GEOMETRIC GETAWAY

S | ARC WINTER BREAK COMPETITION: A STUDENT LOUNGE

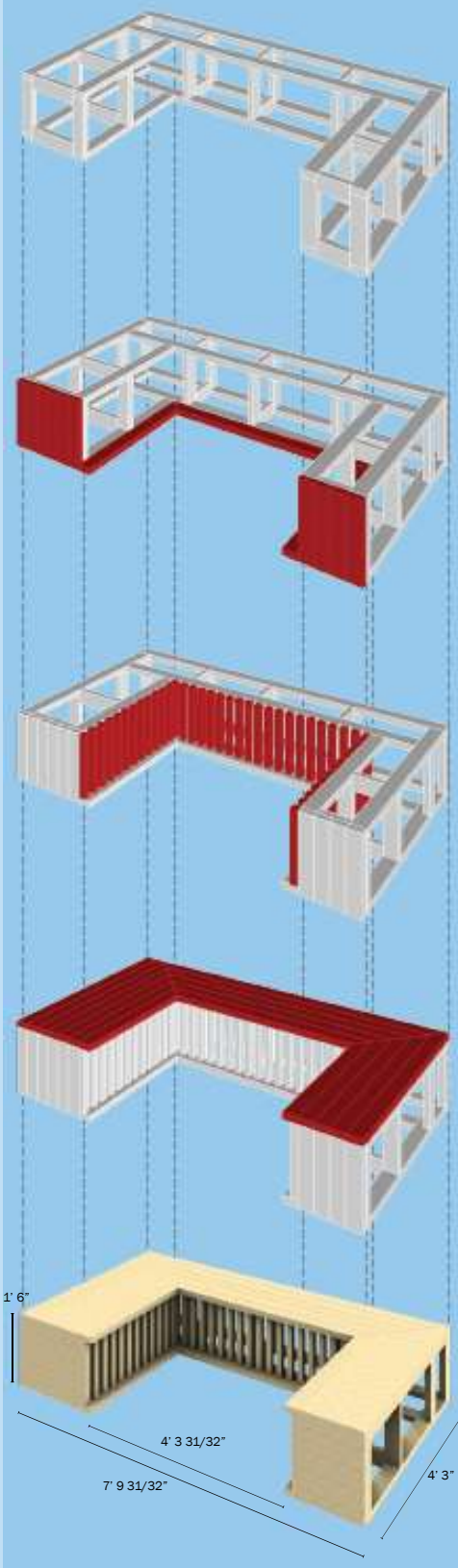
COFFEE / SNACK BAR

As I began to design for the competition, I knew I wanted to create a design that aligns with the geometric design that is already found within Giles hall, utilizes materials that are donated to the program to reduce costs, and offers students a comfortable place to revive and relax. This design was created to fit naturally into the space allocated within Giles hall. This was done by celebrating the geometric design that is found within the building. To take this a step further, the design could be painted to match the color palette that is found within the building - white with primary color accents. This design displays complicated woodworking, and exemplifies different wood connections and construction techniques. I wanted to keep the material palette very limited within my design. Therefore, the entirety of the project can be constructed using 2”x4” planks of wood, which are already donated to the shop. The design of both the student lounge and the coffee / snack bar utilize the same geometries, and work together to provide the perfect space for students to revive and relax. The coffee / snack bar involves a place for a Keurig, an opening for the storage of Keurig cups, a small refrigerator, shelves for storage of cups, and a drawer to hold snacks. While the lounge area involves two separate C-shaped benches that provide a place for students to gather or be alone. These benches are semi-private and offer the perfect space for students to relax. This space can serve many purposes. Students may use the space to gather with friends, sit down and enjoy a meal, work in a quiet and comfortable environment, or even take a quick nap after a long night of work.

STUDENT LOUNGE SPACE

STUDENT LOUNGE DESIGN

BENCH CONSTRUCTION



The first step of the bench construction is assembling a frame that will support the structure. This frame is constructed using 2"x4"s of varying lengths.

The next phase of the construction involves the placement of siding and a C-shaped sole plate that lines the inner bench construction. The siding is put in place in order to hide the inner construction of the bench from view. It is constructed by placing 1' 4 7/16" long pieces directly adjacent to one another.

