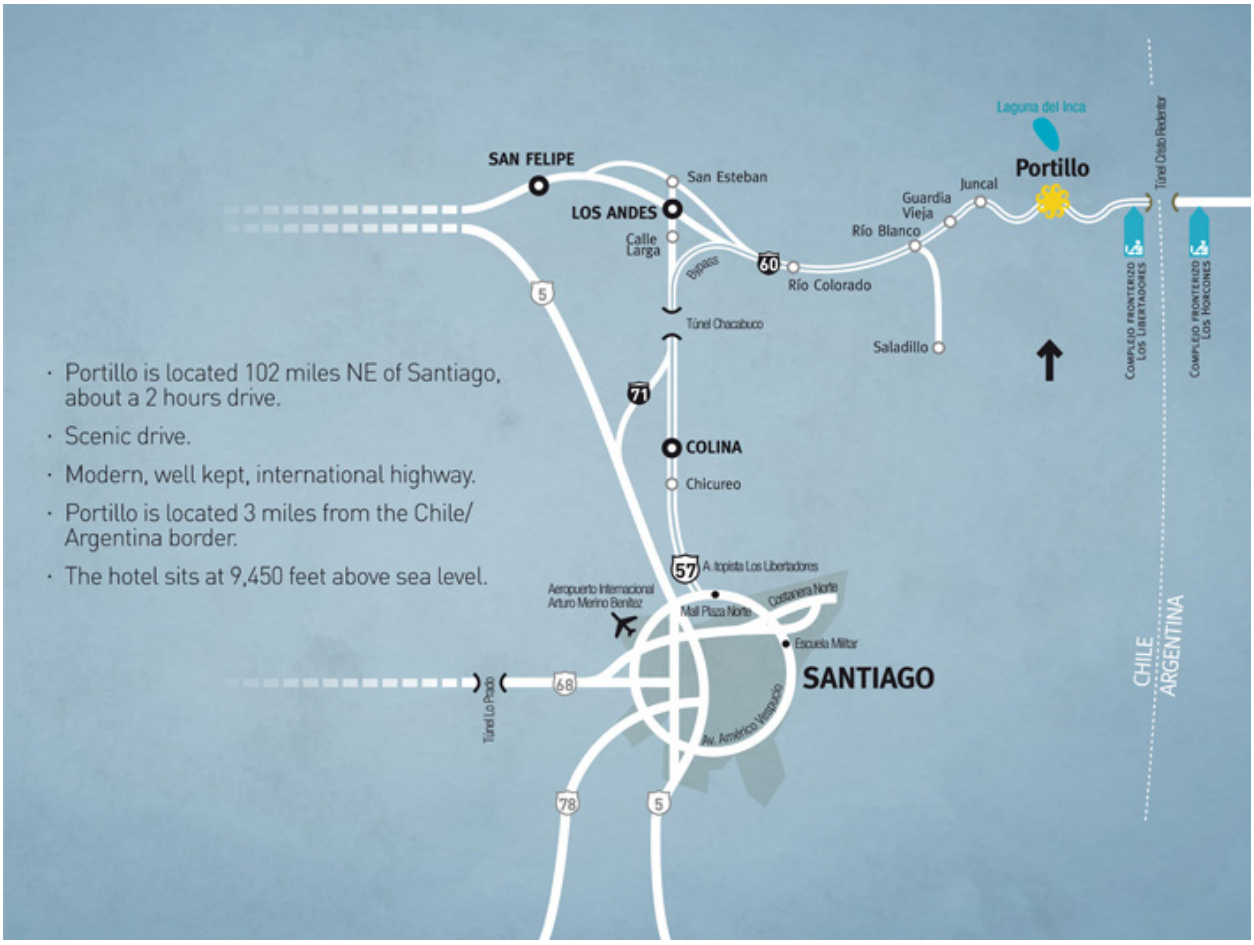
SKI AREA
22

BEGINNER	18%
INTERMEDIATE	41%
EXPERT	41%
SEASON START	Jun
SEASON END	Oct

AIRPORT
Santiago

TRAIN STATION
Santiago

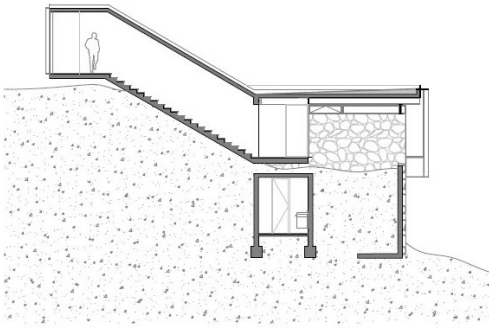
RESORT HEIGHT
2972m



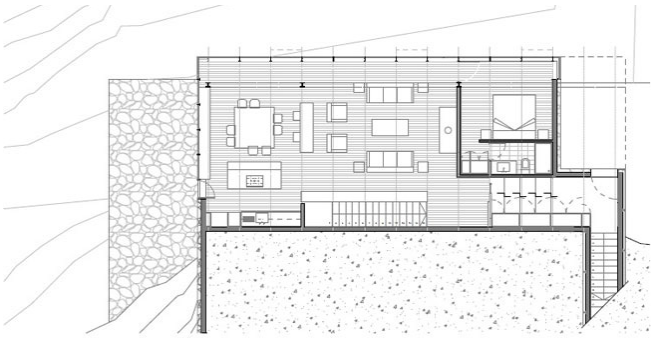
CHALET C7
PORTILLO, CHILE, SOUTH AMERICA
Architect: DRRA (Del Rio Arquitectos Asociados)
Collaborators: Heloise Gailing
Project Year: 2008

The chalet overlooks the Inca Lagoon. The building is made up of stone enclosure to withstand the weather and snow level during the winter. The façade that faces the lagoon is light steel with glass. The building is built with all one common area that contains the dinning table, living room, kitchen, and terrace.

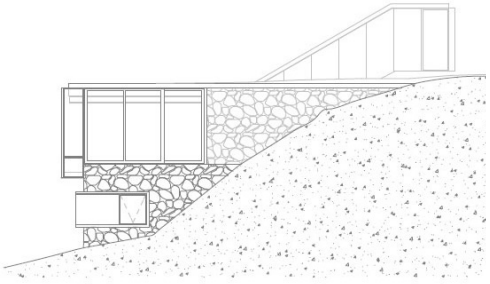
1st FLOOR PLAN



SECTION TROUGH STAIRCASE



2nd FLOOR PLAN

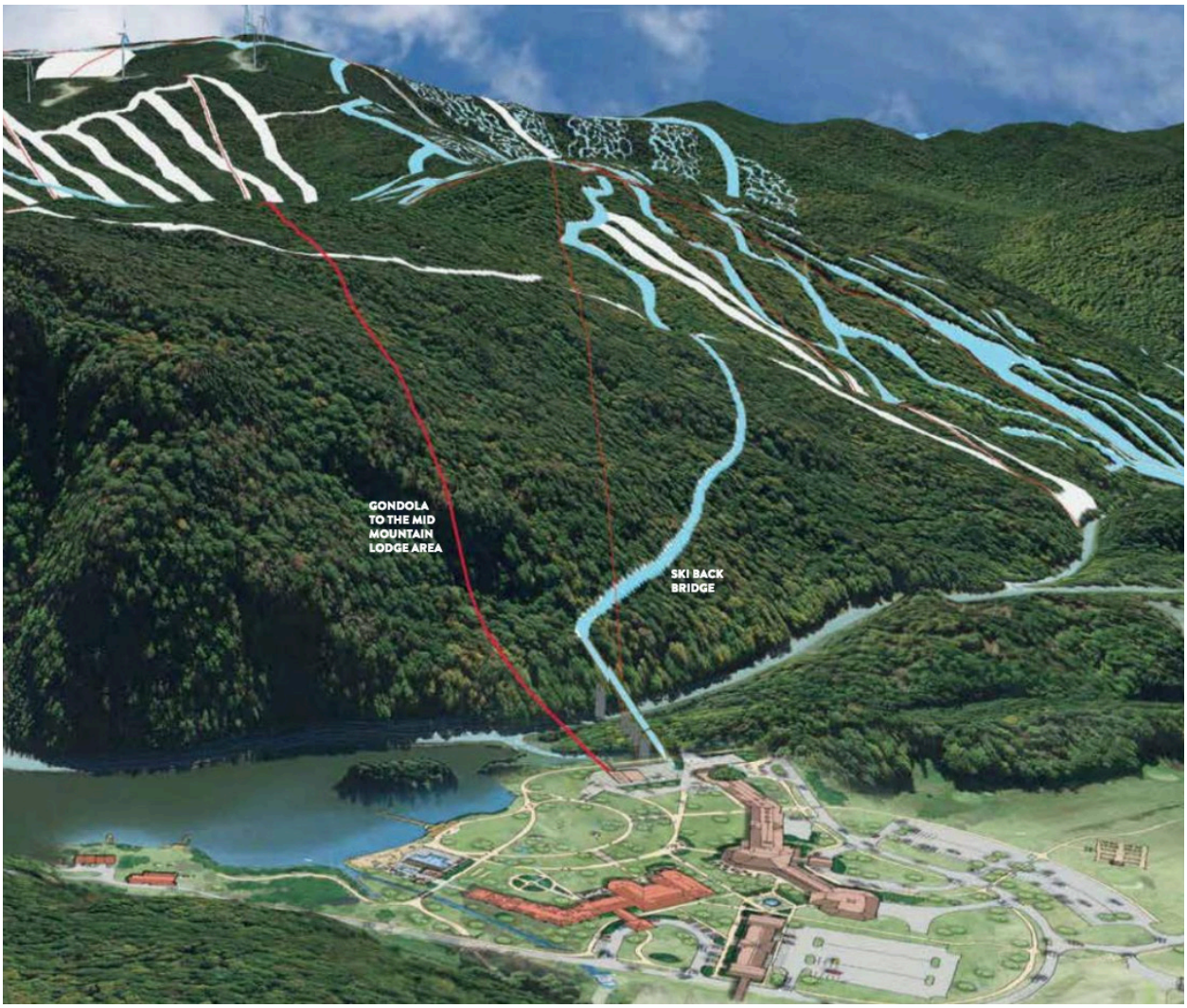


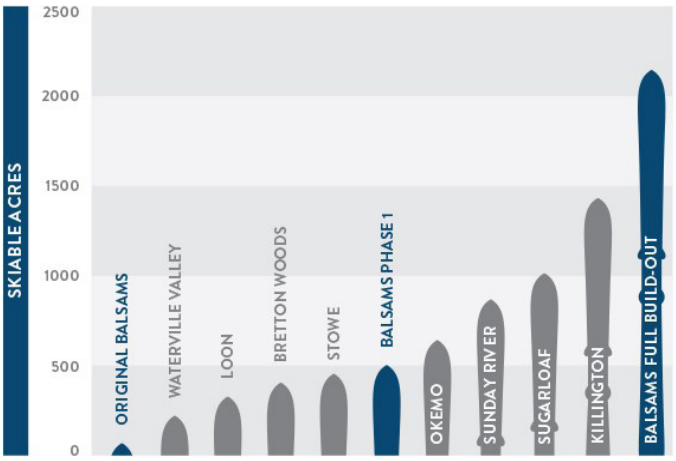
WEST ELEVATION

THE BALSAMS
COLEBROOK, NEW HAMSPHIRE, USA
Owner: Les Otten (A Developer)
Architect: Donald J. Ross (Dix Hotel), Chase R. Witcher (Hamsphire House)
Elevation: 1,887 ft above sea level
Highest Lift: 3,483 ft

