

BOBCAT ACCESSIBLE: AN ETHNOGRAPHIC STUDY OF MANUAL  
WHEELCHAIR USE AS IT RELATES TO ADA ACCESSIBILITY AND DESIGN AT  
TEXAS STATE UNIVERSITY

by

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HONORS THESIS

Presented to the Honors College of  
Texas State University  
in Partial Fulfillment  
of the Requirements

for Graduation in the Honors College

by

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San Marcos, Texas  
May 2016

## **ACKNOWLEDGMENTS**

First and foremost I would like to thank Professor Mark Carter for taking a chance and graciously agreeing to oversee my research project. I am deeply humbled and grateful for his generosity and guidance. In spite of the fact that he did not know me on a personal level at the time of the request, Professor Carter was willing to offer his assistance and expertise for this study. I am truly indebted to his kindness and wisdom throughout this journey.

I would also like to thank my wonderful friend, Rocio Malpartida. This study could not have been completed without her assistance. During the entire four-week period of wheelchair use, Rocio went out of her way to provide transportation for the study, allowing me to access campus with the wheelchair. What can I say but THANK YOU!

Lastly, I would like to thank my grandmother, Jane Neville and my family. Through your love and support, Grandma, you gave me the opportunity to finish my education and complete an honors thesis in the process. Words cannot adequately express my gratitude. Your generosity and compassion will always be remembered and cherished.

## **ABSTRACT**

This ethnographic study examines campus accessibility for individuals with physical disabilities, specifically manual wheelchairs users at Texas State University, from a first-hand, personal perspective. The large size and drastic elevation changes on the campus property makes it extremely difficult for manual wheelchairs users to traverse the campus. This qualitative study incorporates the researcher's month long participatory observation with using a manual wheelchair on campus, attending the 2015 ADA Compliance Committee meeting at Texas State, and conducting an interview with the Director of Design, Construction, and Planning at Texas State and ADA Committee member, Mr. Michael Petty. After coding and indexing the interviews and data, four main themes emerged from this study; 1) difficulty of the campus terrain; 2) ADA compliance and accessibility; 3) the overabundance of students; and 4) overall student awareness. Findings show that Texas State is indeed a very difficult campus for manual wheelchair users, not only because of vast size and rolling hills, but also because of the incredibly large number of students and cramped physical space. The student overcrowding was a major factor in a lack of general accessibility around the campus, which resulted in being a significant source of frustration during the study. Although there are numerous challenges that exist, ADA compliance and ADA accessibility throughout campus is very good. Both ADA features around the college and the ADA Committee members provide positive elements of accessibility to the university and should continue to strive to meet student needs.

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## I. INTRODUCTION

From the moment of arrival at Texas State University, in late August of 2014, I became aware of several prominent features of the campus. Immediately noticeable is the vast physical size of the main campus stretching along rocky and hilly terrain. Accompanying the large size of the campus is the fact that there are hundreds and hundreds of steps connecting various paths to buildings, walkways and other points throughout the campus. The main campus now spans distances of over 400 acres and houses 251 buildings. Along with these two impressive elements of the campus geography and layout of the physical campus, I also quickly perceived another aspect of student life at Texas State University. This aspect is one that in many instances, seem to be overlooked by the general population. I noticed how men and women in wheelchairs navigated the steep and lengthy ramps, and how difficult it appeared to be for them.

My attentiveness to this detail may be related, in part, to the years I spent working with individuals with developmental disabilities. Many of these individuals were also diagnosed with various physical and medical disabilities, which in turn required the use of wheelchairs and mobility devices. I worked with the developmentally disabled in several different settings and capacities in a number of group homes and day treatment facilities. Additionally, I supervised a group home for developmentally disabled adults for a three year period as well as providing private home health care for a paraplegic individual whose medical and physical needs required ‘total’ care on a 24 hour basis. The years of working with individuals with physical disabilities provided me a heightened awareness to the needs and challenges that this population faces every day. Being on a campus that is so laborious to navigate - my attention was focused on observing the

people who used wheelchairs around campus. As I watched these individuals navigate the campus ramps and walkways, my interest was sparked in finding out on a personal level what manual wheelchair users face when choosing to attend school at Texas State University.

Accessibility, especially in regard to those who have physical disabilities or mobility impairment, is a critical element in offering all potential students the opportunity to attend a university and obtain a post-secondary education. The very nature of the geography of the Texas State campus – with the rising and descending hills, differential movements of rocky hillside and river valley soils - has created difficult, if not impossible conditions to meet and maintain accessibility for every individual (Urban Design Group, 2009). This geography and hilly terrain proves to be even more challenging for those who need physical assistance with mobility. Navigating the campus, one can gather the struggle that a physically disabled individual might encounter if choosing to attend Texas State University. Along with providing accessibility for wheelchair users to successfully navigate the terrain, it is also extremely important for the university to provide other accommodations for accessibility. These ADA accommodations would include features such as accessible bathroom stalls, handicap parking, automatic door openers, and accessible signage. Texas State is mandated to assure that all buildings meet ADA law standards, and this is managed via the university ADA/504 Compliance and Steering Committee. These federal regulations are in place to not only provide access, but also to provide accountability and assurance that individuals at Texas State are provided with accessibility to whatever might be needed while on campus.

It takes an entire university, from administration to architecture to academics, to create a welcoming and inclusive campus. Accessibility issues should be prioritized at the highest level of the university. A greater need exists overall to understand the factors that facilitate or restrict the success of physically challenged students, especially on a campus with a landscape such as Texas State. The target audience for this paper are individuals who may use a wheelchair, more specifically a manual wheelchair, and desire further information as to how the University understands and addresses the issue of accessibility. This ethnographic study is an attempt to enhance my understanding on a personal level about the limitations and challenges facing students who use manual wheelchairs while navigating such challenging campus terrain. In addition, it is an examination into the current state of ADA accessibility and compliance at the university, while offering possible improvements for accessibility that would benefit both the physically disabled population and the University's ADA Compliance Committee.

## II. ADA

The significance of the Americans with Disabilities Act, or better known as ADA, relative to physically disabled individuals accessing facilities of higher education is monumental. The law, which was passed in 1990 by George H.W. Bush, ensures that all public universities and centers of education provide means for physical accessibility in campus design and planning (Madaus, 2011). ADA law has also given a legal voice for physically disabled individuals to demand the same accommodations as the non-physically disabled. Overall, the past twenty-five years have seen great strides made in the manner postsecondary education accommodates people with disabilities on all levels.

Texas is one of many states that created special litigation and an enforcement agency to oversee ADA compliance. The federal government, through ADA law, does not have a governmental organization to provide oversight, but rather it provides the means for individuals to take legal action against building and property owners. The Texas Architectural Barriers ACT (TABA) is a state legislation enacted in 1994 that governs sites and buildings, mandating that they all provide access to individuals with disabilities (Urban Design Group, 3). The guidelines attached to that legislation are known as the Texas Accessibility Standards (TAS) and are very similar but not identical to ADA. Unlike the ADA, the TABA charges the Texas Department of Licensing and Regulation (TDLR) with enforcement of TAS in the design and use of buildings and facilities that are open to the public in Texas. All newly designed buildings, as well as plans for renovation and/or construction, a final on-site review, and approval is required by TDLR trained examiners to assure that newly completed buildings and structures comply with the regulations (Urban Design Group, 2009). Texas State University

certainly falls under this umbrella and currently employs two ADA accessibility specialists.

### III. LITERATURE REVIEW

Scholarly literature pertaining specifically to ethnographic manual wheelchair use on college campuses is relatively scarce, but what relevant literature does exist demonstrates an importance for colleges and universities to adhere to ADA law and meet the needs of their students who are physically disabled. Providing equal access to all is the goal of the ADA. This act has helped improve access to a variety of facilities (Church & Marston, 2003). During the past 10 years, universities have greatly increased their focus upon ADA building and campus accessibility issues (Catlin, McCabe, Bowen & Babbit, 2010). The nature of a university is such that it is responsible for complying with the ADA regulations more than almost any other type of agency or business (Stanley, 1999). Colleges must be aware of the laws and be prepared to meet the needs of students with disabilities as dictated by federal mandates (Eckes, 2005).

The physical barriers differ depending upon the type of disability of the individual student. Students who use a wheelchair as a means of locomotion require ramps to gain access to buildings, and elevators to move from floor to floor (Hill, 1992). Wheelchair-bound students consistently have to travel further on the campus and for longer periods. The inaccessibility of certain buildings limits the full integration of wheelchair-bound students into campus life (Losinky, Levi & Saffey, 2003). Accessibility is an important characteristic of the geography of space, whether it involves a small area (e.g. elements within a building) or a large region (Church & Marston, 2003).

Access and accommodation should not be limited to physical structures or the removal of barriers, but must include providing the opportunities to develop social environments that are supportive, peer directed, and encourage the growth and

development of a sense of empowerment (Hill 1992). Because of the continuing nature of the many barriers and obstacles the wheelchair user may encounter during periods of time at the university campus, the administration could work in conjunction with physically disabled students. The partnership would further assure continued focus on the part of the facility to develop and utilize strategies to facilitate efficient functioning of ADA policy in the university setting (Stanley, 1999). The increased enrollment of physically disabled students at postsecondary institutions would also require an increased demand for knowledgeable staff. Specifically staff that is knowledgeable regarding the laws, disability issues, reasonable accommodations, and resources for that particular group. By understanding the environmental factors involved in successful transitions, students with physical disabilities can be better prepared, better served and more successful in their college careers (Livingston, 2000).

## IV. METHODOLOGY

For this study, a traditional ethnographic approach was utilized which allowed me to obtain a deeper and more thoughtful insight on the accounts of using a wheelchair on campus. Ethnography is the recording and analysis of a culture or society, usually based on participant-observation and resulting in a written account of a people, place or institution (discoveranthropology.org, 2015). I decided to incorporate a month long participant-observation using a manual wheelchair on campus, conduct interviews with relevant ADA Compliance Committee members at the university, and utilize the research database at the Texas State library to locate relevant research concerning wheelchair use on college campuses.

Data and themes were coded from my participant-observation and then coded separately from my interview and ADA Committee meeting. I analyzed both sets of data to find major relevant themes between the two. Of the many themes and subthemes that emerged, I chose to emphasize key findings that met one of four criteria; 1) themes that were raised concerning the difficulty of the camps terrain; 2) data and themes related to ADA accessibility on the campus; 3) highlights of personal frustration throughout the participant-observation; and 4) student awareness and/or lack thereof.

It should be noted that all of the data collected for this study came from direct contact. I did not record data - Ramp or ADA features - that I did not personally utilized during the study. For example, each automatic door opener I used, I recorded during the study. Additionally I compared each door utilized to the number of automatic door openers on the doors themselves.

The participant-observation component consisted of spending four weeks - 3/21/16 to 4/20/16 - on campus solely utilizing a manual wheelchair. Field notes were taken on a laptop computer and then coded for apparent themes and standout data. All instructors for my scheduled classes were informed of the research project, although specific accommodations were not required while attending class. I attempted to adhere to my usual routine on campus and keep to the daily schedule that had been previously established prior to the project. If questioned by people about the presence of the wheelchair, I responded by providing an explanation of the research project. At no point during the study did I pretend to have a physical disability. During the duration of the participant-observation, I was dropped off and picked up at the far west side of campus (Supple Science Building) every day. In an attempt to create the most authentic experience, I felt that it was important to blend in with the large student body and to be as inconspicuous as possible. Since I could not park on campus myself, the best available option was to be dropped-off and picked-up on a daily basis.

