

Deliverable D: Conceptual Design for Algonquins of Pikwàkanagàn Neyagada
Wabandangaki Guardian Program

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Table of contents

Table of contents	1
List of Figures	2
Subsystem design by each member	2
1. Design 1 - Liam Cull:	2
1.1. Description:.....	2
1.2 First Floor Features:.....	2
1.3 Second Floor Features:.....	3
2. Design 2 - Paul Finucan	4
2.1 Description:.....	4
2.2 First Floor Features:.....	5
2.3 Outdoor Space Features:.....	6
2.4 Second Floor Features:.....	6
3. Design 3 - Maximilien Salter	7
3.1 Description:.....	7
3.2 First Floor Features:.....	7
3.3 Second Floor Feature.....	9
4. Design 4 - Owen Jackson:	10
4.1 First Floor Features:.....	10
4.2 Second Floor Features:.....	11
4.3 Outdoor Space:.....	12
5. Design 5 - Angelique Singh	12
5.1 Description:.....	12
5.2 First Floor Features:.....	13
5.3 Second Floor Features:.....	14
Comparison of Designs	16
Written Analysis	17

List of Figures

Figure 1: first floor design (Liam).....	2
Figure 2: second floor design (Liam).....	3
Figure 3: first floor design (Paul).....	4
Figure 4: second floor design (Paul).....	5
Figure 5: first floor design (Maximilien).....	7
Figure 5: second floor design (Maximilien).....	8
Figure 6: first floor design (Owen).....	9
Figure 7: second floor design (Owen).....	10
Figure 8: first floor design (Angelique).....	12
Figure 9: second floor design (Angelique).....	13

Subsystem design by each member

1. Design 1 - Liam Cull:

1.1. Description:

The design for this space combines functionality, flexibility, and a modern aesthetic to meet the diverse needs of our client. Let's delve into the key features and the rationale behind each element of the design.

1.2 First Floor Features:

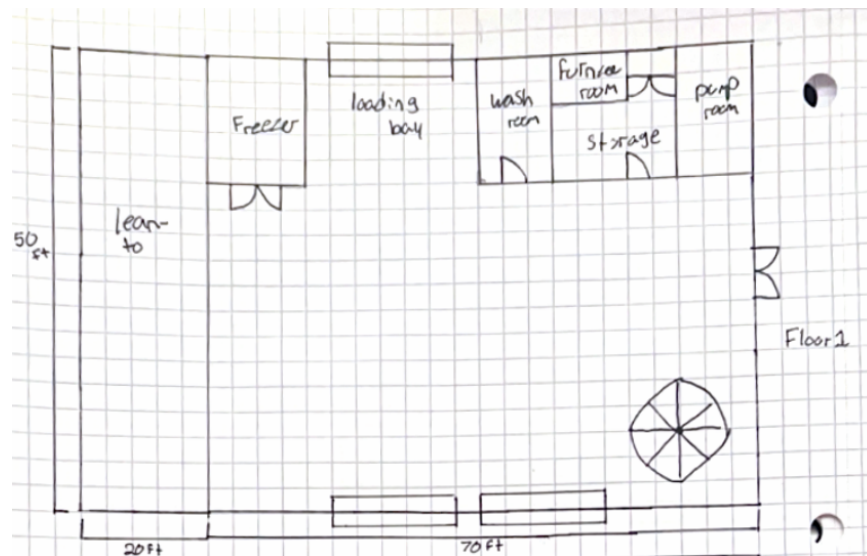


Figure 1: first floor design (Liam)

Two Large Garage Doors: Equipment may be easily accessed through these huge garage doors, which makes loading, unloading, and storing easier. The roomy arrangement guarantees that there is enough space for different activities, which promotes a constructive atmosphere.

Freezer and Bathroom: By including a freezer, you can effectively store perishable goods and meet operating requirements. By guaranteeing the comfort and functioning of the workers, the restroom improves the workspace's convenience.

Storage Room and Furnace Room: These areas are made for arranging the storage of equipment, supplies, and tools. The workstation is appropriate for year-round usage since the furnace room keeps the temperature moderate.

Loading Bay: The shipping and receiving procedure is streamlined in the designated loading bay at the back, avoiding any disturbances to the main workstation. This feature puts efficiency first.

Lean-To: It's ideal to use the side lean-to area as an outdoor workspace and as a place to cover up automobiles. Because of its adaptability, work may be done in a variety of weather situations.

