COMMUNITY-BASED INCLUSION

PROMOTING RURAL TOURISM THROUGH ACCESSIBILITY IN CUENCA, ECUADOR

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Community-Based Inclusion: Promoting Rural Tourism Through Accessibility in Cuenca, Ecuador

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Abstract

The goal of this project was to develop recommendations to help the Community Tourism Board in Sayausí, a rural community in Ecuador, modify existing tourist facilities and activities to allow visitors with physical disabilities to participate. In a context of worldwide efforts to make tourism inclusive for this group, Sayausí can attract a wider range of visitors and increase its income through tourism spending, while capturing a sense of pride as the community preserves its vanishing Andean culture. After identifying current barriers to accessibility in Sayausí's tourism practices, evaluating disabled tourists' needs, and gathering input from local residents, we developed recommendations for the Sayausí Tourism Board on how to modify their facilities and activities to become accessible.

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INTRODUCTION

Just outside of Cuenca, Ecuador, lies the small, agrarian parish of 8,000 people, named Sayausí. Sayausí developed as a trading post along the Inca Trail for coastal crops and goods, but as the parish grew to a self-sufficient size, the economy shifted to agriculture. Nowadays, the majority of the residents farm small-scale plots and sell crops and livestock in local markets. Sayausí faces many economic challenges, most stemming from lacking markets for their crops and a shortage of job opportunities in the community (F.Buestan, personal communication, Feb 4, 2019).

These economic challenges are present not only in Sayausí, but also in many rural communities in Ecuador (Garcia, 2018). With the country's recent focus on oil production, agricultural development has been stagnant, resulting in an increase in imported agricultural products for domestic consumption (Ecuador's Agricultural and Economic Outlook, n.d.). Agricultural markets in Ecuador have become saturated by these cheaper imports, discouraging small farms from scaling their businesses and discouraging domestic commercial production (Vélez, n.d.).

In an effort to create a secondary source of income, farm communities across Ecuador, such as Sayausí, have created community-based tourism programs to encourage tourists to visit their villages and experience their way of life. In Sayausí, residents have embraced an approach to tourism that includes activities such as cooking and eating traditional dishes, hiking to one of the neighboring waterfalls, spiritual cleansings, and other cultural experiences performed by locals. The success of a community tourism initiative can be judged by several different metrics, one of importance being number of visitors; more visitors can lead to higher revenues for the community and provide an avenue for these communities to share and preserve their culture.

One way to increase the number of tourists at a community tourism location is to extend access to travelers with disabilities. The disabled community, elderly travelers, and those with small children can find it challenging to reach community tourism destinations outside of cities due to a lack of accessible accommodations (Mopecha, n.d.). Facilities that are modified to provide access for special needs are more likely to attract these segments of clientele.

In its first year of operation (2018), The Community Tourism Board of Sayausí had 150 tourists visit the site and take part in its cultural experiences. The community tourism board, looking to find new ways to increase the number of visitors, worked with a local government agency that promotes rural economic development, Empresa Municipal de Desarrollo Económico de Cuenca (EDEC) (our sponsor). Building on Ecuador's new initiative on accessibility for the disabled, EDEC and Sayausí sought to make tourism accessible for a new group of customers in Sayausí.

The goal of this project was to develop options for the Sayausí Tourism Board to modify existing tourist facilities and activities to allow those with physical disabilities to visit and participate. After identifying barriers to accessibility in the community tourism board's program and determining the needs of the disabled, we designed prototypes, such as digitally edited photographs and computer models, and presented them to the tourism board to gain feedback and determine the best fit for the residents involved with the tourism program. These improvements were intended to help the tourism board plan and anticipate the needs of the disabled tourists who could visit Sayausí, thereby increasing the amount of revenue for the village. Our recommendations, we hope, will help Sayausí share and promote its products, crafts, and cultural activities to a wider audience.

BACKGROUND

This chapter discusses the following:

- **Community-based tourism and its components**
- **Accessible tourism and integration with community-based tourism**
- **Sayausí and potential challenges for accessibility**

Community-Based Tourism: Creating Opportunities for Rural Ecuador

Poverty is a challenge that rural Ecuador has faced for many years. 35 percent of Ecuadorians live in poverty, with rates being much higher in indigenous peoples than non-indigenous (Kliesner, 2017). Recently, the country has gone from being labeled as a "poor" country to "middle-income", however, almost half of national revenue goes to just 10 percent of the population (Kliesner, 2017). Thus, improvements are not being seen by the rural and indigenous communities. Rural communities face disadvantages such as a lack of education, unemployment, and a lack of a market to sell agricultural and traditional products (Buestan, 2019). All of these can contribute to economic disparities and make it hard to advance (The Belgian Development Cooperation, n.d.).

In an effort to try to combat this inequality, the Ecuadorian national government began providing money for programs to help lift rural communities out of poverty. As these programs matured, tourism became a viable solution, due to the resources it brought to local communities (The Belgian Development Cooperation, n.d.).

This type of tourism, known as community-based tourism (CBT) or rural tourism, deposits money directly into the communities, as they are the ones facilitating the tourism, instead of relying on the larger organizations. In 2004, CBT was recognized legally by the Ministry of Tourism in Ecuador, which began regulating projects to ensure that they meet standards before hosting visitors (The Belgian Development Cooperation, n.d.).

What is Community-Based Tourism?

Community-based tourism can be comprised of several different types of tourism, depending on what activities are locally available.
For example:

- **Agritourism:** connects agriculture to tourism by attracting visitors to farms and generating more income for the farmers by creating an additional market for their products while also hosting other activities that tourists pay for. Agritourism protects land rights, as it helps small-scale farmers ensure that they can afford to operate their farms and encourage the communities to stave off development that can destroy the culture of the region (Karthik, n.d.).

- **Cultural Tourism:** showcases the unique culture of a community by focusing on the experiences related to the local lifestyle and values specific to an area. This is a major form of tourism in Ecuador and is one of the largest and fastest growing markets in tourism today (UNWTO, 2018). Much like agritourism creates a market for agricultural products, cultural tourism creates a market for cultural products that otherwise may not be viable, creating a financial incentive to preserve local customs.

- **Ecotourism:** is an incredibly powerful tool that countries such as Ecuador have been using to preserve nature and the culture of an area. As of 2015, The International Ecotourism Society (TIES) defines ecotourism as "responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education " (Love, 2019). Ecotourism activities include hiking, sailing, horseback riding, and other ways to experience nature.

While they provide numerous benefits for communities, these tourist practices are not entirely beneficial. Adding more people to these natural settings could have a negative impact on its overall condition. Along with environmental concerns, there can also be negative impacts on culture. Objectifying cultures and native peoples for tourism can encourage stereotypes and can limit their cultural expression. The mixing of cultures, while promoting understanding, can also cause a gradual shift in the culture of local people as they adapt to some of the ways of tourists (Clayton, 2017).

Accessible Tourism: Expanding the Reach of Community-Based Tourism

To increase revenue streams, CBT sites often look for ways to increase the number of people visiting annually. One way to attract more visitors is by expanding access to travelers who were previously unable to visit the destination. Currently, it is challenging for groups of people, like those with disabilities, to move and access all that a CBT destination has to offer, especially in the mountainous Andes region. This challenge, however, is met with a growing market and a new initiative within Ecuador to make the country accessible to those with disabilities.

The Market for Accessible Tourism

Smaller communities have an opportunity to access this growing market in accessible/inclusive tourism. Future market trends indicate an increase in elderly travel and travel in general, according to the United Nations World Tourism Organization (UNWTO) (Alén, Domínguez and Losada, 2012). There is a correlation with aging and developing disabilities, as 36 percent of people over the age of 65 have a disability (Alén, Domínguez and Losada, 2012). Furthermore, the number of people over the age of 65 is expected to increase, indicating a potential rise in demand for accessible environments (Deferrari et al., 2016). Overall, The World Health Organization indicates that over one billion people in the world have some form of physical, sensory, or mental disability, a group that CBT sites can tap into (Deferrari et al., 2016).

This market includes those with physical and sensory disabilities. Physical disabilities are those that hinder someone's mobility. This can either be limiting the speed at which they travel or their ability to move at all. In most cases, people with this type of disability are in need of some sort of aid (Deferrari et al., 2016). Sensory disabilities refer to those that limit vision and impair hearing abilities, where both can vary along a large spectrum. These disabilities create challenges in communication, orientation, and mobility (Deaf-Blind Factsheet, 2009).

Accessibility in Ecuador: An Expanding Mindset

Along with this trending market, there is also a general awareness for making tourist infrastructure and practices fully accessible for everyone, including the disabled. Many organizations, such as the UNWTO, have led the charge by releasing recommendations and requirements on upgrading tourist facilities. Similarly, planning, development, and training have been regulated by powerful organizations, advocacy groups, and government programs like the American Disabilities Act (ADA) (Manual on Accessible Tourism, 2015).

This mentality has been embraced in Ecuador with the newest adoption of its latest constitution in 2008. A specific section was included to address the needs of those living with disabilities, where they are labeled as a priority group with an extensive list of rights, the likes of which were not previously seen in Ecuador (Constitution of the Republic of Ecuador, 2008). The rights indicate a rising awareness of disabilities and the associated needs in Ecuador as a whole.

As a result, The Ministry of Tourism in Ecuador has taken on the responsibility of implementing a five-year plan for inclusiveness and accessibility, specifically in tourism. This plan includes listing tourist sites in Ecuador that are accessible and have been inspected by the Ministry. Tax incentives are offered to tourist sites that make their establishments accessible (Agenda Nacional para la Igualdad en Discapacidades 2017). Other government agencies like FundCrea, under the Center for Human Mobility and Interculturality, advocate for the disabled community and accessibility on a broader scale (N.Lopez, personal communication, Jan. 20, 2019).

Non-government organizations have committed to promoting accessibility and CBT. The Belgian Development Cooperation has been working in Ecuador for over 40 years and since 2006 has funded over 10 CBT sites. Ecuador for All is a tourist agency based out of Quito that focuses on accessible tourism around Ecuador. They help to provide disabled travelers with the logistics and accommodations in order to travel, such as accessible transportation, information on accessibility, and equipment like off-road wheelchairs. Other larger tour operators in the area, like TerraDiversa, offer experiences in Ecuador for the disabled, but do not have the sole purpose of providing for these groups of travelers.

Creating Accessible Tourism

There are three key steps to accessibility:

- **'Arriving'** is how one gets to the site and how accessible it is, including availability of travel accommodations.
- **'Getting In'** is established by the infrastructure that allow people with disabilities to move around and access function areas, bathrooms, and pathways at a facility.
- **'Enjoying'** is allowing access to all incorporated activities and is critical in appealing to customers, keeping them at a facility for longer, and recommending it to others.

(Deferrari et al., 2016)

AND

Universal Design is a methodology to design man-made environments that are accessible and enabling for everyone. The goals are social inclusion, equality, and independence for the entire population, and takes into account all types of disabilities. Universal Design includes seven principles that are necessary to design towards:

- Equitable Use
- Flexibility in Use
- Simple and Intuitive Use
- Perceptible Information
- Tolerance for Error
- Low Physical Effort
- Size and Space for Approach and Use

See Appendix A for more information (Benitz-Wildenburg & Kehrer, 2013).

Applying ATTIMO Framework & Universal Design to Accessible Community-Based Tourism

Although accessible tourism is not commonly integrated into community-based tourism, it is possible to apply the ATTIMO framework and Universal Design to CBT. In order to satisfy the three steps of accessibility and the principles of Universal Design, there are many considerations that need to be addressed. These considerations vary based on people and their disabilities. For example, mobility is a major consideration for someone with physical disabilities, while interaction with guides and locals is a major consideration for someone with sensory impairments. Other examples include people's appreciation for designs that incorporate the principles of 'low physical effort' and 'large spaces for approach and use' which accommodate physical disabilities well. Designing tourism with these types of considerations can make even a rural community accessible for disabled travelers. Specific accommodations and designs can be found in Appendix B, the ADA Accessibility Standards, and Appendix C, the UNWTO Recommendations on Accessible Tourism.

Adapting Community-Based Tourism in Sayausí

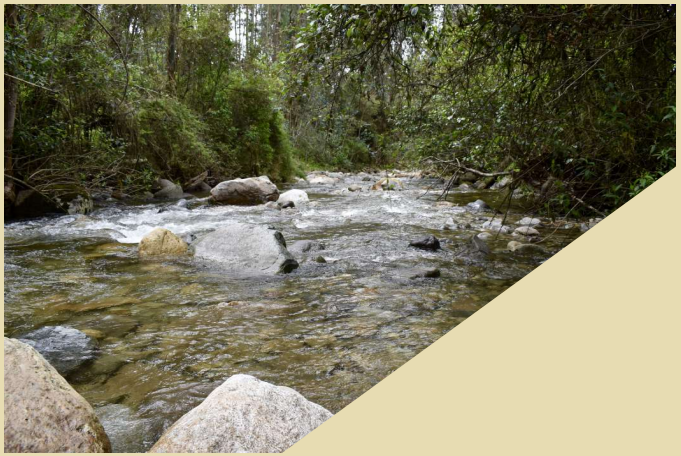
The previous guidelines and frameworks can be applied to improving community-based tourism sites, including Sayausí, a rural community of around 8,000 inhabitants located between Cuenca and the El Cajas Mountains. Sayausí is losing its traditional Andean and Cañari roots and is attempting to preserve this culture through tourism, while also collecting economic gains. Its current tourism offerings revolve around its rich history and stunning location. The activities in each packet happen directly in the homes and yards of Sayausí residents, where visitors can truly experience their way of life.

Current Tourism Practice in Sayausí

For the past year, several families in Sayausí have worked with the local municipal agency, EDEC, to expand economic development in the community. EDEC established the Sayausí Tourism Board (STB) and worked with community members to begin a tourism venture consisting of three tourist packets. These packets offer cultural experiences of the typical resident in a beautiful natural environment, unique from other tourism options in the region. Thematically, all three of the packets offer the key elements of a unique rural tourism experience, including nature, gastronomy, and agriculture. These packages are currently marketed through their website and a brochure that have been funded by EDEC, which can be seen on the previous page.

The first packet, referred to as "Sabores de mi Saya", focuses on the daily life and common activities of Sayausí's residents. All of the activities are done alongside an experienced guide explaining the significance of each process. The second of the three packets, known as 'Saya Natural', focuses on the nature of the area and works to combine natural beauty and cultural immersion. (Ruta Sayausí). The final packet, 'Ruta de los Arrieros', is focused on the history of liquor smuggling in Sayausí. When the possession of liquor was made illegal in Ecuador, over 80 percent of the contraband was produced in the Azuay Province. This packet offers additional elements of nature similar to Packet 2 for visitors to experience.

	Packet 1	Packet 2	Packet 3
Name	Sabores de mi Saya	Saya Natural	Ruta De Arrieros
Length of Activities	Half-Day	Full Day	Full Day
Price	$20 per person	$25 per person	$25 per person
Theme	Daily life and Common Activities Within the Community	Nature and Ecology of the Cajas Mountains	History of Liquor Smuggling in Sayausí
Activites	Gastronomy Visit a Guinea Pig Farm Farming Harvesting Traditional Ceremony	Hiking Waterfalls Fishing Local Cuisine Local Coffee Stunning Views	Fishing Tour of Local Vineyards and Orchards Sightseeing Hike to "Cerro de Minas"



Creating these packets have been a considerable achievement in community planning and consensus building for the STB. STB members want to expand their client base to include different groups that are typically unable to participate in this type of tourism. The STB wants to be a pioneer for accessible rural and community-based tourism in the region and market itself as a unique destination that can service a range of different people. From this impulse, the community created a social initiative to include marginalized and excluded groups including women, the elderly, and those who are handicapped (Sayausí G.A.D Parroquial).

Challenges for Sayausí

The more challenging areas that Sayausí has to address include transportation, proper training for those involved in with tourism (guides, ceremony leaders, farmers, etc.), and making activities accessible. Sayausí is in an area where public transportation and taxis are not accessible for those who are disabled. Transitions within the tourism packets are facilitated by local residents' vehicles which are also not accessible. Accommodated transportation is necessary for their tourist site to be completely accessible.

A general awareness of disabilities and a baseline of understanding for the accessible components that Sayausí facilities offer are important undertones as well. It eliminates a potential social barrier and builds customer relations (Manual on Accessible Tourism, 2015). Although it may be challenging in Sayausí, having a staff member who specializes in sign language to effectively communicate could be helpful and accommodating.