To represent and express the difficulty with ascending the ramps, three different criteria were used. First, measurements were taken of all of the ramps traveled on during the project - 24. A rolling tape measure was used to measure all the ramps in feet. Second, I counted the number of pushes it took to get up each ramp. Third, I timed myself going up each ramp in seconds. I believe this is the best way to relay difficult ramp information to the average reader. I did not calculate angle and slope of the ramp.

A map of my ‘path of travel’ around campus was created using satellite images from Google. It includes a representation of the incline and decline of the topography noted by different color of lines on the map. While this map is older and lacks updated

sections of campus like Bobcat Mall and Bobcat Trail, it attempts to provide the reader with a better understanding about what areas of campus are difficult for the use of a manual wheelchair. Each building that was utilized during the study was numbered. The map can be referenced in the appendix.

Mr. Michael Petty, the Director of Design, Construction and Planning at Texas State was interviewed for this study. Mr. Petty is also a member of the ADA Compliance and Steering Committee at Texas State University. I attended the October 2015 meeting of this committee to gain a better understanding of its function and role at the university. Both the interview and the meeting were recorded and transcribed for this study. Mr. Petty provided access to the ADA Master Plan located in his office in Facilities Building on campus. Relevant themes emerged and were coded from the transcript of the interview and ADA meeting to be used in the final analysis of this project. Standard database research was also utilized for research purposes through the Texas State Library to gather literature and data for this study.

## V. FINDINGS

**Table 1.**

Mr. Petty Interview & ADA Committee Meeting Qualitative Codes		
Categories	Sub Categories	Quotes
Campus Difficulty	Acknowledgement	"We have site here, or a campus rather than is absolutely unforgiving when it comes to accessibility. We know it. We know that it's difficult." - Mr. Petty
	Difficult Access	"If you were in Hines then I would suggest that you go...there's a flat street just right below Hill House that will get you over to what's known as ASB north and south. And it will get you over between that space between those two buildings. Which then will get you access to an elevator which will get you up over to Lampasas. Through Lampasas across that area where the new statute is will get you into the chemistry building."
	Lack of Space	"It doesn't have enough space. And so far we have been able to show the coordinating board that we have had a space deficit for I don't know how many years." - Mr. Petty
	Overcrowding	"We do not have enough space to accommodate the rate in which our population is expanding and increasing." - Mr. Petty
ADA Compliance	Urgency / Action	"We think about it. We push it. We challenge our people. And we are responsive. We do everything we possibly can to help." - Mr. Petty
	Importance	"If the law says it needs to be this, then make it that. Make sure it complies." - Mr. Petty
	Moral Obligation	"It's just the right thing to do." - Mr. Petty
ADA Master Plan	Purpose	"We have an ADA Master Plan and that is essentially what drives the prioritization of our projects for ADA upgrades and compliance." - Dr. Benn
	Availability	"That master plan is located in several offices. It's pretty large. We have been talking about making it a .pdf so that we can put it online but currently we haven't done that." - Dr. Benn

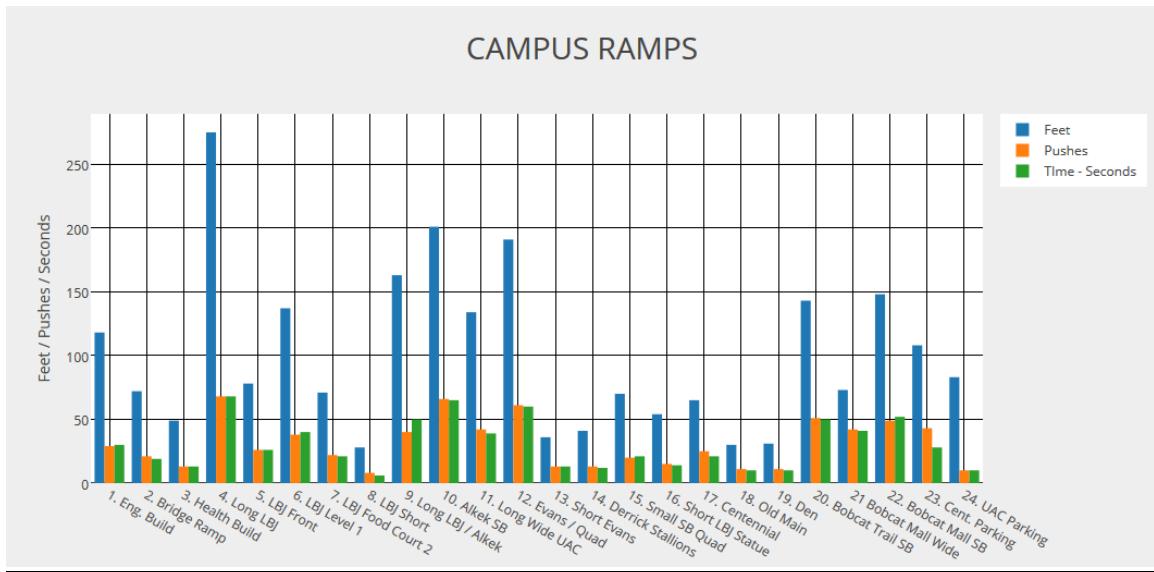
**Table 2.**

Participant Observation Coding		
Catagories	Sub-Categories	Quotes / Data
Difficulty of Terrain	Other People's Comments	"This campus isn't very wheelchair friendly, huh?" - Woman / "I don't see a lot of wheelchair users on campus" - Cashier
	Fatigue - Ramps, Gen. areas	constant resting, sore arms, exhausted
	Travel Time B/W Classes	planning, hurry, need more time /
	Elevation Changes / Areas of campus	276 ft from OM to ground JC Kellam, most difficult - Bobcat Trail, Bobcat Mall, Alkek side, Switchback ramps
ADA Features	Help / Assist w/ navigating	"You're not using a power assist?" - Student in elevator
	Personal Gratitude	thankful, appreciative, abundance
	Accessibility	Automatic door openers, water fountain, signs, bathroom stalls
Student Awareness	People on ramps	mixed awareness - some get off and some don't, blocking access on and off
	Concern for me	"Are you OK?" or "Do you need any help?"
	lack of awareness	Not offering to hold doors, seeing me and walking on ramps, obstructing path of travel, following me on ramp
Personal Frustration	People on ramps	In my way, on their phones, able-bodied, following me / 33.3% got off ramp or 1/3 got off ramp
	Buildings crowded	Alkek Library, Centennial Hall, Old Main, The Den, LBJ, The Quad
	No avail. tables	time spent looking, leaving the area, no outlets

***TRAVERSING THE TERRAIN: THE EFFECTS OF THE HILLS***

The physical appearance of Texas State University is striking, not only in its overall design and architecture and but also in the obvious vast size and quality of the terrain. Awareness of the inherent difficulty of the terrain is a feature that most individuals on campus develop quickly. The most significant elevation on campus occurs in the 276ft span from the bottom of the JC Kellam Building to the Old Main Building (Petty, 2016). There is little on campus that consists of a truly level surface outside of the buildings themselves. On numerous occasions, I have witnessed individuals in manual wheelchairs pushing themselves up long, steep ramps and trying to maneuver across areas such as the quad. Over the course of this study, numerous comments were made by random individuals about the apparent difficulty of navigating the campus. During the participant-observation part of the study, I spoke with five people. Each of the five people commented at least once on the perceived difficulty of using a wheelchair on Texas State University campus. While riding in an elevator in LBJ Building, a woman looked at and me and stated “This campus isn’t very wheelchair friendly, huh?” Another individual stated, “I don’t see a lot of wheelchair users on this campus. It’s so hard to get around.” Mr. Michael Petty, who is most knowledgeable about the entire structure of the building and accessibility at Texas State stated, “We have a site here, or a campus rather, that is absolutely unforgiving when it comes to accessibility. We know it. We know that it’s difficult”. This acknowledgement was not surprising and does show that there is an overall awareness that the terrain is extremely difficult for a wheelchair user or someone with mobility impairment.

The issue concerning the hilly terrain for manual wheelchair users lies in the fact that the larger number of ramps delegated for wheel chair use also have a high degree of difficulty in terms of navigation. The ramp difficulty exists in both the areas of degree of incline and length of the ramps. While smaller ramps do exist on campus, they are less frequent than longer ramps. Being able to relay information about the ramps to individuals who are unfamiliar with the structure of the campus was a priority in this research.



**Figure 1.** Bar graph of campus ramps

Listed above is a bar graph representation of all the ramps that I utilized in this study. The graph shows the length in feet of each ramp, number of pushes required to travel the ramp distance and time involved to push up the ramp incline. These factors were included to illustrate the overall difficulty of the varying elevation changes, time required to navigate the ramps and physical exertion that might be involved in a general

sense while using a manual wheelchair. The average number of feet per ramp was 100ft; the average number of pushes was 31; and the average number of seconds was 30.

In respect to traversing the demanding terrain, a prominent theme that emerged during the study was the amount of physical strength and energy that was required to navigate the campus in a manual wheelchair. It was frequently necessary for me to stop while using the wheelchair on campus- due to physical exhaustion. The demands of pushing the chair through the campus were far more difficult than what I initially anticipated. I found it necessary to stop at least once daily to rest during the time spent on campus. The most demanding sections on campus on which to use the wheelchair was the section of Bobcat Trail, up to Bobcat Mall, to all the way to Alkek Library. These three sections are all located on the south side of Evans Hall and Flowers Hall. I would travel across Bobcat Trail - a newly constructed court yard almost half a football field - and come to the first switchback ramp (143ft). After getting up this switchback, I would then take a break for a little while and then continue up to Bobcat Mall, which is at the front of Evans Hall. After resting again, I would wheel up a longer wide ramp (73ft), rest for a few moments, before going up another switchback ramp (148ft) to get me to ground level of the Undergraduate Academic Center, or in front of the Arch. I then would have to take another short break and continue to travel up another longer wide ramp (134ft). Again, it was necessary to break for a moment, and then continue up the final switchback (201ft) to get to the ground level with Alkek Library. I found these to be extremely tiresome and difficult sections of campus on which to traverse upon. On the days I where it was not necessary to wheel farther than Alkek Library, I would stay in that area or at LBJ Student Center. I made the decision to not return and push through the large switchback multiple

times a day. Even though the fatigue was a daily occurrence, resting several minutes proved to be effective and allowed me to regain strength to continue before I needed another break.

Since the terrain of campus is so difficult to navigate, I discovered that building access was also an apparent issue that I had not anticipated before the study. I located new routes to get up to Old Main. Building access played a role in planning the least energy expensive route that would be taken. Old Main is located on the highest geographical point on campus. Also located on that same hill as Old Main are Lampasas Hall and the Chemistry building. If one were walking to Old Main, then there are 5-6 routes available to take. If one were using a wheelchair, then there are only three available ways to go and they take much longer.