1.3 Second Floor Features:

Additional Storage and Washroom: There is a storage area and restroom on the second floor to keep things cohesive. This guarantees that hygienic standards are maintained and that required supplies are readily available.

Six Work Desks: With six workstations available, this room is ideal for computer-related jobs and may be used for digital and administrative work. This increases the adaptability of the workstation.

Kitchen: The fully furnished kitchen area is made to meet the demands of the staff, allowing them to make meals and snacks without having to leave the building. It encourages productivity and ease of use.

Board Room: The presence of a boardroom encourages group discussions and meetings. It provides a commanding view and a sense of connectedness to the activity below from its first-floor overlook vantage point.

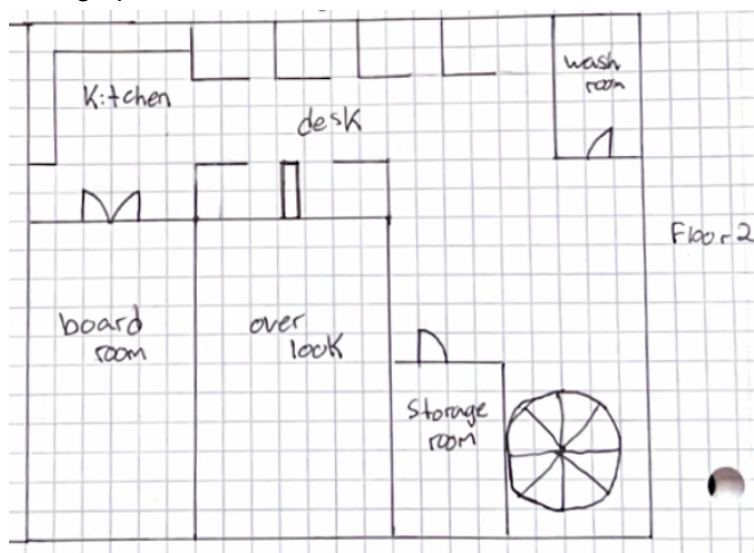


Figure 2: second floor design (Liam)

All things considered, this design celebrates a harmony between practicality and beauty. Emphasizing open space, accessibility, and a range of facilities guarantees that the workspace meets the operational needs of the customer in a realistic manner. The client's dedication to establishing an atmosphere that encourages work and cooperation is reflected in the contemporary design features and effective use of space.

2. Design 2 - Paul Finucan

2.1 Description:

This design focuses on creating a separated work, learning and office space, to allow for maximum separation and productivity in each respective area. It also includes an optional second floor if the space is needed, and additional outdoor space. Ideally, this space would be built from locally sourced materials, to both fit into nearby environments, and internally replicate it.



Figure 3: first floor design (Paul)

2.2 First Floor Features:

Plant Processing Area: This space is located near to the main entrance of the building, and includes the main plant processing space, as well as shelving for material storage. The space is open to allow for the addition of any other devices needed for the Guardian Program, and to keep the materials distanced from any other area of the building.

Kitchenette and Food Storage: This space includes a table for eating, regular kitchen applications, and a cold room for materials and food storage. This room could service regular employees, and also fit any larger harvested food.

Closet and Work Space: The work space is a larger area containing portable desks, to allow for employees to complete work while also being able to fit additional people during larger events. The work space is also connected to a nearby walk-in closet, for employees to put away any footwear and layers needed during colder months.

Offices, Boardroom and Fax Room: This design emphasizes larger offices for each respective employee, so they can work comfortably. Each office can fit an additional couple of people, to allow for collaboration and teamwork. The design also includes a boardroom for larger meetings and collaborative projects to take place in. The floor plan also includes a fax area to fit any office supplies and machines, and has seating for breaks and communication.

2.3 Outdoor Space Features:

Lean To and Parking: This design allows for the parking of two larger vehicles under a large, frame supported lean-to on the side of the building. This will protect set vehicles from the elements, as well as any smaller machines if needed. It is also located very near to the larger entrance, so materials can be moved in and out of the building easily.

Furnace and Pump/Storage Room: These two rooms are detached from the rest of the building, and are accessed from the outside. They contain vital components to allow for the complete function of indoor services, and also offer additional storage space.

Outdoor Space: The outdoor space is a larger clearing to the right of the building, to allow for larger gatherings and learning. The greenspace can also be used for growing plants and monitoring the environment.

