# NYU Shanghai Building Accessibility Survey

By Cameron Ballard, Nicole Chan, Nesma Belkhodja, Myles Herrera-Pease

May 2017

# **Prompt:**

Accessibility at NYU Shanghai - using the IMA wheelchair and walker, and taking what you have learned about visual and hearing impairments (through the context of task 5 analysis and your every day use of technology), navigate the NYU Shanghai building and surrounding area as you would in your typical day. Report your findings.

## **PPT Presentation:**

https://docs.google.com/a/nyu.edu/presentation/d/1SU26zFOmCV06IuoPwhZ1hfijFtdrmaIDozJ8r Ge L5k/edit?usp=sharing

# **Survey findings**

## Wheelchair

For many areas in the building, navigating in a wheelchair is extremely inconvenient or impossible to do independently. Our group decided to test these areas by going through an average day for an NYU Shanghai student in a wheelchair. We began by leaving the classroom and were immediately confronted with the first challenge -- though the door was large enough to exit, it is extremely heavy and must be unlocked from the top and bottom, both of which are out of reach for someone in a wheelchair. This was not the only door to cause difficulty. The main building doors lack a handicapped button to open them, rendering someone in a wheelchair again dependent on someone for assistance. Though the front/back doors do have a handicap button, it does not open the main doors (as we had expected), but only slows the rotating doors making it useless for a wheelchair user. Doors throughout the building, such as classroom doors, staircase doors, bathroom doors, were extremely heavy and hard to impossible to open without help for a wheelchair user.

We found many inconsistencies within the building. For example, the accessible bathroom on the first floor was *technically* accessible by wheelchair, though by no means easily (see <u>video</u>). The bathroom are all located at the ends of a long, extremely narrow hallways. This gives little range for turning in a wheelchair. Upon reaching the bathroom door, we ran into trouble opening the door since it is so heavy. Entering the bathroom was also a challenge -- since, again, the hallway is so narrow that it was difficult to get the wheelchair at the correct angle to fit inside the just-big-enough doorway.

View: Video of student testing bathroom accessibility



Narrowness of the hallway leading up to the accessible bathroom makes rotating to enter difficult. The weight of the door poses another serious problem.

The situation, however, is even worse on the eighth floor. There is a short steep ramp leading to the accessible bathroom. This ramp is almost at a 45 degree angle, and impossible to go up forwards or backwards. It not only impossible to enter, but also dangerous. The incline was so steep that the wheelchair began to tilt and almost tip backwards. Even with help, the bathroom is inaccessible to a wheelchair user.



Steep slope completely prevents access to other accessible bathrooms

When taking the elevator, some had handicap buttons on the side, but others do not. This was very frustrating since you can't really decide which elevator will arrive.

Another problem we found was a lack of inclusivity for students with disability. In the first floor classrooms (for example, room 101), all the seats and desks are all stationary. If someone in that classroom is in a wheelchair, they would be forced to sit in the front, away from their classmates and without a desk.



Wheelchair cannot access fixed desk/chairs

This notion of permanent/bolted furniture and desk sizes/heights causes a great problem for students in wheelchairs and walkers because they cannot fit. The eighth floor classrooms, for example, are much more customisable: they are on wheels and some have adjustable heights. Thus the configuration can be adjusted to suit everyone's needs.

The situation is similar in the auditorium, where wheelchair students would be forced to sit in a designated side area on the top floor -- again isolated from others. The auditorium's handicapped area also has an obstructed view of the stage.

When testing the library on the fourth floor, the wheelchair could not fit between the stacks, so a student with disabilities would need to ask someone to help finding or reaching a book. These students would not have the ability to enjoy the school's resources in the same was as their able-bodied friends and peers.

# Walker

The walker experienced many problems similar to the wheelchair. We started our journey in one of the IMA labs on the eighth floor, and exiting the room immediately caused problems because of the narrow space between the student and teacher's desks.

All of the building's doors are heavy and incredibly difficult to open if you have to awkwardly reach around a walker, and support your body with one hand. Entering the building was a major problem as the only assistance provided for individuals with disabilities was a button that made the revolving doors move slower. This was unhelpful since the walker was too big for the revolving doors and got stuck when we tried to enter the building.



Pressing handicap button does not open main door as we expected but slows revolving door.

The walker gets stuck in the revolving doors and the wheelchair cannot fit.