Getting up from the Quad area, I had to take a small switchback ramp that would put me ground level with the LBJ statue. I could then take a ramp in front of Centennial Hall that would allow me to take two different routes up to Old Main. The first was going into Centennial Hall on the ground level and then taking an elevator up to level 3 and out the side door. The other was getting off the ramp, continuing for a couple of hundred more feet and going under the teaching theater to the back of the Chemistry building where there is an elevator. I would have to take the elevator up to Level 2 and then travel down a long hallway that would bring out into the courtyard that is ground level with Old Main. The third way to get to Old Main is coming from the Den or the Education building. To get there I would have to take a set of elevators up to the fifth level of Lampasas. I would then have to travel through Lampasas and out into the courtyard. Traveling up to Old Main was not nearly as difficult as traveling up to Alkek Library.

Even though building access was an issue, especially at the beginning of the study, I was always able to reach all of my destinations.

#### ***THE ROLE OF ADA ACCESSIBILITY AT TEXAS STATE***

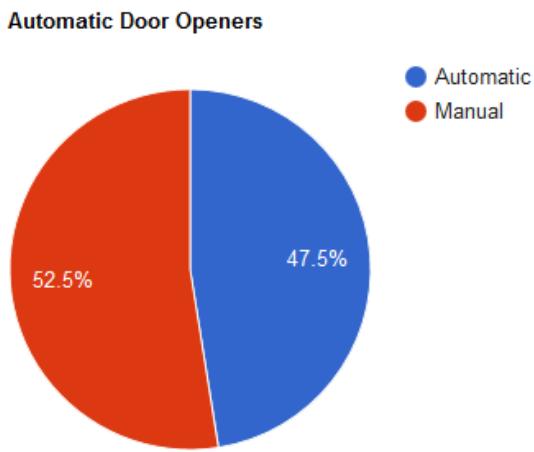
Not long after deciding to conduct this research project in mid-October of 2015, the Texas State ADA/504 Compliance and Steering Committee on Disabilities - as they are officially called - held their once-a-year meeting on October 26, 2015. The timing of the meeting was fortunate on several levels. It allowed an introduction for me as to how the university attempts to provide service to people with disabilities, as well as introducing the individuals/staff who maintain oversight and responsibility. The meeting was headed by Dr. Sherri Benn, the Director of the Office of Student Diversity and Inclusion, and Mr. Michael Petty, the Director of Design, Construction and Planning at Texas State. Discovering the individual roles of each of the committee members helped to gain a better understanding of the interface between policy and implementation. I later contacted Mr. Petty individually and set up an interview to discuss ADA accessibility at Texas State. It should be noted that I also attempted to contact Mr. Michael Reanue, the Director of the Office of Disability Services, but was not able to obtain an interview.

From the interview with Mr. Petty and attending the ADA Committee Meeting, I was able to gain a better sense of the importance of assuring ADA standards adhere to code and that the needs of disabled student are met on campus. During both the meeting and the interview, there was a strong sense of urgency and action present regarding assurance that ADA accessibility is provided. In our meeting, Mr. Petty routinely commented on the importance with providing ADA accessibility. He stated, "We think about it. We push it. We challenge our people. We are responsive. We do everything we

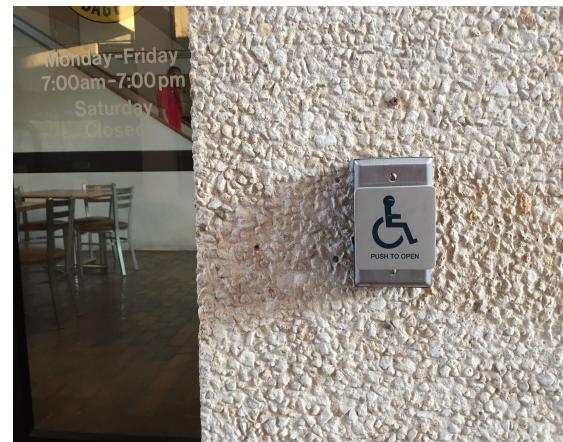
can to help.” This sense of urgency appeared to be extremely authentic. Mr. Petty indicated that there was a moral obligation to providing ADA adherence by commenting more than once, “It’s just the right thing to do.” The positive attitude and remarkable spirit of adherence to ADA accessibility are qualities that would be desired for all educational facilities.

The ADA Committee and Mr. Petty not only discussed the importance of providing access, they both demonstrated their commitment by developing a university wide ADA Master Plan. During the ADA Committee Meeting Dr. Benn stated, “We have an ADA Master Plan and that is essentially what drives the prioritization of our projects for ADA upgrades and compliance.” The Master Plan is a detailed map and documentation of every ADA accessible feature on campus. Every floor of every building is mapped out in terms of accessibility. The Master Plan reflects great attention to detail as well as a broad scope of all campus features. Although any student can view the master plan, the primary issue is that the plan currently exists in a large binder that is located in the ODS, Dr. Benn’s office and Mr. Petty’s office in Facilities. At the committee, meeting Dr. Benn commented, “The master plan is located in several offices. It’s pretty large. We have been talking about making it a .pdf so that we can put it online but currently we haven’t done that yet.” I believe that at least putting the map section on line would provide the means for people to use it who might need it. It is rather ironic that a document designed to help people with accessibility around campus, is well, not that accessible. The Alkek Library section of the ADA Master Plan can be referenced in the appendix.

Along with the ADA Committee's oversight and Mr. Petty's commitment to the spirit of the regulations, ADA accessible features were found to be quite good around campus. Features such as automatic door openers provided the means to travel in and out of buildings and rooms with greater ease and mobility. While I did get quite adept at opening doors with my hands, I was always glad to see a door with an automatic opener. I went in and out eight different buildings and traveled through a total of 40 doors. To my surprise 19 out of the 40 doors, or 47.5%, had an automatic opener. The number of automatic openers was certainly a positive attribute and one that much appreciated during the course of this study.

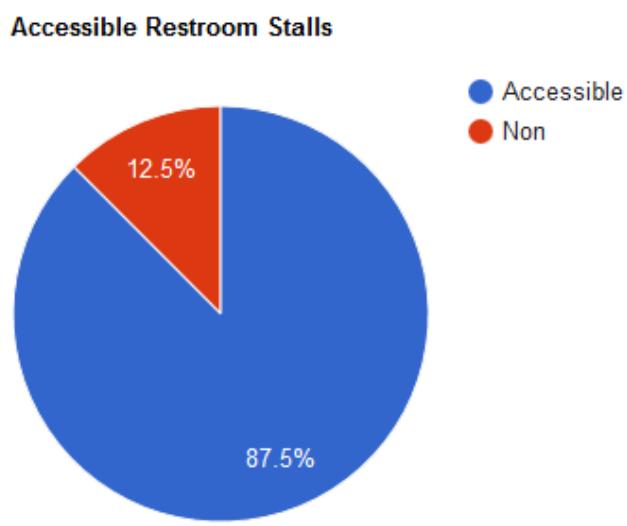


**Figure 2.** Pie chart - Automatic door openers vs. manual openers



**Figure 3.** Photo of automatic door opener

Along with automatic door openers, another highly important feature for manual and electric wheelchair users is bathroom stall accessibility. Out of the eight different handicap bathrooms I used over the month, I discovered that all of them but one had room for my manual wheelchair. The only one that did not allow enough room was the restroom on the sixth floor of Alkek Library. This stall was marked as handicap accessible in the ADA Master Plan. As pictured below, one can see how there would not be enough room to maneuver a chair in the stall and close the door. In all restrooms, I was able to adequately reach the sink, soap and towels. Overall, I was pleased with the extent of restroom accessibility around campus. I would recommend that a new student on campus utilize the ADA Master Plan to familiarize themselves with accessible bathroom locations.



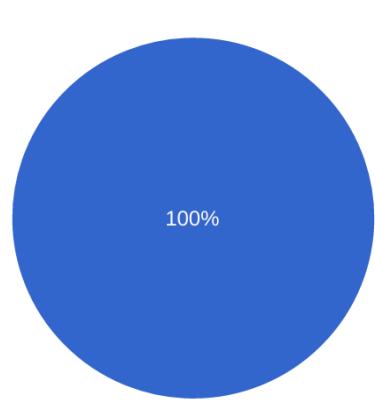
**Figure 4.** Pie chart for accessible bathroom stall



**Figure 5.** Photo of bathroom stall (non-accessible)

Water fountains might not be the most significant ADA accessibility feature, but they are important and necessary, especially on the Texas State campus. I used eight different water fountains over the course of the month, and every single one was accessible.

**Accessible Water Fountains**



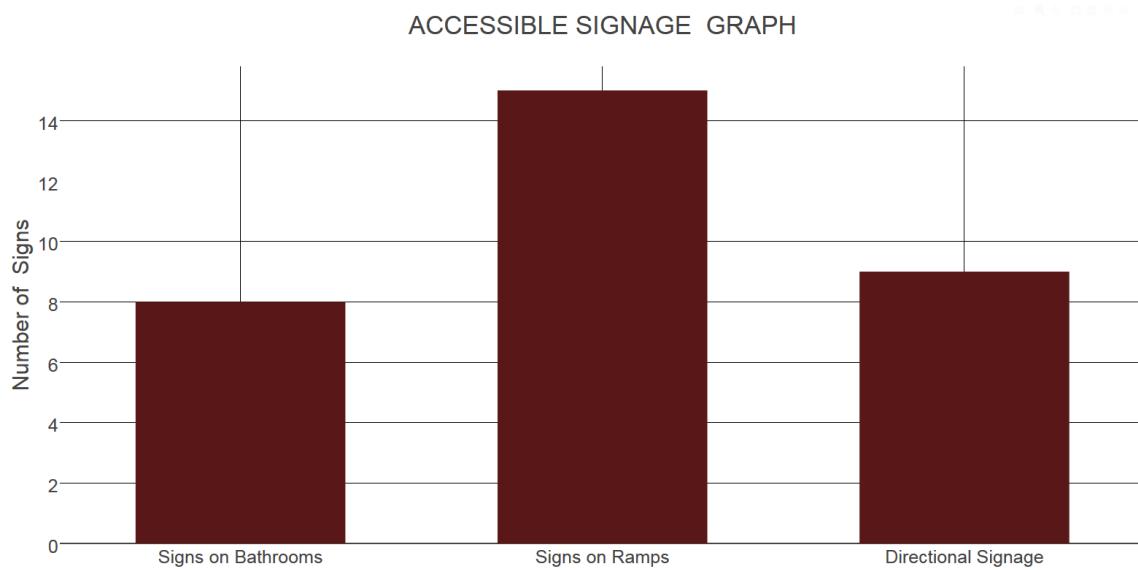
**Figure 6. Water fountain accessibility**

● Accessible



**Figure 7. Accessible water fountains**

Last but certainly not least on my list of ADA accessible campus features are signs. Signage is incredibly important to help inform and guide individuals who many need assistance. At Texas State, signs are in abundance. Since I already was aware of the layout of the campus, and was familiar with almost every area I traveled, it was not necessary to use the signs for instruction on campus. As previously stated, a new student would no doubt benefit from the signs on campus and would provide the new student with an easier experience navigating around the campus. The current signs on campus appear to blend in with the color of the buildings making them less conspicuous rather than obvious. The use of traditional blue and contrasting colors on the signs would be more effective in drawing attention to the information.