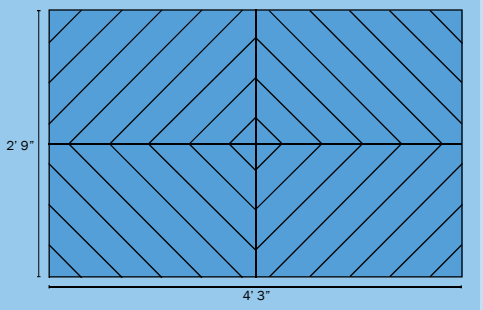
Now a series of 42 wooden pieces are spaced evenly and secured to the sole plate in order to create a veneer wall of wooden slats. These pieces are created by splitting a 2"x4" evenly down the center.

The last phase of the bench construction involves securing a series of 2"x4"s to the top of the frame. These pieces are placed directly adjacent to one another in order to provide stable seating. These pieces connect to one another at 45 degree angles at the corners of the bench.

The bench construction is now finalized and ready to be placed into the student lounge area.

TABLE CONSTRUCTION

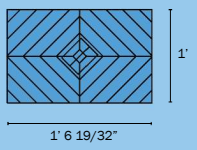
TABLETOP CONSTRUCTION



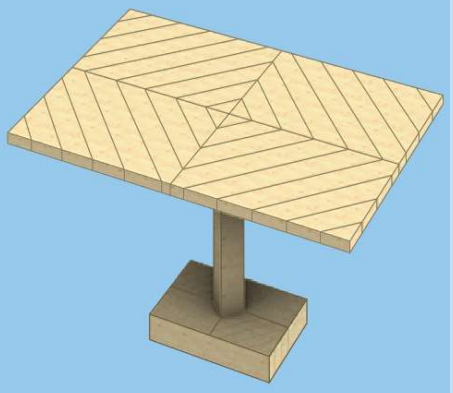
The tabletop is constructed by creating a small square from four triangular pieces of wood and layering boards adjacent to it. These pieces are cut and connected at 45 degree angles and radiate from the center. The 2"x4"s involved in this construction are laid flat, exposing the 4" side of the board.

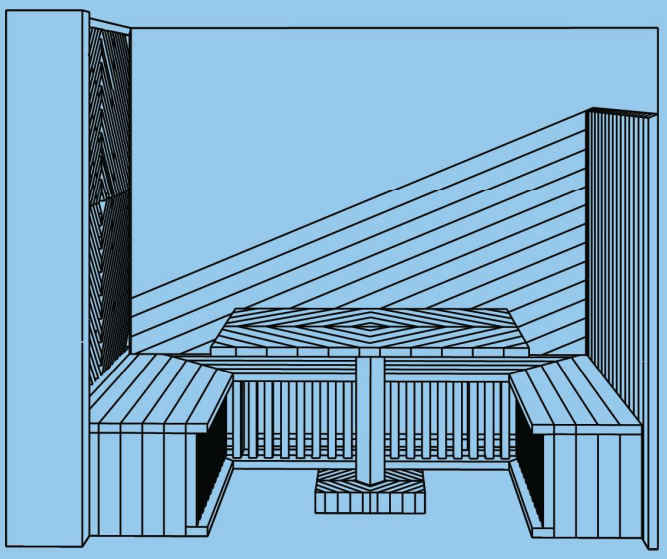
The base of the table is constructed in a similar fashion. A square block is used to denote the center of the composition, and the layered 2"x4"s radiate around it. Although, instead of the long side of the board being exposed, the base displays the thinner 2" edge. This allows the boards to be organized in a more compact arrangement, increasing the weight of the composition to provide an adequate base for the table.

