Improving Accessibility on Campus

Group 1 Project Proposal

Prepared for:

Dr. Emeka Oguejiofor, FEC, P.Eng

Paul Doiron, P. Eng

Jacob Daniels

Luke Drohan

Kerilyn Kennedy

Sara Murrin

Department of Engineering

St. Francis Xavier University

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1 Introduction

Accessibility on StFX campus is a problem. People who have physical mobility issues and are wheelchair bound, use crutches or other aids, or have difficulty walking are not being accommodated on our campus. StFX only has one ramp that connects the upper and lower halves of campus. Many buildings on campus are not wheelchair accessible. Possible solutions to this issue could include urban planning and technical solutions as the university transitions to an accessible campus.

1.1 Problem Description

Currently on campus, there is one ramp that connects the elevated part of campus and the lower level. Further, many buildings on campus are inaccessible or not easily accessible. For example, illustrated in *figure 1 (pg. 3)*, the Bloomfield building (13) is only accessible on the third level, with an elevator in the building. Other buildings like the Annex (10), Somers (22) and Powers (23) are not accessible to people with mobility issues. (See figure 1). The hill going north on Notre Dame avenue is too steep for many to climb safely. In the winter months, the accumulation of snow and ice makes steep hills impossible to climb and even flat sidewalks dangerous.
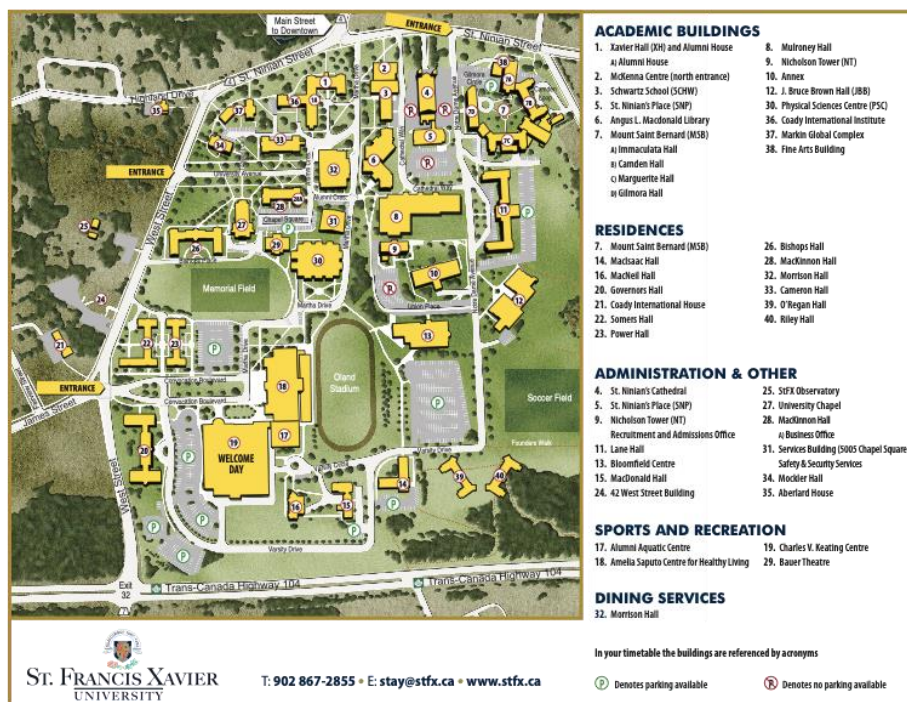

Figure 1: StFX Campus Map

As an example, a student in a wheelchair going from MacIsaac Hall (14) to Bloomfield (13) may need to go all the way to the ramp (circled), then back track to reach Bloomfield. If the ramp were to close, as it did under construction last year, people would need to leave campus and use the sidewalk on St. Ninian's Street to reach upper campus.

The lack of accessibility on campus unfairly affects members from the community, students and alumni by forcing them to extremes which could lead to unsafe situations, putting them at risk for further injury.