**Figure 8.** Bar graph accessible signage

My findings show that Texas State has done an exceptionally good job with providing ADA accessibility around the main part of the campus, including the ramps. The ADA Committee and Mr. Petty show genuine concern when it comes to making sure that all needs are attempting to be met. The development of the ADA Master Plan by the university highlights the direction that they are heading in concerning ADA accessibility. In an ideal world, everything would be accessible, but the university has demonstrated that they have a strong plan to move forward as the university grows in population.

#### ***PERSONAL FRUSTRATIONS: PEOPLE EVERYWHERE***

Although the findings show the overall scope of ADA accessibility on the campus, the ADA Compliance Committee and ADA accessible features to be quite effective and of significant importance for the university, there were other aspects of accessibility that were sources of great frustration. On numerous occasions throughout the participant-observation part of the study, there was difficulty in finding accessible

seating in buildings such as Alkek Library, LBJ, the Den, and in sections of Centennial Hall. There were many instances of arriving at the library only to discover an absence of available tables. In addition, location of tables with access to a power outlet for computer charging computer was even more challenging while using a wheelchair.

This theme was persistent in other buildings as well. For example, in the Den or LBJ, an excessively large number of students were present at certain times of the day that would make navigation of the area quite difficult. Naturally, with all of the people, tables were occupied, and the unoccupied tables were not accessible because of the wheelchair. From the perspective of a wheelchair user, especially someone who uses a manual chair, more time and energy is required to travel from point A to point B. Traveling to the library in a manual wheelchair to discover that there were no available tables on multiple floors, increased the sense of frustration. It would become necessary to leave the library and wheel to another building to locate an available table. This required expending more energy pushing the chair, hoping that there would be a table that could be utilized.

Besides the lack of table accessibility, another major frustration that I experienced was the large number of non-physically disabled individuals who chose to walk on the ramps rather than take the regular paths. This was a daily issue and a cause for concern. While there are many ramps on campus that are undoubtedly built for general population traffic, there are a number of which are very narrow and are clearly marked only for handicap use. The handicap ramps most traveled on by physically mobile individuals was the ramp leading to LBJ and Alkek, the ramp leading to the bridge in front of the Health Sciences building, and the ramp that leads up to Centennial Hall. I could almost guarantee that when I got to one of these three ramps there would be people either

coming down, or choosing to get on the ramp right behind me. There were many times that I would be pushing myself up the ramp leading to LBJ from Alkek and I would have to fight a flood of students coming towards me or feel the presence of somebody walking right behind my chair. Cell phone use by students on the ramps was also an issue. On one instance, while wheeling down the ramp located by the bridge I encountered a man entering the ramp with his face locked deep into a cell phone. This person did not look up from the phone until directly in front of me. Instead of turning around or at the very least apologizing, this person said “oh!” and proceeded to squeeze by me in the wheelchair. Unfortunately, this was not an uncommon occurrence. Many people use the ramps with their faces buried in their phones. This phenomenon of non-physically disabled students walking on ramps was not only observed during the study, but it was also observed throughout my entire two years on campus.

I believe that my sense of frustration does not necessarily rest with the students themselves, but rather with a larger problem of overcrowding on campus. For 18 years in a row (University News Service, 2015), Texas State has seen record-setting student enrollment, and the fall semester of 2015 saw enrollment numbers almost reach 38,000 students for the first time in school history, with an eye popping number of 37,979 (Texas State University, 2016). Alkek Library was built in 1990 when school enrollment was hovering around 20,000, and to my knowledge, it is still the same size now as it was back then. The school's mission to drastically increase enrollment could effectively be hurting the physically disabled population's need for access to basic accommodations such as accessible tables, available computers, and ramps that are clear of students. The problem truly boils down to a lack of space, which is certainly on the minds of others on campus

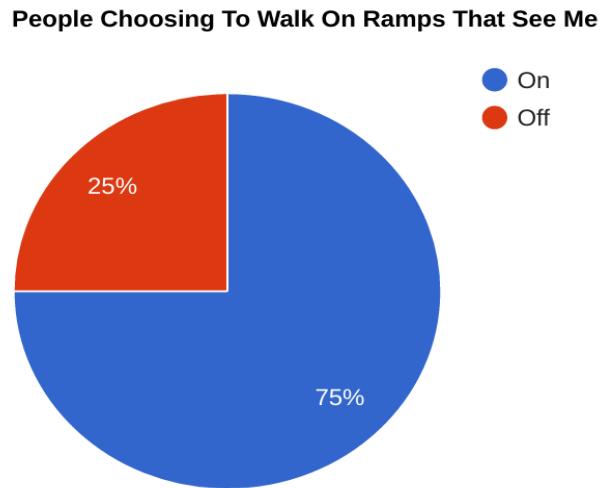
such as Mr. Petty. “We do not have enough space to accommodate the rate in which our population is expanding,” he said candidly during our interview. He went on to state, “It doesn’t have enough space, and so far we have been able to show the coordinating board that we have had a space deficit for I don’t know how long.” Awareness of this problem on the universities accord is extremely important and should be taken into consideration as they move forward with increasing enrollment, so that they do not alienate or turn off individuals who may have a mobility impairment that would like to attend the university. The geographical nature of the campus already limits the number of individuals with physical disabilities from attending school here, so it is important that the factor of overcrowding does not contribute to that as well.

#### ***DON'T YOU SEE ME? STUDENT AWARENESS***

A fourth prominent theme that appeared significant to me during the study, and one that I believe can be related back to my previous theme of personal frustration, is student awareness. I thought this aspect of my participant observation shed light on the nature of the student body and how they interacted with me during the study. While there were both positive and negative, attributes noted, for a wheelchair dependent person it is important to understand the overall culture and attitude of the student body towards individuals with physical mobility issues.

Ramp usage by non-physically disabled students, as previously discussed, was a major frustration and one that I also consider to be due to a lack of awareness. Many students would see me on the ramp and still choose to enter the ramp, even if the ramp was narrow. During one instance, a younger man utilizing a one-wheel power glide contraption – think Segway with no handle and one wheel - clearly saw me on the ramp

in the wheelchair. Instead of waiting for me to exit the ramp, this individual entered the ramp and rolled along side of my wheelchair, squeezing by me on the ramp. On another occasion, there was a group of six male students who were sitting on the sides of the ramp leading into level 2 of LBJ, and one standing directly in the middle blocking my path of travel. I rolled up to them, clearly wanting to get on the ramp, and the man standing in the middle turned around, looked directly at me, and then turned back around and continued talking to his friends. One of the students had to jump off the ramp and pull him out of the way. I found that an average of 1 out of 3 people clearly saw me on the ramp made the choice not to walk on it.

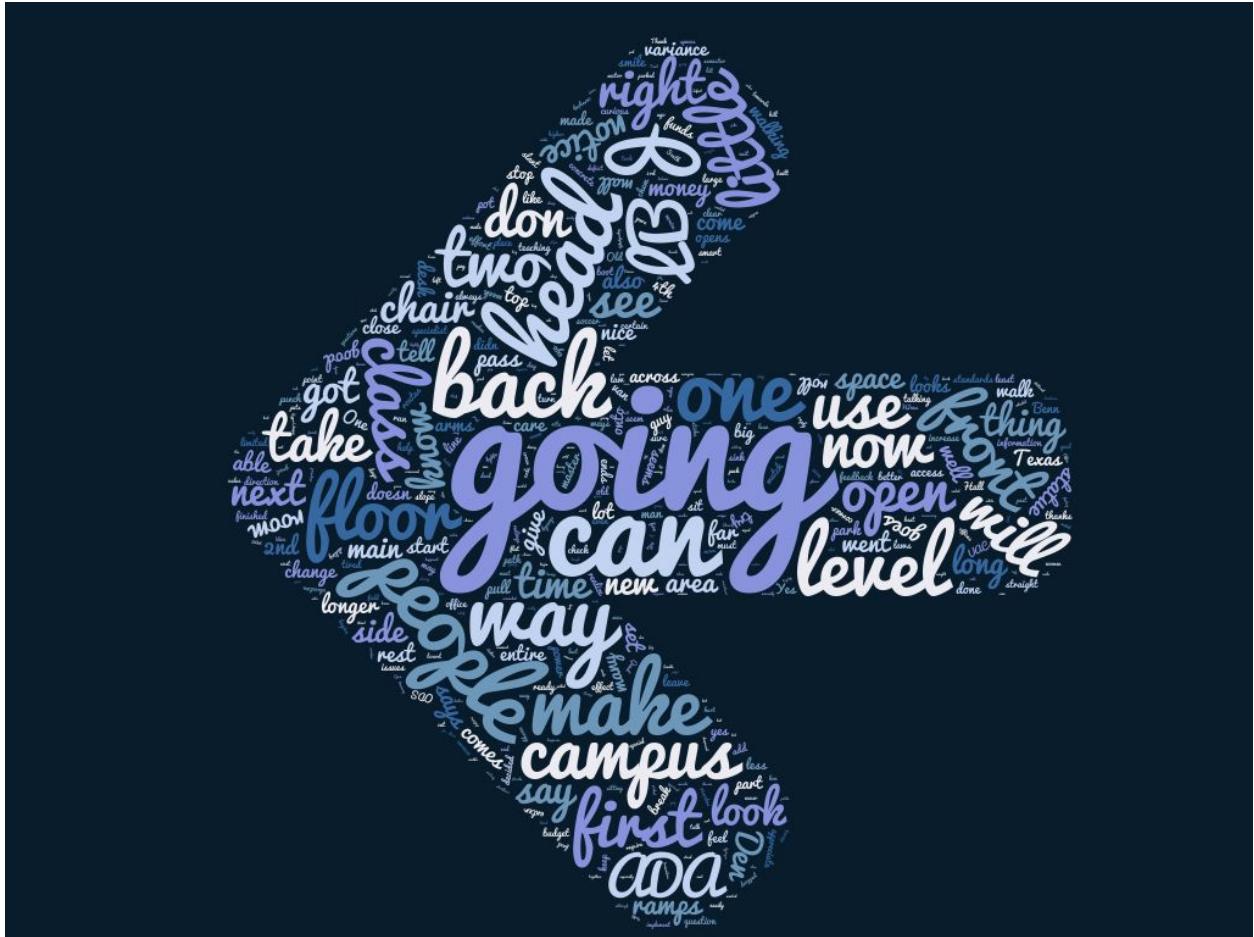


**Figure 9.** Pie chart of people on ramps

Along with students who I assume had a low sense of awareness, there were many who were highly aware, and who were genuinely thoughtful, offering their support. During the participant-observation, there were six different people who approached me to ask, “Are you OK?” or “Do you need any help?” All instances occurred when I would be taking a break from going up a steep section of ramp, but it was always appreciated that there were people around who cared about my well-being. There were also large numbers

of students who held doors open for me or at least offered to assist me throughout the study.