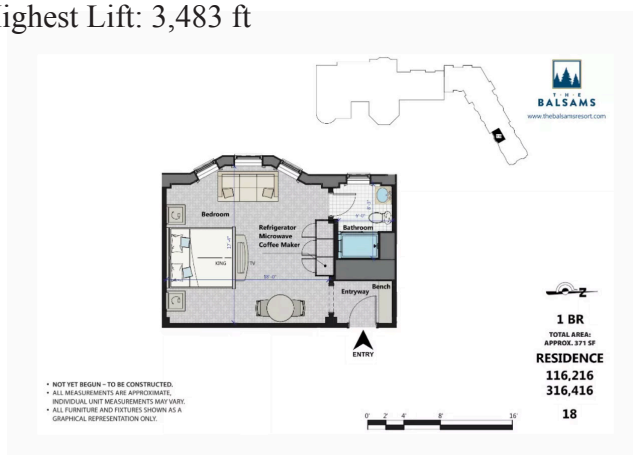
In 1805, Colonel Timothy Dix Jr. settled on Dixville in New Hampshire of more than 29,000 acres. He later died in the Revolution battle in 1812 and Colonel Dix's attorney, Daniel Webster, his business partner, ended up with managing the land. The first structure on the site was a pub or restaurant constructed in 1860s and named "House of Entertainment". After a fire destroyed the original building, lodging services was added to the new construction in 1874. The Dix Hotel consists of 25 rooms. The hotel was not occupied until 1866 when George Parsons became owner. After Parson's death in 1890s, his wife sold the property to Henry S. Hale. Hale hired Donald J. Ross in 1912 to design the clubhouse and golf course. He also created multiple lakes (Lakes Gloriette, Abenaki, and Coashakee) and a canal, which was used to power the resort. Hale renamed the property to The Balsams.

From 1916 to 1918, Architect Chase R. Witcher, a native Lisbon or New Hampshire designed the 400 room grand resort. It was the first steel-frame, reinforced tile and concrete masonry structure was constructed in New Hampshire. The Balsams continued to be tossed from people to people with no real improvement until Neil Tilotson purchased it. Tilotson turned an adjacent barn into a small factory that manufactures balloons and surgical gloves. He also created an alpine ski area, hiking trails for cross-country and extended Balsams into the winter seasons in 1965 when skiing became popular. He passed away in 2001 and today developer Les Otten manages the hotel.

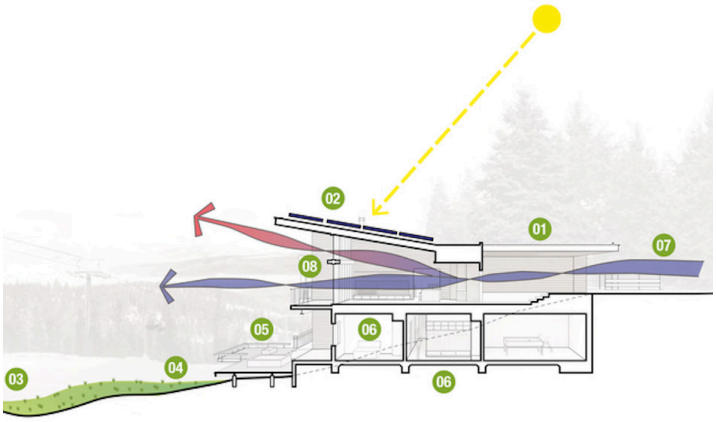

GONDOLA
TO THE MID
MOUNTAIN
LODGE AREA
SKI BACK
BRIDGE



THE BALSAMS NEW ADDITION - THE SPA
COLEBROOK, NEW HAMSPHIRE, USA
Owner: Les Otten (A Developer)
Architect: Donald J. Ross (Dix Hotel), Chase R. Witcher (Hamsphire House)
Elevation: 1,887 ft above sea level
Highest Lift: 3,483 ft

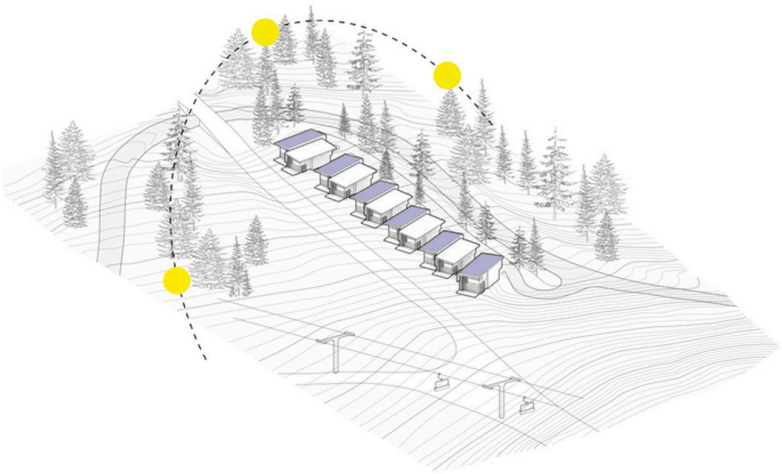


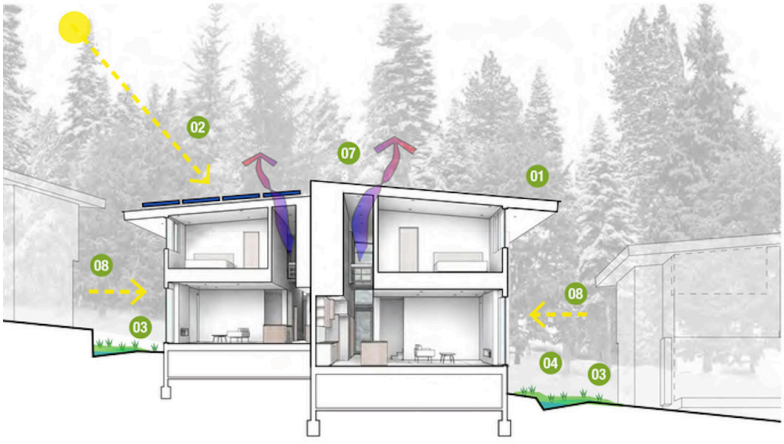

The BALSAMS Lake Village
Phase 1 Plan
Trail to Lake Abenaki and 100 km Trail Network
Tennis Courts
Trail to Lake Abenaki, Sanguinary Ridge, and 100 km Trail Network
Balsams Marketplace, Kid's Club, and Fitness Center
Hälsa Nordic Baths and Spa
Pump Track
Graphic Scale
SE GROUP
Dix House
-Lodging
-Dining
-Social Club
-Bars
Hampshire House
-Lodging
-Theater
-Speak-easy
Access to 100 km Trail Network
Garden
Outdoor Dining
Indoor/ Outdoor Pool
Great Lawn
Coffee and Adrenaline Cafe
Bandstand
Junior Olympic Pool, Kids Pool, and Beach
Ski Valet
1866 Plaza
Hale House Restaurant and Culinary Institute
Yoga Platform
Boardwalk
Boat Dock, Swimming Platform, Kayaks, and Stand up Paddle Boards
Adventure Center
-Bike Rentals
-Boat Rentals
-Hiking Information
-Nordic Skiing
-Tours
Lake Gloriette Elev 1847'
Pedestrian/Skier Bridge - trailhead to Balsams Wilderness Ski Area
Gondola to Ski Terrain, Hiking Terrain, Mid-mountain Basin, and Ropes Course
Trail around Lake Gloriette



NORTHSTAR MOUNTAIN RESORT NEW ADDITION
CONDOMINUMS
Architect: Bohlin Cywinski Jackson
Completed 2016
Area: 5,600 sf
Cost: $25 Million overall

The new addition feature condo units that is located on the slope of the mountain. Each unit has their own circulation; therefore each neighbor can relax and enjoy their private space. Smart and compact ski-in/ski-out homes designed around social spaces. The ski homes all have a view to the ski slopes and Carson Range. The buildings are modern and high-tech. Embraces the edge of a shared ski slope and allow access to skiing, hiking and biking. The site is located right in the dense forest of Jeffery pine and Douglas fir. The building is LEED Silver certified and is constructed of steel frame. The enclosure is constructed of glass and natural stone. The condos consists of a living area, shoe area, ski room/ski access, outdoor living area, bedroom(s), bunk nooks, media room and lavatory.





