Final Thesis Display

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The design of the classroom areas is a balance of outdoor and indoor spaces, each classroom layout encourages outdoor gatherings and activities. Vancouver's rainy climate was taken into account when designing the covered outdoor spaces. There is a covered entrance, a small covered seating space, and a large covered seating space for casual grade gatherings.

Each classroom has four doors to get outside, two are on the doors are large barn-like doors that slide open to gain access to the green roof and create a cross-breeze. One door on the first floor is the main entrance door and the second is another sliding door that goes to a small outdoor space to the northeast of the building. Each door goes to an outdoor space with very different micro-climates.

The classrooms each house around fifteen students, with spaces for storage, desks, computers, bookshelves, an indoor garden, and restrooms.

Materiality
Siding: FSC Forest Stewardship Council certified siding from Vancouver Island
Sun Shingles and Overhangs: Fiberglass CFS Sun llite manufactured in Langley, British Columbia.
Roof: Green roof and Order Shingles manufactured in Rey, BC.
The cafeteria is a gathering space for the entire school. It is large enough for all the students and faculty to eat at the same time.

Inside the cafeteria there are movable tables that expand outward from the large two-story fireplace. The fireplace also has an opening on the roof level, where there are moveable benches and an overhang that make it possible to enjoy the fire during all types of weather. The roof is accessible from inside the cafeteria and from the earth mound that covers the east side of the cafeteria.

The earth mound covers the cafeteria and runs along the south side of the sports field. The mound creates a heavy layer of insulation for the cafeteria and from the top there is a clear view to the ocean. The mound runs along the sports field blocking unwanted industrial views. The mound can also be used for seating during outdoor activities.

The cafeteria has a variety of outdoor seating, there is a covered outdoor seating area and an open outdoor area, all with permanent astro turf tables. The negative space created for covered outdoor seating also allows for southern light exposure.

Materiality:
The cafeteria uses the same materials as the classroom and also has thermal solar panels on its southern slope.

Board 3
A "Solar Wall" is used for the primary control of heating and cooling in the classrooms. In addition to this, there is cross-ventilation, thermal storage, and radiant floor heating. The buildings insulation will be recycled blue jeans, which has an R-value of 4 per inch, which means I would need about 5 inches of blue (there would be a wall that has glass instead of interior paneling to show students what the building is made of).

Accessibility: The classrooms and surroundings are handicap accessible; the restrooms have a five foot turn around space and there is a personal chair lift that can access the second floor. The classrooms have an open floor plan that can be easily rearranged to accommodate a wheelchair.

Water Collection: The rainwater is collected in the green roof that is built on the roof of the building. This water is then collected in a water collection tank that is located in the basement of the building. The water is then used for flushing the toilets, watering the plants, and for other uses.

Thermal Solar Heating: The solar panels on the roof of the building are used for heating the building. The solar panels are made of special glass that allows the sun to pass through and heat the building. The solar panels are also used to cool the building during the summer months.

The sinks in each classroom are indoor and outdoor, the indoor sink is made of black glass so that the student can observe the water levels. In this way the student can see the water levels. The water is then collected in a water collection tank that is located in the basement of the building. The water is then used for flushing the toilets, watering the plants, and for other uses.

Green Roof Section: The green roof is located on the roof of the building. The green roof is made of special glass that allows the sun to pass through and heat the building. The green roof is also used to cool the building during the summer months.

Structure: Heavy timber framing is used in Veteran's because it is strong and still in being. Veteran's also because of its aesthetic value and its lasting features.