My overall findings concerning student awareness were a mixed bag of low-level awareness combined with sensitive and thoughtful individuals. Many students did not seem to be conscious or considerate of my presence in the wheelchair. Nevertheless, at the same time, there were many students who demonstrated awareness of the chair. When one has such a large number of people around himself/herself, there will certainly be people who fall into both categories. There was not an overwhelming feeling of purposeful disregard other than a few specific instances where people choose to walk on the ramps. The ramp problem can also be attributed to ignorance or a lack of information, which might be one in the same. I perceived that the nature of the student body at Texas State was a positive and welcoming one overall. Students could certainly benefit from a public service announcement from the university and Office of Disability Services about not choosing to walk on the ramps, and that could potentially benefit the situation.



**Figure 10.** Word / visual representation of field notes & interview transcription

## VI. CONCLUSION

Students who use manual wheelchairs on the Texas State campus face a tremendous challenge presented to them by the unforgiving landscape. The unique terrain demands elite physical strength and it is a factor that needs to be seriously considered by students who are looking to attend school at Texas State. There is a higher degree of potential injury when using a manual chair on a campus that is so physically demanding. Ultimately, using an electric wheelchair to navigate campus is probably the best option

for most people, or possibly using power assist technology along with their manual chair would make traveling easier.

In spite of the fact that Texas State is plagued by steep hills, the ADA Compliance Committee has demonstrated a commitment to meeting the needs of students through activism and attention to the physical features of the campus. Through the development of the ADA Master Plan, the ADA Committee has constructed a system to provide the necessary information on handicap accessibility to anyone who might need it, and at the same time using the ADA Master Plan to guide the progress of the school's ADA accessibility features. The ADA Master Plan still resides in large binders spread out in different offices around campus at this time. Once the ADA Master Plan Map is made available online, it will be accessible to everyone who might need it. It is imperative that the university continues in the direction of its commitment to accessibility to ensure that individuals who are mobility impaired have all of the same opportunities for as every non-physically challenged student

At the beginning of this study, a major concern centered on whether ADA accessibility would be found to be deficient. However, that concern transitioned from ADA access to general accessibility around campus. General accessibility while using the wheel chair was hindered in the broadest sense by a student body that has grown in record size the past 18 years. The university, now pushing almost 40,000 students, is witnessing its physical space dwindle, and the lack of space has a direct effect on a person who uses a wheelchair. Impediments such as not being able to find an accessible tables or seating, to the large number of people walking on the handicap ramps are quite frustrating. The students who choose to walk on the ramps demonstrate a lack of

awareness and only make the life of a wheelchair user more difficult. It is the university's job to encourage awareness and instruct students that the wheel-chair user should have "first access rights". Overall, these problems are also a reflection of the overcrowding around campus.

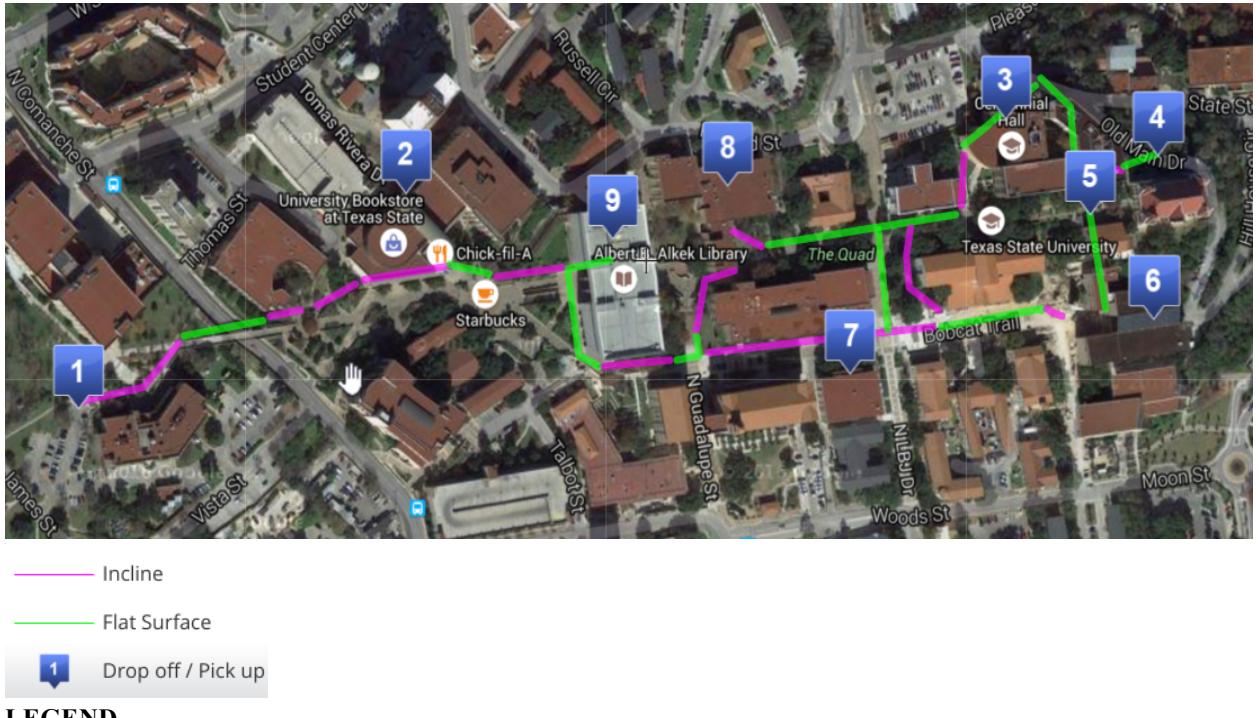
The bottom line is that Texas State University will not see a reduction in enrollment in the near future, and there is a direct correlation with the increasing lack of space on the campus. The wheelchair user will feel the impact of compromised space and this could very well make their experience at the university increasingly difficult. As discussed in this study, there is little doubt that Texas State University demonstrates a commitment to providing ADA accessibility. However, there are additional features that may be expanded to increase general accessibility for physically challenged students during the continued growth of the campus.

While the geography of Texas State University itself may deter certain prospective students, it is important that the wheel-chair dependent students at the university be offered the most manageable and barrier-free experience possible.

## **APPENDIX A**

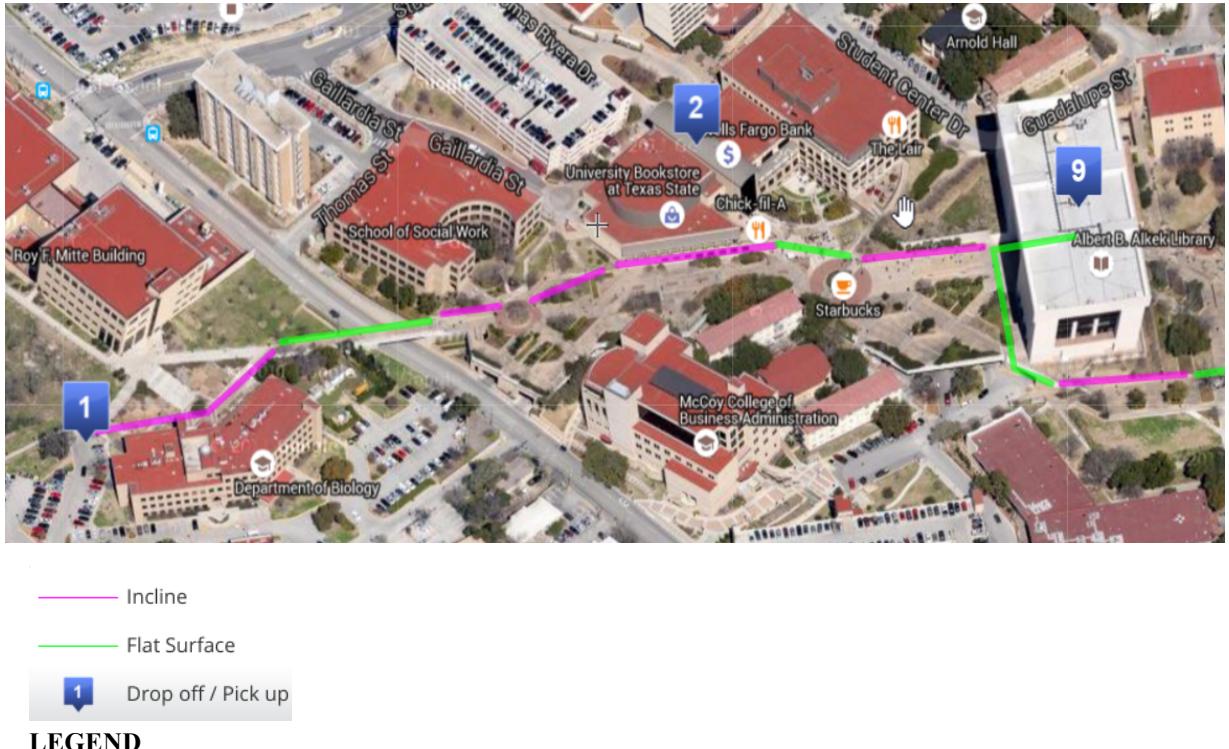
CAMPUS MAPS - PATH OF TRAVEL

## Wide View-Campus



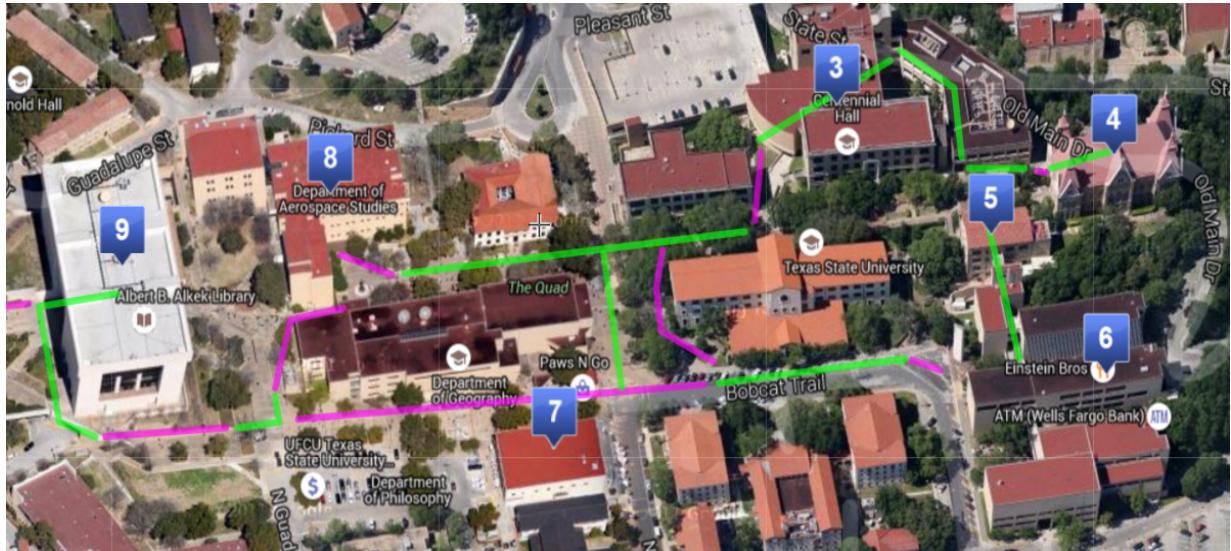
1. Daily drop off / Pick up
2. LBJ Student Center
3. Centennial Hall
4. Old Main
5. Lampasas Hall
6. The Den
7. Police Station
8. Derrick Hall
9. Alkek Library

