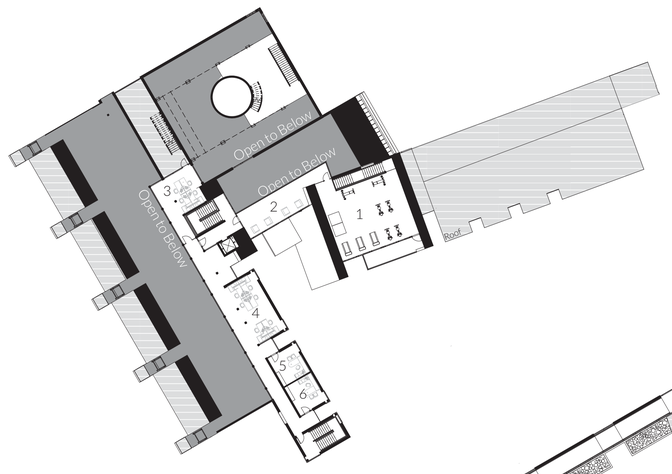
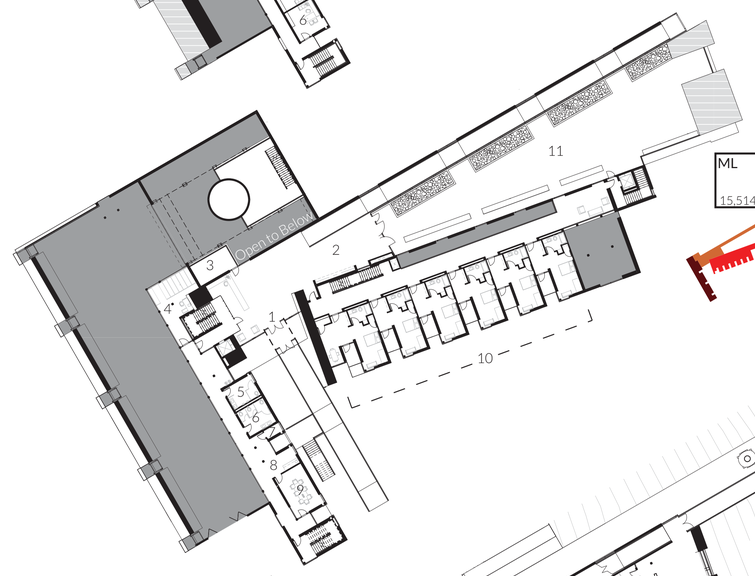


