

Deliverable I: Design Day

Summary of our Project:

We, the Green Engineering Solutions, have created a research building to facilitate sample processing and analysis for the AOPFN Guardian Program. The concept of the building is inspired by a birch bark canoe with core values of Algonquin culture, such as sustainability, incorporated through the use of solar panels and a rainwater collection system.

Presentation Materials:

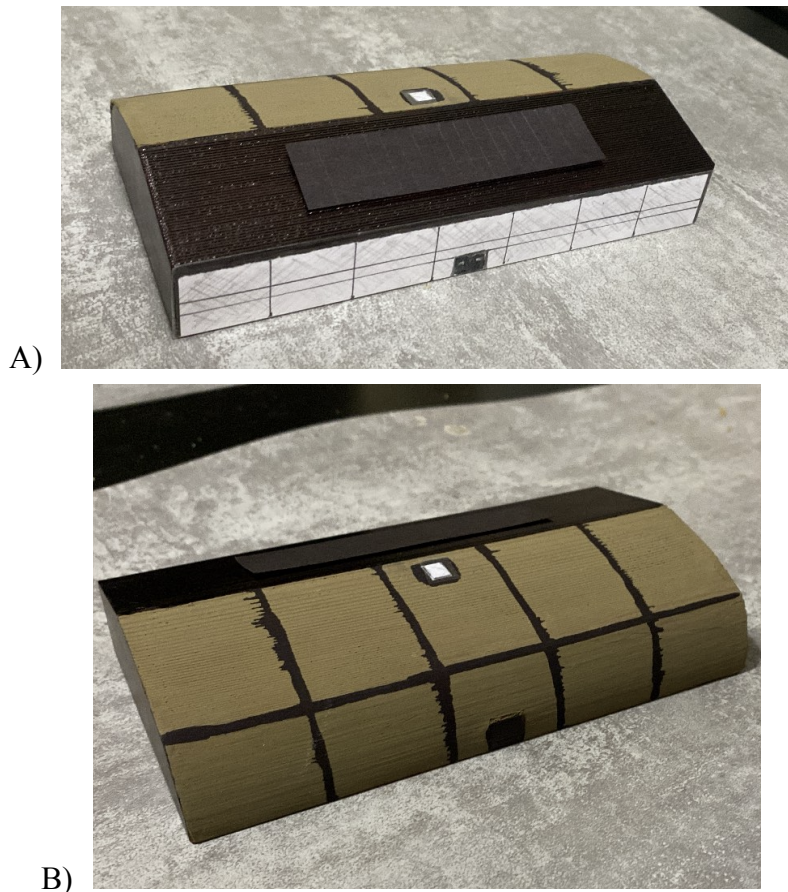


Figure 1 - Physical 3D model that will be shown on Design Day A) Front view B) Back View

Design Day: Important Points to be Talked About

Introduction:

We are the Green Engineering Solutions and we have been working closely with the Algonquins of Pikwakanagan First Nations (or AOPFN) Guardian Program. The Guardian program is a community-based program put in place by the Canadian government that uses plant/animal sampling to monitor the health of the land. They expressed a need for a building where they can conduct their sample processing and analysis that will also act as a pillar in their community while reflecting their cultural values.

Cultural Representation:

- Shape of the building is an overturned canoe because birch-bark canoes are a point of importance in Algonquin history.
- The lobby of the building is very open making it possible to display objects of community/cultural significance.
- The outdoor space is available for community events/cultural events
- We have incorporated sustainability by adding solar panels to the roof and ensuring that the roof is slanted to provide opportunity for rainwater collection. (This will save money and likely lengthen the lifespan of the building)

Functional Aspects of building:

- Lab space is equipped with a large garage door for sample transfer from trucks, mobile workstations to aid in sample transfer, freezer room, and plenty of storage for additional samples and lab equipment.
- There is a Lean To for company vehicle storage (accommodates 2 trucks).
- The building has 12 permanent offices as well as shared office spaces that can hold up to 16 people. There are 2 board rooms (1 private, 1 communal).
- The building has a Kitchenette/breakroom.

Wrike Snapshot:

<https://www.wrike.com/frontend/ganttchart/index.html?snapshotId=hzLby1GPJ3dmnI4yt4w4kGCrmNmaXeW8%7CIE2DSNZVHA2DELSTGIYA>