1.2 Background Information

According to StFX[1], in late 2017 the campus planning committee examined how students interacted with and used the campus, specifically where they parked and how they got around. They created a long-term framework plan that focused on pedestrian and vehicular traffic. The idea was to target specific sections of campus that they identified as having barriers to general traffic. These sections include Martha Drive, which would potentially become a pedestrian plaza closed to most vehicular traffic. Currently, there is no pedestrian sidewalk that connects Starbucks to the library and Schwartz meaning pedestrians are forced to walk on the side of the road. Another section identified was Notre Dame Avenue, in front of Lane Hall, that would also become a pedestrian plaza that restricted vehicular traffic during certain times of the day. The overall goal of their long-term plan was to make campus more pedestrian friendly, including moving parking primarily to the perimeter of campus to support their overall target. These plans are not necessarily being made with accessibility in mind, as restricting parking will reduce accessibility. Further, StFX seems to be prioritizing aesthetics over function, for example putting in a cobblestone walkway that would be a nightmare for someone in a wheelchair.

To compare, Dalhousie University reports[2] conducting an accessibility audit was completed at the start of 2019 to better understand the physical characteristics of the barriers to their campus. The data gathered will be used to kick off a full-scale accessibility plan for the university over the next decade. The goal for the long-term plan, is to make any building or accommodation around campus fully accessible to all. The key areas the audit identified for improvement were washrooms and main entrances, from various buildings scattered around campus.

2 Why Now?

According to Accessibility Services Canada[3], nearly 20% (144,000) of Nova Scotians are currently living with a disability, and this number is expected to increase as the population of the province ages. In April 2017, the government created the Nova Scotia's Accessibility Act, also known as Bill 59. This legislation aims to make Nova Scotia more inclusive and barrier free by 2030. In particular, the legislation states that all education centers must become fully accessible to all by 2030. This includes universities, meaning StFX must become fully accessible in the

next decade. Therefore, we believe that some of our ideas could be implemented towards making StFX fully accessible in the next 10 years.

3 Feedback from StFX Community

In order to get feedback with regards to the accessibility on the StFX campus, a short survey was conducted. To date, the survey has 104 responses. The survey was filled out by mainly students, but also faculty and a few community members who also use facilities on campus. The collected data from the survey suggested that 6.73% of responders identified as someone who has a permanent physical disability or someone who has experienced having a temporary physical disability while attending StFX. Of the responses from these individuals, most of the people said that they use or used crutches.

Pertaining to another survey question, it was found that an alarming amount of people rated campus as not being very accessible. Based on a 1-5 scale with 1 being not accessible, and 5 being highly accessible, 94.2 % of survey participants rated accessibility on the campus as a 3 or lower (*See figure 2, pg.6*). Participants were encouraged to give an explanation with regards to why they chose their numerical rating. This is one of their responses:

> I am considered now a fully abled person. But in my second year, I was on crutches for the entire year. I had a wheelchair but actually couldn't maneuver it on the campus due to potholes, uneven sidewalks that have both dips and lips that made the wheels get stuck, ice and hills, on a sunny day with no snow or ice my friend (very in shape friend) could hardly push me around in the chair. As a result, I had to resort to crutches. My prof who had an office in the Annex was actually so troubled by the accessibility of the building, that she offered to come to my residence building for our meetings and appointments. But I still had two classes and 2 labs that weren't taught by her in that building.