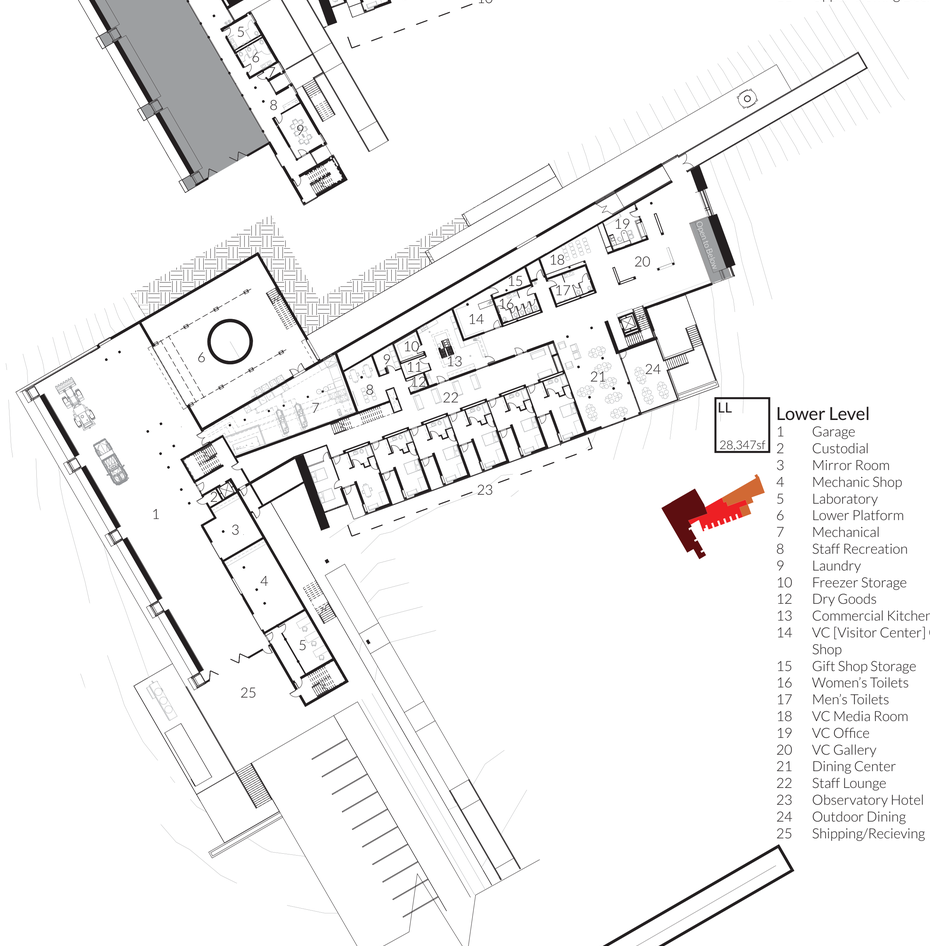
UL
4,291sf

Upper Level
1 Athletic Room
2 Upper Lobby Seating
3 Control Room
4 Collaborative Work Space
5 Office
6 Director's Office



ML
15,514sf

Main Level
1 Entrance
2 Lobby
3 Visitor Telescope Viewing
4 Library
5 Men's Toilets
6 Women's Toilets
7 Custodial
8 Break Space
9 Conference Room
10 Upper Observatory Hotel
11 Upper Viewing Deck

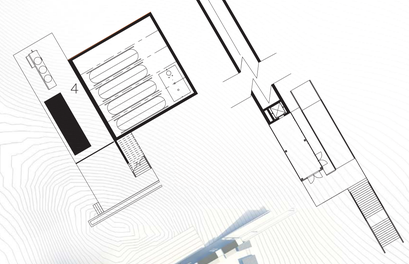


LL
28,347sf

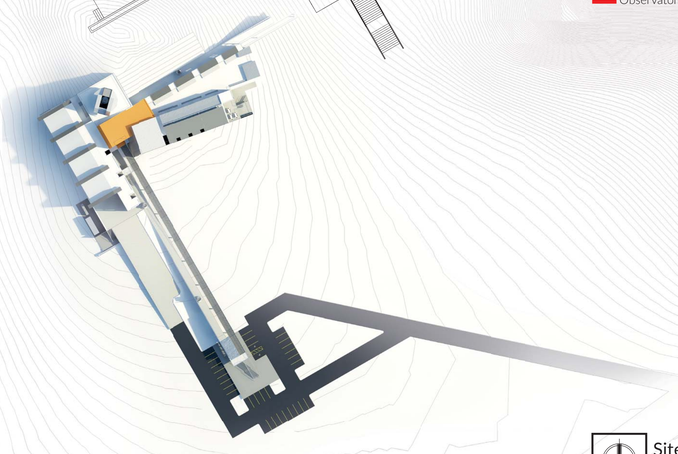
Lower Level
1 Garage
2 Custodial
3 Mirror Room
4 Mechanic Shop
5 Laboratory
6 Lower Platform
7 Mechanical
8 Staff Recreation
9 Laundry
10 Freezer Storage
12 Dry Goods
13 Commercial Kitchen
14 VC [Visitor Center] Gift Shop
15 Gift Shop Storage
16 Women's Toilets
17 Men's Toilets
18 VC Media Room
19 VC Office
20 VC Gallery
21 Dining Center
22 Staff Lounge
23 Observatory Hotel
24 Outdoor Dining
25 Shipping/Recieving