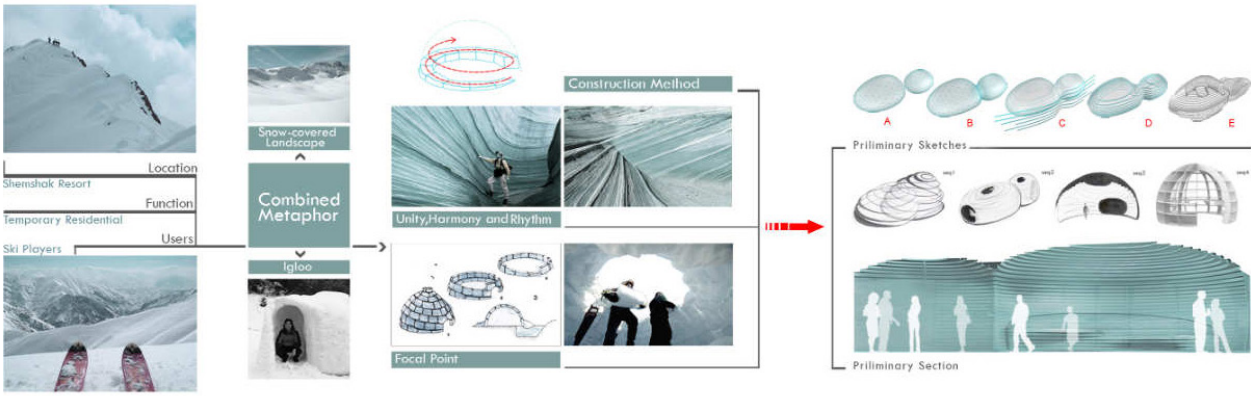
LEED FOR HOMES, GOLD CERTIFICATION

GENERAL SUSTAINABLE STRATEGIES

- G Direct access to skiing, hiking, and biking trails.
- G Exterior wall assemblies emphasize mass/materials mitigate fire exposure.
- G Use of retaining walls, terracing and ground cover to prevent site erosion.
- G Electric vehicle charging stations.
- G Overhangs shade glass facades in summer, and allow low sun in during winter months.
- G 30% fly ash concrete to reduce carbon footprint of cement production.
- G Green label plus flooring.
- G Water use reduction through efficient fixtures.
- G Low/no VOC paints, sealants and adhesives.
- G Energy conservation through 100% LED lighting and Energy Star appliances.
- G FSC Certified framing and wood windows.

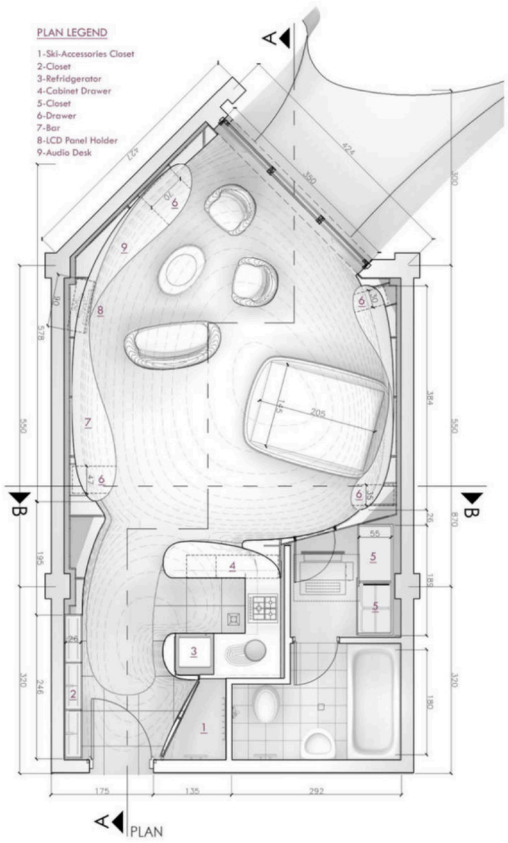
SPECIFIC SUSTAINABLE STRATEGIES

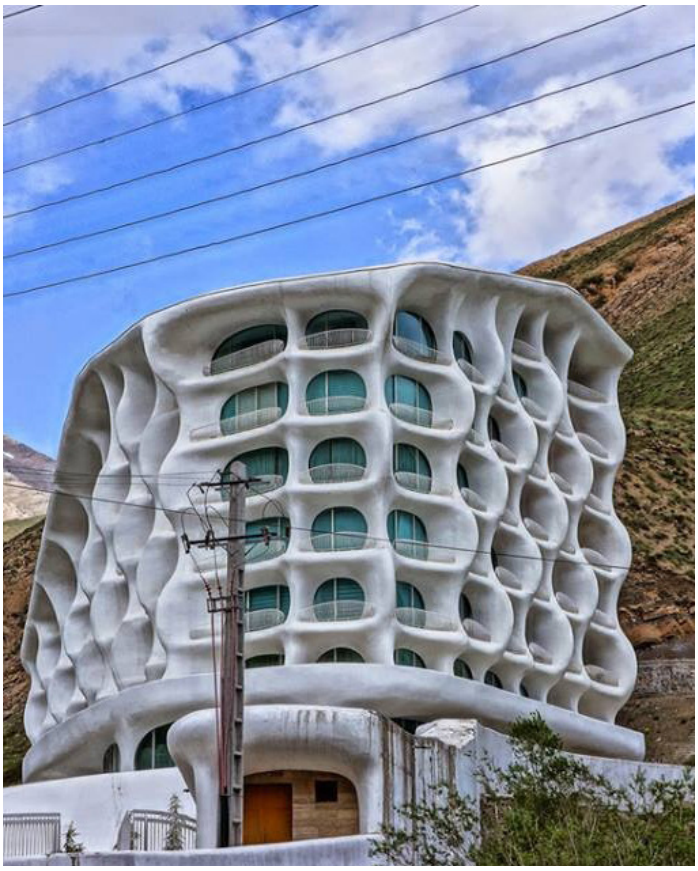
- 01 Highly insulated building utilizes R-38 roof insulation and R-26 walls.
- 02 Roofs are pitched South for optimized photovoltaic absorption.
- 03 100% on-site infiltration is achieved through native grass biofiltration strips between homes and skiway.
- 04 Drought tolerant landscape design utilizes zoned drip irrigation with rain/moisture sensors.
- 05 Zones for outdoor living are oriented for views and accesibilty to outdoor recreation.
- 06 In-floor radiant heat.
- 07 A two-story slot through house brings light into the recesses of the duplex and provides natural ventillation through the length of the building.
- 08 Full height “light towers” at staircase (beyond) allow day light to infiltrate the most interior portions of the home.

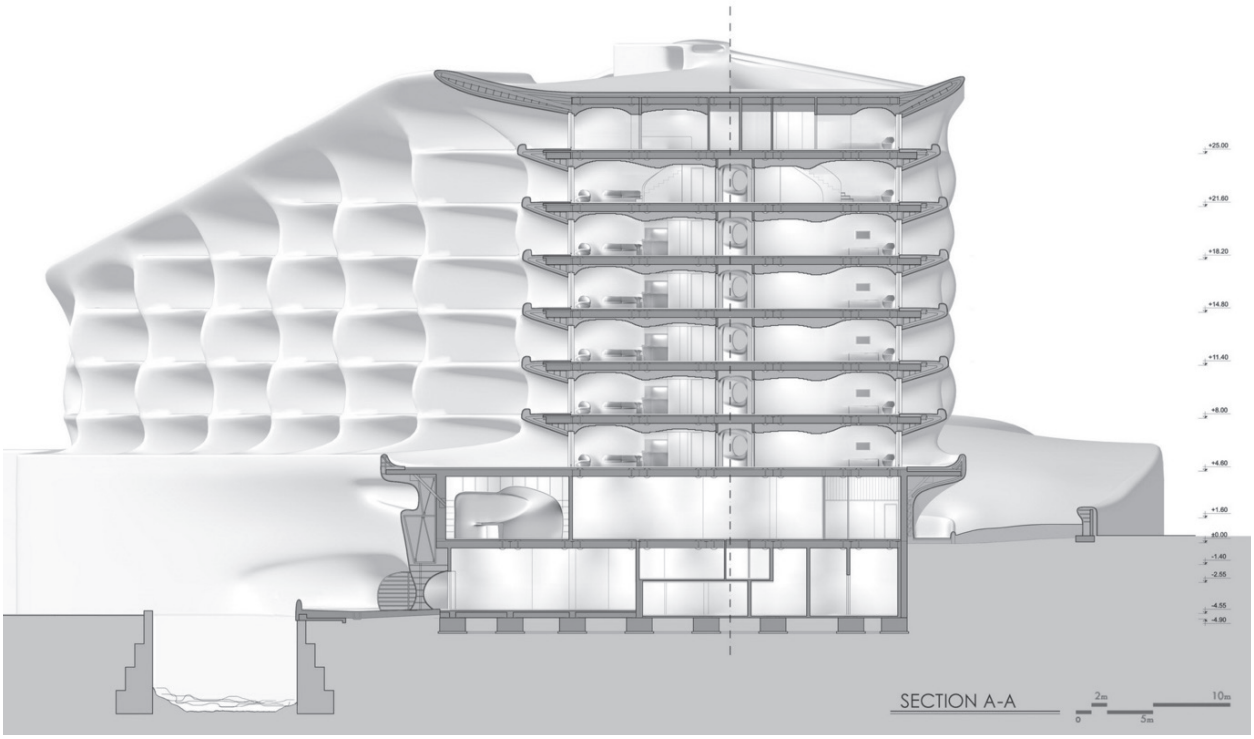


BARIN SKI RESORT
SHEMSHAK, IRAN
Architect: RYRA Studio-Abbas Riahi Fard, Farinaz Razavi Nikoo
Completed 2011
Area: 129,167 feet square

The architect was brought to continue ski resort after the base was already built. The client wants a warm, cozy place for young people to relax after skiing. Architect wants to embrace the natural surrounding and incorporated the natural cave/carved feature. The building consists of 10 stories, the parking lot is located on the ground level and living units are located above. The building is design to have a central circulation that wraps all the way to the top of the building. The building's enclosure is made of diatomite earth (also known as "Japanese wall"). It was used for visual aesthetics but also as heat insulator. The building consists of a lobby, reception area, parking area, car lifter, restaurant, kitchen, lavatories, service rooms, meeting hall, bar laundry and storage. There are a total of 67 rooms and out of those, there are 4-pent house.