It is clear from this and other responses that StFX is clearly not meeting the accessibility needs of its community members, and changes must be implemented. Campus should be accessible to all individuals, regardless of abilities. Although this survey was extremely helpful with getting feedback from individuals who use the campus, most of the responses were from fully physically able individuals. The respondents were able to identify a great number of accessibility related issues on campus, but as physically able individuals, there was a high chance that obvious obstacles were not identified that only someone who struggles with having a physical disability would notice.
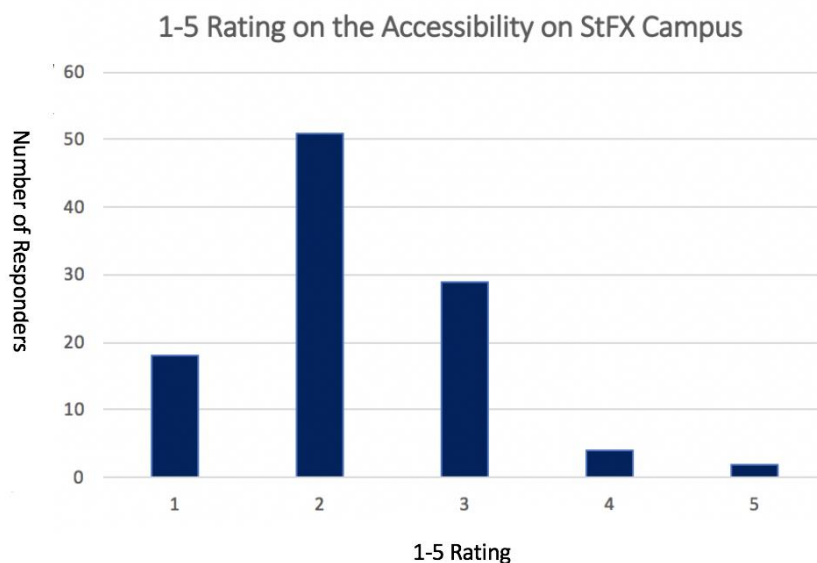
Figure 2: Accessibility Bar Graph

3.1 Meeting with L'Arche

 In order to collect data from a more diverse group of individuals with potentially higher mobility concerns, we decided to reach out to L'Arche. L'Arche Antigonish is a community situated in the town, where people with and without intellectual disabilities share life together[4]. It is often found that the members within the L'Arche community also have physical disabilities that accompany their intellectual disabilities. A meeting was arranged in order to gain insight with regards to accessibility from the perspectives of the members of L'Arche Antigonish, both support workers and residents. This meeting was extremely informative and gave us new ideas to add to the ongoing project.

One concern mentioned was how the Amelia Saputo Centre pool does not have very accessible change rooms at the pool. Part of the problem is that there is no gender neutral changeroom, which makes it extremely challenging when a support worker from L'Arche, who is the opposite sex of the member of resident that they are accompanying. The change room doorways and hall are also too narrow to comfortably navigate in a wheelchair. In addition, the building's only accessible entrance is through another building with many heavy doors in between. If someone has trouble opening doors, it is nearly impossible to access this area.

The main message from the people of L'Arche was to consult with community members who are going to use StFX spaces during the design process of these facilities – not afterwards.

3.2 Facilities Management

Our group will be meeting with Facilities Management on Tuesday, February 11th to discuss their future plans for an accessible campus. We will be asking for maps of campus and buildings, their ideas to improve campus and stressing the importance of communication with the physically disabled.

4 Ideas

Initial ideas for our project came from members of our group walking to and around all the buildings on campus. Specific areas that were thought to be particularly inaccessible were listed and focused on in the brainstorming phase. These highlighted areas are Schwartz, the Bloomfield Center, Immaculata Hall, the Annex, Safety & Security, Service Learning, Cameron Hall, Mackinnon Hall, Somers Hall and Power Hall. In addition to these areas we identified the lack of accessible pathways connecting the upper and lower parts of campus to be a major issue. Some more ideas include a general lack of ramps and automated door operators as well as poor signage indicating accessible routes.

4.1 Connecting Upper/Lower Campus

There are many potential solutions to this issue, such as a skywalk from the third floor of the Physical Science Center (PSC) to the path connecting Mulroney and Bloomfield, a conveyor belt machine directly below this area that would lift wheelchair users up the hill that divides upper and lower campus. These ideas ultimately proved to be impractical when compared to more simple solutions like adding ramps or accessible doorways on different levels of a building.