BASE CONSTRUCTION



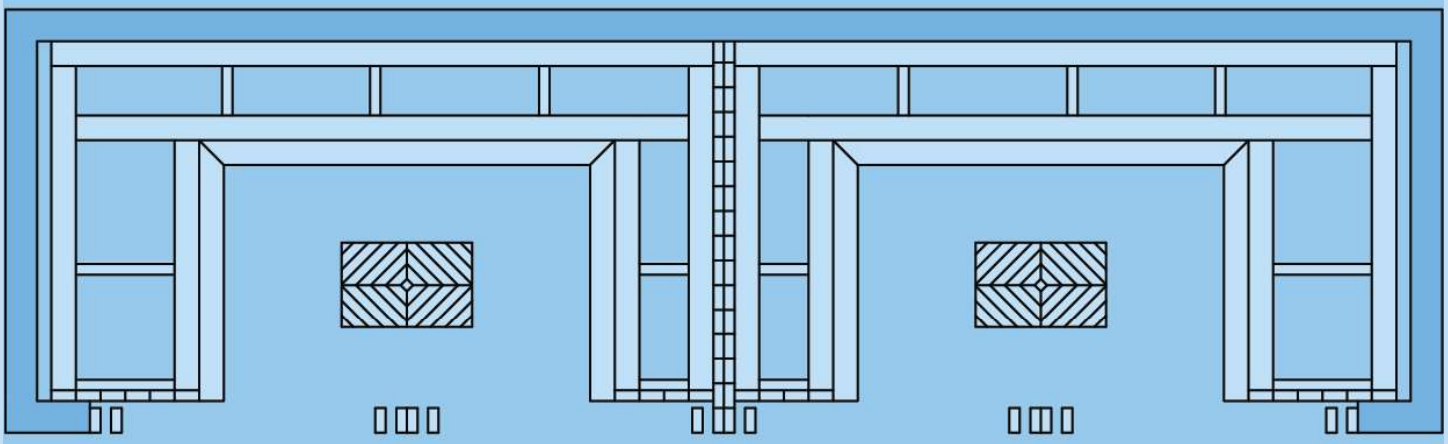
Once the tabletop and the base are separately constructed, they are connected using two 2' 1 5/16" long adjoined 2"x4" boards that act as the table's supporting member. When completed, the table will stand at 2' 6".