Not only do facilities need to be accessible, but activities and interactions involved should be available for everyone. Sayausí is an area that provides many opportunities to participate in a variety of activities that enrich the overall experience for tourists, but currently are not accessible to all. A challenge arises given rigid techniques that cannot be changed due to cultural significance. The following methodology addresses the specific identification of these challenges as well as values and concerns from important stakeholders.

Methodology

The goal of this project was to develop options for the Sayausí Tourism Board to modify existing tourist facilities and activities to allow those with disabilities to participate. We worked with the STB, EDEC, and a range of representatives from the disabled community to ensure that our recommendations were feasible, enjoyable for the disabled, and supportive of the STB members in sharing aspects of their livelihoods and culture. We also integrated the ATTIMO framework and Universal Design in order to achieve well-rounded designs. To realize our goal we focused our research on the following objectives:

1

Identifying barriers to accessibility in tourist facilities and activities offered at Sayausí

2

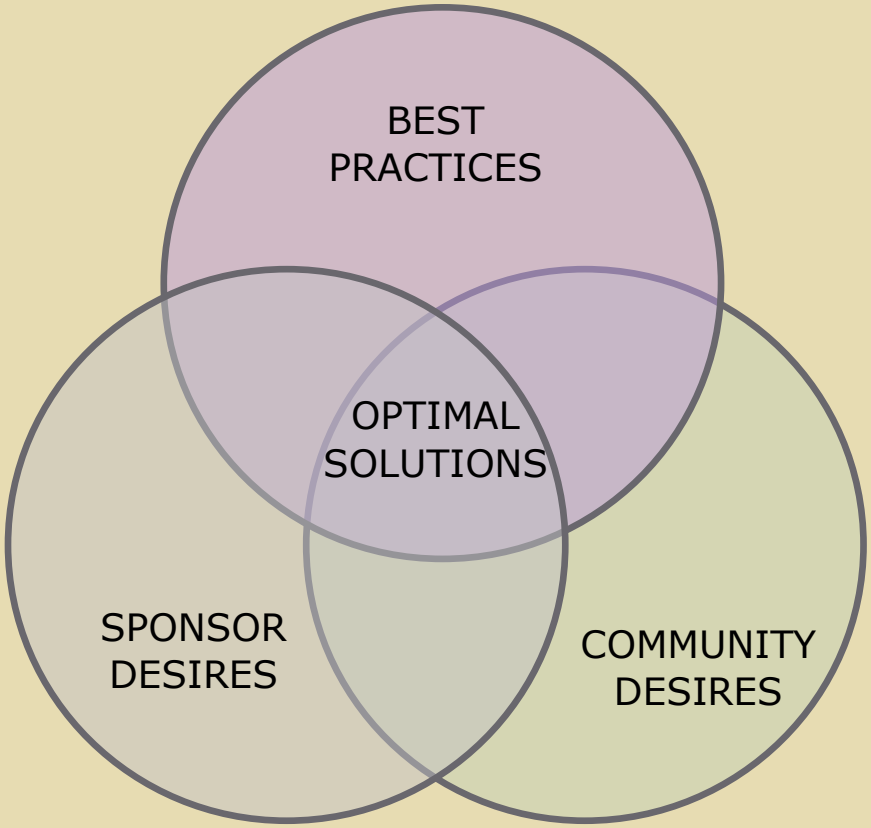
Identifying values and concerns from people with disabilities affecting possible designs

3

Developing prototypes for redesign of facilities and activities offered while collaborating with Sayausí to collect feedback and assess designs

Objective 1: Identify Barriers to Accessibility in Sayausí

We initially intended to identify barriers to accessibility that are present within all of the Sayausí tourism packets. However, after discussions with the Sayausí Tourism Board and observing some of the activities involved with Packet 2 and Packet 3, we decided that Packet 1, "Sabores de Saya", would be most feasible to implement accessibility features into. Packets 2 and 3 included hiking potentially dangerous and intense terrain, swimming in waterfalls, and were in locations that are not accessible by vehicle. It is also important to note that the STB wanted to receive recommendations on their current tourism packets, rather than creating an entirely new option for those who are disabled. Establishing these constraints and identifying barriers in Packet 1 were important in forming the basis for the rest of our onsite research and evaluation.



Information Being Collected

We first intended to gather data about the physical barriers that Sayausí's Packet 1 facilities exhibit. Some of the key locations of these facilities include building entrances, stairs, bathrooms, pathways and other physical aspects of buildings that are essential to the mobility and comfortability for people with disabilities. For our recommendations, we also considered the whole system of tourism in Sayausí. This system includes arrival to the Sayausí church (starting location of Packet 1), being at Sayausí, and enjoying the tourist activities offered. Some areas where barriers are prevalent include housing opportunities nearby, transportation options (not only to and from Sayausí, but also between each of the events in the packet), and interactions that engage tourists in each of the activities. Along the way, we also wanted to gain an understanding of the cultural values in the community through conversation. Ultimately, an emphasis was placed on these specific obstacles in our redesign.

Collection Methods

To identify barriers, we participated in the activities of Packet 1 at Sayausí and documented our experiences through notes, photography, and videos. To observe specific barriers, we each took on a different disability characteristic for the day: blind, deaf, wheelchair-user, and general mobility limitations. This strategy allowed us to focus on certain barriers and how they would affect each of these groups. We also took measurements of points of interest, such as pathway widths, entrance widths, and step height.

In addition, we interviewed members from tourism agencies that specialize in tourism for the disabled, including Ecuador for All and Terradiversa. These interviews gave industry expertise on what components are important for sites to have in order for them to be able to take clients to certain destinations. They also provided insight on potential barriers involved with transportation and other logistics.

Analysis Methods and Challenges

To analyze our data, we compared our observations and measurements to industry standards around the world, like those listed by UNWTO and ADA. Before experiencing Packet 1, we created a rubric including these organizations' specific regulations on measurements of entrances and walkways, appropriate signage, surface requirements, etc. We also used information from the tourist agencies to establish other criteria. Ultimately, we considered areas that were not up to these standards as potential barriers that needed to be adapted for certain disabilities: mainly for those in wheelchairs, the blind, and the hard-of-hearing.

To convey this information we created a narrative to map out the locations and activities in each part of Packet 1. Here, we overlaid the barriers to physical accessibility (based on guidelines and regulations from both the ADA and UNWTO), barriers to communication, and other factors like cultural significance and transitioning that affect the overall accessibility of Sayausí's Packet 1 experience.

Objective 2: Identify Values and Concerns from People with Disabilities Affecting Possible Designs

Information Being Collected

Since accommodations are designed for people with disabilities, it is important to understand their needs. Their insight was collected before prototyping to properly design proposed accommodations. Disabled travelers helped us uncover information that we used to evaluate and create accessibility plans in Sayausí. We inquired about the difficulties that revolve around travel, accommodations necessary for certain disabilities, and interacting with and experiencing rural tourist activities. We also wanted to receive feedback specific to Packet 1 offered at Sayausí to have people with disabilities point out barriers and concerns themselves.

Collection Methods

To collect information from people with disabilities, we first researched accessible travel blogs. We then emailed authors who were more experienced and had larger followings to ask them to participate in interviews. These experts, many of whom have traveled to Ecuador, covered a wide range of disabilities to ensure that we consider as many needs as possible. Furthermore, we described Sayausí and Packet 1 to disabled travelers to receive input on what they pictured as potential barriers and possible solutions at the site.

We also sent out an online survey to expatriates in Ecuador through local Facebook pages, blogs, and online forums. The survey consisted of questions about their travel habits and potential disabilities. This data, 68 responses in all, acted as market research to explore the likelihood of this group as a consumer base for Sayausí. See Appendix D for the survey questions.

Analysis Methods and Challenges

We first organized the ideas and concerns from disabled travelers into common themes about the different components involved with tourism, such as researching places to visit and transportation methods. These were later compared to responses from other groups and stakeholders like Expats, travel agencies, and the Sayausí Tourism Board to identify trends and discrepancies for each component.

For survey responses, we grouped the types of disabilities and identified patterns or trends in responses. We then analyzed the results by distinguishing trends both in each question and the connections between questions.

With both methods, there was a potential for nonresponse bias due to surveys and interviews being sent via email. There were potential participants with whom we had no contact, and chosen participants refused to participate in the survey. Nonresponse typically shrinks the sample size and can be selective, which may have hurt the reliability of the data.

Objective 3: Prototyping and Community Feedback Iteration

After indicating areas that needed to be addressed in Objective 1, we developed recommendations for both facilities and activities in Sayausí. These recommendations were developed through research, following ADA and UNWTO guidelines, and solutions identified by disabled travelers. After providing an initial set of basic recommendations, we held weekly meetings with STB members and EDEC to gain feedback and refine on our prototypes and designs.

Prototyping Methods

In our first presentation to the STB, we started with broad areas that we identified as inaccessible in Packet 1 and provided general solutions. We also illuminated related aspects of tourism that are not addressed in Sayausí, like accessible transportation to and from Cuenca and accessible places to stay nearby. After collecting input on these initial ideas, we prioritized which ideas were most popular amongst the STB and of greatest concern in order to provide more detailed recommendations and specifically applicable prototypes within the community the following week. Some focused prototype examples included ramps, accessible bathrooms and gardens, dimensions for appropriate walkways, and ideas to change or modify activities.

Several approaches were used to create visuals of these ideas. We used sketches for our initial, broad ideas. Taking the more popular design ideas, we used manipulated photographs (created with Photoshop and AutoCad) to display the proposed modifications in the context of Sayausí. This made it easier for the residents to see the nature of each implementation. Our weekly meetings with the STB provided us a wide sample of members with a range of backgrounds and levels of participation in the tourism activities to garner us a more holistic view of their ideology.

When creating the redesigns, we needed to be cognisant of the exposure, or lack thereof, that the STB has had with these programs, which in turn led to our prototypes being simple in nature. This allowed us to reach over both language and technical barriers. Another challenge that arose with prototyping was finding a balance for our recommendations so that they were not too strict nor too lenient, as this would have caused an infeasible or unimpactful project.


Infocentro
Recomendaciones del Paquete 1

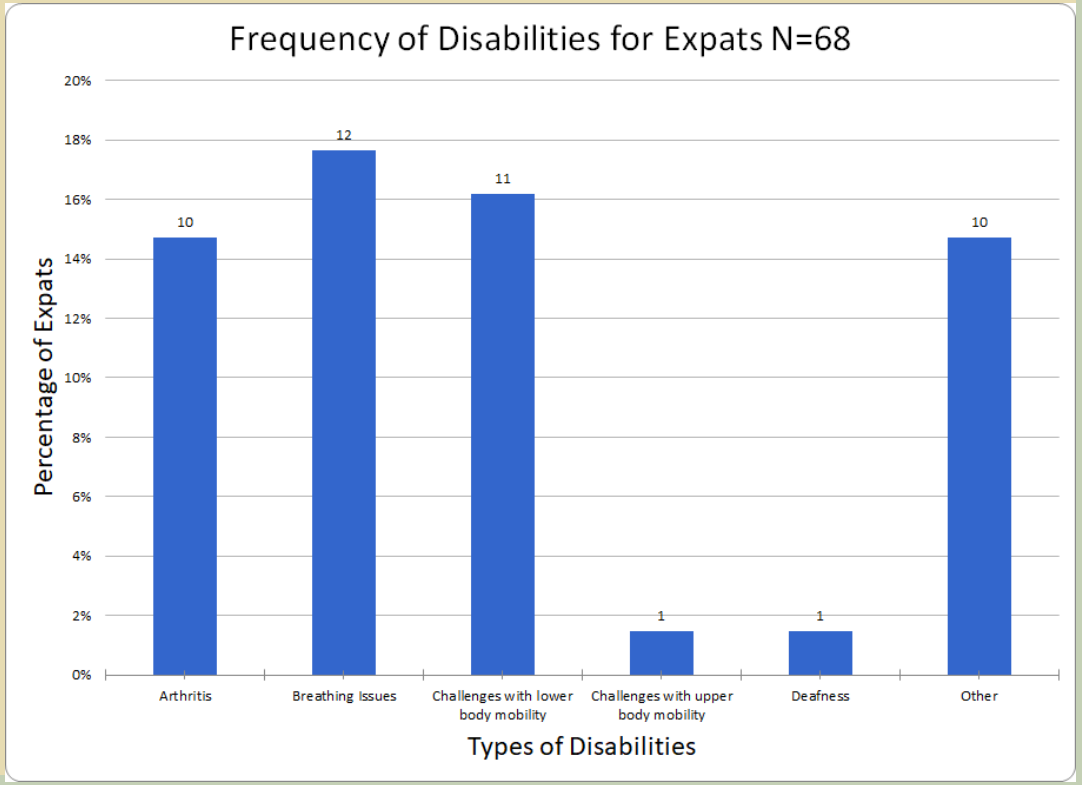
Identifying Opportunities to Expand Accessible Tourism in Sayausí

We collected data on the current state of accessibility in Sayausí, input from of the disabled community, and feedback from the Sayausí Tourism Board (STB). In this chapter, we first describe the potential visitors who would come to Sayausí. To structure our discussion of the challenges for disabled persons who visit Sayausí, we used a chronological narrative of Packet 1, indicating the barriers present at each point and corresponding recommendations and improvement for each of those barriers. We then discuss the broader scope of Sayausí's tourism venture, identifying opportunities on how the STB can address larger logistical barriers like transportation to and from Cuenca, places to stay in Cuenca, and marketing the initiative.

Potential Visitors to Sayausí

Creating accessibility attracts new visitors with and without disabilities. As Dan Barra -Berger, blind traveler and disabilities advocate, put it, "accessibility isn't just for people with disabilities; it's for everyone." Many accommodations help many different kinds of people. For instance, handrails can help provide support for people with mobility issues, guide blind people down a path, and even help people without disabilities in slippery conditions. However, it is important to disseminate the unique characteristics and the needs of individual disabilities. These are the groups of people that Sayausí is trying to attract with accessibility modifications.

One group that is a potential market is the expatriate community in Ecuador largely, from North America and Europe. This group has a wide range of disabilities. Based on our survey results, just under 40 percent, of those surveyed have some form of disability seen in the figure on the right.



Lower Body Mobility Issues and Wheelchair Bound Persons

People with lower body mobility issues use wheelchairs, walkers, and canes to access tourist sites. There are multiple types of equipment that people with lower body mobility issues use. The most common is a cane, which 36 percent of our survey respondents who have lower body mobility issues use. The most demanding, however, are wheelchairs. Extensive measures are typically needed and most accessibility standards around the world are geared towards designing for wheelchairs. The thought is that if something is accessible for a wheelchair, it is accessible for all lower body mobility issues and other disabilities.

The main concern of people who have lower body mobility issues is being able to move from location to location. Expert disabled traveler John Morris, said that "the number one challenge for people with mobility issues and wheelchair users is ground transportation." This refers to both traveling to and from Sayausí as well as within Sayausí. Many people with lower body mobility issues often have trouble with moving around on their own. Barriers like stairs, obstructed pathways, and narrow entrances often keep this group from participating in activities; they find ramps, elevators, and clear areas to maneuver much more accommodating. Bathrooms are typically insufficient in accommodating the needs of those with lower body mobility issues. This group values an accessible toilet, handrails, and an accessible sink.

John Morris is a disabled traveler and advocate for disabilities. After a car accident left him in a wheelchair in 2012, he kept traveling the world, something he loved to do before the accident. When he travels, he blogs about his experiences in a wheelchair and the places he visits. From his experiences in travel, he has created a website, wheelchairtravel.org, that provides accurate information on places around the world that successfully accommodate for people in wheelchairs. As he travels, he adds to this database, hopefully allowing for others to follow in his tracks.

"My biggest concern is that the accessibility information will turn out to be inaccurate"

Upper Body Mobility Issues

People with upper body mobility issues struggle more with activities that are hands-on. Handling heavy or cumbersome objects can pose challenges for these people. Gripping or moving objects, like door handles, are also difficult tasks. Although not as common as other types of disabilities as demonstrated by our survey results, this is a group that benefits from modifying activities towards less physically demanding interactions. Activities that incorporate senses other than touch are valued by those with upper body mobility issues.

The Deaf

Just as with blind people, deaf people use their stronger senses to navigate. Activities that show, rather than tell, give this group a better understanding of their surroundings. Signage and written text makes communication easier, but the best option to facilitate information is through a translator. Transportation again is not a major issue; having people to accompany a deaf traveler similarly to a blind traveler can help.