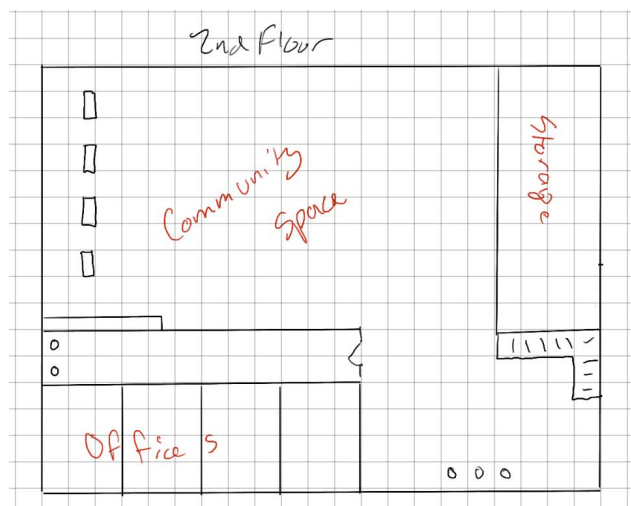


Figure 4: second floor design (Paul)

2.4 Second Floor Features:

Community Space: This space makes up the majority of the upper floor, and exists to provide a larger space to allow for teaching and learning programs. It also contains many smaller and moveable workstations to allow for an additional form of usage. The room can also be used to host events and ceremonies.

Upstairs Storage: This space provides ample room to store any additional seating and workspaces to fill the room when needed on set occasions. It can also hold any learning materials and activity equipment, to allow for the community space to be multi-purposed.

Upstairs Offices: These offices exist as a space for guardian program leaders, so they are able to quickly service the community space. These offices are also larger, to be able to contain educational materials and people.

Issues With The Design: Although this design supplies all needed amenities for the Guardian Programs criteria, details could be changed to improve the design. One problem was with the generable accessibility of the layout, as the building could incorporate features that cater to those with difficulty moving. The layout also hindered the transferring of materials from indoors to outdoors and vice-versa. If improved, a wheelchair ramp, elevator and garage door could be added, to resolve this. Another problem would be keeping the plant processing areas more separate. This would make cross contamination of food and harvested materials much less likely. Ideally, the rooms would instead be separate, and both house enough cold storage for their respective items. Finally, the design would include more indoor greenery and open spaces, to make the building feel less serious and incongruous. The addition of indoor plants, more windows, and possibly a terrace would allow the building to fit in with the surrounding nature, and make the building feel more comfortable.

3. Design 3 - Maximilien Salter

3.1 Description:

This design centers around the idea of having a rooftop garden that is on top of approximately one half of the first floor and can be accessed from the second floor. This design includes a loading bay in close proximity to the storage and freezer rooms.

3.2 First Floor Features:

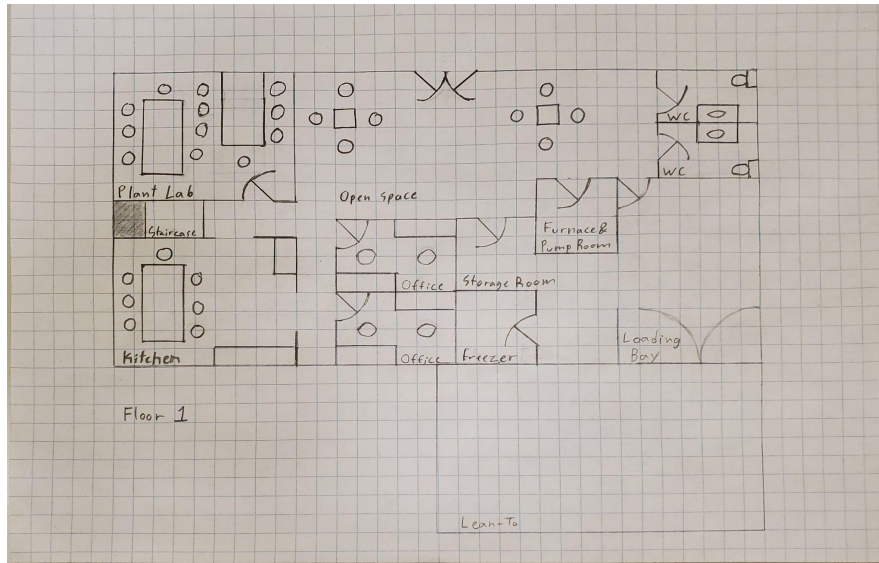


Figure 5: first floor design (Maximilien)

Two Collaborative Workspaces: There are two offices that are designed for two people to work in comfortably, to encourage discussion and collaboration. The desks are placed so as to not discourage conversation while also minimizing distraction.