PLAN LEGEND
1-Ski-Accessories Closet
2-Closet
3-Refridgerator
4-Cabinet Drawer
5-Closet
6-Drawer
7-Bar
8-LCD Panel Holder
9-Audio Desk
A
B
PLAN




F
G
H
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L
+25.00
+21.80
+18.20
+14.80
+11.40
+8.00
+4.60
+1.60
±0.00
-1.40
-2.55
-4.55
-4.90
SECTION A-A
2m
10m
0
5m

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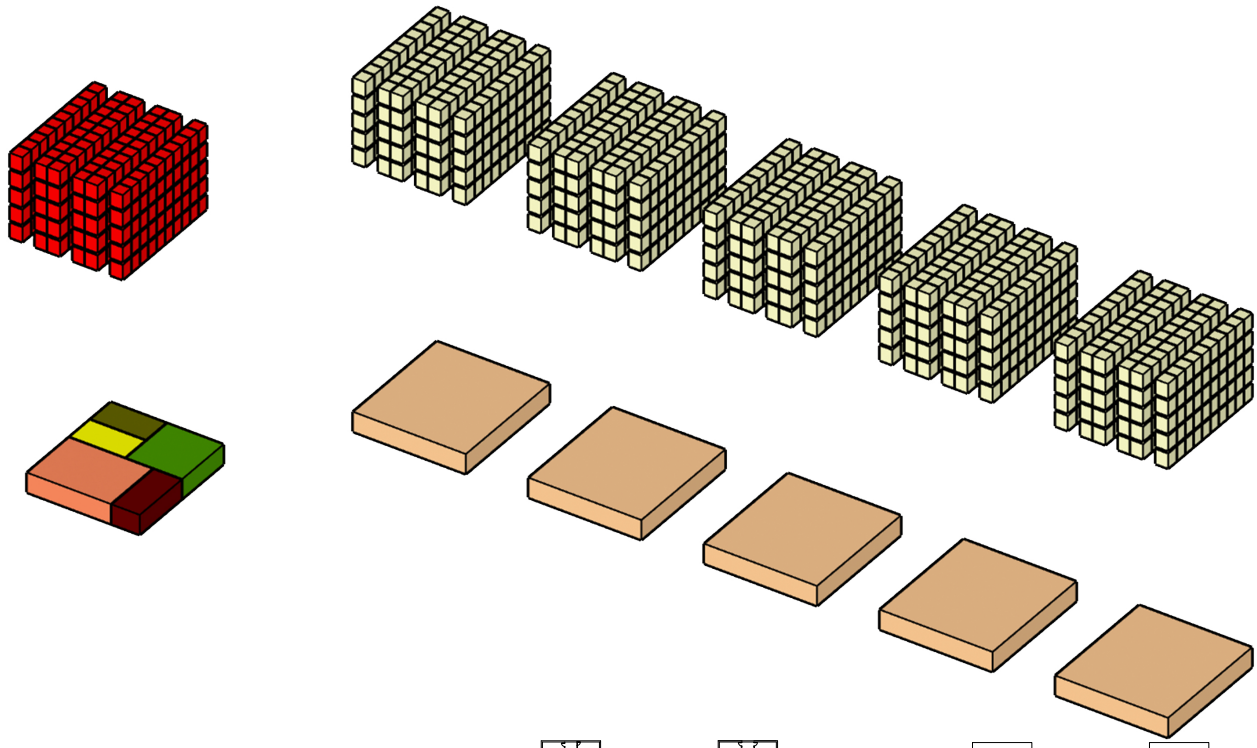
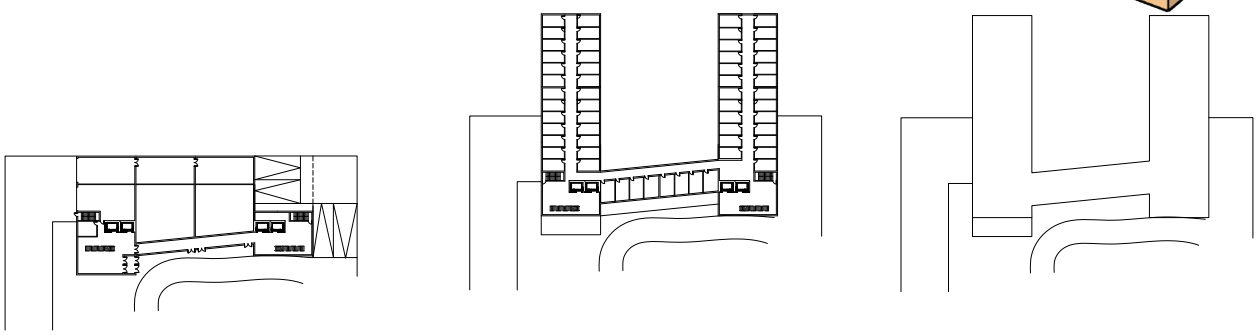
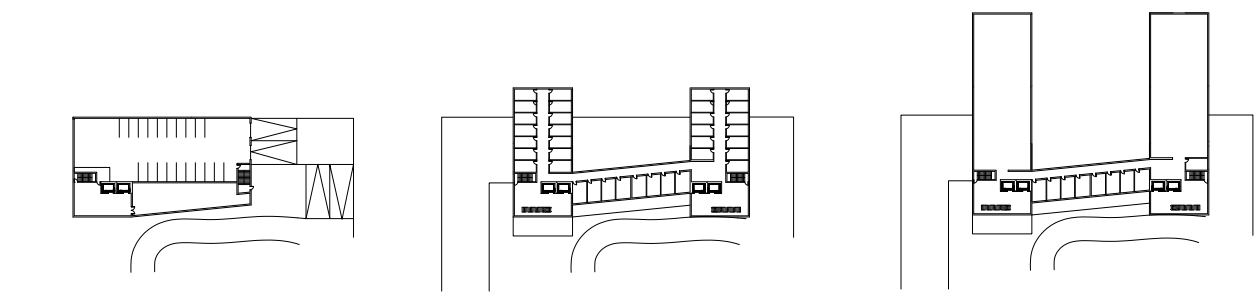
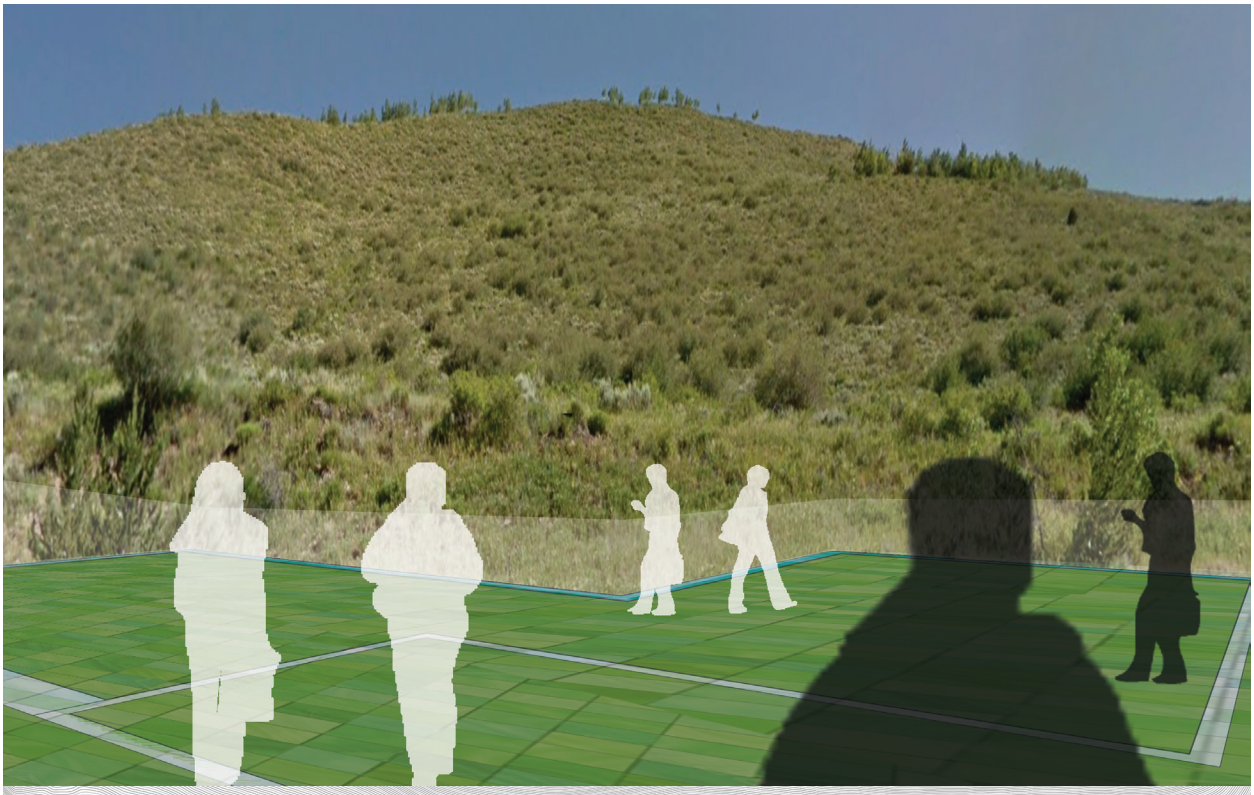
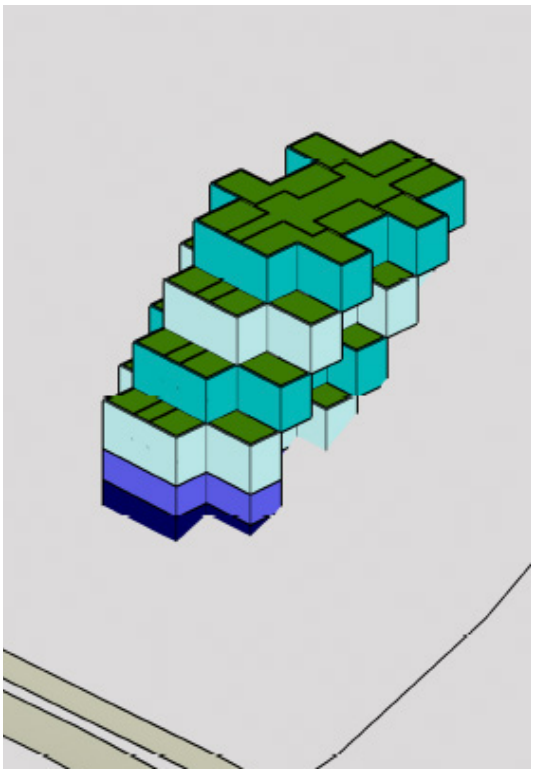
13. APPENDIX - PROGESS WORK