The Blind

Blind people rely on their other senses to compensate for their lack of vision. As Dan Barra-Berger explained it, "blind people see with their hands," and Tony Giles mentioned, "activities are most accessible if they use all five senses." Braille helps with the relaying of information, but being able to sense one's own surroundings on their own is appreciated by this group.

When moving, blind people tend to follow textures on the ground, so it is important that pathways are consistent textures. Conversely, when the path ends or turns, or a stop is needed (such as crossing a street), the texture should change in order to indicate this. Stairs are not as large of a barrier for blind travelers, but handrails are most useful. Transportation is also a smaller barrier than those with lower body disabilities. As long as a blind traveler is travelling with someone, or has some method of guidance, such as a tour guide, friends, or family, traveling is fairly easy.

Tony Giles is an online travel blogger and author from England who shares his thoughts on his website www.tonythetraveller.com. He writes for a unique group of tourists, being completely blind and 80 percent deaf without hearing aids. Despite his disabilities, he has traveled independently to all seven continents and visited approximately 75 percent of world's countries. Given his experiences, he has extensively witnessed the barriers to accessibility and the associated accommodations that are essential for disabled travelers. In our interview with him, he provided valuable insight not only on what a blind person needs in order to access tourist sites, but also what makes travel most enjoyable and comfortable for the blind.

"Activities are most accessible if they incorporate all five senses"

Dan Barra-Berger is an accessible travel blogger who travels the world despite being blind. Travel was always an important part of his life, but he lost the vision in his left eye at age seven from a retinal detachment due to a playground accident. Then in late 2008, the vision in his right eye started to deteriorate from a second detachment with no logical cause. After three years of rehabilitation and recovery from depression, Dan decided to take his life back through travel. In 2012 he created the foundation of Three Points of Contact.

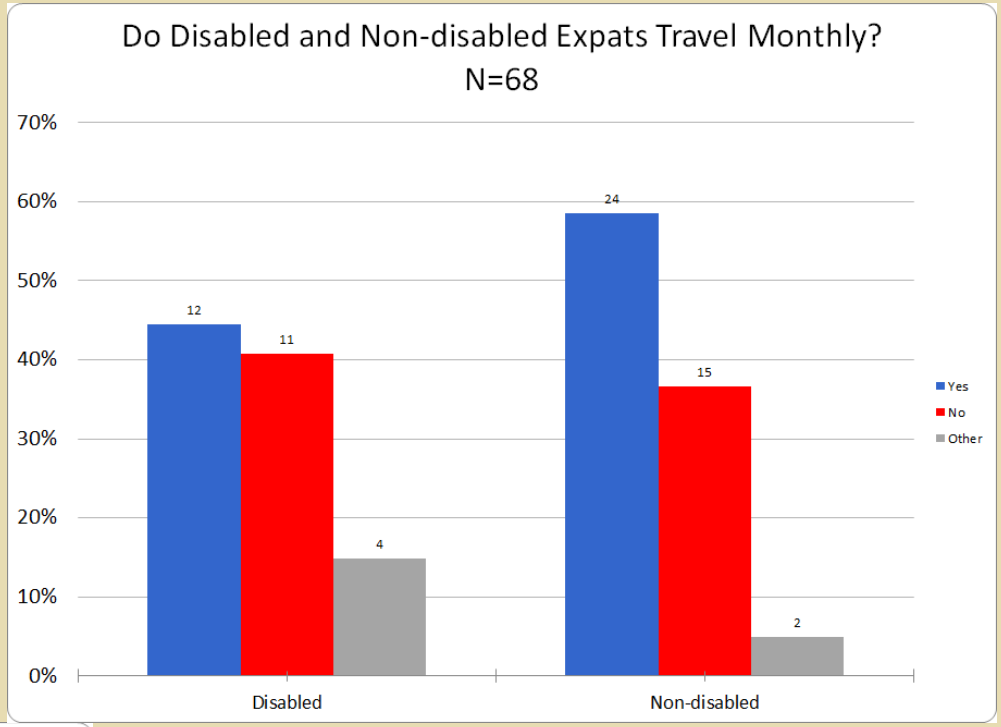
"Accessibility isn't just for people with disabilities; it's for everyone"

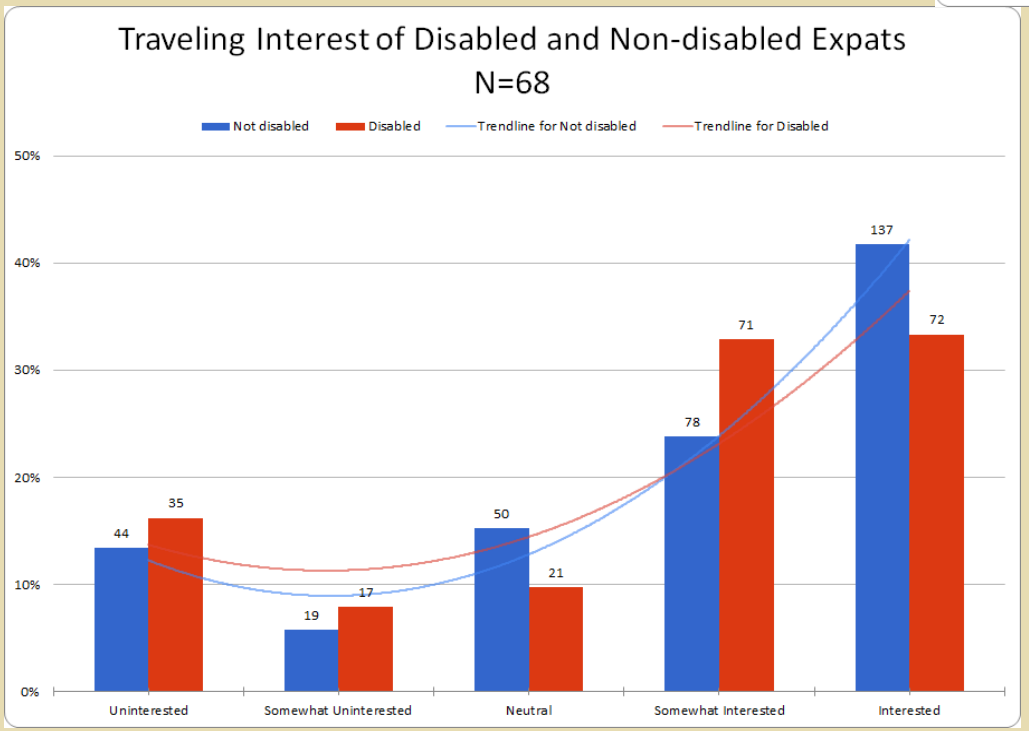
Those with Respiratory Issues

People with respiratory issues need to be able to catch their breath. Walking around can make people with respiratory issues especially tired or winded, and they may need to sit down to relax. They also need to be able to breathe clean air. Breathing in pollution or smoke can be dangerous to someone with respiratory issues. This group may also require certain equipment like an oxygen tank or simply an inhaler. Especially in an area at high altitude like Sayausí, tour guides need to be cognizant of taking breaks, moving slowly, and reassuring that everyone is continually comfortable and safe.

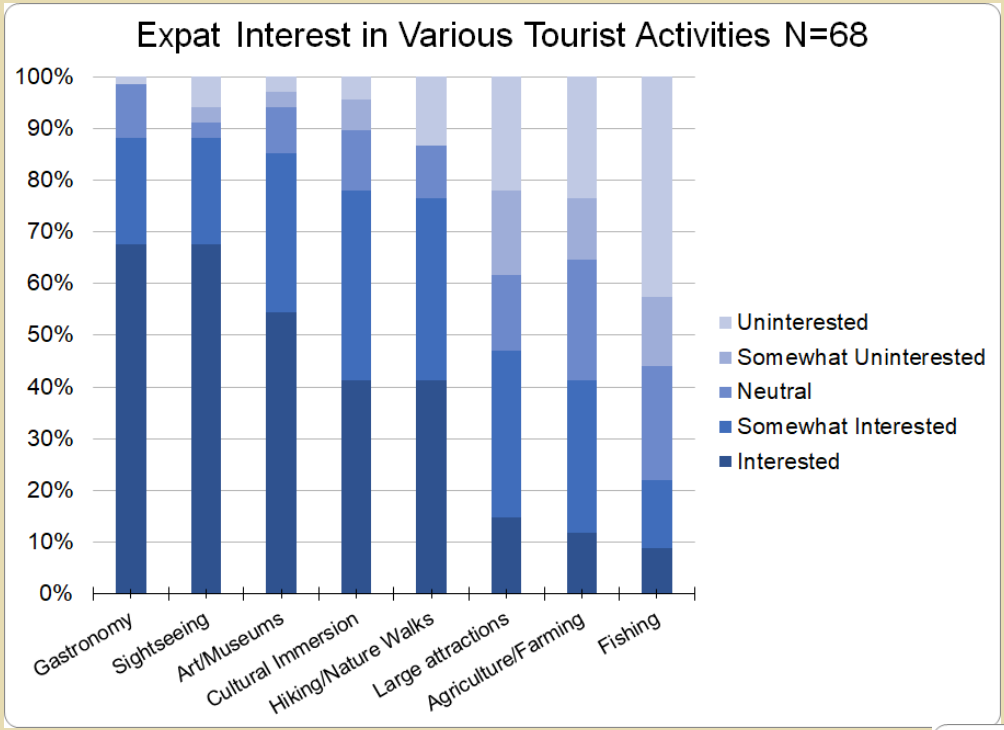
The Expatriate Community

The Expatriate community in the Cuenca area, over 10,000 migrants in total, exhibits many of these disabilities and associated concerns and needs. Being nearby, they provide a potential untapped market for Sayausí. Almost 60 percent of the expats we surveyed participate in tourist activities regularly, however, expats with disabilities are less likely to travel, as shown to the right.

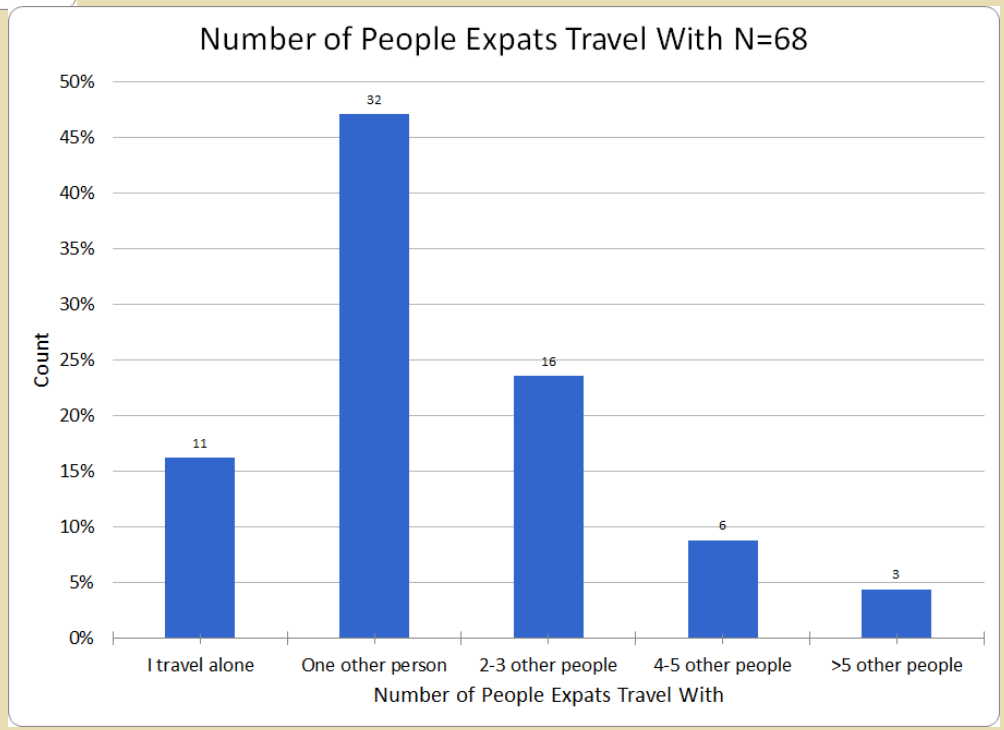




However, these differences cannot be attributed to a lack of desire to travel from disabled expats; the figure to the left shows disabled expats are similarly interested in traveling compared to expats who do not have disabilities. This indicates that there are a significant number of people with disabilities who are interested in travel, but do not travel. These people would be more likely to travel if places had accommodations for them.



Expat interest in activities differs slightly from what is currently offered at Sayausí. They are interested in gastronomy, sightseeing, and art, with a much lower interest in activities such as farming and fishing. The figure to the left shows the full range of interest in activities from the survey. Additionally, over half of all expats surveyed travel either alone or with one other person, as the graph below displays. It is important to note that Sayausí has a six person minimum for their tours, which may potentially cut out these visitors who travel alone. Utilizing travel agencies that take larger groups would diminish constraints like visitor minimums.



The Tourism Model

Timeline of Packet 1 Activities

Packet 1 was the most feasible and implementable for accessible tourism, but still presented multiple barriers for a variety of different disabilities. Packet 1 includes five different locations that each hold a unique activity. Spanning just over a mile, the packet starts at San Pedro de Sayausí, the church at the center of town, where the activities last about 4 hours and ending with lunch at Location 5. The five activities are illustrated below and the locations are mapped out on the next page.

TRANSPORTATION

Transportation to and from Sayausí consists of taxis, public buses, or a rented or personal vehicle.

ACTIVITY 1

Cultural ceremony honoring the four elements, hosted at the local church.

ACTIVITY 2

Plowing demonstration in a local resident's field.

ACTIVITY 3

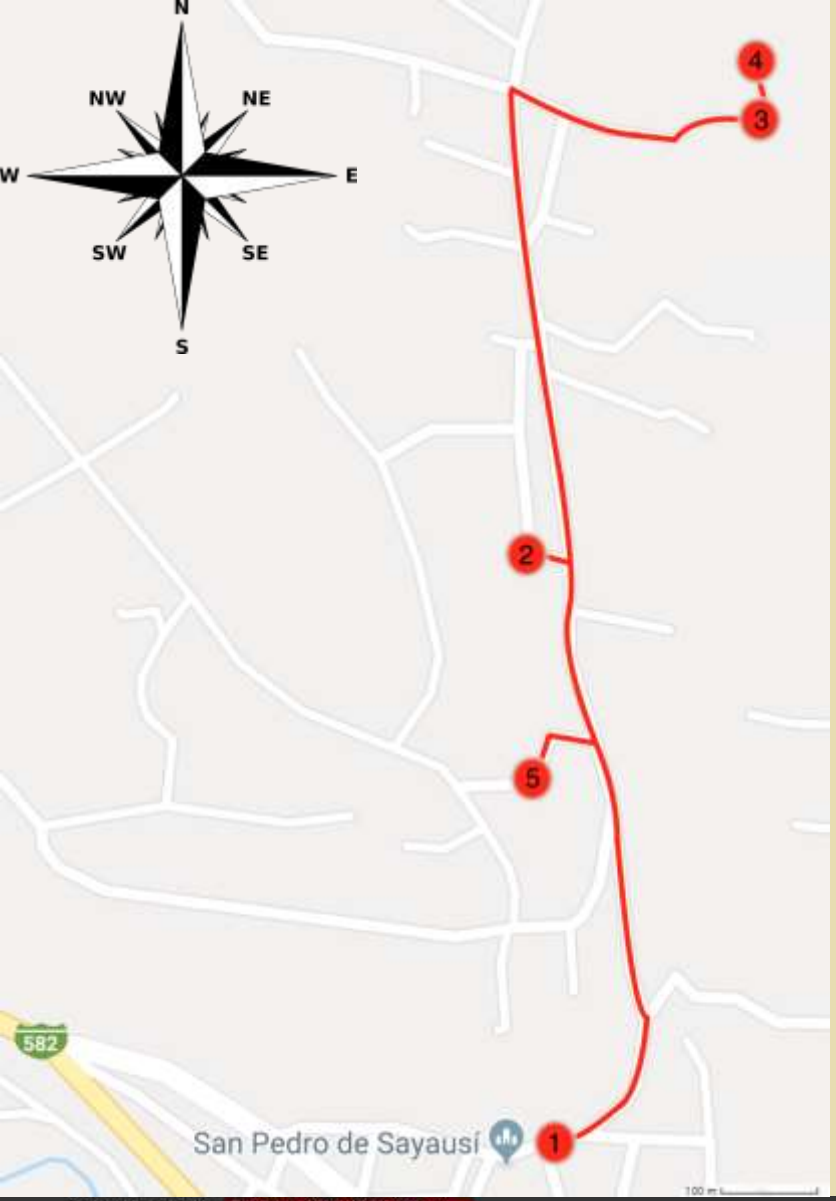
Weaving demonstration on a loom.