## Section 1 -Westside of campus-



1. Daily Drop off / Pick up
2. LBJ Student Center
3. Centennial Hall
4. Old Main
5. Lampasas Hall
6. The Den
7. The Police Station
8. Derrick Hall
9. Alkek Library

## Section 2 -Eastside of campus-



LEGEND

- Incline
- Flat Surface
- 1 Drop off / Pick up

1. Daily drop off / Pick up
2. LBJ Student Center
3. Centennial Hall
4. Old Main
5. Lampasas Hall
6. The Den
7. Police Station
8. Derrick Hall
9. Alkek Library

**APPENDIX B**

## RAMP DATA

# Texas State Campus Ramps

Main Campus Ramps	Feet	Pushes	Seconds
1. Engineering Building Ramp	118	29	30
2. Bridge Ramp	72	21	19
3. Health Building Ramp	49	13	13
4. Long LBJ Ramp	275	68	68
5. LBJ Level 2 Front Ramp	78	26	26
6. LBJ Food Court Level 1	137	38	40
7. LBJ Food Court Level 2	71	22	21
8. LBJ Short Ramp	28	8	6
9. Long LBJ / Alkek Ramp	163	40	50
10. Alkek Switchback Ramp	201	66	65
11. Long Wide UAC Ramp	134	42	39
12. Long Evans Hall Ramp (Into Quad)	191	61	60
13. Short Ramp (the stallions)	36	13	13
14. Ramp into Derrick Hall (from stallions)	41	13	12
15. Small Switchback (into Quad)	70	20	21
16. Short Switchback (to LBJ statue)	54	15	14
17. Centennial Hall Ramp	65	25	20
18. Old Main Ramp	30	11	10
19. The Den (from Bobcat Trail)	31	10	10
20. Bobcat Trail Switchback Ramp	143	51	50
21. Bobcat Mall Wide Ramp	73	42	41
22. Bobcat Mall Switchback Ramp	148	49	52
23. Centennial Parking Ramp	108	43	28
24. UAC Parking Garage Ramp	83	10	10
<b>Totals</b>	2,399	736	718
Average	100	31	30

**APPENDIX C**

CAMPUS RAMP PHOTOS

**Bobcat Trail – Looking East (Switchback in Foreground)**



**Bobcat Trail Switchback Ramp – Looking West**



**Long LBJ Student Center Ramp**



**Alkek Library / LBJ Ramp – Going to LBJ Student Center**



**Ramp to Engineering Building****Bobcat Mall Ramp – Looking West to Alkek Library / UAC**

**The Quad: Looking East**



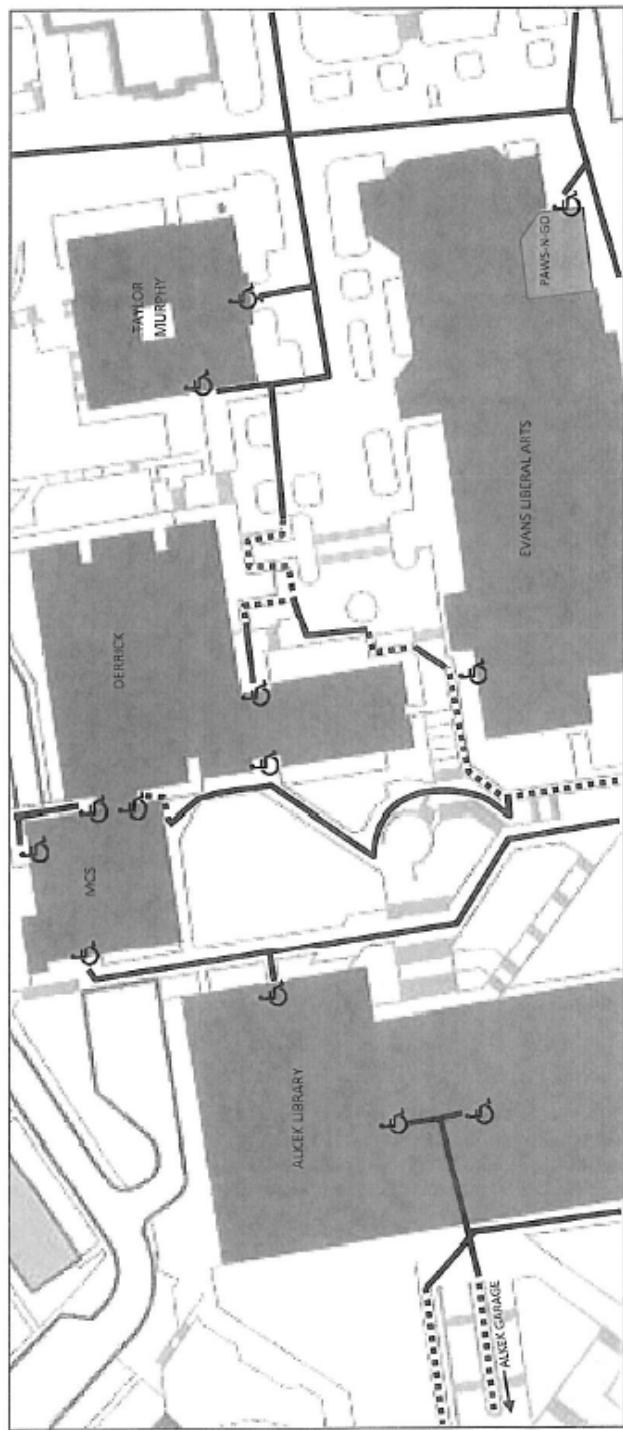
**The Quad: Looking West**



## **APPENDIX D**

ADA MASTER PLAN MAP  
(Alkek Library)