Plant Lab: The plant lab is large enough to accommodate at least two separate teams to work in it at the same time, each at its own table, so as to avoid contamination. Each table is large enough to have multiple processes take place on them, but not so large as to make walking around them difficult.

Kitchen: The kitchen has been made larger than originally discussed to ensure that during community gatherings, meals can be easily prepared for all in attendance. It features a large table for dining as well as two countertops for meal preparation.

Washrooms: The large washrooms are accessible for people with any disability and can easily accommodate having an additional caretaker in the room if necessary.

Loading Bay, Storage & Freezer Rooms: The loading bay is designed to easily allow a pickup truck to back in, and is large enough to accommodate dollies and hand carts for moving supplies from the trucks to the storage room or the freezer. The storage room is large enough to hold all manner of tools and equipment, either for outdoor or indoor use and houses the freezer, which is large enough to hold several harvested animals that are awaiting processing.

Lean-To Features:

The lean-to takes is half the width of the first floor to guarantee enough parking room for all company vehicles, and is located outside of the loading bay to protect any trucks delivering supplies from the elements.

3.3 Second Floor Feature

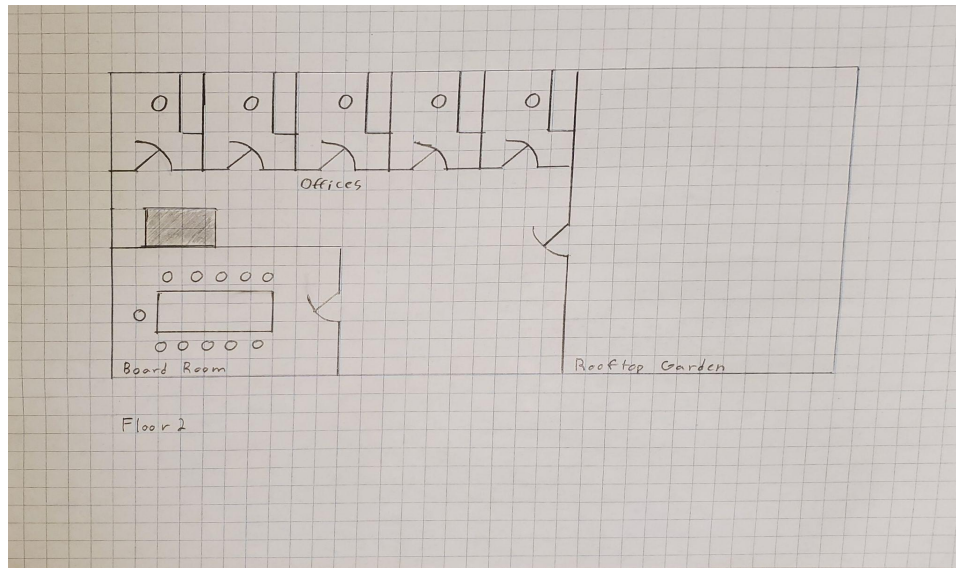


Figure 5: second floor design (Maximilien)

Five offices: The offices on this floor are spacious and are designed to accommodate idea boards and project tracking, as well as data collection.

Conference room: The conference room is large enough to accommodate a large number of people, be it for updates on current projects or to discuss new ideas for community events.

Rooftop Garden: This garden is for all manner of plants, be it vegetables, medicinal plants or even just flowers, this feature helps bring an element of nature into the look of the building.