ACTIVITY 4

Tour of a resident's garden and exhibition of indigenous plants and their uses.

ACTIVITY 5

Traditional lunch, complimented with games and song.



The Route

Details

- Total Distance: 2.77km
- Total Stops: 5
- Average Elevation: 2781m
- Max Slope: 21.8% / -19.1%

Note: Numbers on the route correspond to activities from the Timeline of Packet 1

Transportation Barriers to, From, and Within Sayausí

Getting to Sayausí is the first step towards participating in any of the tourist packets that are offered. Public transportation from Cuenca includes taxis and city buses. The trip to Sayausí takes approximately 30 minutes by car or an hour on a city bus. A taxi can cost anywhere from $4-$5 one way, while the bus costs $0.30 one way.

Benefits of a taxi include having a personal vehicle, a shorter travel time, and potentially more accessibility. Taxis are lower to the ground than buses, easier to get into, and can hold things such as a wheelchair in the trunk. A person with disabilities who can get into a traditional sedan should have no problem getting into a cab. Besides being more expensive. Another downside to taxis is that space is limited, so for groups of more than four people, multiple are likely required.

Buses are able to carry more people at the same time, which works better for larger groups. A tourist bus pass can be purchased in several locations around Cuenca. There are also reserved seats for pregnant women and the disabled. Despite there being reserved seats, the city buses are not easily usable for people with certain disabilities. During rush hours, the buses are incredibly crowded, making it difficult to get on and off for those who already have a hard time moving. None of the buses are made for accessibility either: there is nowhere to put a wheelchair and no ramp for one to get up in the first place.

It is also important to note that the current transportation methods between each of the locations is also inaccessible. Currently, visitors are brought between the locations by residents of Sayausí in their personal vehicles. However, none of their vehicles are currently handicap accessible. The distance of the 5 locations also spans over one mile, with the travel being uphill from Locations 1-4. The distance and terrain between each of the locations makes them extremely difficult to go between without some sort of vehicle.

Activity 1: Cultural Ceremony - **Inaccessible**

Location 1: San Pedro de Sayausí – **Accessible**

To start the packet, visitors stand and observe a traditional ceremony worshipping the four elements of the Canari cosmovision - water, fire, earth, and wind (A). Here, a man and a woman dressed in ancestral clothing lead the rite, explaining the significance of each process and component. The spiritual cleansing involves spectator interaction including drinking medicinal beverages, drinking water out of a heavy ceramic cup (B), rubbing rose oil onto one's own hands, holding sawdust and dropping it into an open flame, and eating traditional fruits. The ceremony ends with a song that spectators could dance to (C).

Logistics of Location 1

This event takes place in front of the local church in a plaza. A flat, open parking lot is located close to the church for easy access.

The ground is concrete, level, and open where ramps create access from the parking lot to the plaza.

In terms of the activities involved, the ceremonial leaders allow people to pass on any of the interactions without any issues.

Benches are nearby but not close enough to be involved with the activity.

Some of the objects that spectators had to hold were heavy and possibly challenging to interact with for people with mobility disabilities. The tour guides, however, have a general awareness for people's comfortability level and are willing to assist in any way with the ceremonial interactions. From our research into the expatriate community, we found that lower body mobility issues or conditions like arthritis are the most prominent disabilities. From these findings, we concluded that Location 1 was accessible, but the activities involved were not for some disabilities and needs. We observed that the activity has a few minor flaws that can be easily addressed.

Barriers at Location 1

Since the STB does not own this property, they cannot make any modifications to the site. However, the location was initially deemed accessible by comparing it to ADA standards.

Below are the barriers identified at Location 1. Our recommendations to accommodate for each disability are on the next page.

Location Components: / Barriers For:	Lower Body Mobility Issues/ Wheelchair Bound Person	Upper Body Mobility Issues	Blind	Deaf	Respiratory Issues
Arriving	-	-	-	-	-
Getting from parking lot to plaza	Ramp steepness above standard grade	-	No railings	-	-
Plaza - spectating area	Standing for extended periods	-	-	-	Standing for extended periods
Ceremonial Interactions	Dancing and movement	Holding heavy objects	Receiving objects, reaching towards open flame	Only spoken information given	Near an open flame with smoke
Leaving	-	-	-	-	-

Recommendations for Location 1

Suggestions For: / Location / Components:	Lower Body Mobility Issues/ Wheelchair Bound Person	Upper Body Mobility Issues	Blind	Deaf	Respiratory Issues
Arriving	-	-	-	-	-
Getting from parking lot to plaza	-	-	Add railings to ramps at the church.	-	-
Plaza - spectating area	Move ceremony towards benches in the plaza, allow people to sit.	-	-	-	Move ceremony towards benches in the plaza, allow people to sit.
Ceremonial Interactions	Allow guests to decline participation in dancing or movement.	Hold objects for guests. Allow guests to decline participation.		Create a written format in Spanish, English, and Braille.	Allow guests to decline in participation. Avoid guests with portable oxygen.
Leaving	-	-	-	-	-

Activity 2: Plowing Demonstration - **Inaccessible**
Location 2: Local Resident's Farm – **Inaccessible**

After walking up a steep road and into the field behind a home, visitors watch a plowing demonstration using two oxen. The farmer shows the process of setting up the equipment that attach to the oxen and presents the techniques involved with controlling the animals and guiding the plow (A). After giving a quick tutorial, he allows visitors to take part in the field work (B). Visitors learn the vocal cues to control the speed and direction of the oxen and how to guide the plow. The plow is heavy, challenging to guide with one hand, and requires walking on loose, obstructed ground. Tourists are also able to eat indigenous fruits like *Taxo* (Banana Passionfruit) (C).

Logistics of Location 2

In order to get to this location, visitors are dropped off down the street from the house. A walk up a steep road leads to the driveway out front.

From the street to the driveway, an irrigation moat needs to be stepped over, causing an obstacle in the pathway. In addition, steel grates cross this separation in order to allow cars to get over.

Once in the driveway, there is a 50 yard walk to the spectating area. This pathway is very narrow and undefined, while also being obstructed with steps and tall grass.

The spectating area is off to the side on rugged terrain and without seating.

The pathways present would not allow a wheelchair to pass and would be unsafe for those with other mobility issues or blindness. Areas without seating would create problems for people who cannot stand for long periods of time. Overall, both the location and the activity are inaccessible to a variety of disabilities.

Barriers at Location 2

Most of the barriers in Location 2 are physical and are present from the drop-off point to the spectating area. The activity relies on visitor's ability to see the plowing techniques.

Below are the barriers identified at Location 2. Our recommendations to accommodate for each disability are on the next page.

Barriers For: / Location Components:	Lower Body Mobility Issues/ Wheelchair Bound Person	Upper Body Mobility Issues	Blind	Deaf	Respiratory Issues
Arriving	drop-off point on a slope	-	drop-off point on a slope	-	-
Getting from drop-off point to field	long distance up slope, no sidewalks, large gap in the ground from road to property, obstructed pathway to field	-	no railings or sidewalks, obstructed pathway	-	long distance up slope
Field - spectating area	loose, uneven ground, standing for long period of time	-	no railings, loose, uneven ground	-	standing for long period of time
Activity Interactions	unable to participate in plowing activity	holding and guiding heavy plow	doesn't encourage use of all five senses, only spoken information given		-
Leaving	drop-off point on a slope	-	drop-off point on a slope	-	-

Recommendations for Location 2

Suggestions For: / Location Components:	Lower Body Mobility Issues/ Wheelchair Bound Person	Upper Body Mobility Issues	Blind	Deaf	Respiratory Issues
Arriving	Move drop-off area to the driveway of the house. Move vehicles to the street and allow access for parking.	-	Move drop-off area to the driveway of the house. Move vehicles to the street and allow access for parking.	-	-
Getting from drop-off point to field	Create a pathway of consistent texture with hand railings.	-	Create a pathway of consistent texture with hand railings.	-	Guide should stop and take a rest if needed.
Field - spectating area	Make ADA compliant seating available in this area.	-	Add handrailings. Make area level and out of compact dirt or concrete.	-	Make ADA compliant seating available in this area.
Activity Interactions	Guides should allow people to use other senses and safely pet the oxen.	Inform users on weight of plow. Guests should be able to safely pet oxen.	Allow people to refuse participation. Create a written format in Spanish, English, and Braille. Guests should be able to safely pet oxen.		-
Leaving	Pick guests up in the driveway.	-	Pick guests up in the driveway.	-	-

Activity 3: Weaving Demonstration - **Accessible**
Location 3: Weaving Home - **Inaccessible**

A local woman, and member of the STB, demonstrates weaving techniques on a loom (A) and spindle (B) making a colorful handbag. As she does this, she tells local legends about herself and the community. Onlookers are encouraged to ask questions and are able to buy some of her handmade items like handbags and hats (C).

Logistics of Location 3

When arriving at the house, a pathway with a few steps lead up to the entrance. This pathway is made of concrete and wide enough for a wheelchair to roll on.

A wide entranceway provides access to the weaving room. Inside the room, there is open space with seating to observe the demonstration.

In this building, there is also a small bathroom with only a few feet of standing space and a narrow entranceway.

We found the activity accessible for most disabilities, but not the location. Once inside the demonstration room, spectators have the option to sit and with adequate space to stand and move around. With steps outside, however, it is challenging for people with mobility issues or those who are blind to gain access to the room. With the current pathway and entranceway, this physical entity is easily adaptable to become accessible.

At this location is one of the only bathrooms throughout the whole tour. None are accessible – this poses a great barrier for those with mobility issues and typically is an essential component for many. The bathrooms available are all in resident's homes and would need remodeling to be made accessible.

Barriers at Location 3

Most of the barriers in Location 3 come between the drop-off point and getting inside the house. The activity consists of listening to the stories and watching the demonstration.

Below are the barriers identified at Location 3. Our recommendations to accommodate for each disability are on the next page.

Barriers For: / Location / Components:	Lower Body Mobility Issues/ Wheelchair Bound Person	Upper Body Mobility Issues	Blind	Deaf	Respiratory Issues
Arriving	-	-	-	-	-
Getting from drop-off point to demonstration room	Two stairs from road to house entrance	-	Two stairs from road to house, no railings	-	-
Demonstration room - spectating area	-	-	-	-	-
Activity Interactions	-	-	Doesn't encourage use of all five senses.		-
Leaving	-	-	-	-	-

Recommendations for Location 3

Suggestions For: / Location Components:	Lower Body Mobility Issues/ Wheelchair Bound Person	Upper Body Mobility Issues	Blind	Deaf	Respiratory Issues
Arriving	-	-	-	-	-
Getting from drop-off point to demonstration room	Create a removable ramp with a railing.	-	Create a removable ramp with a railing.	-	-
Demonstration room/ spectating area	-	-	-	-	-
Activity Interactions	-	-	Guides should allow visitors to touch the textile material and loom. Create a written format in Spanish, English, and Braille.	Create a written format in Spanish, English, and Braille.	
Leaving	-	-	-	-	-

Activity 4: Walking Through the Local Gardens - **Inaccessible**

Location 4: The White House – **Inaccessible**

Following the weaving demonstration, visitors walk 20 yards to the next door White House. In the house, residents offer tea and food. Visitors can sit and eat before moving on to look through the gardens. In the backyard, residents pick out plants and show the visitors (A), explaining each individual use and allowing them to see, touch, smell, taste, and hear about the plants (B) - a fully accessible activity for those lacking in one or more of the five senses. The tour then moves down a steep hill towards a river. On the way, several pens are open to see livestock like chickens and pigs (C). Once at the bottom, the residents continue to pick plants for the visitors, where a nearby river offers some natural beauty.

Logistics of Location 4

The walk to the white house is down an obstructed, uneven road.

To enter, there are three steps that lead up to a wide entrance. Inside, there are many chairs and one table, with plenty of operational space on a flat wooden floor.

Down through the garden, there are narrow paths with obstructions such as tall grass and pipes. The path is also on a steep hill with many stairs, likely infeasible to modify for most disability groups unless the garden is demolished and re-leveled.

We have found that the White House is currently inaccessible for people with mobility issues. A ramp would make the house accessible, as the door is already wide enough and there is sufficient seating. The top of the garden is accessible for tourists as it sits on level, solid ground and only the residents need to go into the garden. However, the bottom of the garden is not accessible. The paths are too narrow and steep for people with mobility problems and don't have railings or guides for those who are blind. These visitors would need to stay at the top of the garden. The tour guides, however, create an accessible interaction with the plants. As discussed in our background chapter, giving multiple options for people with sensory disabilities to receive information through creates another level of accessibility. Overall, if the activity was kept at the top of the garden, then it would most likely be deemed accessible and enjoyable for all groups of people.

Barriers at Location 4

Most of the barriers in Location 4 concern the physical terrain and infrastructure. The activity consists of an interactive lesson of all of the different plants used in the residents' daily lives, but needs to exclude going down to the river. Page 52 is a recommendation for accessible gardens.

Below are the barriers identified at Location 4. Our recommendations to accommodate for each disability are on the next page.

Barriers For: / Location Components:	Lower Body Mobility Issues/ Wheelchair Bound Person	Upper Body Mobility Issues	Blind	Deaf	Respiratory Issues
Getting from location 3 to gardens	Obstructed roadway, no sidewalks.	-	No railings or sidewalks, obstructed pathway.	-	-
Getting in the White House	Loose, uneven ground, steep pathways, standing for long period of time.	-	Loose, uneven ground, steep pathways.	-	-
Gardens - spectating area	Obstructed roadway, no sidewalks.	-	No railings or sidewalks, obstructed pathway.	-	Extended time standing.
Activity Interactions	-	Holding plants and objects.	-	Only spoken information	-
Leaving	Obstructed roadway, no sidewalks.	-	No railings or sidewalks, obstructed pathway.	-	-

Recommendations for Location 4

Suggestions For: / Location Components:	Lower Body Mobility Issues/ Wheelchair Bound Person	Upper Body Mobility Issues	Blind	Deaf	Respiratory Issues
Getting from location 3 to gardens	Clear obstructions and create pathway according to ADA guidelines. It should be level, even, with a consistent texture, and handrailings.	-	Clear obstructions and create pathway according to ADA guidelines. It should be level, even, with a consistent texture, and handrailings.	-	-
Getting in the White House	Create a removable ramp with a railing OR Move the portion of the activity outside to avoid the barrier.	-	Create a removable ramp with a railing OR Move the portion of the activity outside to avoid the barrier.	-	-
Gardens - spectating area	Create smaller scale, accessible raised-beds at the top of the garden (see Appendix G). Incorporate seating that follows ADA guidelines.	-	Create smaller scale, accessible raised-beds at the top of the garden (see Appendix G). Incorporate seating that follows ADA guidelines.	-	Incorporate seating that follows ADA guidelines.
Activity Interactions	-	Allow people to decline if they choose.	-	Create written format in Spanish, English, and Braille.	-
Leaving	Clear obstructions and create pathway according to ADA guidelines. It should be level, even, with a consistent texture, and handrailings.	-	Clear obstructions and create pathway according to ADA guidelines. It should be level, even, with a consistent texture, and handrailings.	-	-

Ramp Example

One barrier that is present at Location 4 is the stairway up to the entrance of the house. We recommend creating a ramp that would allow access to both the entranceway and the cuy pens to the left. Following ADA guidelines for height to length ratio, a removable ramp would be most useful for the Sayausí residents since it does not alter the look of the house. One constraint for this design is finding a place to store it when not in use.

