The purpose of this design is to create a Youth Hostel for Elk Island National Park in Alberta, Canada. As a year-round destination for both local residents and visitors, noted for its view of the Northern Lights, the site is located on a 1.5 acre plot adjacent to an existing visitor’s center. Though the site did not have any permanent First Nations settlements, the Tsuut’ina Nation and the Cree Nation once inhabited the land temporarily for trade and migratory purposes. The park offers a wide range of activities for visitors including over 50 miles of trails for hiking, and cross-country skiing, ice skating or snowshoeing in the winter and an abundance of lakes for canoeing and kayaking or swimming in the summer. Elk Island National Park is part of the Beaver Hills dark-sky preserve, which restricts artificial light pollution in order to promote astronomy.

This project explores the diversity of the northern plains and its visitors. The architectural spaces need to reflect the significance of the surrounding environment and cultural heritage of the region by recognising the strength of community within the Indigenous people and the connection they have to the land, wildlife, and wilderness. As a contemporary Youth Hostel, it is essential the design also symbolises and creates a new sense of “Community.” It requires the use of sustainable materials and alternative energy sources through the use of natural daylighting, natural plant life, resource management as well as other sustainable strategies. The building and exterior spaces must demonstrate the degree that architecture has to respond to the unique needs of the potential users of the Youth Hostel.
Concept Statement

A community, much like a hostel, is built up of many attributes. A community is a safe haven, a shelter, and a place to call home. It must support one another, accommodating the needs of its members, with acceptance and respect, and is reliant on its members to help keep it a safe and compassionate place. There are struggles and challenges within a community that can break it or bind it, but the more interconnected and open it is, the more resilient it becomes.

The greatness of a community is most accurately measured by the compassionate actions of its members.

Coretta Scott King
Site Plan

EXISTING GROVE OF TREES

PERVIOUS PARKING LOT

DECIDUOUS TREES TO PROVIDE SHADING IN THE SUMMER

PROPERTY LINE
Inspirational Images

These images show multiple representations of what is required to make a community thrive. From building off of each other literally or figuratively, accommodating and protecting its inhabitants, to helping and holding each other up, the strength comes from the interconnected layers which holds both a building and a community together.
Displaying no singular line as dominant or subservient, each equally powerful and necessary to interconnect and reinforce the overall design, the shapes within the sketches demonstrate the equity and democracy required within a community to remind members of their value and contribution to each other and to the whole. The overlapping, interwoven lines exhibit that a community is built of its members and that we need each other to truly thrive. Through these diagrams, the various ways a parti could represent the idea of community were explored. Lines displaying interconnectedness, multiple figures linked together, overlapping shapes and lines to represent the interdependency were all explored.
The final form of the parti diagrams came from the idea of individual shape or structures that can be independent on their own, but still connected and reliant on each other forming another shape, another entity if you will, that cannot exist without all its pieces working and coming together.
Moving through various parti iterations, each showing the interconnectedness and reliance of community while playing with angular, circular, and column-like shapes. Each trial used various shapes and materials, sizes and patterns, while still portraying the concept of community whether binding together of physical reliance. The cables, or yarn, show that each part of the structure is connected and important, while also creating the idea of a safety net, a safe place, that can be returned to. The columns of different sizes and height, show the diversity of a community, while branching outward showing the tension and dependence between the figures. The open border allows one to move from the interior space outward, but also allow for return, much like in a community when community members need time away to grow and develop on their own, but still know they have a safe place to return to where they are always welcome. While taking one figure out of the equation would not cause the structure to fall, it would not be as strong, demonstrating that we are stronger together.
The floor plan uses the columns and polygonal shape from the parti diagram and models. The outer rectangular shape represents the structures of society with the polygonal shape being the community and the freedom of being in the natural world.
The section demonstrates the canted walls and the roofs slanted in tension, being held together and relying on each part of the building, from the columns, the cables, the polygonal shapes, to be upheld. The building, mirroring how a community interconnects and connects outward to society, cannot independently hold itself up without help.
Design Elevations

The elevations highlight the columns that assist in holding together the building mass. Natural daylighting is provided by a clerestory, as well as glass walls which also provide natural ventilation. Sun shades help provide shading over windows while the roof collects rainwater.
The physical model explores the three dimensional form of the design. The application of the concept is seen here by the use of the columns being secured together by cables. It introduces the tectonic relationships between the columns, cables, and building mass. Natural daylighting is achieved through the large clerestory that bisects the plan diagonally via opposing columns. Sun shades are used on the southern glass to protect summer heat gain while allowing for winter passive solar gain and natural daylighting.
The polygonal plan is inscribed within a rectangle. This symbolizes the relationship between structured society and the freedom of nature. The “free plan” relates to the indigenous people who frequented the land and the modern users of a Youth Hostel. Rainwater is collected on the large metal roofs for the building’s grey water system.
The common area, an open and accessible space used for socializing and building community between guests, highlights the use of thermal mass in the polished concrete floors. Large windows offer natural daylighting, passive solar, and open onto outdoor spaces for exterior access as well as affording natural ventilation on clear days.
Along with the sustainable features showcased above, this project would strive for the use of thermal mass, solar panels, access to views, the connection to the outdoors, use of recycled and repurposed materials, a rainwater collection system as well as a grey-water system, and composting toilets.

The goal for this project would be to achieve LEED platinum.