4. Design 4 - Owen Jackson:

4.1 First Floor Features:

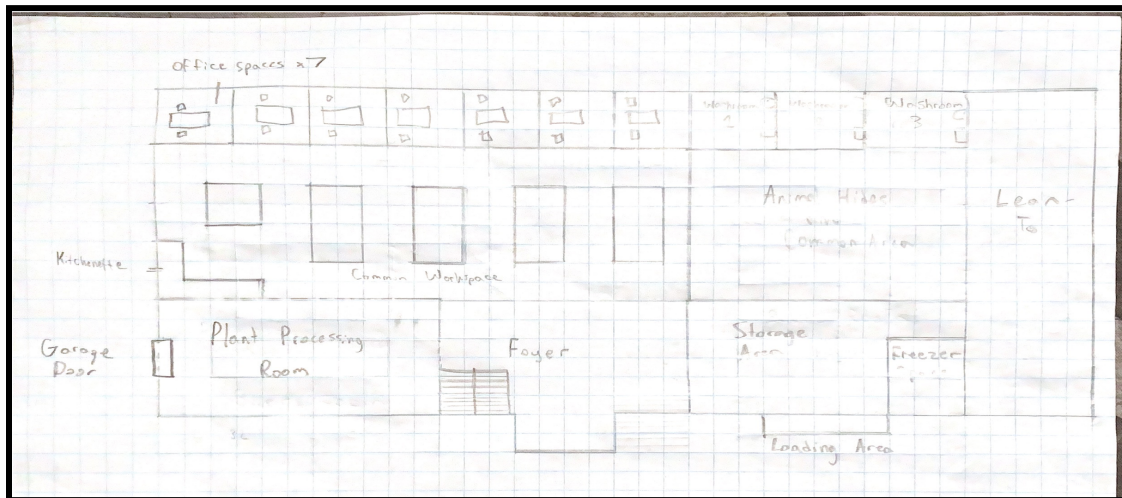


Figure 6: first floor design (Owen)

Common Workspace: The common workspace is set up with 4 large tables and 1 medium sized table. The idea of having these tables is so that employees can gather in this area to collaboratively work in a space together. It is located beside the office spaces so the employees working in the office don't feel completely disconnected from the employees working in the common workspace.

Kitchenette: The kitchenette is located inside of the common workspace. This is purposeful as the common workspace will be a busy area and if employees want to quickly heat their food or grab food from the kitchen it is located right near the offices and the workspace. The kitchenette will be very simple and include a stovetop, oven, 2 microwaves, a refrigerator and a sink.

Storage area: The storage area is located to the left of the foyer and is attached to the loading dock. The space is deliberately near the foyer and loading dock so supplies from outside don't have to travel far to be put in the storage space. It is a very large space for both indoor and outdoor equipment required.

Freezer Space: The freezer is located in the storage area for the same reasons the storage area is where it is. When large animals need to be transferred into the freezer area it will be seamless as it is right near the loading area.

Plant Processing Space: The plant processing space is located on the left of the foyer. It has lots of space for doing work and the mobile lab station,

Animal Hide Room & Common Area: The animal hide room and common area has very high ceilings for the purpose of hanging the animal hides collected. This space can also be used for events and has various other purposes.

3 Washrooms: The three washrooms all have the same design that are very standard. They are both large, wheelchair accessible and gender neutral. They will have one toilet and sink and room to maneuver.

7 Office Spaces. The office spaces on the first floor are located near the windows for maximum sunlight. They will include a desk, computer and 3 chairs. This is optimal for predictive work and having one on one or one on two meetings in individual offices

4.2 Second Floor Features:

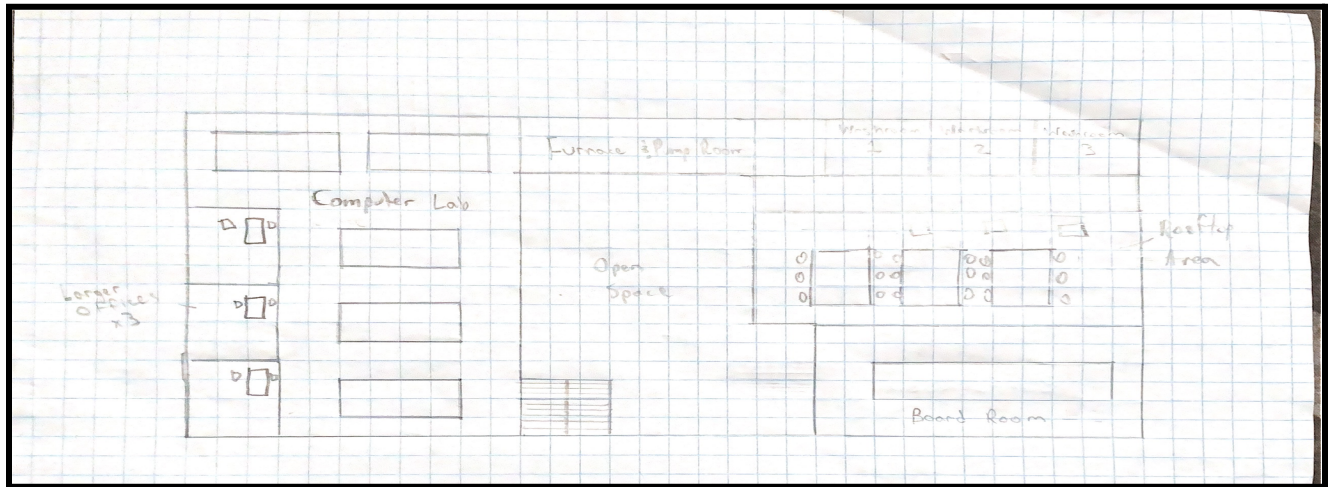


Figure 7: second floor design (Owen)

3 Large Office Spaces: The first floor 3 office spaces are all located directly against the glass for sunlight. They have the same table and chairs as the first floor offices but also have more room for either an area for a large whiteboard or anything else of use.