# 15 ALKEK LIBRARY



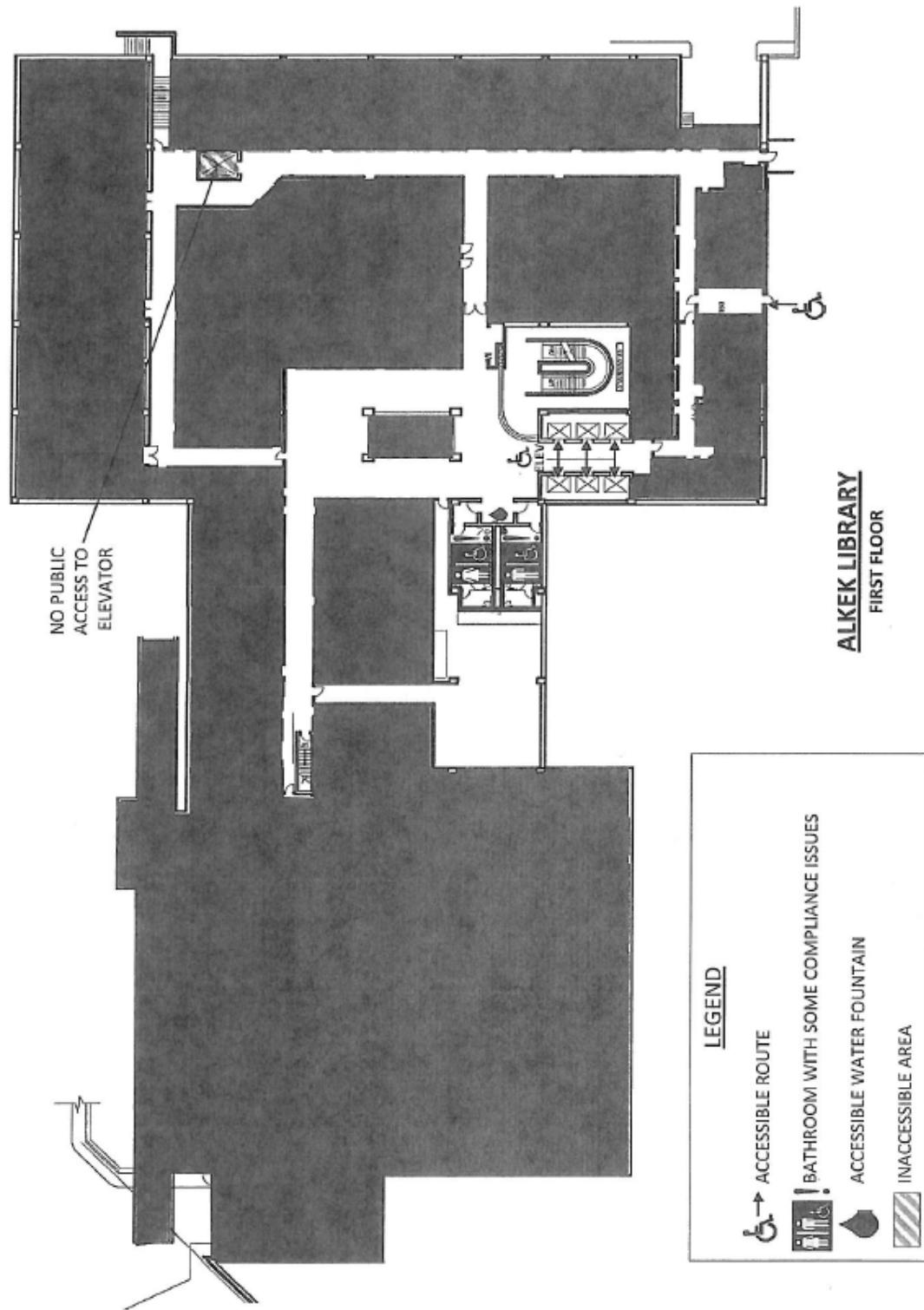
## Alkek Library Accessibility

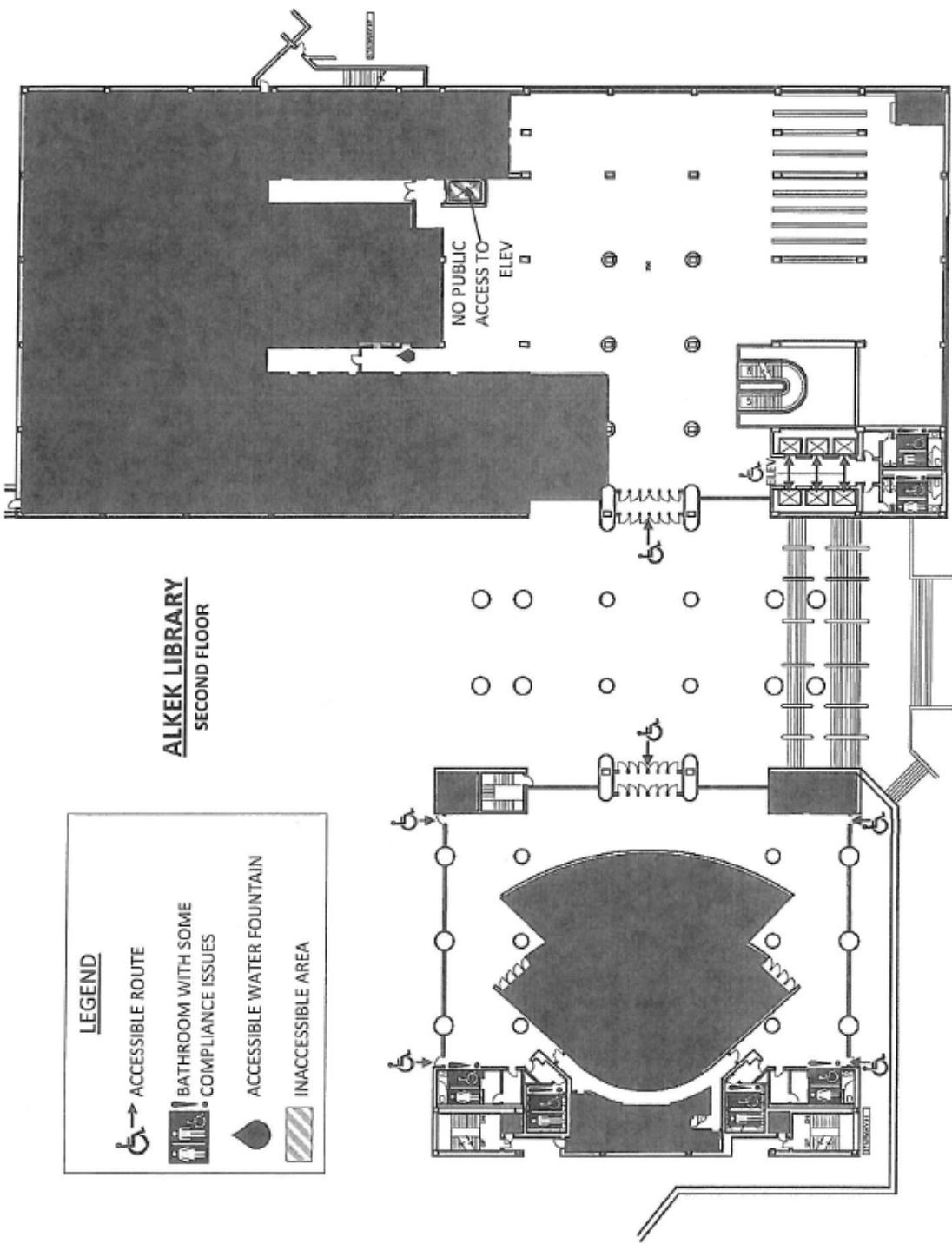
### Main Library

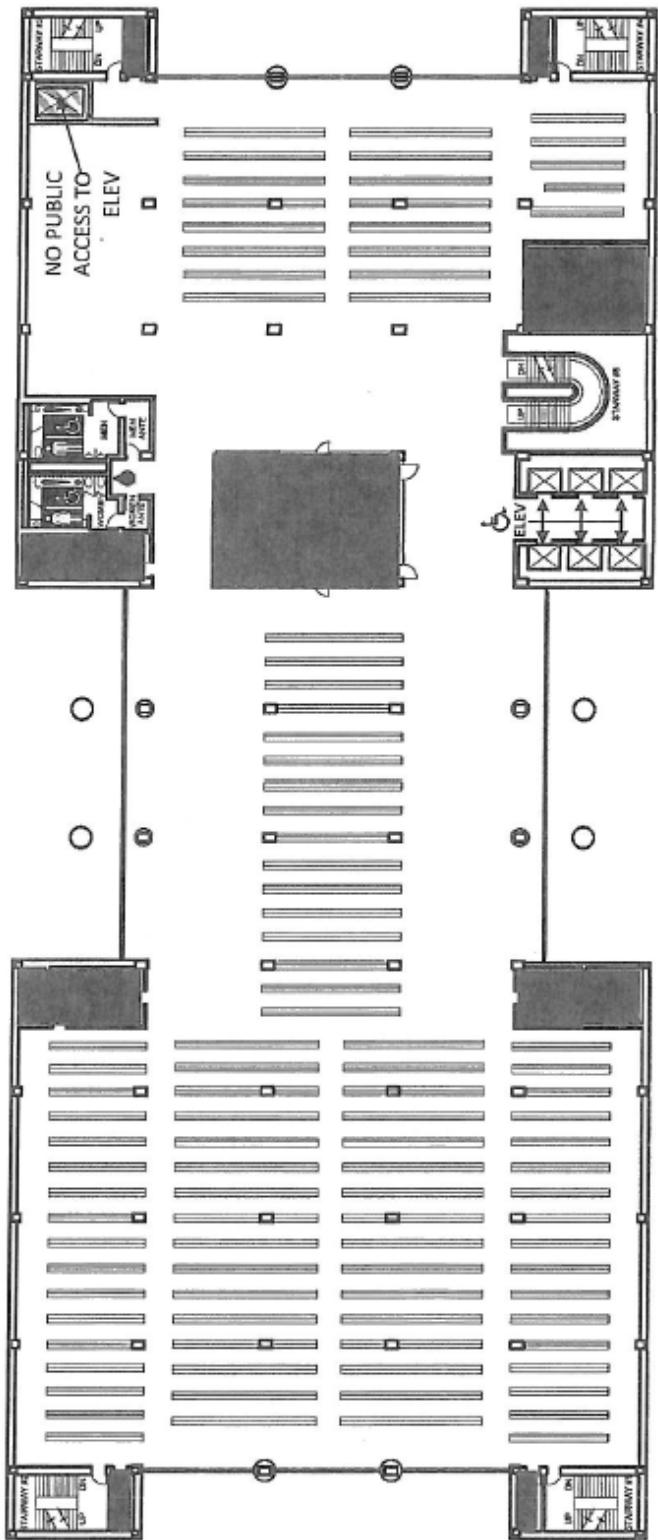
<b>Entrance Accessibility</b>	Main entrance is on the second floor with a semi-automatic door.
<b>Bathroom Accessibility</b>	All bathrooms are accessible except for sink pipes that are not covered.
<b>Drinking Fountains</b>	There is one accessible drinking fountain on every floor.
<b>Elevators</b>	Main six elevators have access to all floors. Additional back elevator is not for student use.
<b>Inaccessible</b>	All 1 <sup>st</sup> floor entries are inaccessible.
<b>Other ADA Issues</b>	Random, non-compliant interior door knobs are throughout the library.
<b>Accessible Parking</b>	The nearest accessible parking is in the Alkek Parking Garage

### Teaching Theater

<b>Entrance Accessibility</b>	Main entrance has a semi-automatic door. All side entrances are manually accessible.
<b>Bathroom Accessibility</b>	All bathrooms are accessible except for sink pipes that are not covered.
<b>Drinking Fountains</b>	There are no drinking fountains.