The elevators provided major problems. A person with a walker has reduced speed, so it can be almost impossible for someone with a walker to enter an elevator because the doors close quickly and external elevator requests can be overridden by the interior close button. In other words, if a person is approaching the elevator and pushing the call button, a person inside the elevator can force the elevator to close and leave.

The last major issue we experienced using the walker was the accessible bathrooms. The sharp 45 degree metal ramp mentioned earlier made the bathroom inaccessible to walker users as well. Someone who relies on either device, wheelchair or walker, to transport themselves could not use these bathrooms.

# • Visual and hearing impairments

Our group tested building accessibility with visual and hearing impairments by exploring the 4th floor library and testing the elevators. We did not find any major difficulties navigating the building with a hearing impairment because many services provide visual feedback. However, this made navigating with a visual impairment impossible.

We found the elevators to be particularly challenging to navigate with visual impairments because no audio feedback is provided about which elevators are arriving, which direction elevators are headed, or which floors are stopped on. The interior of the back (b2-15) elevators vary in physical design and usage: some buttons have braille, some elevators have button panels on the sides, and the floors change (some don't stop on the 14/15th floor, others don't stop on b2). You have no control over which elevator arrives.



Elevator from floor -1 to 15, buttons in two columns with no braille



Elevator from -2 to 15, buttons in 3 columns with braille



Buttons in horizontal orientation



Does not stop on floors 2-8

# Building and surrounding area general commentary

As you can see from our above entries, NYUSH has done little to make sure their building is accessible. In many ways, the building may qualify as technically up to par, but the actual use of the facilities would be extremely unwelcoming for a person with disability. The elevators lack any auditory aids, many of the "accessible" bathrooms are at the end of inaccessible hallways or ramps, and the main entrance is hard to use for anyone unable to push a significant weight. The weight of the doors is an especially pervasive problem, from the main entrance to the "accessible" bathrooms.

While not explicitly responsible for the accessibility of the shops nearby, the school has done little to help give people with disability access to the outside of the building and surrounding area. The area around the academic building is paved with cobblestone, making transit a difficult and painful experience for anyone using a wheelchair or walker. Even though there is a ramp into the building from the Century Avenue side, it passes by the smoking area, and only gives access through another pair of heavy doors. On the other side of the building, the only options for entering the building are to go in through the revolving doors or the two main doors in the middle. There is a handicap button available, but instead of opening the two main doors, as one might instinctively think, it only slows down the revolving doors as mentioned earlier.

In our tests, this only helped someone using a cane, while the walker got stuck, and the wheelchair could definitely not fit. This left attempting to enter through the main doors as the only option. The doors, as we have iterated, are extremely heavy, so it was almost impossible while using both the walker and wheelchair. It should also be noted that this was very difficult

for able bodied students using these devices. If someone with a real injury or disability tried we are not confident they could enter without help.

Though there is a wheelchair ramp on the Century Avenue side of the building, it only leads to the campus store and side of the building. It is impossible for someone in a wheelchair or walker to go down onto the sidewalk in front of the building, or access any of the shops or banks nearby because it is effectively blocked by steps on both sides of the building. As a result, a wheelchair bound person would be unable to even reach the ramp from the front side of the building. The pavement around the school is uneven and inconsistent, preventing easy access to the shops nearby. It is possible for NYU to at least make it possible for disabled people to get to the surrounding area.



Handicap ramp exits to a flight of stairs. This would leave a disabled user stranded.



The wheelchair ramp is only useful to visit campus store since steps prevent mobility on right.

A person would be forced to exit on the other side of the building (to the left), however this route is made difficult by a speed bump.



Numerous changes in floor material around campus make traveling with wheels difficult because of the ridges between them

## **Personal Reflections**

### Nesma Reflection

I really wanted to work on this project because when I was 11, I broke my leg skiing and was forced to spend about a month in a wheelchair. I was very lucky because my middle was relatively equipped for a student in a wheelchair, but I still felt, in many cases, inconvenienced by many of these accessibility features. I remember that there was only one elevator, in the far back corner of the school and it would often take me up to 10 minutes to go to a classroom directly upstairs. My health classroom had perhaps 5 or 6 unavoidable stairs leading up to it and so I was unable to participate for the duration of my recovery. Instead, my teacher gave me a series of readings and essays that I was forced to complete on my own in the library, while my friends were learning together in class.