Computer Lab: The large computer lab is located outside of the large offices for the same purpose as the common workspace. To allow office workers not to be completely isolated with people working in the computer lab.

Furnace and Pump Room: The large furnace and pump room is located at the back side of the second floor. It's used to store the furnace and pump.

3 Washrooms: Same as first floor washrooms but on the second floor.

Board Room: The board room is located left of the foyer on the outer edge of the building to provide plenty of sunlight. It is set up currently like a typical board room with one large table for multiple people to sit at when presenting or discussing topics.

Rooftop Outdoor Space: The outdoor rooftop space includes barbeques and tables. This space can be used in the warmer months for lunch to allow employees to get fresh air in the middle of the day.

4.3 Outdoor Space:

Lean-To: The lean-to is located on the right side of the building. It has plenty of room for trucks and other vehicles needed and is located beside the loading docks so things can be transferred from the lean-to to the loading docks easily.

Front Area of Building: The area in the front of the building will have plenty of space to host different events in the community.

Loading Dock: The loading dock is attached to the storage and freezer space to easily maneuver items in and out of the building.

Plant Processing Garage Door: The garage door attached to the plant processing area is used for moving the mobile lab in and out of the building.

5. Design 5 - Angelique Singh

5.1 Description:

This design focuses on utilizing the functionality of each space, including open space. The entire space is filled with a sense of openness achieved through large windows, a sunroof, second floor balcony and designed with room for growth in mind.

5.2 First Floor Features:

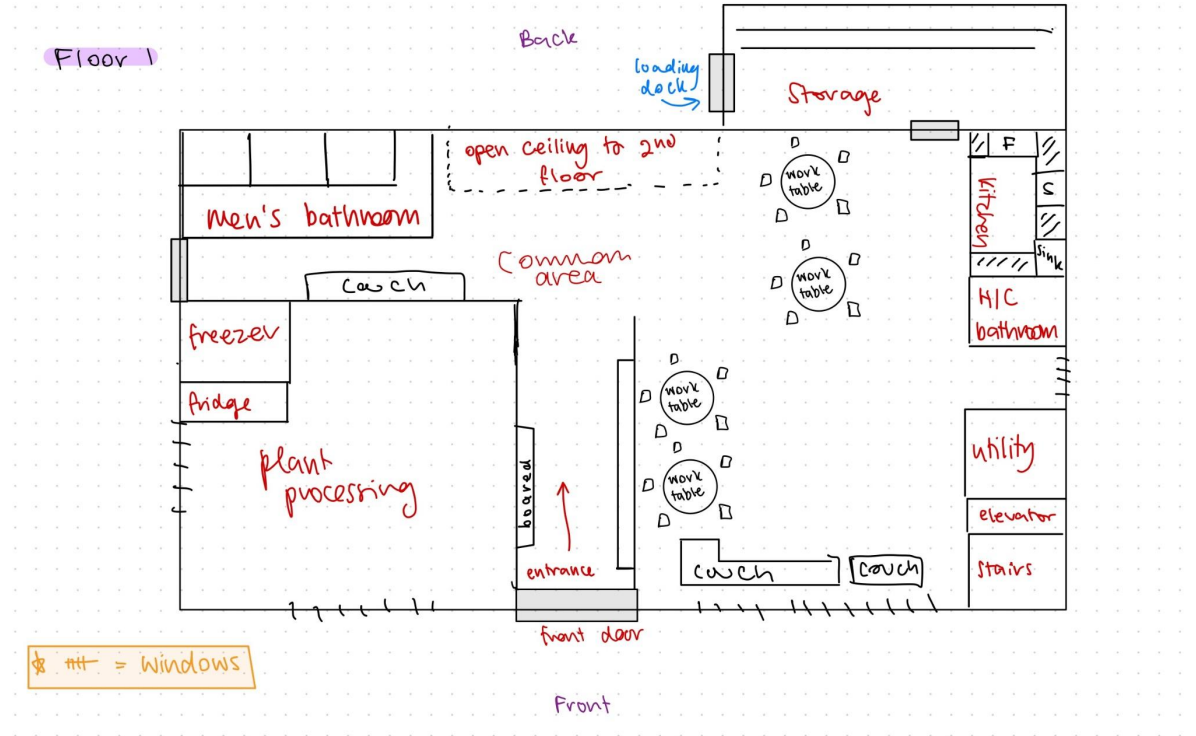


Figure 8: first floor design (Angelique)

Front Door: Double wide automatic access door, includes ramp, leads into a wide entrance way for maximum accessibility

Men's Bathroom: 3 accessible stalls, includes 2 sinks and a hand dryer.

