



uOttawa

Project Deliverable C

GNG 1103 A05, Group 19

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Section 0: Introduction

The purpose of this document is to outline the design criterion required to fulfill the clients needs as previously outlined in Project Deliverable B as well as to get a benchmark idea of what a project like this has entailed for other designers in the past.

Section 1: Needs + Design Criterion

#	Need *Red=low importance, Green=high importance.	Design Criterion(s)
1	Various handheld equipment	Storage in the workshop should be included to accommodate handheld equipment.
2	Mobile workspace	<ul style="list-style-type: none"> Needs to both be big enough to store required equipment, 4ft tall and 2 ft wide should be a good starting point. Needs to be mobile, putting the apparatus on wheels should achieve this.
3	Road access required	Much easier if construction occurs near a pre-existing roadway.
4	Proximity to natural resources required	Selecting a location that is a suitable distance from significantly developed land should work.
5	Proximity to swampland required	Selecting a location in the 10s of millions square hectares of wetlands in Ontario would work.
6	Accessibility for elders to the building and throughout the building required	Building accessibility ramps, having handicapped parking, and building some small paved paths in some outdoor areas for easier wheelchair use should suffice.
7	Budget is 250 thousand dollars	Focusing on the most important needs and using cost effective building techniques should aid the project in staying on budget.
8	Duration of construction should only be approx. 2 years	<ul style="list-style-type: none"> Less complex building design will decrease construction time. Choosing a location closer to major roadways will make construction faster as well.
9	Small office with 10-person occupancy	Should have an open design to promote teamwork as well as the proper equipment for office work (computers, notepads, etc)
10	Small kitchenette for staff	Should have lots of storage space to accommodate many employees moving through the kitchen everyday

11	Washroom(s) required	If there's going to be approx. 20 employees there should be at least 4 toilets (two for women two for men)
12	Outdoor space required	A starting size of 0.5 acres should be sufficient.
13	A common/boardroom area required	Enough space to fit ~10 people comfortably (300 square feet)
14	Shed separated from building for trucks	Should be approx 6 meters by 13 meters to accommodate for 5 vehicles.
15	Freezer space required	A couple of commercial freezers should be reasonable.
16	Space to dry hides and clean fish.	Should be approx. 16-20 ft high and be located in or around the cultural space.
17	Workspace for experiments to be carried out as well as spaces for computer monitors for data processing (ie. a lab)	Needs enough space for 5-10 people to comfortably be working in there at all times, therefore 5 monitors, and probably 200 square feet in size. This lab must have proper lab benches that can be sanitised and have cupboards for storage.
18	Space to dry and store medicines	A large cupboard sized space (approx. 6 x 2 ft) should suffice.
19	Multi-functional workspace preferred	Include plenty of open space in the offices and generally around the entire building, include various types of furniture such as standing desks, and make sure the space feels flexible.
20	Building should reflect First Nation peoples and culture	Include many aspects of first nations culture in the building. These can be shown through art and the design of the building itself.
21	It should be situated in a way such that nature is not tampered with	Having construction located in a space already devoid of thick foliage should help this.
22	Should be a place where First Nation communities can connect	Giving the building a very open feel with warm colours helps encourage communication and community in general. Potentially even advertise this location to local communities as a fun location.
23	Loading Bay	This is a part of the building where staff can back their truck up and open a garage/double door to the building and bring things in with ease.

Section 2: Benchmarking

Specifications: Freezer	Benchmark #1: Frigidaire (FFCL2542AW)	Benchmark #2: Norlake - 6' x 8' Walk-In Freezer
Cost:	\$1,200	\$21,744
Energy consumption:	426 kWh annually	700 kWh annually
Size:	24.8 cu ft	231 cu ft
Weight:	198 lb	A lot

Specifications: Lab bench	Benchmark #1: Uline Lab Workbench	Benchmark #2: Government Lab Enterprises, quick labs	Benchmark #3 Husky Husky 6 ft. Solid Wood Top Workbench
Cost	\$952	\$2124	\$368
Surface area	60x30" adjustable height. 29-39"	30x60x36 adjustable height	72 inches, corner to corner
Portability	150 lbs, no wheels	Wheels	No wheels, 105 lbs
Material	Phenolic resin	Phenolic resin	Wood
Storage	none	Upper shelves and lower shelf	none
Power	none	Power strip	none

Section 3: Reflection

The client meeting identified the main uses for this building and a scale of importance within the list of uses. The primary purpose of this building is split between ecological testing for the guardian program and a community center for indigenous culture practices. Most of our budget will be dedicated towards providing adequate facilities for lab work including computers, storage for samples, and specific scientific apparatuses. Our client made it very clear that while this building has the primary function of being a headquarters for NWGP it must also function as a space for the community to come together. This is why we will prioritize outdoor space, commonrooms and building accessibility. While in the client meeting

certain conversation regarding office space gave the impression that it is not a high priority for this building. Office space is expensive and our client mentioned renting some out, meaning it is most likely not a top priority. A maximum of 5-7 office workers means that there can be a decent sized lobby area with a washroom and kitchen attached in the same segment of the building and that will be more than sufficient. Our budget limits the amount of square feet the building can be so it is important to recognize what the client needs versus what the client wants.

WRIKE LINK

<https://www.wrike.com/frontend/ganttchart/index.html?snapshotId=gCkvqHKNPRqboJcBtn4b8J3TTZwecjCf%7CIE2DSNZVHA2DELSTGIYA>

Section 4: References

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<https://www.bestbuy.ca/en-ca/product/frigidaire-24-8-cu-ft-chest-freezer-ffcl2542aw/16617153>

Equipment, If. (2023). *Norlake - 6' x 8' walk-in freezer with top-mounted refrigeration*. iFoodEquipment.ca.

<https://ifoodequipment.ca/products/norlake-6-x-8-walk-in-freezer-with-top-mounted-refrigeration>

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