Clear Pathway Example

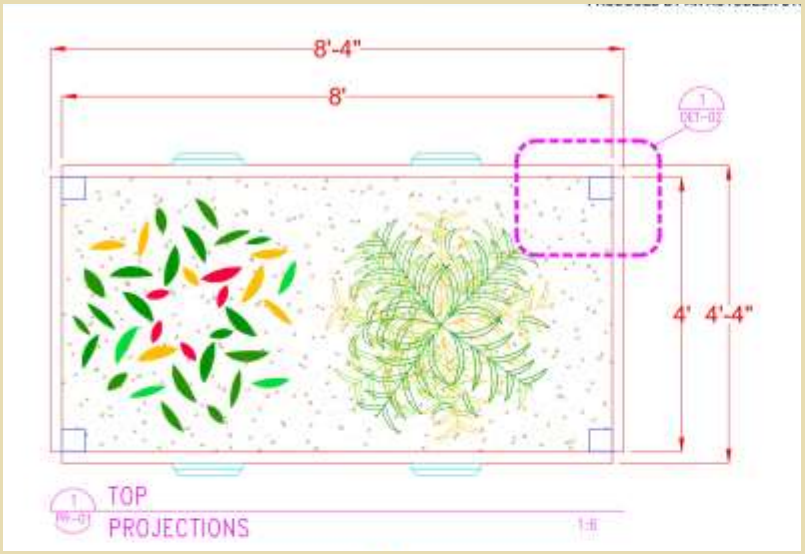
One obstacle is the obstructed pathway from Location 3 to Location 4. The recommendation is to make it level, solid, and unobstructed. Above shows a before and after picture to illustrate the proposed recommendation and what the finished product would look like if followed through with.

Another barrier to the disabled is the lack of an accessible bathroom in Packet 1. Since the home owners expressed that they are not likely to renovate their properties, the proposed recommendation is to create an external structure, such as the outhouse seen in the image on page 52. More information is provided on this design in Appendix F.

Modifying the Garden Activity

The garden involved in activity 4 is not accessible for most types of disabilities. Due to this, we recommend creating elevated garden beds that contain the plants that the residents want to exhibit. Descriptions on each plant and its uses can also be placed as a label on the outside of the bed. This garden would be accessible for a range of disabilities: those in wheelchairs, people who can't stand for long periods of time, and those who have difficulties with communication.

We recommend having this installed at Location 4 as it is where the garden activity already occurs. A more accessible and interactive environment eliminates the travel down to the river, which would currently presents a major barrier. See Appendix G for specific designs and measurements.

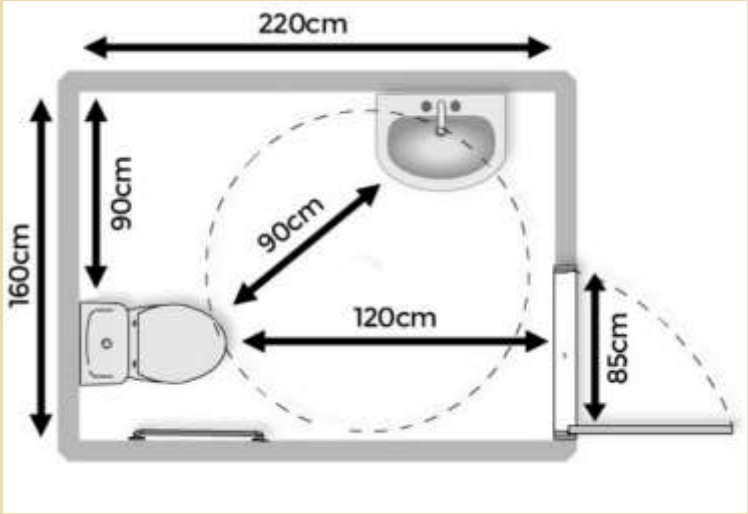


Options for an Accessible Bathroom

Accessible bathrooms are a necessity for people with disabilities. After discussing with the STB about bathrooms, many residents brought concerns about cost and labor for renovating their own homes. We decided that an outhouse structure would satisfy the resident's concerns as well as still create an accessible bathroom.

A secondary concern was the cost of running new plumbing to this structure. To handle it, we used a suggestion from John Morris: a composting toilet. Composting toilets don't consume any water and add benefits for the resident's agriculture practices, however, worries about maintenance arose. To further reduce plumbing, hand sanitizer would be used in lieu of a sink.

We recommended the location of this outhouse be at location 3 or 4, as it is about the halfway point of the tour. Disabled travelers mentioned that there does not have to be a bathroom at each location in Sayausí, just one that is easy to access and quick to get to.



Activity 5: Pampamesa - **Inaccessible**

Location 5: The Soccer Field – **Inaccessible**

The final location of the tour is a short drive from the White House. There, visitors can observe the local's cooking techniques, such as those that involving cuy (guinea pig). Afterwards, people gather at a nearby soccer field and participate in multiple activities such as cracking walnuts (A), squash races (B), and raffles. Then, the residents serve the main meal, called a Pampamesa (C).

Logistics of Location 5

To get to the Soccer Field, there is a steep hill that visitors have to climb. Once up the hill, the ground is flat and level and the entrance to the field is wide enough for wheelchairs to get through.

There is ample room to stand and view the cuy and other food being cooked.

From these observations, we found that the Soccer Field is accessible once tourists arrive. The site was open and level. A local resident in a wheelchair was able to access the field. The activities involved multiple senses and were flexible and inclusive.

There are chairs on the soccer field but no tables to eat at.

Barriers at Location 5

The main barrier is the steep hill leading to the area and a way to facilitate getting up the hill would make this location accessible. The activities consist of a variety of interactions that incorporate all five senses.

Below are the barriers identified at Location 5. Our recommendations to accommodate for each disability are on the next page.

Barriers For: / Location Components:	Lower Body Mobility Issues/ Wheelchair Bound Person	Upper Body Mobility Issues	Blind	Deaf	Respiratory Issues
Arriving	Drop-off point on a slope and busy road	-	Drop-off point on a slope and busy road	Drop-off point is on a busy road	-
Getting from drop-off point to Field	Extremely steep roadway	-	Extremely steep roadway/ no railings	-	Extremely steep roadway
Soccer Field - spectating area	Limited seating and tables	Limited tables to eat at	-	-	-
Activity Interactions	-	Have to hold food	-	Only spoken information given	-
Leaving	Pickup point on a slope and on a busy road	-	Pick-up point is on a busy road		-

Recommendations for Location 5

Suggestions For: / Location Components:	Lower Body Mobility Issues/ Wheelchair Bound Person	Upper Body Mobility Issues	Blind	Deaf	Respiratory Issues
Arriving	Move drop-off point to outside the soccer field.	-	Move drop off to outside the soccer field.		-
Getting from parking lot to plaza	Move drop-off point to outside the soccer field.	-	Move drop off to outside the soccer field.	-	Move drop off to outside the soccer field.
Plaza - spectating area	Add more seating and tables for more comfort.		-	-	-
Ceremonial Interactions	-	Add more tables and chairs.	-	Create a written format in Spanish, English, and Braille.	-
Leaving	Have transportation pick up guests at the soccer field entrance.	-	Have transportation pick up guests at the soccer field entrance.		-

The Bigger Picture: Broadening Access

Although our recommendations provide a starting point to facilitate tourism in Sayausí, the STB and EDEC should also consider opportunities to help disabled tourists travel to and from Sayausí, find housing in the village for overnight stays, and advertise the accommodations in place for disabled persons. These longer-term goals can assist the STB to broaden access.

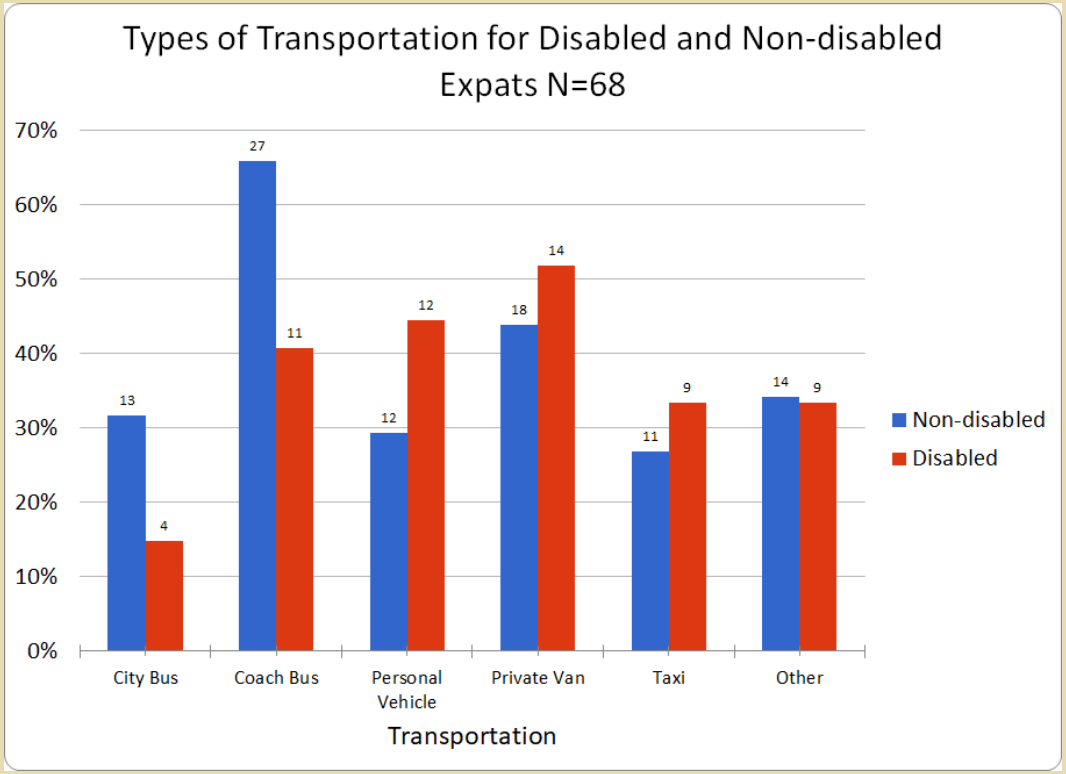
The following recommendations were created to help reach these longer-term goals.

We recommend that EDEC and the STB work on creating connections with larger tourism agencies such as Ecuador for All and Terradiversa.

Larger travel organizations, such as Ecuador for All and Terradiversa, can help Sayausí reach their target audiences without having to invest in more marketing and infrastructure. Travel agencies typically have larger audiences and established infrastructure like transportation. For instance, Ecuador for All can tap into a network of disabled tourists who would be able to access and enjoy Packet 1. Cuenca-based Terradiversa is one of the top tour agencies in Ecuador, offering tours in all parts of Ecuador and Peru. Although not focused on accessible tourism, they still offer some accessible tours and activities. They could assist in furthering connections with tourist groups who don't go through disability -focused agencies (Ecuador for All), like the expatriate community. Either way, pairing with a tour agency opens up opportunities that may have been infeasible or too costly before.

Essentially, outsourcing to tourism agencies would eliminate costs that arise while investing in commodities like infrastructure and transportation. For example, Ecuador For All would have accessible transportation available for Sayausí. They customize rental vans by taking out seats to fit wheelchairs and adding ramps in order to make them accessible. Being on a tour roster like Ecuador For All's would eliminate transportation barriers found to, from, and within Sayausí.

These agencies can also assist with overnight housing. Travel agencies typically book places to stay for the individuals who purchase their tour packages. Cuenca offers several housing options for the disabled, however, one limitation is that most hotels and apartments only have one or two accessible rooms. Ecuador For All currently tries to limit their tours to Cuenca, since it is challenging to put members in the group at different hotels around the city. Despite these challenges, several tourism operators in Cuenca already have community-based tourism sites on their tour rosters, and Sayausí could potentially be added to it too.



We recommend that the STB and EDEC work with the Ministry of Tourism to be added on the list of accessible tourism locations in Ecuador.

It is a goal of the Ministry of Tourism to promote inclusion and accessibility for disabled persons in Ecuadorian tourism. The Ministry has established a list of tourism sites in the country that are accessible for a range of different disabilities. Being a part of this list would be an opportunity for the STB to market its site and the availability of accessible features. In order to be put on this list, the Ministry will send a technician to evaluate the state of accessibility at Sayausí, ensuring that the site is up to standard in Ecuador after implementing the proposed recommendations.

We recommend that the STB market themselves honestly and provide accurate information on the state of accessibility at the Sayausí site.

While being on the Ecuadorian Accessible Tourism List is a good form of marketing, Sayausí also markets themselves on other platforms. We suggest that the STB provides accurate information of their site. One of the overarching concerns for disabled travelers is arriving at a site to realize that the information on accessibility provided beforehand was inaccurate. People are putting their trust and safety in the hands of others and it is important that information on accessibility is clear and correct, allowing travelers to comfortably evaluate the location beforehand.

We recommend that the STB and EDEC work on creating additional activities that incorporate all five senses.

Creating activities that incorporate all five senses helps eliminate barriers to people who are lacking in one or more sense. This was a theme that was emphasized by the disabled community, especially those with sensory impairments. Activities that do this are most accessible and enjoyable for everyone. Some additional activities could include scenery painting, music, and cooking classes. As pointed out in the Expat survey, gastronomy and sightseeing are popular activities that could bring more travelers and give disabled tourists more to do in Sayausí.

Conclusion

Our complete walkthrough of the first packet at Sayausí highlighted many of the areas where improvements could be made to increase accessibility. Interviews with disabled bloggers, surveys of expats, and conversations with Sayausí showed not only the value of accessible tourism, but also where to focus design efforts. From this, we learned to focus both on the locations and the activities, leading to recommendations on how to make sure that disabled tourists get the most out of their visit.

The issue of modifying Sayausí's tourist facilities to be accessible is complex, mostly due to the terrain and infrastructure of the village. All of the locations where visitors are brought are people's homes. As a result, any modifications made need to be approved by the residents. To help with this potential issue, we considered many options for solutions to accessibility problems, and provided recommendations we believe to be the best options for Sayausí and its guests.

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Appendices

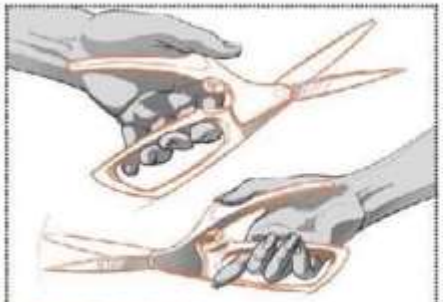
Appendix A

7 Principles of Universal Design Information Sheet

The Principles of
Universal Design

Equitable Use
The design is useful and marketable to people with diverse abilities.

1a. Provide the same means of use for all users: identical whenever possible; equivalent when not.
1b. Avoid segregating or stigmatizing any users.
1c. Provisions for privacy, security, and safety should be equally available to all users.
1d. Make the design appealing to all users.



Flexibility in Use
The design accommodates a wide range of individual preferences and abilities.

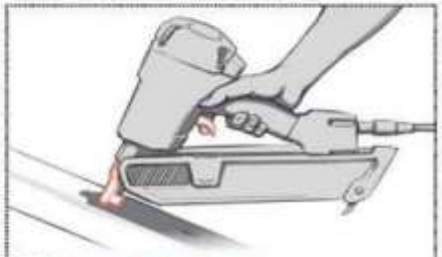
2a. Provide choice in methods of use.
2b. Accommodate right- or left-handed access and use.
2c. Facilitate the user's accuracy and precision.
2d. Provide adaptability to the user's pace.

Simple and Intuitive Use
Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or education level.

3a. Eliminate unnecessary complexity.
3b. Be consistent with user expectations and intuition.
3c. Accommodate a wide range of literacy and language skills.
3d. Arrange information consistent with its importance.
3e. Provide effective prompting and feedback during and after task completion.

Perceptible Information
The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

4a. Use different modes (pictorial, verbal, tactile) for redundant presentation of essential information.
4b. Provide adequate contrast between essential information and its surroundings.
4c. Maximize "legibility" of essential information.
4d. Differentiate elements in ways that can be described (i.e., make it easy to give instructions or directions).
4e. Provide compatibility with a variety of techniques or devices used by people with sensory limitations.



Tolerance for Error
The design minimizes hazards and the adverse consequences of accidental or unintended actions.

5a. Arrange elements to minimize hazards and errors: most used elements, most accessible; hazardous elements eliminated, isolated, or shielded.
5b. Provide warnings of hazards and errors.
5c. Provide fail safe features.
5d. Discourage unconscious action in tasks that require vigilance.

Low Physical Effort
The design can be used efficiently and comfortably and with a minimum of fatigue.

6a. Allow user to maintain a neutral body position.
6b. Use reasonable operating forces.
6c. Minimize repetitive actions.
6d. Minimize sustained physical effort.

Size and Space for Approach and Use
Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

7a. Provide a clear line of sight to important elements for any seated or standing user.
7b. Make reach to all components comfortable for any seated or standing user.
7c. Accommodate variations in hand and grip size.
7d. Provide adequate space for the use of assistive devices or personal assistance.