Handicap Bathroom: 1 very large stall for people who require extra space, for families, or for those who require extra help. Includes a sink and hand dryer.

Plant Processing Station: made for 2-3 people to work in and includes a fridge, freezer and tables on wheels. Also close to a side door in the case of easily bringing in samples or equipment from outdoors.

Common Area: large open space including 4 work tables with mobile chairs which can be used throughout the space. Also includes couches for lounging and enjoying the space

Equipment storage space: The storage area, located to the back of the building and connected to the loading dock, minimizes the distance supplies need to travel for storage. It is a spacious facility designed for storing equipment, supplies, and tools. It

also includes lots of shelving for accessibility and storage.

Utility room: tis room of the building houses pumps, furnaces, generators

Kitchen: a small kitchen for people to store and reheat their food. The kitchen includes a sink, fridge, freezer, microwave and cabinets

Lean-to: Will be attached to the storage room and large enough for the parking and loading of 3 regular sized pickup trucks

5.3 Second Floor Features:

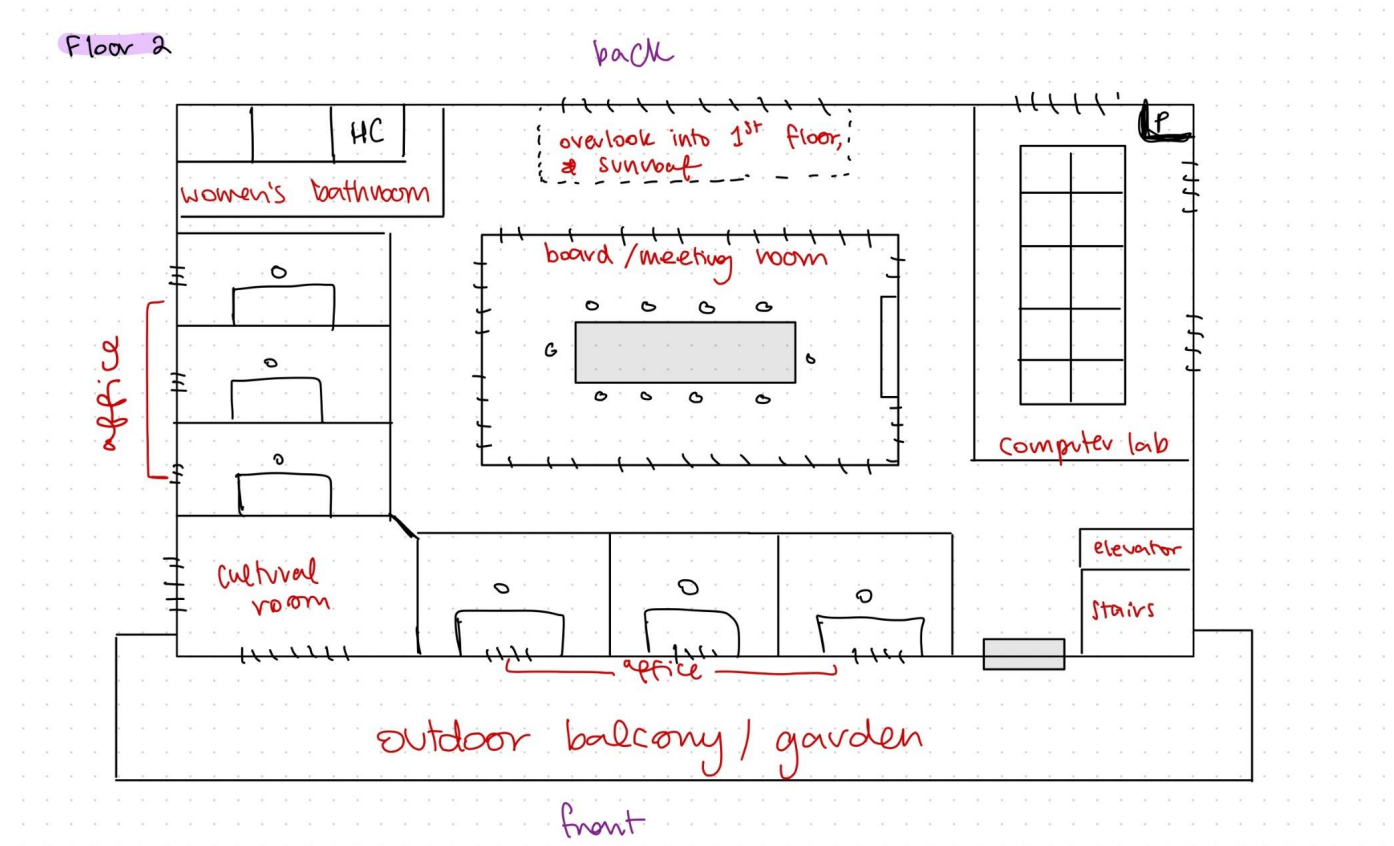


Figure 9: second floor design (Angelique)

Womens bathroom: 3 accessible stalls, includes 2 sinks and a hand dryer.

board/meeting room: The boardroom, positioned in the middle of the building, is surrounded by soundproof glass walls to maximize natural light. It is currently arranged with a large table for group discussions and meetings, offering a commanding view and a sense of connectedness to the activity and with a large projector screen at the front

6 offices: The office spaces near windows are designed for optimal sunlight and are equipped with a desk, computer, and 2 chairs, making them suitable for focused work and one-on-one or small group meetings. With six workstations available, this setup is ideal for various computer-related and administrative tasks, enhancing its versatility

Computer lab: 10 individual work spaces equipped with a computer, charging ports, chairs, work space dividers and a printer

Sunroof: provides natural light into the building as well as enhances the feeling of openness of the building

Balcony: walk-out balcony that includes a smaller garden or planters. It will wrap around the front of the building.

Cultural room: can be used for any group activities, can be used as a room for visitors, and educational center or as an extra room.

Comparison of Designs

<i>Design</i>	Pros	Cons
Design 1	<ul style="list-style-type: none"> - Very accessible - Room for growth - large garage door located near to both the freezer room and plant processing area. 	<ul style="list-style-type: none"> - No space designated for plant processing station - Storage room on second floor is problematic for easy access to equipment