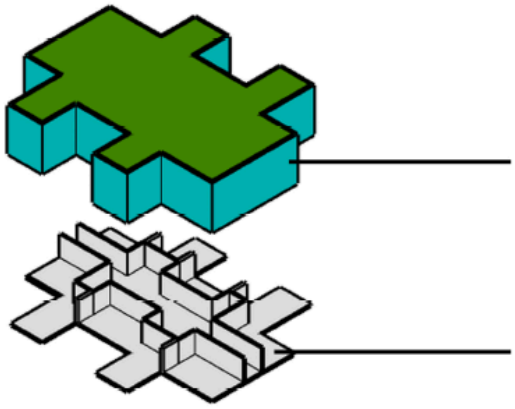












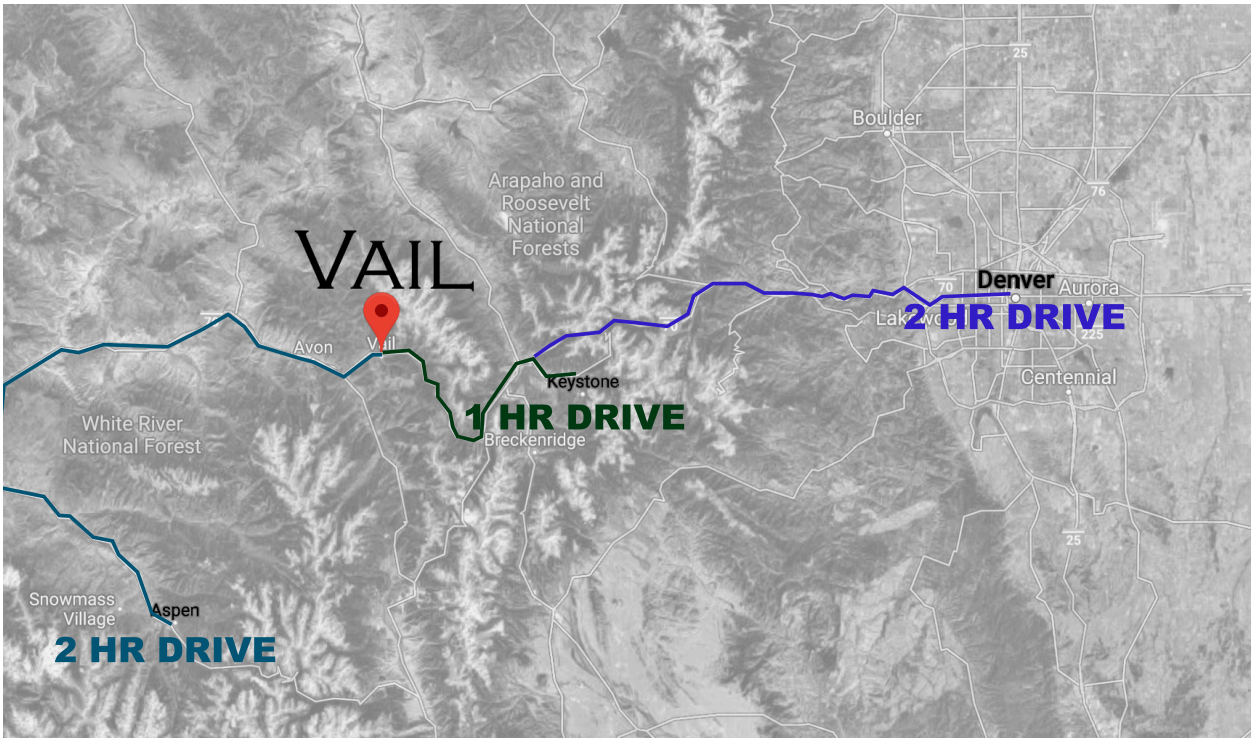
GREEN ROOF

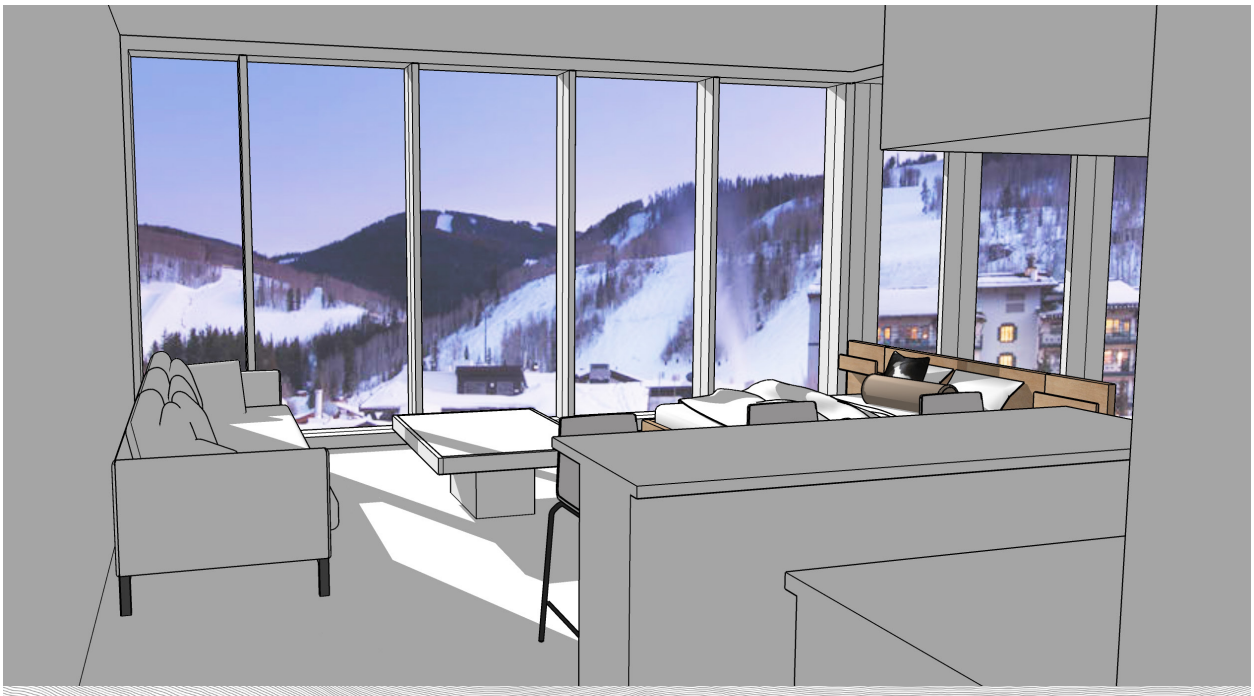
UNITS

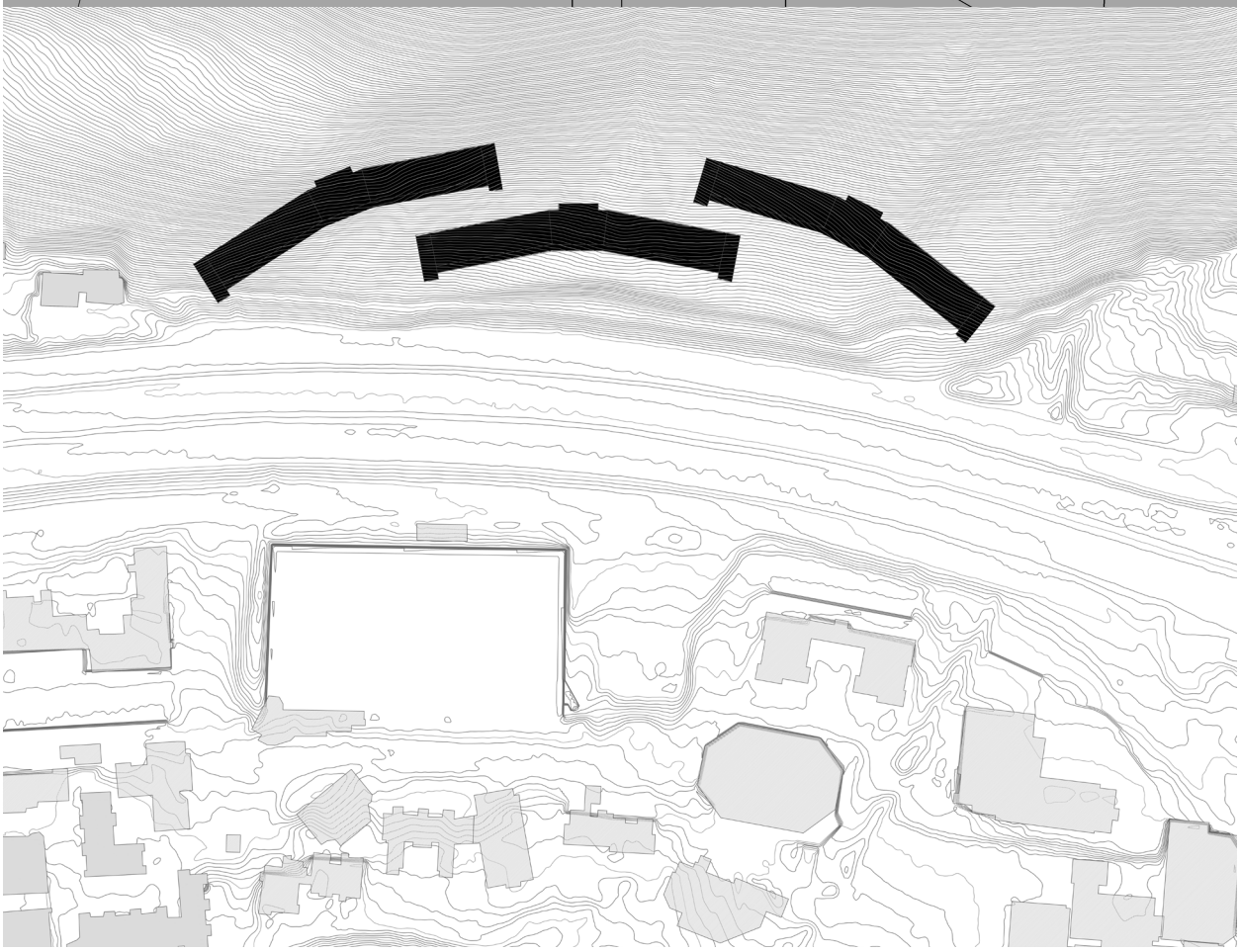
TERRACES

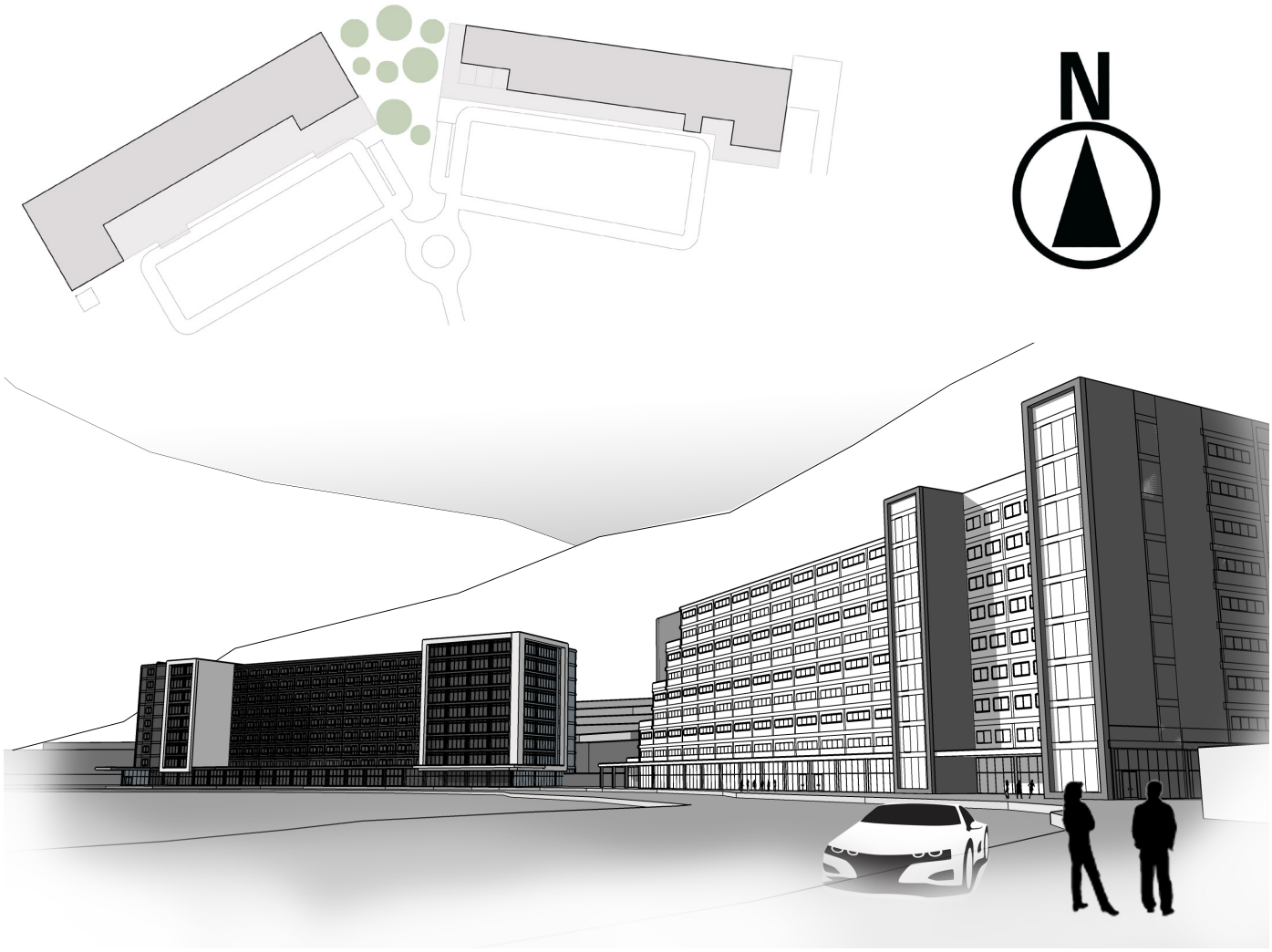