LL2
10,111sf

Lower Level 2
1 VC Classrooms
2 Lower Viewing Deck
3 Coudé Room
4 Hydrogen Power Plant/ Cooling Tower and Storage Tanks

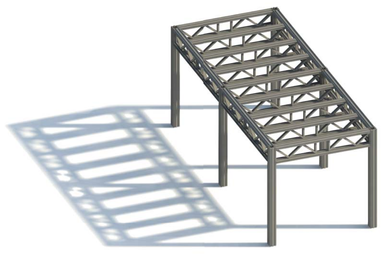


Plans
Absaroka Observatory & Visitor Center
58,263 Sf
10 20 40
Observatory
Visitor Center
Observatory Hotel



Site Plan
44°58'17.46"N
109°28'33.33"W
10 20 40

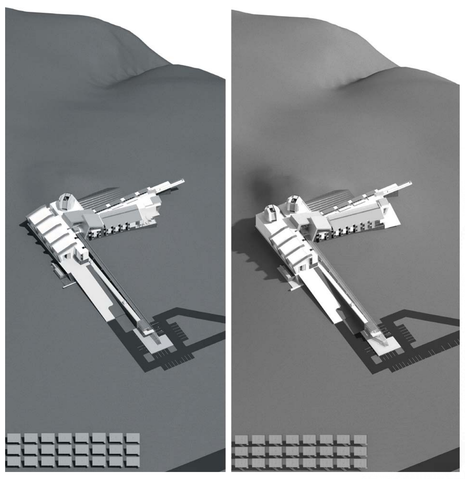
Regenerative Design



Structural Adaptability

AI

Extruded Aluminum Structure
Light weight modular sections make construction quick and efficient.
-Quick Additions
-100% Recyclable
-Low Energy Manufacturing
- Easy Deconstruction

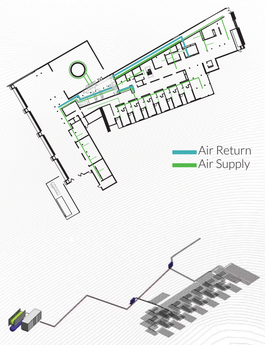


1&2

Structural Adaptability
Phase 1 and Phase 2
-Addition of 3m Telescope
-8 Observatory hotel units
-Addition of garage bays
- Easily and quickly manipulated

Passive/ Active Systems

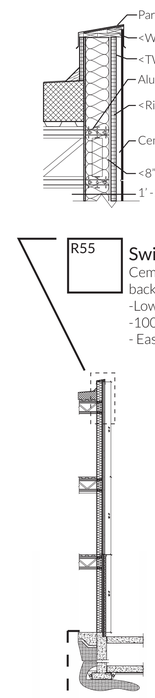
Living Wall System
-Humidifies Living Environment
-Revitalizes Oxygen
-Aesthetically pleasing



400 KW

Hydrogen Power Plant
-Zero Harmful Emissions
-Quiet
-Concentrated photovoltaic array provides initial energy
-Heat emissions used for radiant floor heating and cooling.
-Natural gas back up system
-100% Off grid

Deconstruction



R55

Swiss Pearl
Cement composite w/MTL STD backup
-Low energy manufacturing
-100% recyclable
- Easy deconstruction

THESIS PROBLEM STATEMENT
How can architecture adapt to the changing needs of astronomy research?

As astronomy changes over time so do the techniques it uses. Architecture can adapt to these changes as astronomy develops by reconstructing itself for the future needs of users and the instruments it holds.

Observatories can use regenerative design and deconstruction principles to remain relevant to future techniques/technologies and the developing culture of astronomy research. Using these principles will allow architecture to be flexible and adaptable to future advancements in astronomy.

Through A