Image from *The Center for Universal Design at North Carolina State University*

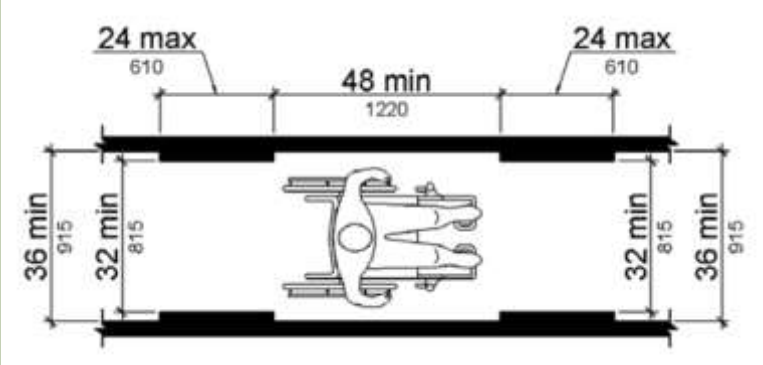
Appendix B

2010 American Disabilities Act Standards for Accessible Design

The following information was strategically selected from the ADA 2010 Standards. It only provides information relevant to Sayausí.

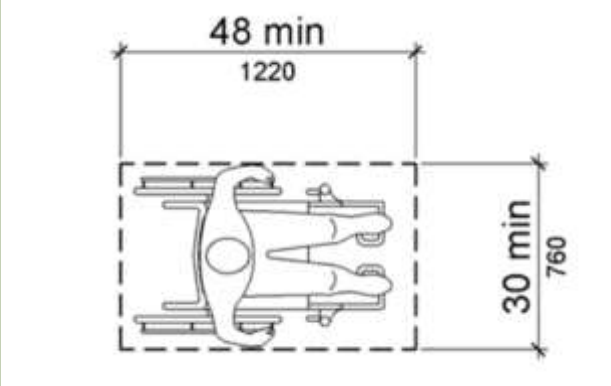
Pathways

Straight Pathways: Clear width of walking surfaces (pathways) shall be 91.5cm minimum.

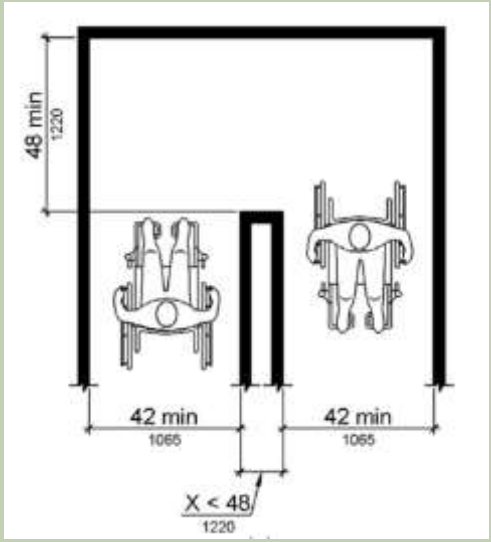


Pathway Dimensions

Clear Floor Space: is defined as the minimum unobstructed floor or ground space required to accommodate a single, stationary wheelchair and occupant. An example would be the plaza outside of the church in Sayausí. The clear floor or ground space shall be 76 cm minimum by 122cm minimum.



180 Degree Turns: Where the accessible route makes a 180 degree turn around an element which is less than 122 cm wide, clear width shall be 106.5 cm minimum approaching the turn, 122 cm minimum at the turn and 106.5 cm minimum leaving the turn.

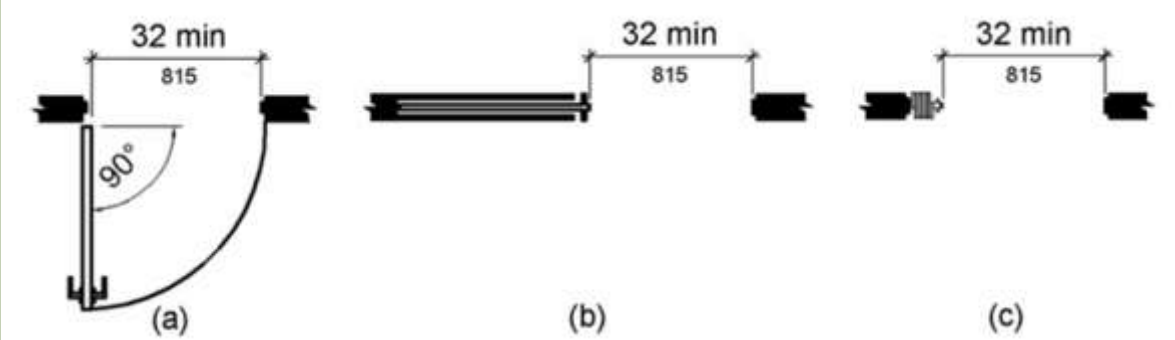


180 Degree Turn Pathway Dimensions

Surface Requirements:
Floor and ground surfaces shall be stable, firm, and slip resistant.
Openings in ground surfaces shall be more than 1.3 cm.
Obstructions on surfaces shall not be higher than 1.3 cm.

Entrances

Door openings shall provide a clear width of 81.5 cm minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees.



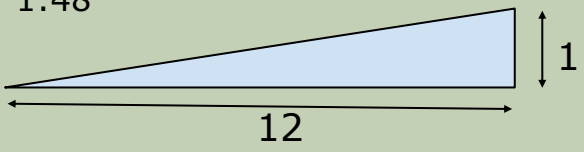
Hinged Door Sliding Door Folding Door

Different Entrance Types with Dimensions

Ramps

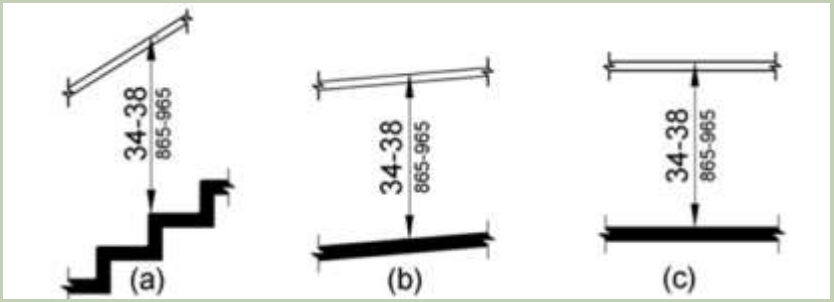
Running slope of walking surfaces: 1:12

Cross slope of walking surfaces: 1:48



Handrails

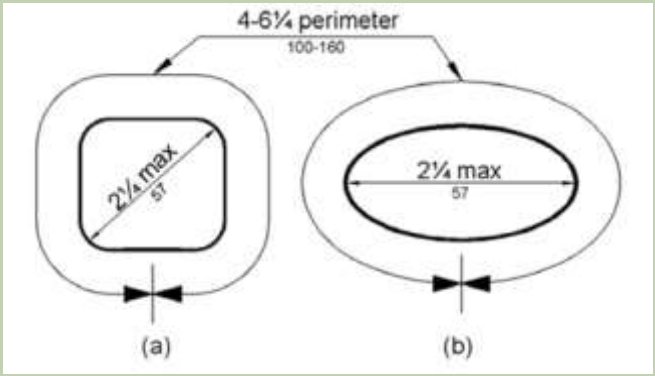
Handrails shall be 86.5 cm minimum and 96.5 cm maximum vertically above walking surfaces, stairs, and ramps.



Stairs Ramp Pathway

Handrailing Heights

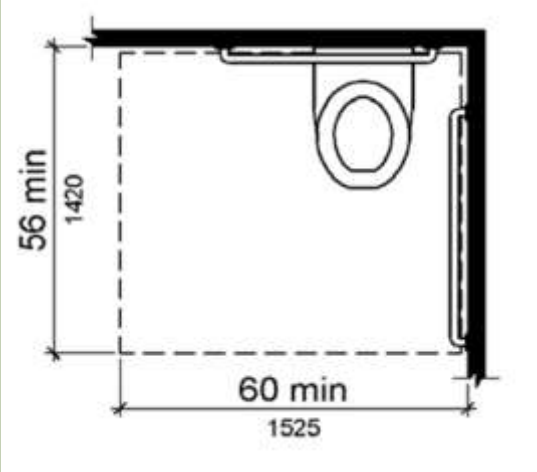
Handrail gripping surfaces that are circular shall have a diameter of 3.2 cm minimum and 5 cm maximum. Handrail gripping surfaces that are non-circular shall have, and a diameter of 5.7 cm maximum. Handrails shall not rotate within their fittings. Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides.



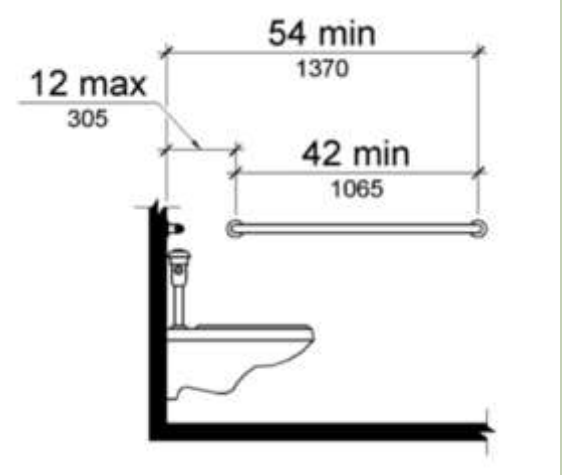
Handrail Cross Sections and Dimensions

Bathrooms

Bathrooms need to have sufficient side transfer space of 152.5cm from the side wall. A railing of length 106.5cm is needed to help with this transfer.



Side Transfer Space

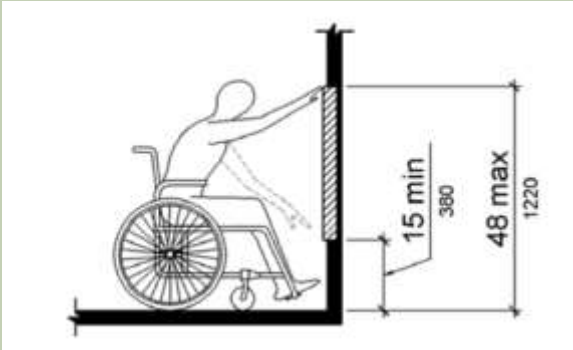


Bathroom Handrailing Height

Activities

Forward Reach:

Where a forward reach is unobstructed, the high forward reach shall be 122cm maximum and the low forward reach shall be 380 cm minimum above the finish floor or ground.



Forward Reach Dimensions

ADA
Americans with Disabilities Act

Appendix C
United Nations World Tourism Organization
Recommendations on Accessible Tourism

A. Tourism Destination Management

Tourism destination management bodies and administrations should carry out an accessible tourism strategy that lays out a set of principles and reasons explaining why accessibility in tourism is necessary so as to make it possible to evaluate services and identify changes that may be needed. The concept of an accessible tourism destination of a locality, region or district must have the necessary accessible facilities, infrastructure and transport in order to create an environment that is varied, stimulating and easily accessible. Efforts shall be made to avoid promoting as being accessible those tourist attractions or accommodations in an inaccessible area without transport opportunities or connections with other tourist venues.

B. Tourism Information and Advertising (Preparation, Information and Booking)

Tourism literature and other promotional material used in tourism should include clear indications of accessible services and facilities, preferably making use of international symbols that are easily understood. To the extent possible, information for tourists with disabilities should be included in the general tourist information. Promotional material should state, if possible, how to contact the establishment through accessible media (text telephone, fax or email), and if the information is available in alternative formats. The areas receiving tourists (tourist destinations) should make available a list of all support services for tourists with disabilities. The listing of these services should include, as a general rule, facilities for the repair and replacement of prostheses and equipment, veterinary clinics for guide dogs and suppliers and distributors of specialized medical care. Reservation systems should have clear information on the level of accessibility of facilities and services advertised for tourists with disabilities in order to properly inform them and facilitate the appropriate booking procedures. Reservation systems should be accessible so that any tourist can interact with them independently. To this end websites and other reservation systems should be designed so that they can be used by everyone, following the Web Content Accessibility Guidelines (WCAG) published on www.w3c.org. The entities responsible for receiving and handling consumer complaints should record and resolve, through a suitable procedure, all complaints relating to deficiencies in the provision of services and facilities whose accessibility was featured or advertised.

C. Urban and Architectural Environments

I. Parking areas

There should be special parking spaces with proper identification for vehicles of persons with reduced mobility, as near as possible to the entry and exit points of buildings or tourist attractions. These parking spaces should be monitored to prevent their use by non-disabled people. There should be special loading and unloading points for travelers as close as possible to access points to buildings or tourist attractions to facilitate the arrival and departure of passengers with disabilities. These points should be monitored to ensure they are not blocked by other vehicles or objects. Individual parking spaces should be wide enough for passengers with disabilities to maneuver comfortably between cars and wheelchairs, and shall be located so that persons using wheelchairs, crutches or prostheses are not obliged to go around cars. Where there are access roads to the building or site, these should be safe for all pedestrians.

II. Communication

The use of sign language, Braille, and augmentative and alternative ways, means and modes of communication and all other ways, means and formats of communication chosen by persons with disabilities should be accepted and facilitated. Telephones and other public communication systems (internet, fax) shall be designed and made available for public use so that they can be used by everyone regardless of their height, their mobility problems or sensory problems. To this end the height, approach space, sound amplification, the formats in which information is provided, and so on shall be taken into account.

III. Signage

The information, check-in and ticket sales counters should be clearly marked and have an accessible area reserved for use by persons with reduced mobility located as close as possible to the entrance. Announcements should be both visual (characters on electronic boards or big screens) and audible (preceded by a tone). Accessible services and facilities should be clearly marked with easily understandable symbols of an appropriate size and color which contrasts with the background. Information for the general public should be provided in a timely manner and without additional cost in accessible formats and technologies appropriate for the different types of disabilities. Fire alarms should emit both visual and acoustic signals. The marking of emergency exits must be clear and well lit; it is recommended that facilities have maps clearly showing meeting points and, if any, refuges for evacuation procedures.

IV. Horizontal Movement and Vertical Movement

Effective measures should be taken to ensure that persons with disabilities are able to move around the venue with the greatest possible independence. Main corridors and passageways should be free of physical and visual barriers and have a width to permit the passage of two wheelchairs side-by-side, such that they are not blocked in normal circulation, or otherwise provide passing points.

Elevators: Multi-story structures should have an adequate number of elevators wide enough for a person using a wheelchair to enter and move easily. They should be specially designed and equipped for easy use by such persons and for the blind (i.e., location of the control buttons, Braille signage, information in both written and audio form). They should be equipped with emergency systems accessible to the hearing impaired.

Stairs and Ramps: Whenever possible, the built environment should be at the same level or equipped with ramps where there is a change in floor levels. Where necessary, provisions should include access ramps, elevators or platform lifts.

VI. Public Hygiene Facilities

At the same place where toilets are located, accessible toilet stalls and washbasins should also be installed. In these stalls, the dimensional aspects and the necessary technical aids needed to transfer between the wheelchair and the toilet should be taken into account. Care should also be taken with regard to the approach space to both the toilet and the sink, as well as to faucets and actuation mechanisms. A system should be provided to allow persons inside the toilet stalls to find and use emergency lighting signs and switches.

D. Modes of Transport

I. Modes of transport

Passenger vehicles, including private vehicles for hire, buses and coaches, taxis, trams, funiculars (cable cars), trains, commuter ferries and cruise ships should be designed to allow safe, comfortable and equitable transport of people with disabilities or reduced mobility. The information provided to passengers before or during the journey should take into account the needs of people with sensory disabilities, and must be available in visual and acoustic formats. Information for passengers and emergency evacuation procedures should be provided in alternative formats, including sign language and writing.

E. Cultural Activities (museums, theatres, cinemas, etc)

Entities responsible for carrying out and promoting cultural activities in a region, destination or establishment should take all appropriate measures to ensure that people with disabilities have access to materials and cultural activities in accessible formats, can participate, develop and utilize their creative, artistic and intellectual potential, not only for their own benefit but also for the enrichment of society.