LOBBY/RETAIL

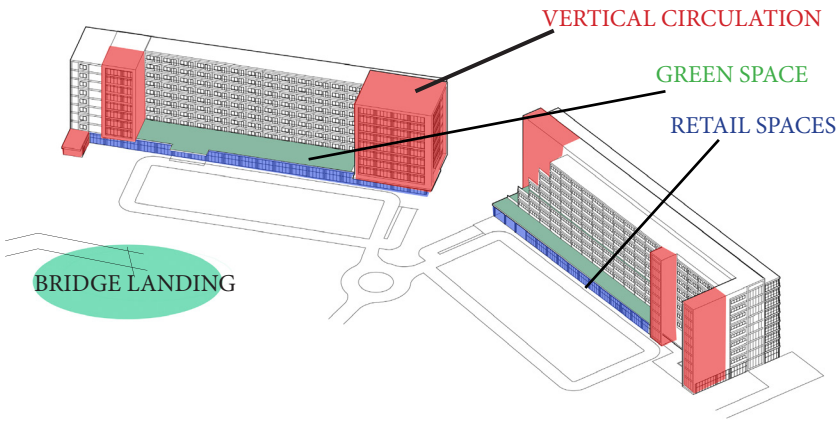
SERVICES


VAIL
Arapaho and Roosevelt National Forests
Boulder
Denver
Aurora
2 HR DRIVE
Avon
Vail
Keystone
1 HR DRIVE
Breckenridge
Centennial
White River National Forest
Snowmass Village
Aspen
2 HR DRIVE