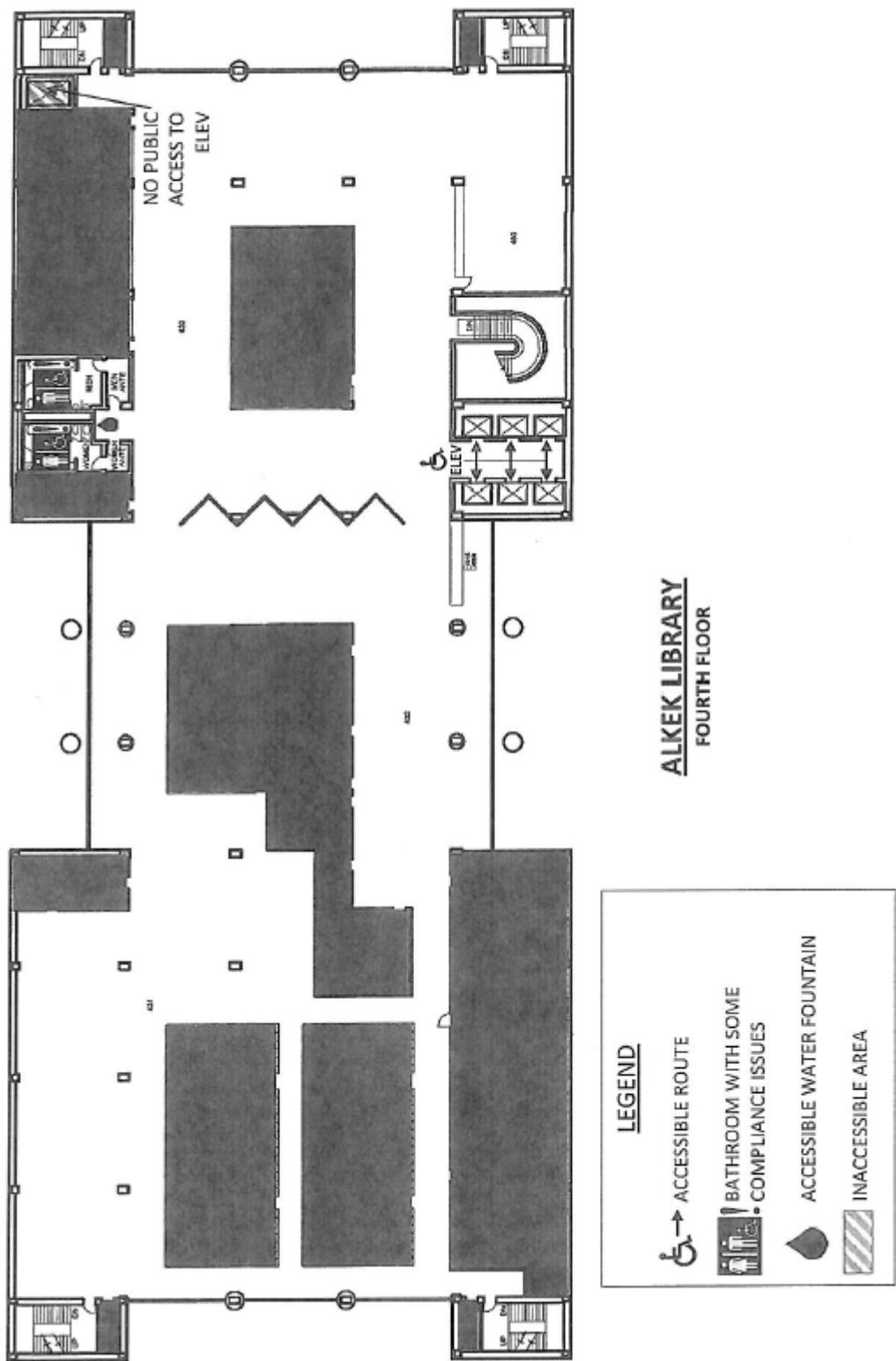


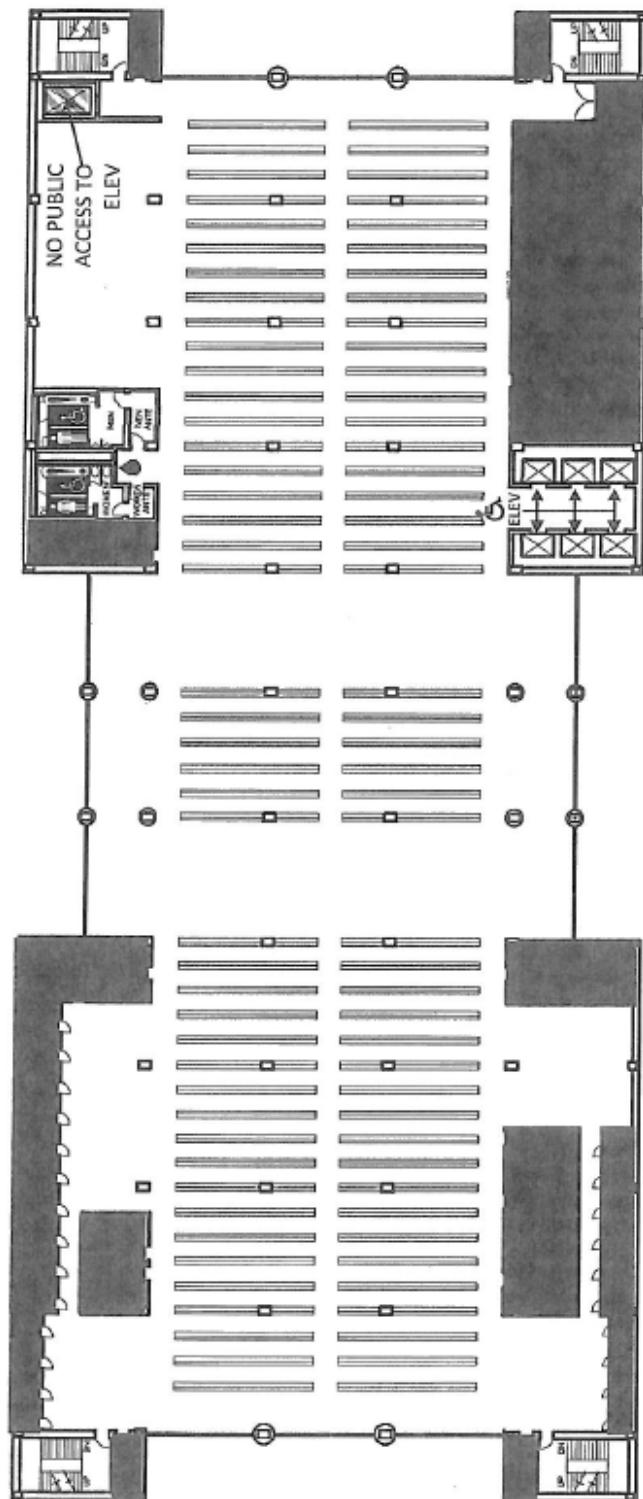


ALKEK LIBRARY  
THIRD FLOOR

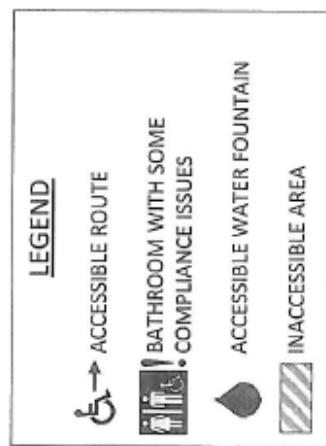
LEGEND

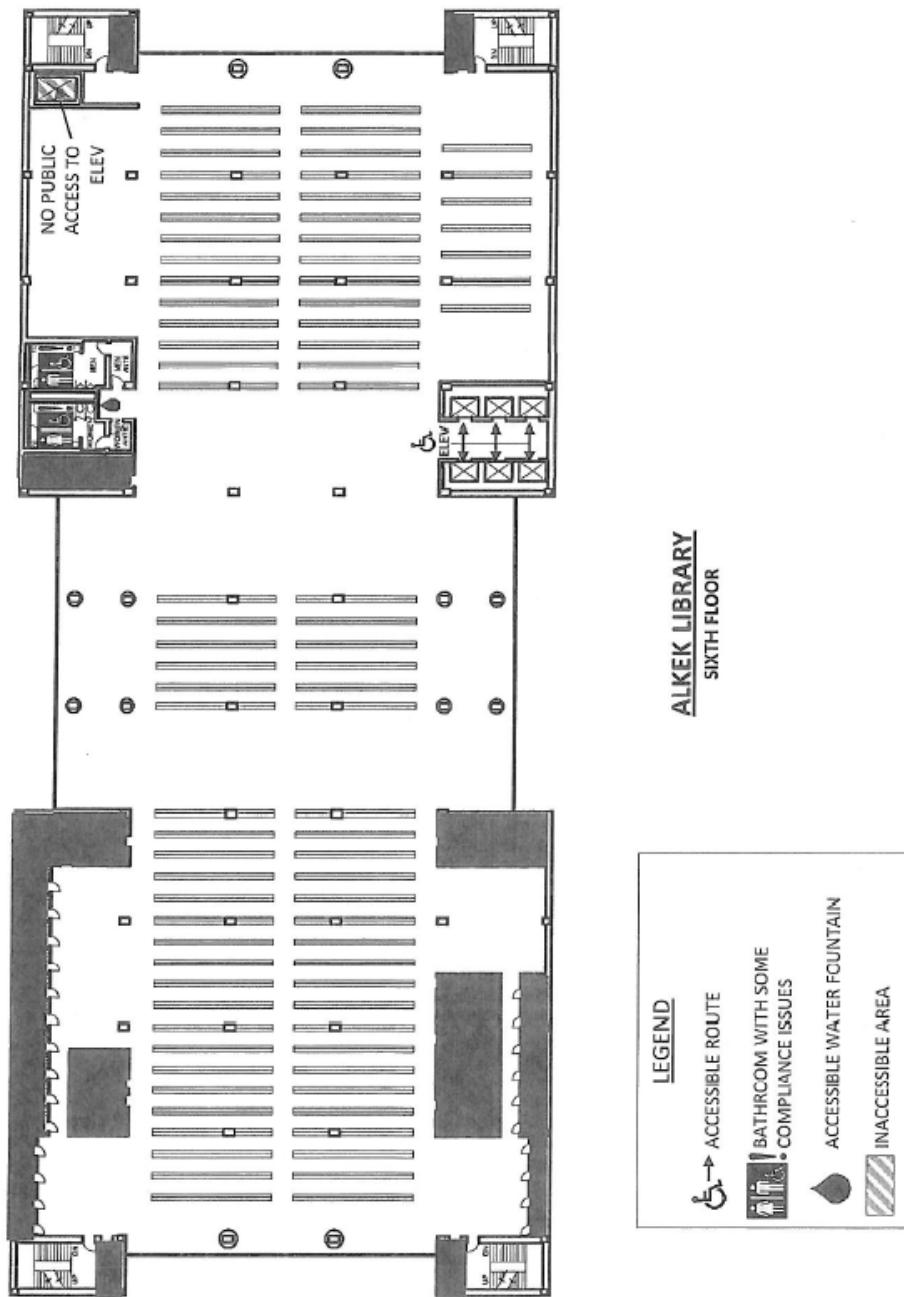
- ACCESSIBLE ROUTE
- ! BATHROOM WITH SOME COMPLIANCE ISSUES
- ACCESSIBLE WATER FOUNTAIN
- INACCESSIBLE AREA

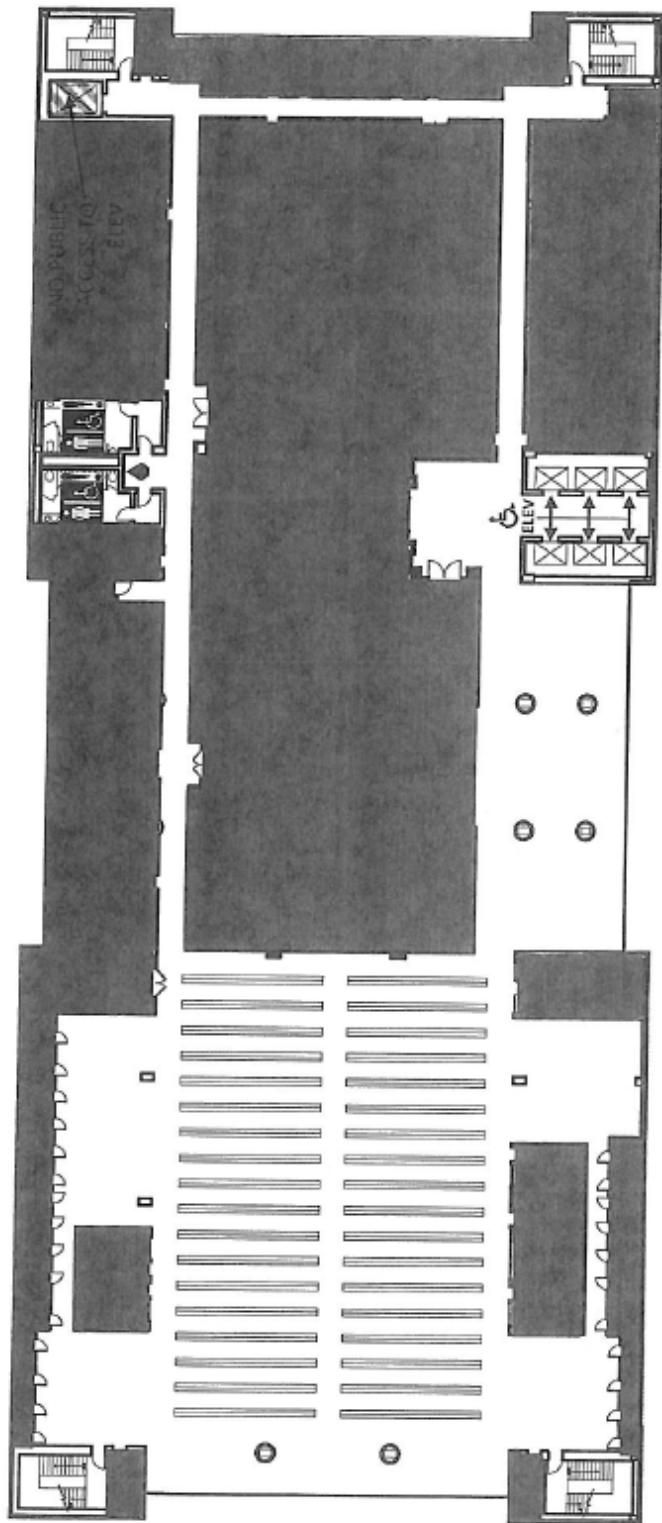




ALKEK LIBRARY  
FIFTH FLOOR







ALKEK LIBRARY  
SEVENTH FLOOR

LEGEND	
	ACCESSIBLE ROUTE
	BATHROOM WITH SOME COMPLIANCE ISSUES
	ACCESSIBLE WATER FOUNTAIN
	INACCESSIBLE AREA

## APPENDIX E

### DEFINITIONS OF TERMS

**Americans with Disabilities Act (ADA):** *ADA is a civil rights law that prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the general public (adata.org)*

**ADA Compliance Committee:** *A staff and faculty committee that oversees the state and compliance of ADA accessibility at Texas State.*

**Disability:** *A physical or mental impairment that substantially limits one or more major life activities, a record of such an impairment, or being regarded as having such an impairment (adata.org)*

**Office of Disability Services:** *A department at Texas State that provides assistance and services to individuals with disabilities*

**Path of Travel:** *A continuous, unobstructed way of pedestrian passage (adata.org)*

**Switchbacks:** *Ramps that closely alternate back and forth that decrease the slope of the overall section of ramp*

**Texas Accessibility Standards (TAS):** *Standards set forth by the Texas Dept. of Licensing and Regulations regarding ADA and handicap accessibility*

**Texas Department of Licensing and Regulations (TDLR):** *State of Texas Department that oversees enforcement of TAS.*

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