F. Staff Training

Staff in tourist venues play an important role in reducing potential deficiencies in access or in mitigating unforeseen difficulties, and training in disability awareness and customer care can minimize the barriers encountered by persons with disabilities. The staff of tourism establishments and related services should be prepared to know, understand and address the needs of customers with disabilities. Under the UN Convention on the Rights of Persons with Disabilities, staff should receive appropriate training regarding disabled persons' rights, so as to provide better assistance and services guaranteed by those rights, to monitor and provide the necessary services and explain the operation of facilities designed for customers with disabilities. The staff should include employees who know how to communicate with persons with sensory disabilities. Staff should be trained to treat people with disabilities with courtesy and efficiency, provide complete information on services and facilities available, and facilitate access to non-accessible services. Staff should provide accessible information for people with disabilities about mobility aids, technical devices and assistive technologies, including new technologies and other forms of assistance, support services and facilities available at the establishment. Human and animal assistance should be offered as well as specific and appropriate information about services available in the hotel and external services including guides, readers and professional sign language interpreters in order to facilitate access to buildings and other facilities open the public. Safety & security officers or their counterparts in tourism establishments and vehicles that respectively accommodate and transport persons with disabilities should have at all times and as a general rule, a list of the rooms or compartment numbers occupied by such persons as a precaution in case of emergency. Staff should be trained to evacuate people with disabilities, in an emergency. Emergency drills should be performed routinely according to the laws and regulations.

Appendix D
Expatriate Survey Questions

1. Do you regularly (monthly) participate in what would be considered tourist activities?
(Hiking, Sightseeing, Tours, etc)
   - Yes
   - No
   - Other (Please Explain)
   - Prefer Not To Answer

2. What is your interest in the following activities?

	Prefer not to answer	Uninterested	Somewhat Uninterested	Neutral	Somewhat Interested	Interested
Large attractions (theme parks, festivals, etc.)	○	○	○	○	○	○
Hiking/Nature Walks	○	○	○	○	○	○
Gastronomy	○	○	○	○	○	○
Agriculture/Farming	○	○	○	○	○	○
Fishing	○	○	○	○	○	○
Art/Museums	○	○	○	○	○	○
Cultural Immersion	○	○	○	○	○	○
Sightseeing	○	○	○	○	○	○

3. Please list up to 3 places you have traveled to in Ecuador:

4. What forms of transportation did you use to get to these destinations? Please select all that apply:
   - Coach Bus
   - Personal Vehicle
   - City Bus
   - Taxi
   - Private Van
   - Other (Please Explain)
   - Prefer Not To Answer

5. How many people do you typically travel with?
   - I travel alone
   - One other person
   - 2-3 people
   - 4-5 people
   - 5-9 people
   - More than 10 people
   - Prefer Not To Answer
   - Other (Please Explain)

6. Would you be interested in tourism activities generally linked to nature-based activities, agriculture, rural lifestyle / culture, fishing and sightseeing?

- Yes
- Maybe (Please Explain)
- No
- Prefer Not To Answer

7. Would you be willing to spend $20-$25 (USD) on a full day of these types of activities?

- Yes
- Maybe (Please Explain)
- No

8. How would you describe your Spanish abilities?

- I understand no Spanish
- I understand some words in Spanish
- I can understand and speak some Spanish
- I am fluent in Spanish
- Other (Please Explain)

9. Do you have any of the following? Select all that apply:

- Challenges with lower body mobility
- Challenges with upper body mobility
- Blindness
- Deafness
- Arthritis
- Breathing Issues
- Other (Please Explain)
- Prefer Not To Answer
- None

10. If you checked any of boxes on the previous question, what specific accommodations/equipment do you require? Select all that apply:

- Wheelchair
- Walker
- Cane
- Service Animal
- Oxygen Equipment
- Probing Cane (“Long Cane”, “White Cane”)

Appendix E

Rubric for Evaluating Accessibility at Sayausí

Location 1	Comments	Measurement	ADA Regulation	UNWTO Regulation	Accessible?
Parking Lot	open, unobstructed, level	sufficient space	parking aisle: 5' width	accessible parking clearly identified	Yes
Ramps	connects parking lot to viewing plaza	20:1 ratio	12:1 ratio	12:1 ratio	Yes
Spectating Area	open, unobstructed, level	-	sufficient space to move around, flat, solid ground	-	Yes
Benches	nearby, with back support	17" tall	17"-19" tall, back support	-	Partially
Activity	low physical effort, ability to not participate, processes explained clearly and in Spanish	-	-	all people should be able to participate in every activity	Partially

Location 2	Comments	Measurement	ADA Regulation	UNWTO Regulation	Accessible?
Drop-off Area	street on an incline, narrow, 200 yard walk to house	parking aisle: 8'	parking aisle: 5' width	accessible parking clearly identified	No
Pathway	narrow, obstructed with plants and steps, loose ground	2" width	32" width	32" width	No
Spectating Area	loose, bumpy ground, no seating	-	sufficient space to move around, flat, solid ground	-	No
Activity	high physical effort, processes explained clearly and in Spanish	-	-	all people should be able to participate in every activity	No

Location 3	Comments	Measurement	ADA Regulation	UNWTO Regulation	Accessible?
Drop-off Area	open, unobstructed, level	-	parking aisle: 5' width	accessible parking clearly identified	No
Step 1	created due to erosion on street	4" tall	need ramp 12:1 ratio	need ramp 12:1 ratio	No
Pathway	wide, concrete	3' width	32" width	32" width	Yes
Step 2	-	8" tall	need ramp 12:1 ratio	need ramp 12:1 ratio	No
Entranceway	-	47" wide	32" width	32" width	Yes
Spectating Room	open, unobstructed,level, seating available	-	sufficient space to move around, flat, solid ground	-	Yes
Seating	no back support, however, the wall can provide support	17" tall	17"-19" tall, back support	-	Partially
Bathroom	small, limited space to move, next to weaving room	entrance: 22" width steps: 9" & 7" tall	entrance: 32" need ramp 12:1 ratio	railings next to toilet, sufficient space to move	No
Activity	low physical effort, ability to interact with materials, processes explained clearly and in Spanish	-	-	all people should be able to participate in every activity	Yes

Location 4	Comments	Measurement	ADA Regulation	UNWTO Regulation	Accessible?
Roadway from Loc. 3 to Loc. 4	slight incline, obstructed	wide enough	32" width	unobstructed, level, solid	No
Steps	3 steps	7", 6", & 6" tall	need ramp 12:1 ratio	need ramp 12:1 ratio	No
Entranceway	at the top of the stairs	56" width	32" width	32" width	Yes
Party-Room	open, seating available	-	sufficient space to move around, flat, solid ground	-	Yes
Walkway down to River	steep, narrow, obstructed	20" width	32" width, slope 12:1	32"width, slope 12:1	No
Activity	low physical effort, ability to interact with materials, processes explained clearly and in Spanish	-	-	all people should be able to participate in every activity	Partially

Location 5	Comments	Measurement	ADA Regulation	UNWTO Regulation	Accessible?
Drop-off Area	on busy road, need to walk up steep hill to location 5	15 deg. Slope	parking aisle: 5' width	accessible parking clearly identified	No
Entrance to field	from road to field	50" width	32" width		Yes
Spectating Area	open, unobstructed, level, seating available, no tables for eating	-	sufficient space to move around, flat, solid ground	-	Partially
Activity	low physical effort, ability to interact with materials, processes explained clearly and in Spanish, eating, ability to not participate	-	-	all people should be able to participate in every activity	Yes

Appendix F

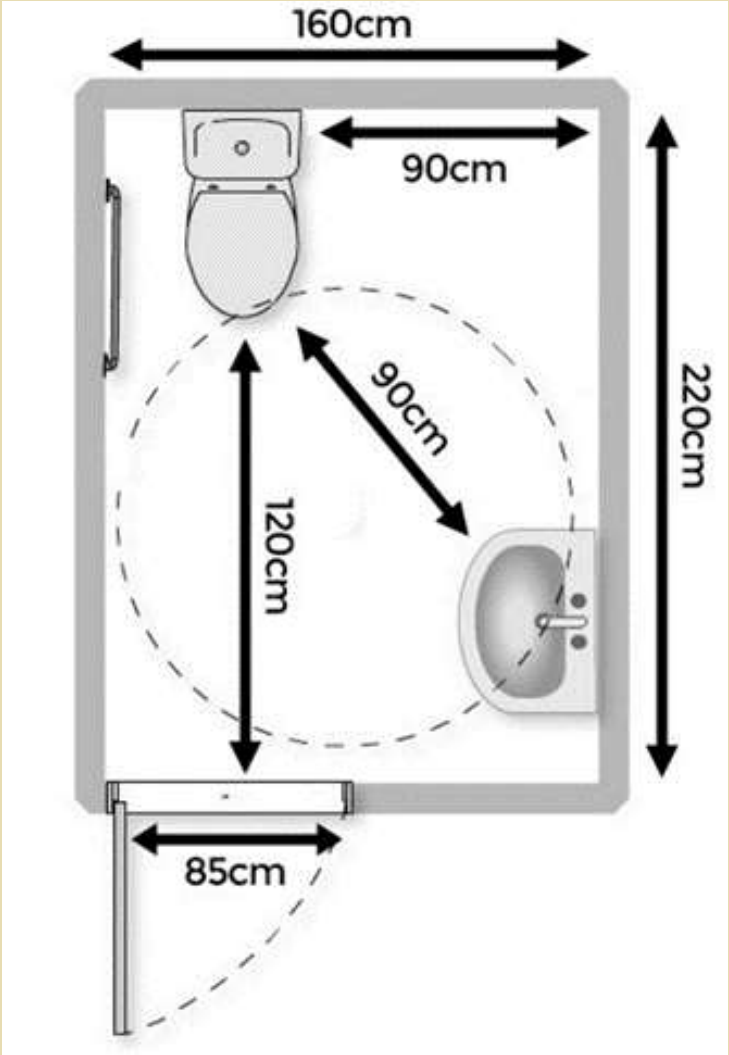
Accessible Outhouse Design for Packet 1

Accessible bathrooms are a necessity for people with disabilities. After discussing with the STB about bathrooms, many residents brought concerns about cost and labor for renovating their own homes. We decided that an outhouse structure would satisfy the resident's concerns still being able to create an accessible bathroom.

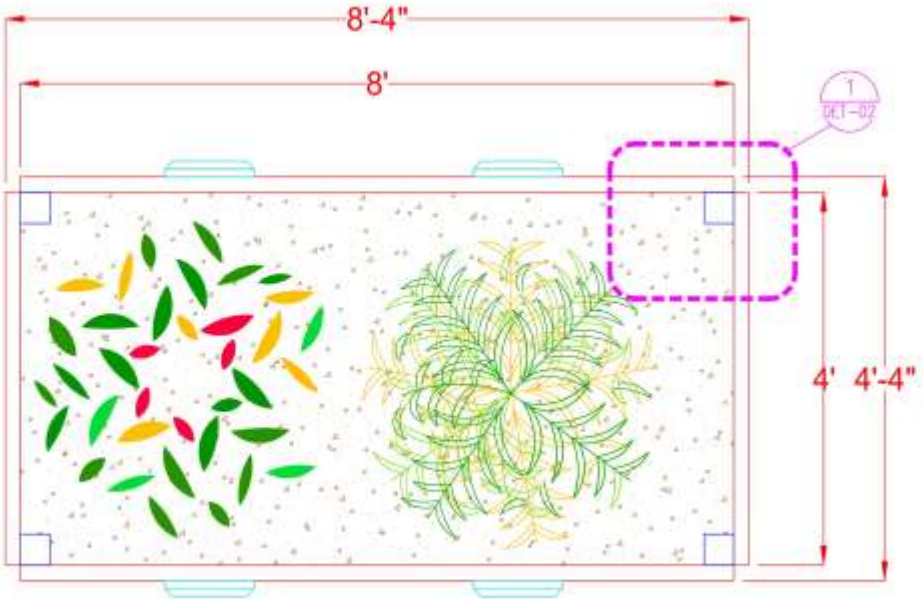
A secondary concern was the cost of running new plumbing to this structure. In order to hurdle this concern, we used a suggestion from John Morris - a composting toilet. Composting toilets don't consume water and add benefits for the resident's agriculture practices, however, worries about maintenance arose. We then explained that the toilet would only be needed to be cleaned annually. In addition to further reduce plumbing, hand sanitizer would be used in lieu of a sink.

Once onboard with this idea, we recommended the location for this outhouse be at location 3 or 4, as it is about the halfway point of the tour. Disabled travelers mentioned that there does not have to be a bathroom at each location in Sayausí, just one that is easy to access and quick to get to.

Using the recommended floor plan from the UNWTO, shown below, we created a design for the outhouse that would be constructed at location 3 or location 4.



Typical Accessible Bathroom Floor Plan



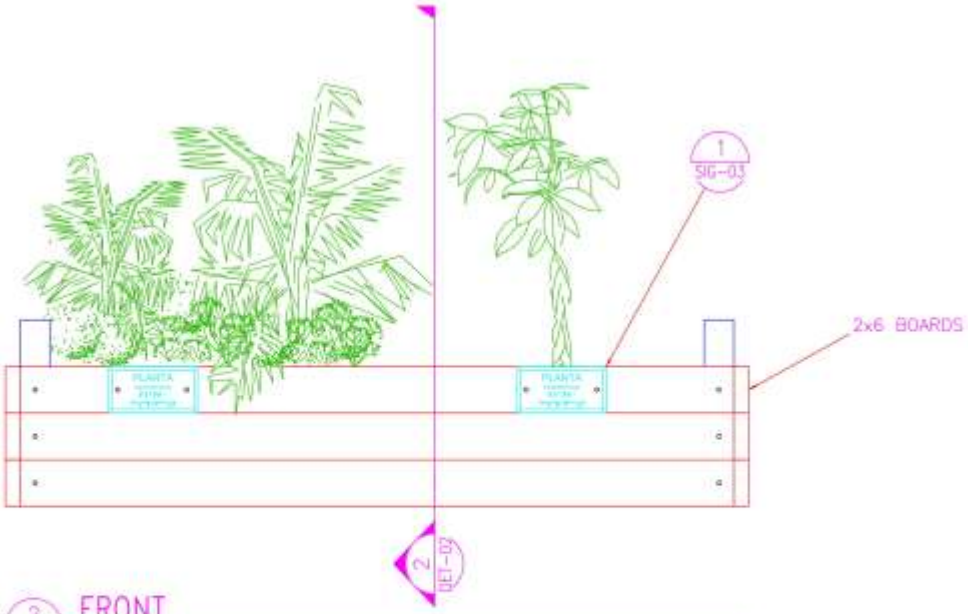
MATERIALS
HARDWOOD, WEATHER RESISTANT

NOTE:
GENERAL CONSTRUCTION MOCKUP
PRODUCE AS MANY AS NECESSARY

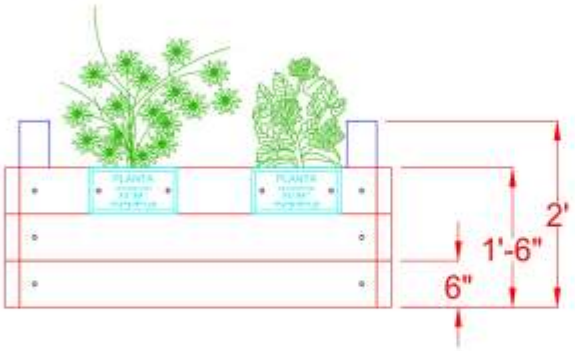
1 PR-01 TOP PROJECTIONS 1:6

Appendix G

CAD Design of Raised Garden Bed Design for Packet 1



2 PR-01 FRONT PROJECTIONS 1:6



3 PR-01 RIGHT PROJECTIONS 1:6

Notes:

WPI

CLIENT: SAYAUSI

ARCHITECT:

SITE:

TITLE: PROJECTED VIEWS

SCALE: AT A1: 1:4	DATE: 3/25/2019	DRAWN: MH	CHECKED: CE
PROJECT NO:	DRAWING NO: PR-01		REVISION: A

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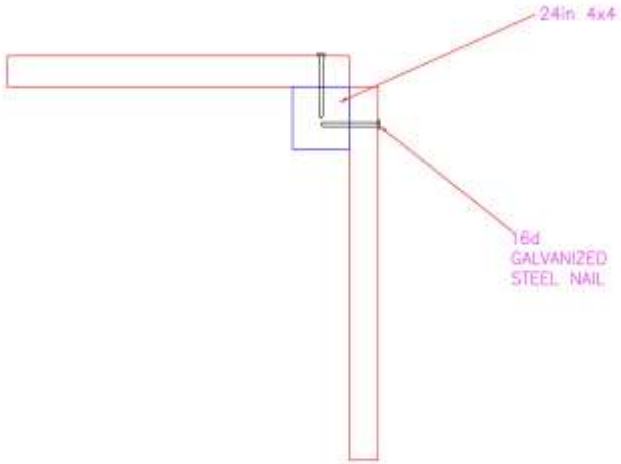
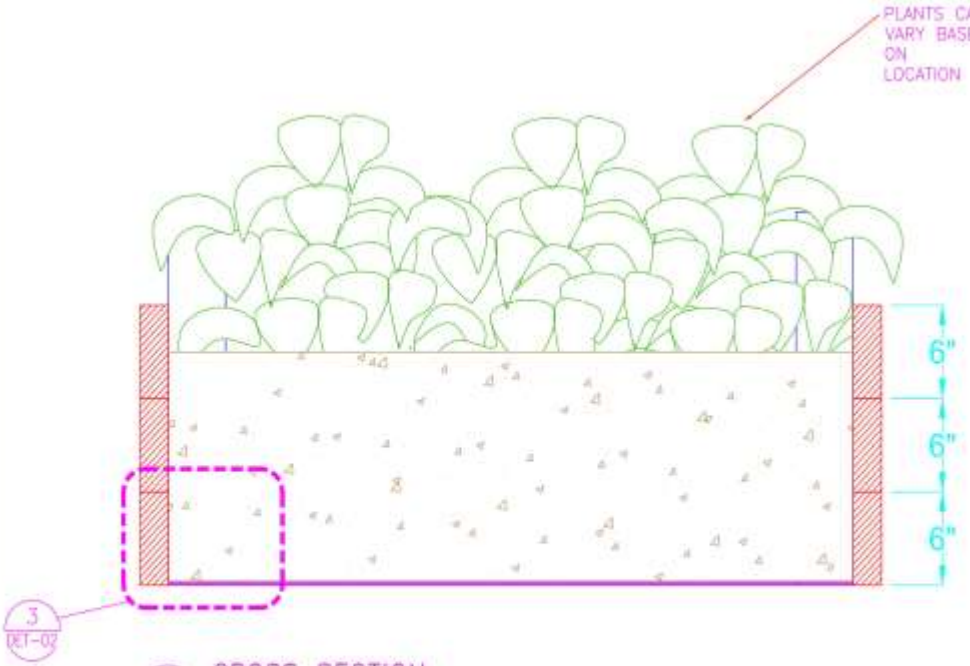


1 DET-02 CORNER ASSEMBLY DETAILS 1:1



2 DET-02 CROSS SECTION DETAILS 1:1

3 DET-02 CORNER DETAIL SECTION 1:1

Notes:

REV	DESCRIPTION	BY	DATE
STATUS			

WPI

CLIENT: SAYALISI

ARCHITECT:

SITE:

TITLE: DETAILS

SCALE AT A1:	DATE:	DRAWN:	CHECKED:
1:1	2/25/2019	AM1	CE
PROJECT NO:	DRAWING NO:		REVISION:
	DET-02		A

80

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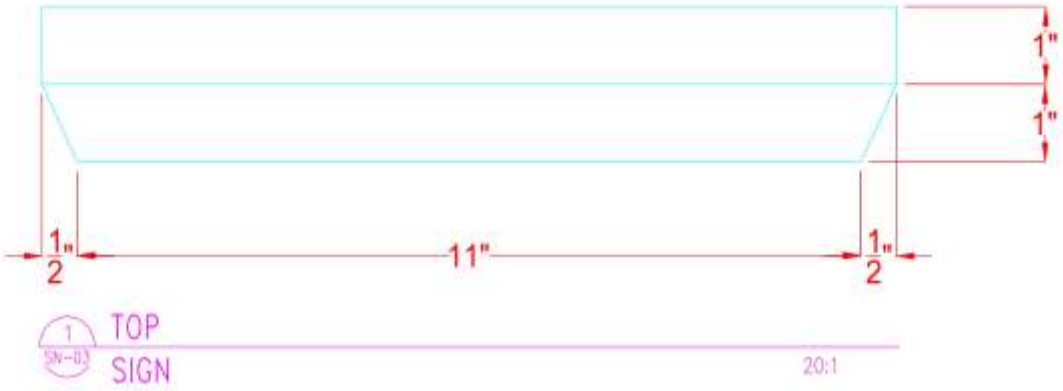
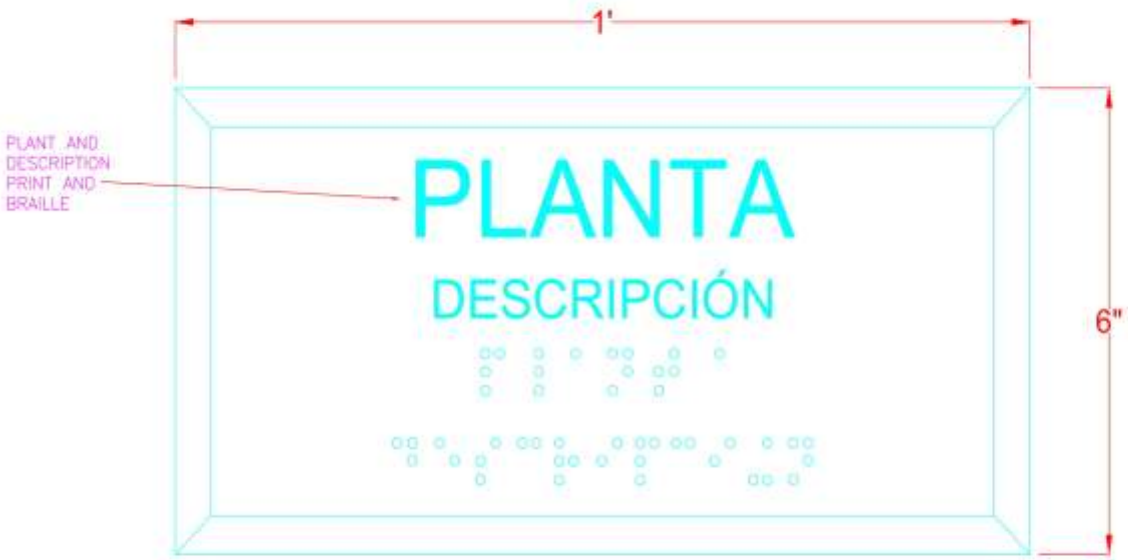


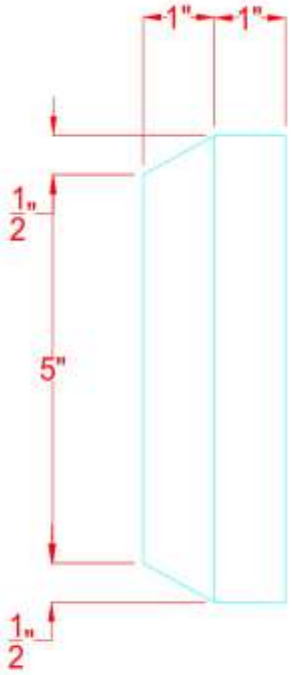
1 SN-03 TOP SIGN 20:1

MATERIAL:
HARD WOOD, DARK FINISH

NOTE:
PRODUCE 2 FOR EVERY PLANT
1 FOR EITHER SIDE OF
PLANTER



2 SN-03 FRONT SIGN 20:1



3 SN-03 RIGHT SIGN 20:1

Notes:

REV.	DESCRIPTION	BY	DATE
STATUS			

WPI

CLIENT: SAYAUSI

ARCHITECT:

WO:

TITLE: SIGN

SCALE: AT A3	DATE	DRAWN	CHECKED
20:1	3/25/2019	MH	CS
PROJECT NO:	DRAWING NO:		REVISION
	SN-03		A

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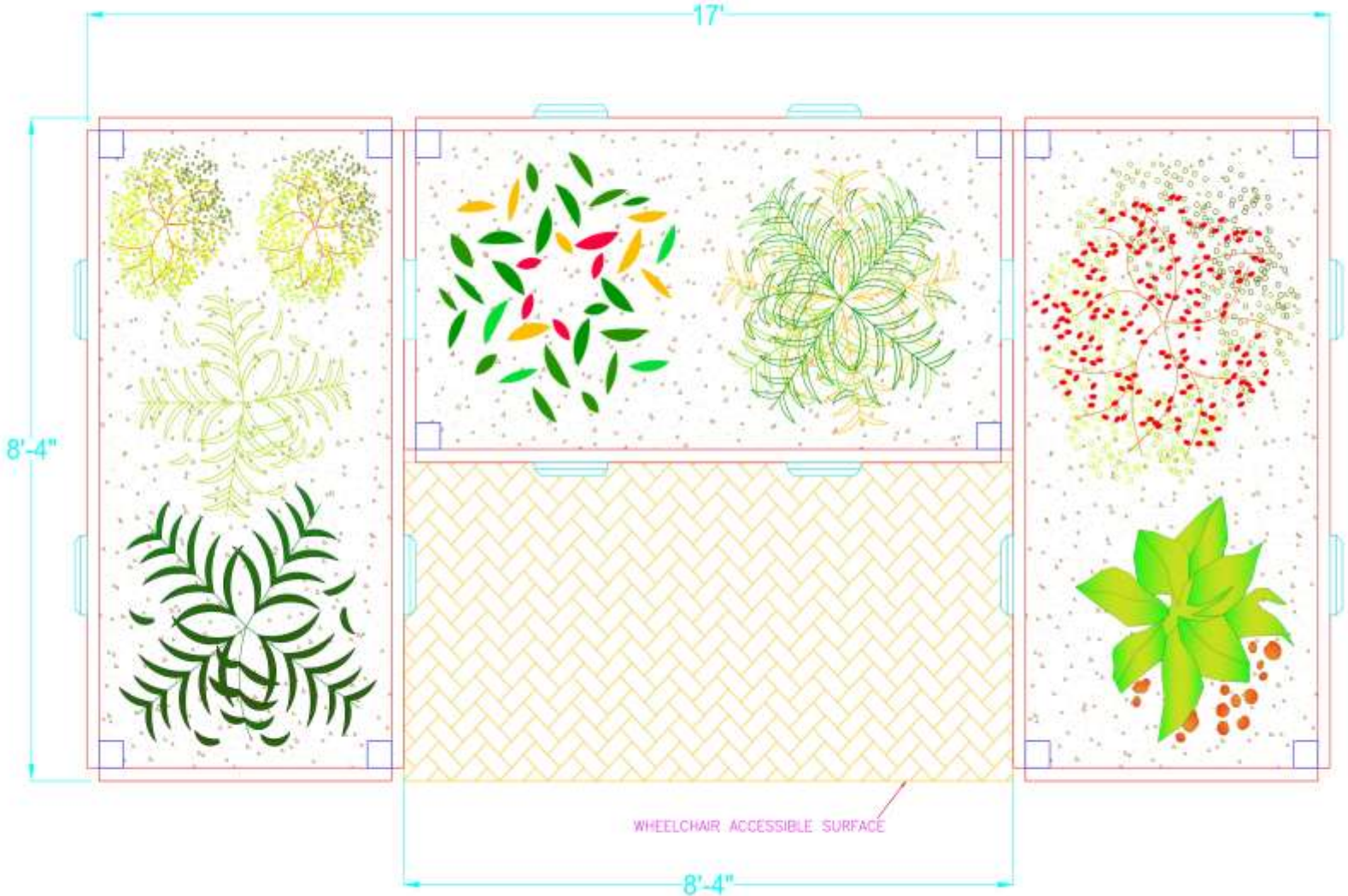


1 MU-04 ROLL-UP GARDEN MOCKUPS

1":6"

Notes:

NO.	DESCRIPTION	BY	DATE

ISSUED

WPI

CLIENT: SAYAUSI

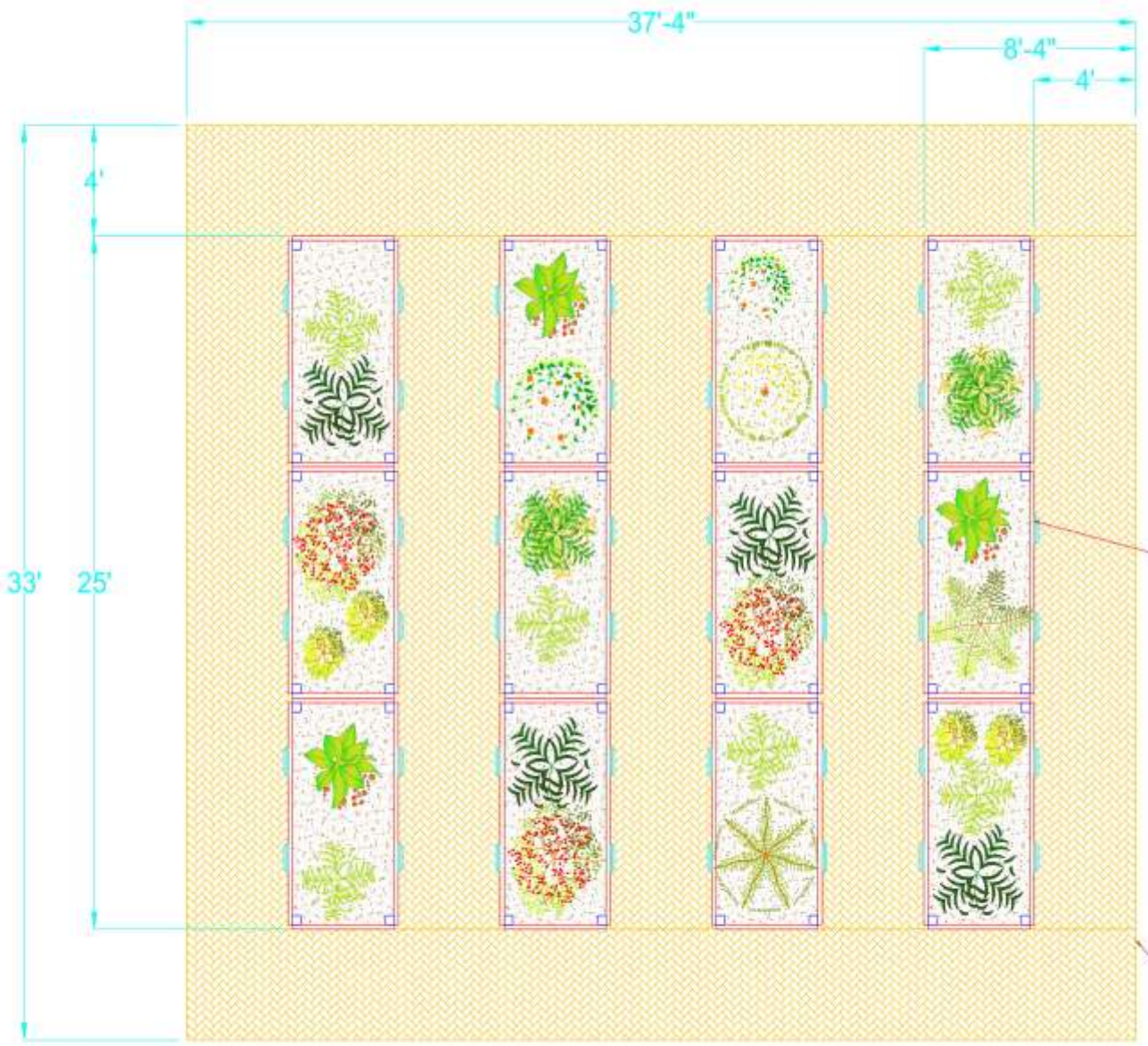
ARCHITECT:

SITE:

TITLE: ROLL UP GARDEN MOCKUPS

SCALE: AT 42:	DATE:	DRAWN:	CHECKED:
1":6"	2/25/2019	MH	CE
PROJECT NO:	DRAWING NO:		REVISION:
	MU-04		A

PRODUCED BY AN AUTODESK STUDENT VERSION



1 MOCK-05 WALK THROUGH GARDEN MOCKUPS

1":1'-6"

Notes:

REV.	DESCRIPTION	BY	DATE
STATUS			

WPI

CLIENT: SAYAUSI

ARCHITECT:

SITE:

TITLE: WALK THROUGH GARDEN MOCKUPS

SCALE: 36" X 24"	DATE:	DRAWN:	CHECKED:
1":1'-6"	2/25/2019	MH	CE
PROJECT NO:	DRAWING NO:		REVISION:
	MU-05		A

PRODUCED BY AN AUTODESK STUDENT VERSION

PRODUCED BY AN AUTODESK STUDENT VERSION