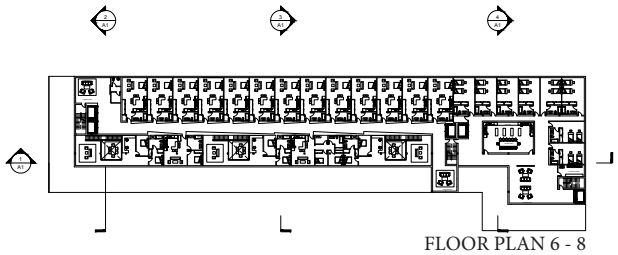




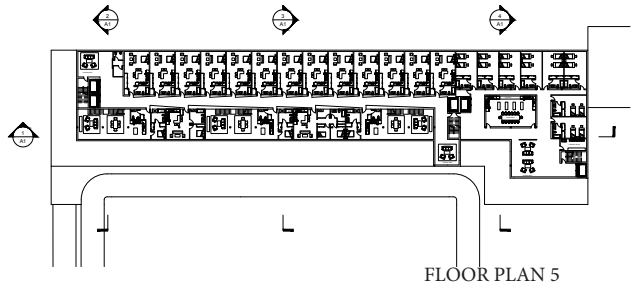




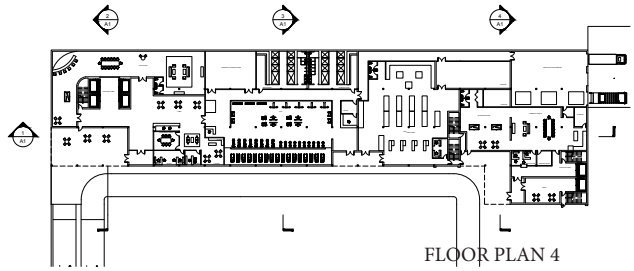
ORGANIZATION DIAGRAM



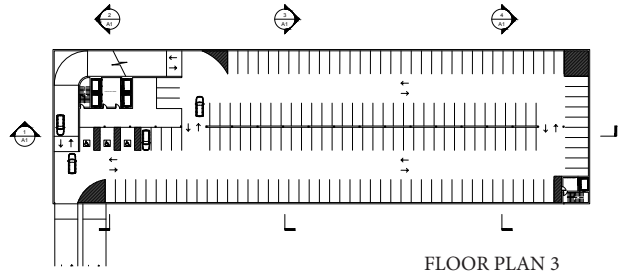
FLOOR PLAN 6 - 8



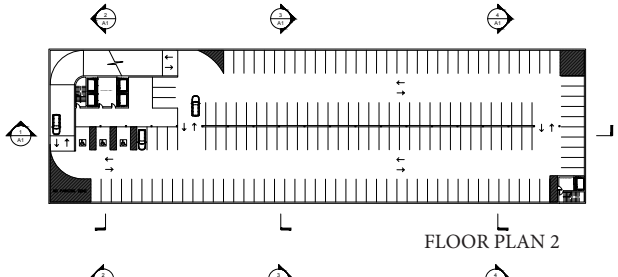
FLOOR PLAN 5



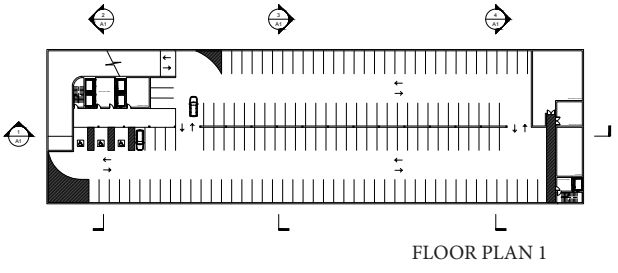
FLOOR PLAN 4



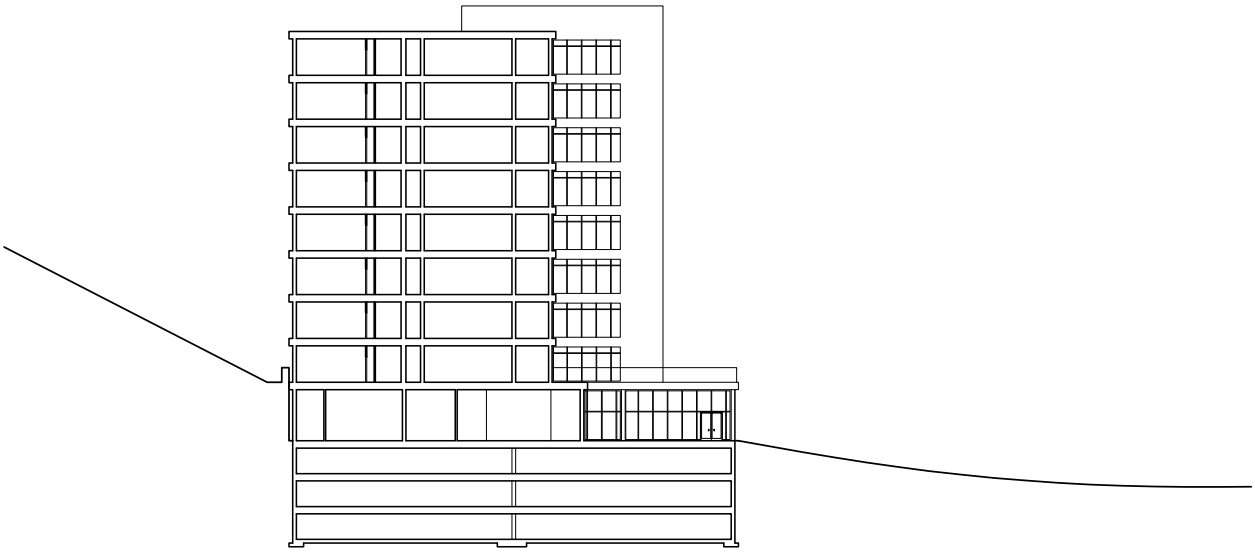
FLOOR PLAN 3

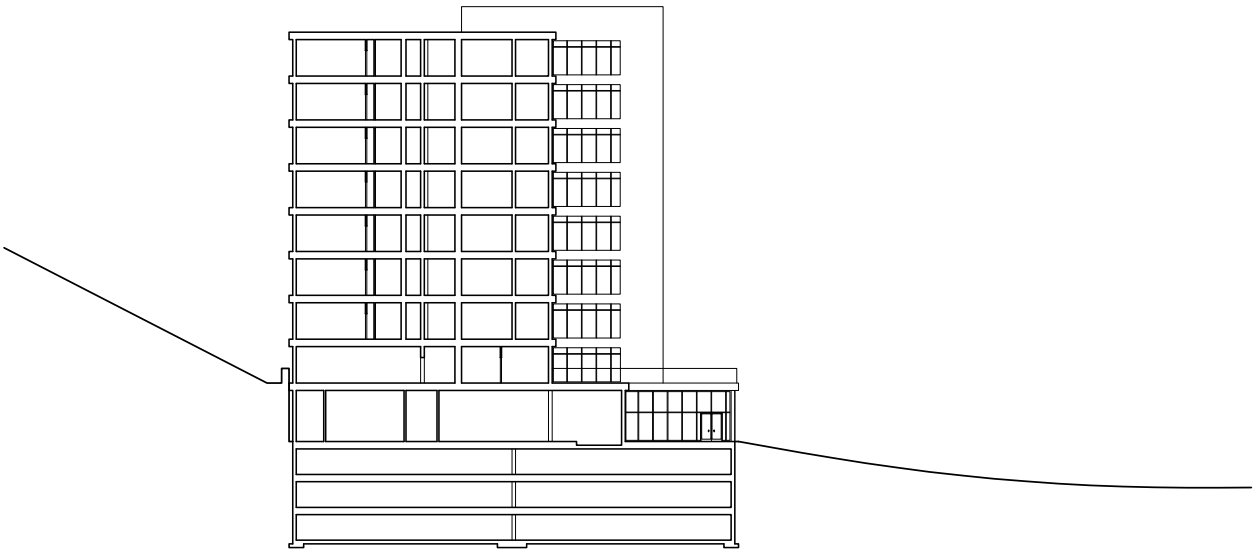


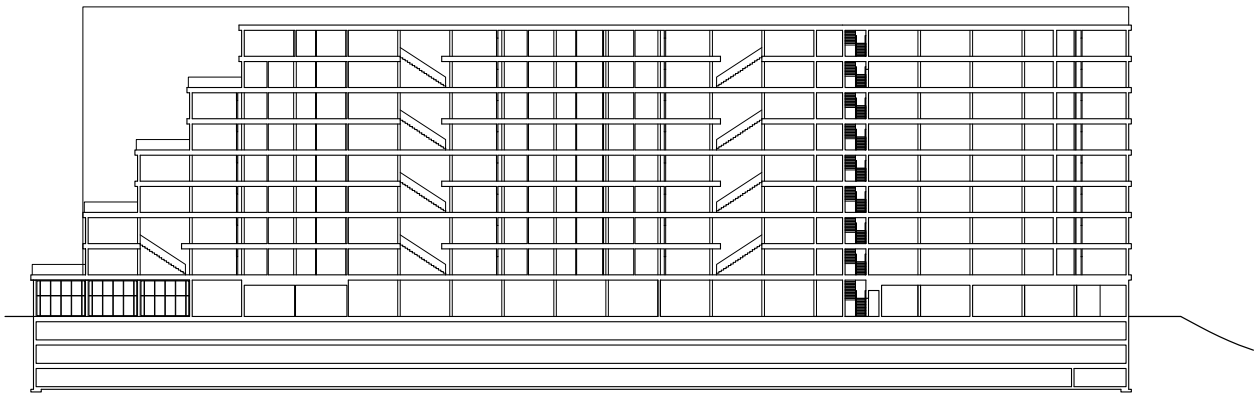
FLOOR PLAN 2

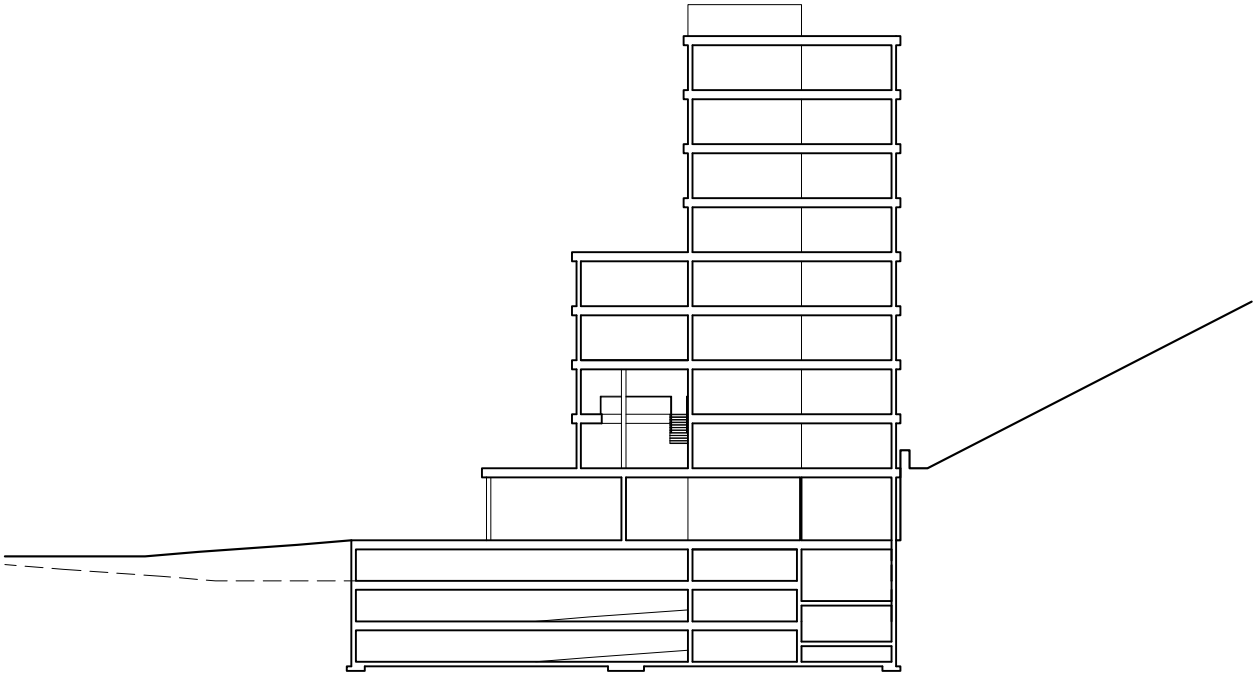


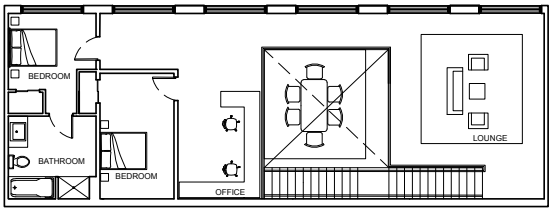
FLOOR PLAN 1

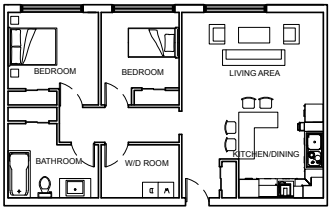


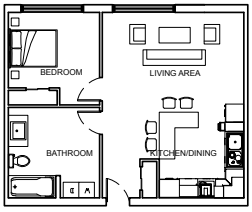


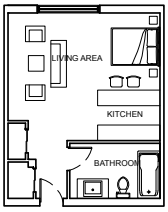


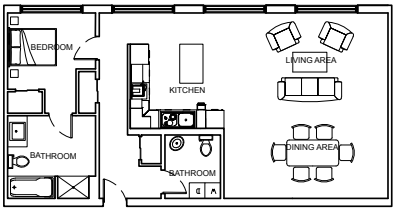