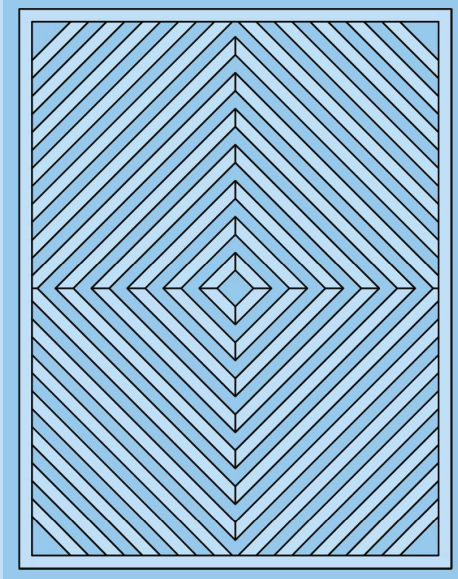


STUDENT LOUNGE DESIGN

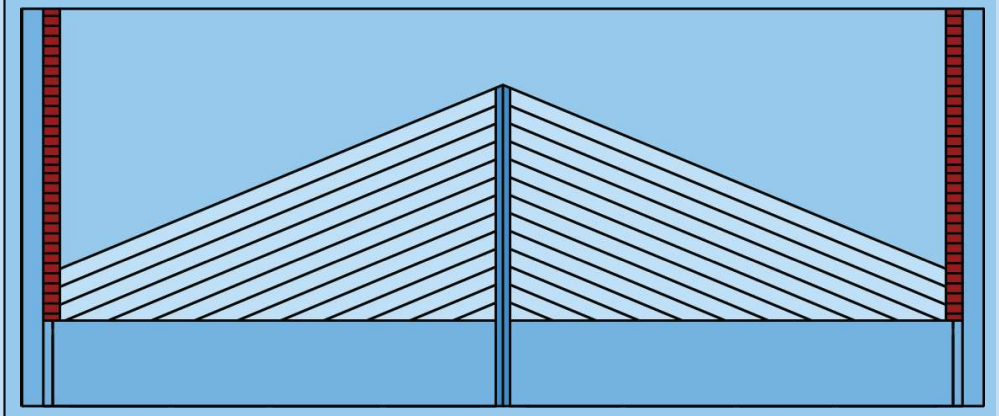
STUDENT LOUNGE FLOOR PLAN



WALL DETAIL A

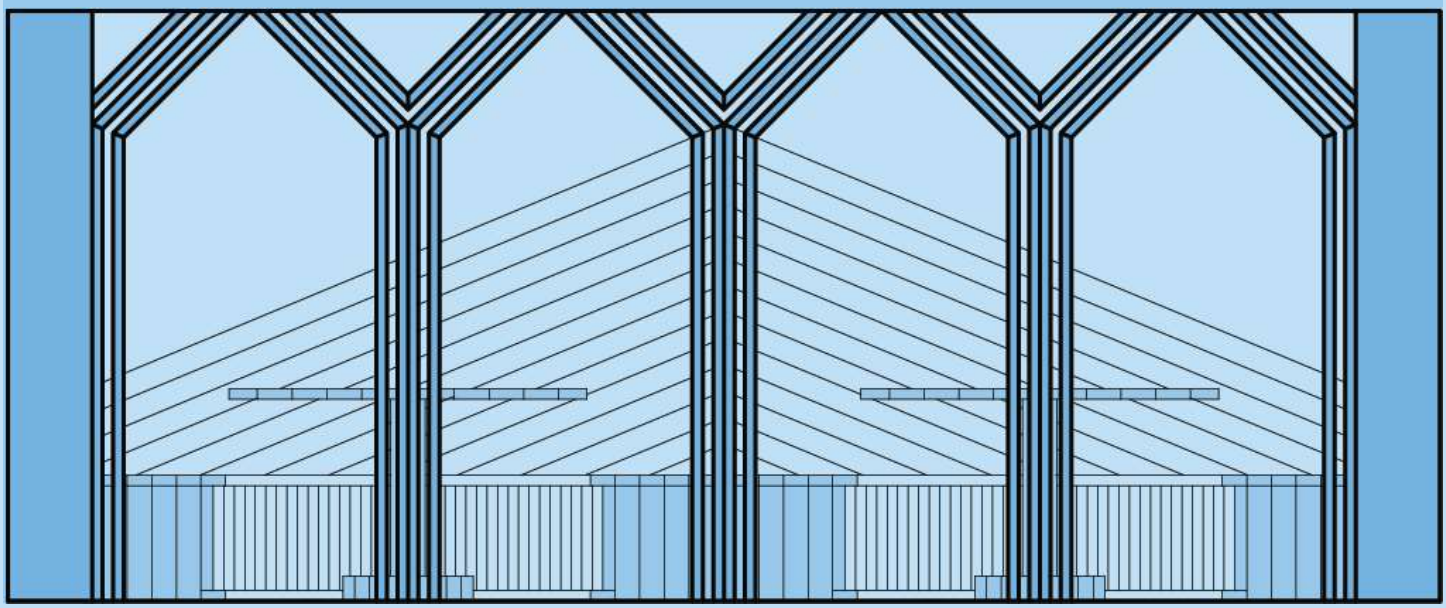


Within the design, there are multiple detailed walls. Along the back wall, a series of 2”x4”s decline at an angle of 67.5 degrees, continuous with the center partition wall. Wall Detail A, a series of angled boards with repetitive negative spaces, appear at both ends of the lounge, highlighted below in red.



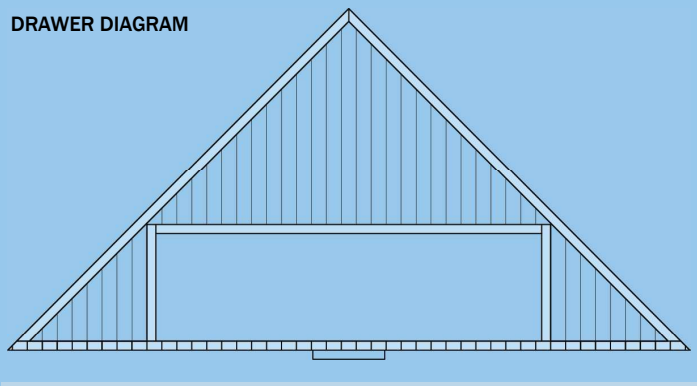
To complete the construction of the student lounge, a series of triangular arches are established along the facade. This nonstructural wall will be constructed using 2”x4”s and will establish entryways to the seating area.