4.2 Schwartz School of Business

The main issue at the Schwartz building is the staircase between it and the library. There is currently no ramp accompanying this staircase and the nearest route to get around the Schwartz/library area is the ramp in front of Mulroney. This is a major inconvenience to anyone incapable of using the stairs. There is also a wall that runs on either side of the staircase that would be removed if a ramp were to be built.

The other issue with Schwartz is that there is no accessible entrance on the back side of the building. A simple solution to this is to put in use a door that is on the back side of the building across from the cathedral that is currently always locked. This project would also include installing an automated door operator.

4.3 The Bloomfield Center

The Bloomfield center is one of the popular buildings on campus, yet it only has one accessible entrance. The accessible entrance is on the third floor across from the Annex, the only routes to this from the first floor being to go up the large hill on Notre Dame Avenue or taking the ramp in front of Mulroney and doubling back. A ramp should be built from the parking lot to the first-

floor entrance. The gradient directly from the hill to the doors is steep, but there is plenty of space on the hill for a ramp that zig zags. Making this entrance fully accessible will not only require installing an automated door operator but making the doors wider by at least a foot, which can be done by removing the small column between two of the doors.

4.4 Immaculata Hall

Immaculata Hall currently only has one accessible entrance and it is inside Mount Saint Bernard down a long hallway with no signage whatsoever. The outdoor entrance has no room for the addition of a ramp so the solution to making this building accessible is improving the signage and/or installing a lift over the stairs to the outdoor entrance.

4.5 Safety & Security/Service Learning

Safety & Security is in the same building as Service learning and they are both below ground, so it is necessary to descend a set of stairs when entering. These buildings often need to be accessed by students so installing a wheelchair lift is the most practical solution to making these services accessible.

4.6 Residences

Cameron, Mackinnon, Somers and Power Hall are all virtually inaccessible and would require external elevators to be installed to be made fully accessible. Our meeting with facilities management should provide us with some insight as to what their plans are for these buildings.

5 Our Needs

To be successful, we need to collaborate with Facilities Management and senior members of StFX such as Dr. Kevin Wamsley and Mr. Andrew Beckett. Our goal is to contribute to our community, so our final designs should have the potential to be adopted on campus. By working closely with StFX, we can understand the institutional thinking and better design our solutions.

We also believe it is very important to have open lines of communication with the community. StFX should be a space for everyone, including the elderly and physically disabled members outside of students and faculty. Therefore, making sure their needs and issues are being addressed is priority. By continuing to communicate, we can ensure we are meeting their needs.

As mentioned during our meeting with L'Arche, both our team and StFX's need to be communicating with those who are physically disabled to prevent accessibility issues in the future. We need to make it clear to StFX that the voices of the disabled community must be listened to and their concerns addressed.

6 Timeline

This is a tentative timeline that we are aiming to stick to throughout the duration of the project.

February 14th	Have main issues identified after meeting with Facilities Management and L'Arche
February 28th	Research possible solutions, brainstorm and refine ideas using engineering techniques such as urban planning, structural analysis and mechanics
March 6th	Create actual designs and conduct cost and safety analysis
March 13th	Decide on final designs
March 20th	Create output files such as AutoCAD drawings, draft report
March 27th	Complete website and final touches
March 31st	Final Report Submission

Figure 3: Timeline

7 Conclusion

StFX campus has a vast and complex set of issues that require immediate attention. After surveying community members and speaking to those with disabilities, we understand the needs of our community and have identified the main problems. We hope to work closely with StFX to create real solutions to these important issues. Some of our ideas include installing more ramps, external elevators and creating accessible routes, maps and signage on campus.

8 Citations

1. Stfx Campus Planning, Facilities Management. https://www2.mystfx.ca/facilities-management/campus-planning. Antigonish, Nova Scotia
2. Taking action on Accessibility. Dalhousie University. https://www.dal.ca/news/2018/11/30/taking-action-on-accessibility.html Halifax, Nova Scotia.
3. Nova Scotia Legislation, Accessibility Services Canada. https://accessibilitycanada.ca/legislation/nova-scotia/
4. Antigonish, L'Arche, https://www.larcheantigonish.ca/