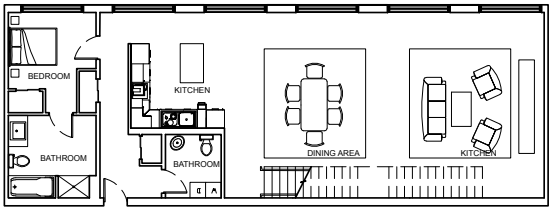

BEDROOM
BATHROOM
BEDROOM
OFFICE
LOUNGE

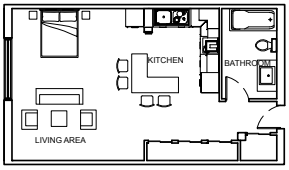

BEDROOM
BEDROOM
LIVING AREA
BATHROOM
W/D ROOM
KITCHEN/DINING

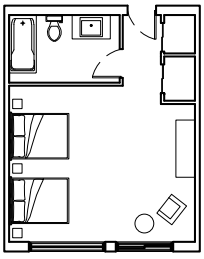

BEDROOM
LIVING AREA
BATHROOM
KITCHEN/DINING

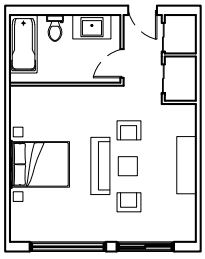

LIVING AREA
KITCHEN
BATHROOM

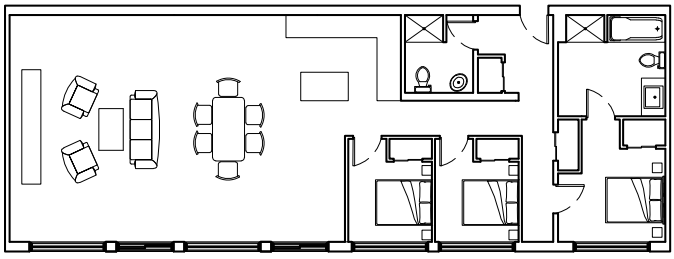

BEDROOM
LIVING AREA
KITCHEN
BATHROOM
DINING AREA
BATHROOM

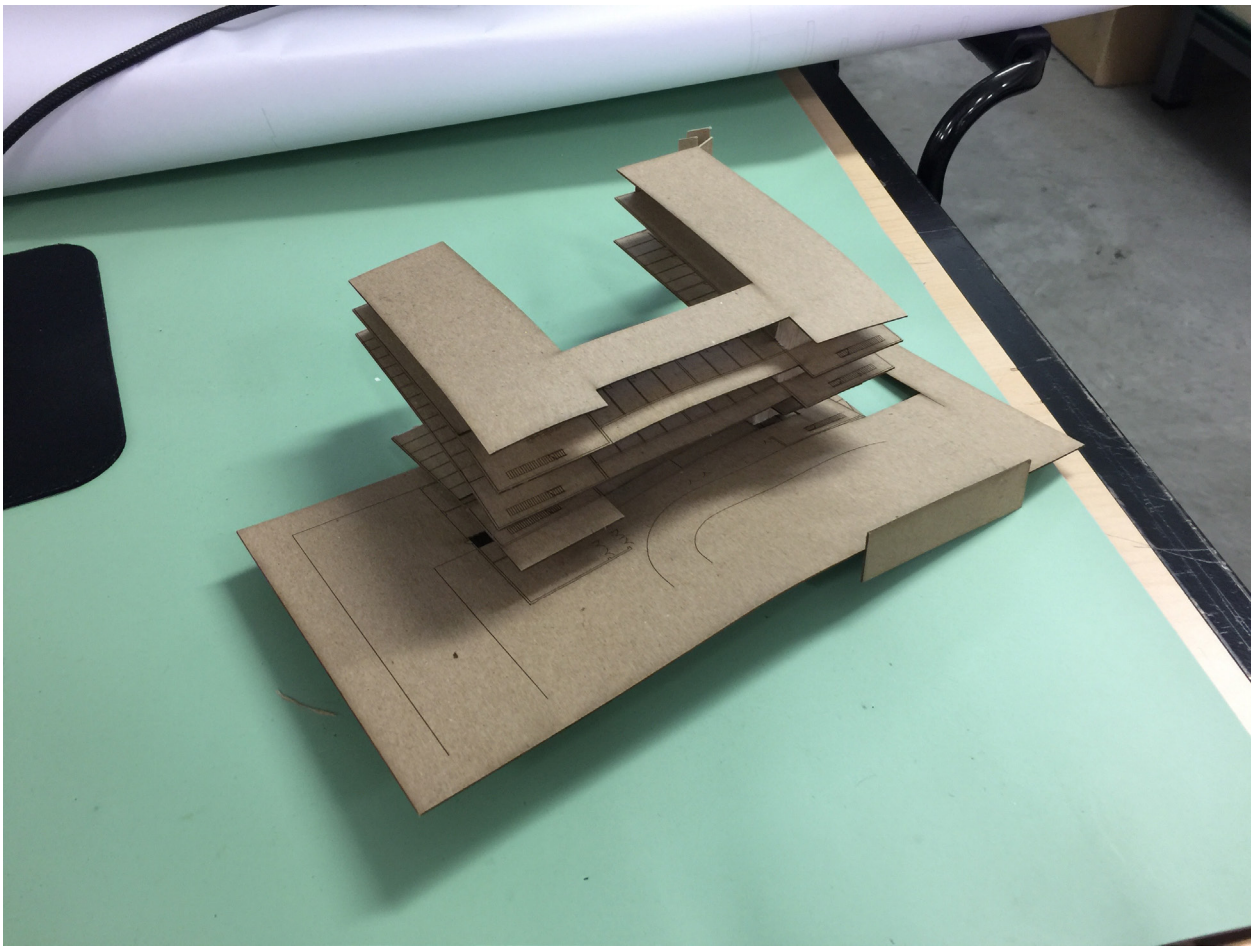

BEDROOM
KITCHEN
BATHROOM
BATHROOM
DINING AREA
KITCHEN

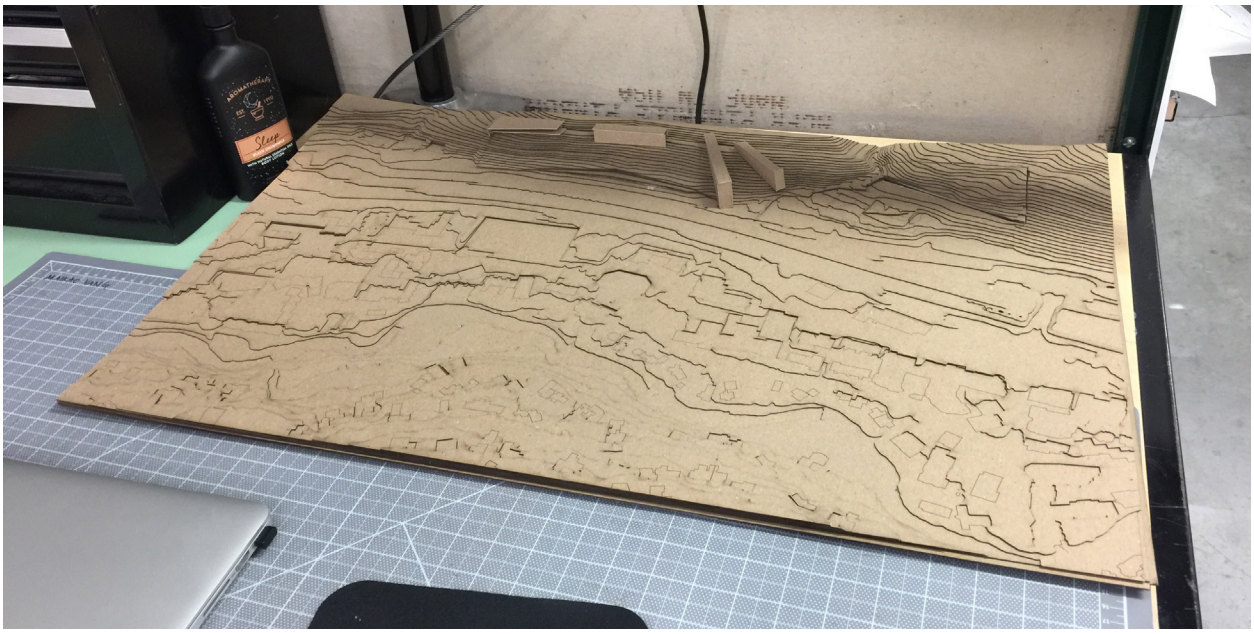

KITCHEN
BATHROOM
LIVING AREA

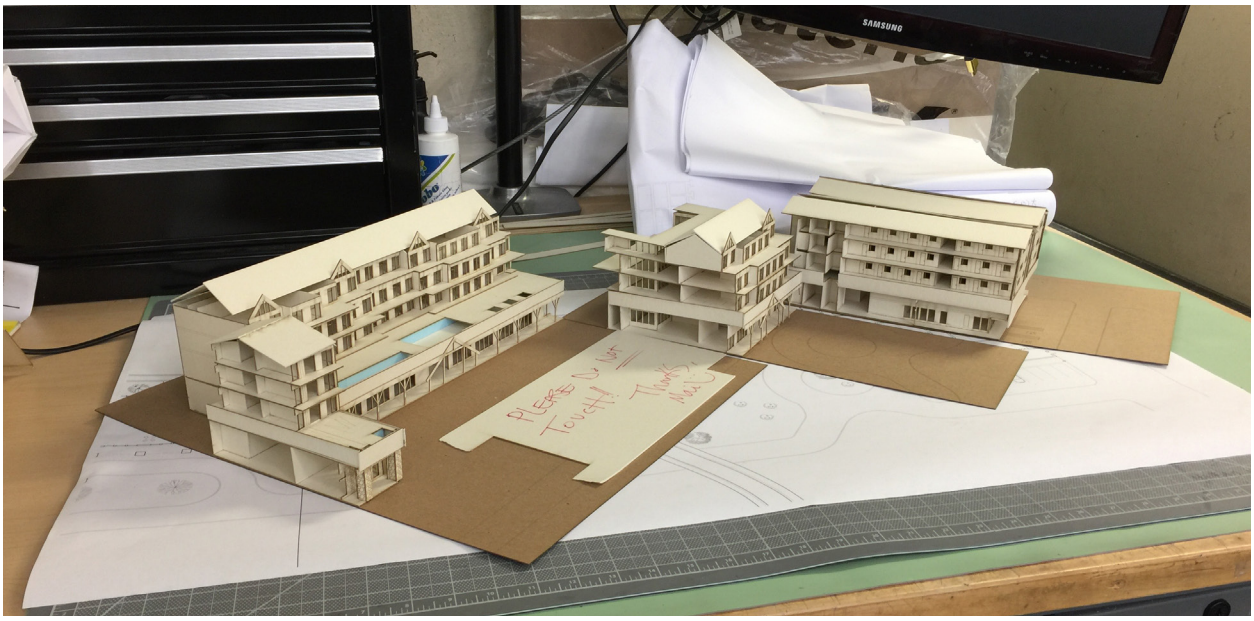









AROMATHERAPY
Sleep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