STUDENT LOUNGE ELEVATION



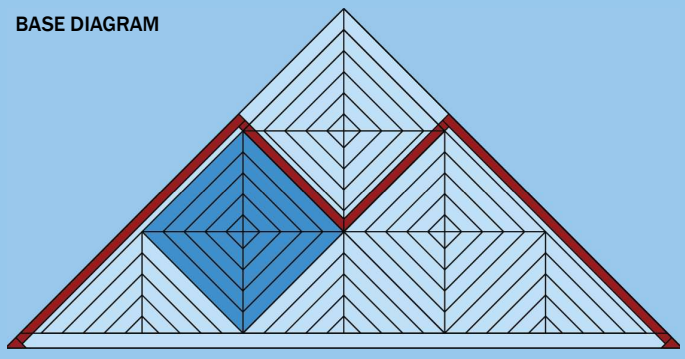
COFFEE / SNACK BAR DESIGN

DRAWER DIAGRAM

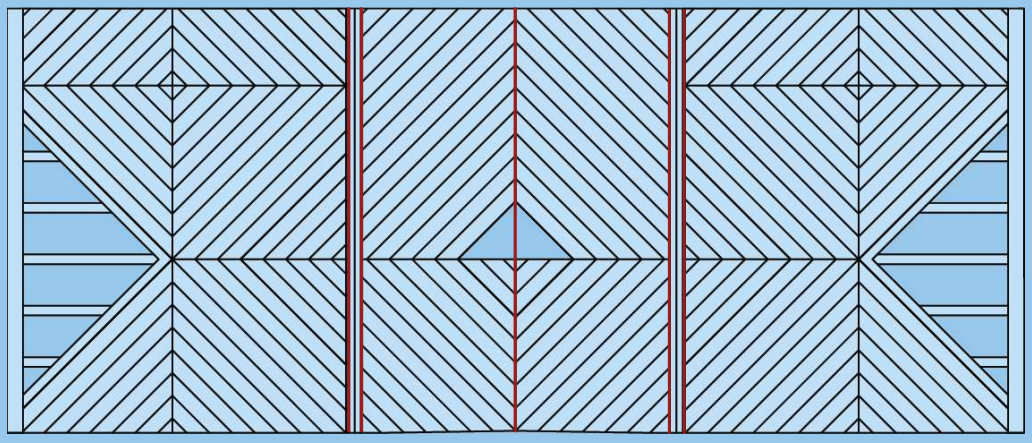


The first step in creating the coffee bar is laying down a base of 2”x4”s along the triangular base of the prism. This base is created to hold the tracks for the cabinet. The perimeter around the base is created by turning 2”x4”s on their side and stacking them 2 boards high. This creates 5 inches of negative space within the base to house the cabinet. The front perimeter of the base is constructed by adhering 2”x4”s together vertically rather than horizontally. This makes the cabinet drawer blend seamlessly.

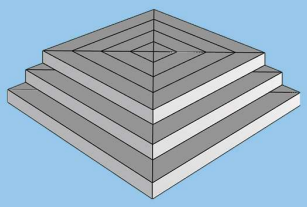
BASE DIAGRAM



After the base is constructed, a configuration of 2”x4”s is placed on top to close in the negative space holding the cabinet. The Keurig machine will be located atop a platform thats placement is highlighted in the above diagram in dark blue. The mini fridge is placed directly opposite to this detail. Depending on the direction the fridge door opens, this layout may be reflected. The red annotation denoted the placement and track of the detail wall.



KEURIG STAND



This raised platform is used to hold the Keurig machine. This was constructed by creating 3 separate platforms of adhered wood that steadily decrease in size.

COFFEE / SNACK BAR WALL DETAILING

The above diagram shows the composition of the detail wall. This detail wall is constructed as four separate walls that are secured together. Although the wall appears flat in the diagram, it actually follows the track displayed in red shown in the diagram of the base. The red lines seen in this diagram indicate where the wall folds in order to follow this track. In the first section of the wall, a configuration of adhered boards is accented with a series of shelves to hold things such as coffee cups or snacks. In the second section, the wall splits to create a triangular configuration, with the peak towards the viewer. This peak has a negative space near the center that is meant to create a small opening for Keuring cups. This design is symmetrical and repeats on either side of the design.

This snack and coffee bar is the perfect addition to the student lounge, and the combination of the two will provide students with a place to revive and refuel themselves throughout the day. The coffee machine, small refrigerator, and storage for snacks and Keurig cups will allow students to fuel themselves throughout the day. The seating and semi-private lounge space provides students with a space to relax and take a break from their busy day. Overall, this design aligns with the geometric design that is already found within Giles hall, utilizes materials that are donated to the program to reduce costs, and offers students a comfortable place to revive and relax.