I was curious to see what kind of resources NYU Shanghai offered to disabled and injured students. Though we found a lot of aspects of the building that made things difficult for these students, that is not to say that there are no efforts to be accessible. There are many ramps, some elevators with designated buttons, some tables at an appropriate height, etc. However, what I found disappointing is that, like what I was confronted with in my wheelchair, many of these efforts still leave students feeling different and isolated from the rest of their peers. Many parts of the school were technically accessible, but upon actually testing them we found that they were not actually accessible without help. Those that are accessible often leave students with disabilities off to the side, separate from other students. I think that if/when changes are made to the NYU building, practicality and inclusivity need to be kept in mind.

# Myles Reflection

NYU Shanghai is one of the most diverse and all accepting schools with regards to race, religion, and political views. It was for this reason that I thought it would also be decently accessible for students with disabilities. Unfortunately our findings, as you can see, painted a very different picture of NYU Shanghai, than the accepting place I thought it was before. There are many things put in place to help students with disabilities, but most of the time the outcome is far from comfortable if it is even successful. This is very disappointing as a whole section of the population and potential student body will find this school to be difficult to maneuver and simply exist in. The experience students with disabilities would have at NYU Shanghai would be vastly different than their peers. I hope that NYU Shanghai can acknowledge the changes that need to be made and make them so this difference can be eliminated.

In addition to the eye opening experience I got surveying the school, I also have a better understanding of what people who need to use assistive technology, like wheelchairs and walkers, go through during their daily lives. Before I was able to imagine it and observe, both through this class and in real life, but experiencing it and going through these three hours using this technology was a much different experience. I now understand how necessary it is for all places and institutions to be accessible for all people.

### Nicole Reflection

In my freshman year of college, a classmate injured his leg and was on crutches. Yet he still needed to climb a flight of stairs to the second floor before he could use the elevator that would take him from the second floor to the third floor. Around this time, a classmate made the comment, "NYU Shanghai is so lucky they don't have any students with disabilities." While this observation reinforces the disabled/able-bodied binary, the implication that NYU Shanghai somehow lucked out by not having any students that required physical assistance was, unfortunately, true. A student in a wheelchair or a student with a walker would have experienced immense difficulty living on the ECNU campus. I signed up to survey accessibility in our new academic building with that experience in mind.

What I found during our group survey was regrettably worse than expected. Many accommodations that seemingly exist to aid do little to help. For example, the wheelchair bathroom was situated at the end of a narrow hallway and required significant upper body strength to open the door and enter. A person actually in a wheelchair would not be able to easily use it. Similarly, the wheelchair ramp on the century avenue side of the school's ramp was quite steep and then required descending to a flight of stairs, completely defeating the point of having a ramp.

Despite being a new building, the NYU Shanghai academic building is in no ways disabled access friendly. Some of the design, such as the business lecture halls, may pass official building requirements but would create isolating experiences for students with disability. Other design decisions, such as front/back door, would make entering/exiting the building a daunting task on it's own. The academic building must be adapted so the experience is not hostile to potential

students and/or faculty/staff. These measures must be taken as soon as possible so they are proactive rather than reactionary.

## • Cameron Reflection

I have been in and out of physical therapy for various sports-related injuries, including once breaking both my arms simultaneously in a biking accident. This left me unable to do many basic tasks for a period of about 2 months. I remember getting around high school being somewhat difficult, just because it was hard to carry my books around. I didn't get a lot of sympathy from most of my teachers, who had little tolerance for my tardiness. Knowing how hard school was with the somewhat restricted use of my arms made me disappointed to see how little attention NYUSH seemed to pay to making the school accessible. Because we don't own the building, I can see large modifications being hard to implement. However, simple changes could be made to make the building much more accessible, one of the easiest being to make the doors to accessible bathrooms easier to open. It seems like such a big mistake to put the accessible bathroom at the end of a narrow hallway with a heavy door, but I can see how these are the kind of issues which fall through the cracks and leave disabled individuals with few options in society. Most people wouldn't make that consideration when building something and would instead focus on saving space and putting the bathrooms in a less visible place.

Speaking with Matt made me realize from a personal perspective how NYUSH's accessibility policies affect people who need them. Professor Petit repeated many times that we should bring these flaws to NYU's attention so that they have the opportunity to address the problem before someone actually needs them to. After seeing how hard the building is to use for a person with disabilities, preemptive accessible design seems even more necessary.