Design 2	<ul style="list-style-type: none"> - Contains enough storage for clients needs - Separate spaces for each kind of work - Dual-purpose spaces - Closet for outdoor clothes 	<ul style="list-style-type: none"> - Few accessibility options - Possibility of cross contamination - Little natural feel and connectivity to nature - Distance between outside and storage spaces
Design 3	<ul style="list-style-type: none"> - Client likes rooftop garden - Loading bay is near storage and freezer - Very large lab space - Chairs and tables in open space for easy discussions 	<ul style="list-style-type: none"> - No accessibility for the second floor - Lab is far from storage and freezer - Only 2 washrooms and only on first floor
Design 4	<ul style="list-style-type: none"> - Lots of room catered for extra workspaces - Access to rooftop - High ceilings and natural decorations 	<ul style="list-style-type: none"> - Distance from garage doors to freezer
Design 5	<ul style="list-style-type: none"> - Allows lots of natural light into the building as well as having multi-use rooms and open space - Cultural room leaves extra space to cater to the community - Includes all required functional spaces 	<ul style="list-style-type: none"> - Not a lot of extra room for expansion or growth within the facility

Written Analysis

Community and culture are of paramount importance to the Algonquin First Nations, serving as the cornerstone of their identity and heritage, providing a deep connection to their ancestors and the land they have inhabited for generations. These shared values and traditions not only preserve their unique way of life but also foster a sense of unity and resilience among Algonquin people, enabling them to navigate the challenges of the modern world while preserving their rich cultural heritage.

With that being said, when choosing designs at this point in the project based on both feedback from the client and project guidelines, we need to focus on both the functionality and accessibility of each design.

For the overall building, *Design 1* was chosen based on its openness and accessibility as well as client approval. The design reflects functionality, flexibility, and a contemporary aesthetic, catering to a wide range of our client's requirements. The two large garage doors make it easy to load, unload, store and promote a constructive atmosphere, the overlook makes the building feel natural and refreshing, and the large workspaces allow the spaces to be multi-purpose.

An addition to the chosen design from other presented designs would be the rooftop garden from design 3. A rooftop garden offers a multifaceted advantage by enhancing urban green spaces, mitigating temperature extremes, and improving air quality while also providing recreational and aesthetic benefits.