

Parks for all: Information on accessibility and associated experiences.

by

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AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

This thesis examines the accuracy of accessibility information for parks and the related experiences of visitors. It explores whether or not there is a gap between the information that is made available to the public and the experiences that are available on the ground.

People with mobility impairments encounter barriers to movement. The provision of information on accessibility may assist those with impairments to select recreational opportunities that are compatible with their interests and abilities. Accordingly, the availability and accuracy of information on accessibility is evaluated through comparison with on-site field observations.

Four parks of different management types – local, regional, provincial and national – are examined. Promotional information was gathered primarily from brochures and websites. Key informant interviews were conducted and on-site measurements of accessibility were taken.

The quantity and accuracy of information on accessibility varied between the parks. Inconsistencies were found between the information on accessibility and the on-site situations. Details on park features like parking, trails, washrooms, visitor centers and campsites lacked volume, specifics and accuracy, and these features are important to individuals with a mobility impairment. Stronger links should be established between the monitoring of accessibility and the timely, accurate provision of accessibility information.

There is willingness among park officials to address accessibility issues but financial constraints are widely regarded as being an impediment to action. As such, physical improvements to accessibility are most likely to occur as a part of general maintenance schedules. Nevertheless, regular systematic monitoring and reporting is not expensive and would benefit park management by enabling them to provide more accurate information to the public. The study also suggests that greater engagement with the impaired community could be beneficial to parks, officials, and visitors.

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Dedication

This thesis is dedicated to my father, the late Gerald D. Angel. This research is my actions to follow in his footsteps, which is to pursue a dream. I also dedicate this to Patty Robinson-Angel for assisting me in the chase.

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Quotes

“If you are disabled, it is probably not your fault, but it is no good blaming the world or expecting it to take pity on you. One has to have a positive attitude and must make the best of the situation that one finds oneself in; if one is physically disabled, one cannot afford to be psychologically disabled as well.”

— Stephen Hawking

“We know that equality of individual ability has never existed and never will, but we do insist that equality of opportunity still must be sought.”

— Franklin D. Roosevelt

Chapter 1

Introduction

Tourism involves the facilitation of travel and the activities of individuals away from home (Smith, 1994). *How* tourism is facilitated is of great concern to people with impairment. Representing a population of over 1 billion people world-wide (Martin Prosperity Institute, 2010), people with impairment are often overlooked as a market segment (Burnett & Baker, 2001). As a result of the oversight, the services and information provided by tourism suppliers may be inadequate for people with impairment.

Disability includes a wide variety of impairments. Physical, sensory and cognitive impairments are elements of disability. In that regard, impairments become the onus of an individual where one could assume disability is associated with a single person. Studies show that some individuals with impairments do not identify themselves as disabled (Martin Prosperity Institute, 2010). Those “unidentified” individuals may have adapted their lives to accommodate their impairment. Disability may culminate from life, or society’s lack of accommodation, which results in barriers to living. The World Health Organization (WHO) and the World Bank’s *Report on Disability* recognizes that an individual’s environment may be disabling and is important to consider when defining disability (2010).

Numerous organizations put forth multiple definitions of disability. The United Nations broadly defines disability as resulting from the interaction between the environment and an individual’s health conditions (Goldstein, 2010). The vagueness and ambiguity of such a definition leads businesses in the travel industry to be just as ambiguous with the levels of accessibility that they provide. Faulty access information reported by travel businesses creates barriers for people with impairment.

People with impairment rely on accessibility information from travel destinations. They depend on accurate information to make travel arrangements that will suit their individual needs (necessities for accessibility may include but not limited to: assistive listening devices, ramps, elevators, braille signage, or assistive technology for cognition). Limited or inaccurate information may cripple travel arrangements. The search for accessibility information is undertaken so that barriers can be avoided.

Barriers to navigation may be physical or attitudinal. Architectural design or *albeism*, – the discrimination against people with impairment by non-disabled people (Kitchen & Law, 2001) – may restrict the movement of people with impairment. Barriers can affect many aspects of life. Travel is

one aspect of life that is not immune to the physical or attitudinal barriers experienced by people with impairment. The elimination of barriers could help to generate a socially inclusive society to a greater extent.

An inclusive society is one where people with impairment can navigate through society without restrictions. The research in this study promotes accessibility by exploring the accessibility of parks for people with impairment. Improved accessibility will lead to the attainment of the ideals of a more inclusive society. Legislation, education and training are other ways that will enable people with impairment the liberty of moving through society (ESCAP, 2000).

People with impairment are not the only people to benefit from a more inclusive society. As the “Baby boomer” generation moves into retirement, there may be an increased demand for travel services. As the population ages the demand for accessible services may increase.

Accessibility for one individual may not necessarily be suited for those with similar or varied impairment. Braille signs or audio cues for sight or hearing impairments may offer little improvement in access to an individual in a wheelchair. A ramp with a steep grade may not be difficult for a person in a power wheelchair. However, an individual using a manual wheelchair may be limited by the incline of a ramp. It follows that the availability and communication of information on accessibility is important to people with an impairment. The specifics of ramps or any other type of accessibility facilitation can be reported through printed materials or Internet websites.

The Internet is a valuable resource for people with impairment to make travel arrangements with their specific needs in mind. Issues arise when information, whether in print or online, is outdated, incorrect or inaccurate. This research investigated the accuracy of published accessibility information. The aim was to determine if gaps exist between the information that is provided and the situation on the ground. In the event that such gaps are found, then solutions can be generated that will assist people with an impairment in travel planning, ultimately contributing to increased accessibility and more enjoyable travel experiences.

1.1 PURPOSE

The purpose of this research was to analyze the accuracy of accessibility information made available from four different parks in southern Ontario, Canada.

Parks are areas where people seek recreation or relaxation. A person with impairment may look to gain a similar, barrier-free experience within a park. They may perform pre-trip investigations of

accessibility information. Decisions to visit a particular park may be based on such information. The accuracy of accessibility information, therefore, may influence their likelihood of gaining a positive or negative experience at a park.

Park features such as picnic areas, swimming or fishing areas, trails, and campsites are highlighted in public information concerning the level of accessibility. A park guide or website may list a particular park feature as being accessible or barrier-free. This research explored the accuracy of that information. Through on-site evaluation, an assessment of accessibility was made. Is site accessibility monitored or maintained? Is accessible infrastructure a focus for investment? Does accessibility meet the legislated criteria? Does alternate levels of governance dictate accessibility?

The previous questions focused the inquiry at the study sites. The four selected sites are of different administration levels. A local, regional, provincial, and national park were selected for analysis. Temporal and financial considerations for conducting research assisted in the selection of study sites. Each park has a range of available access information supplied through brochures or websites. The sites are situated in the province of Ontario. Provincial accessibility legislation dictates existing accessibility. Differences in size and attractions created variables to accessibility. The goal was to find similarities, which explain the current state of accessibility and information.

This research is founded on a gap in the literature that suggests that there may be a difference between the information that is provided and the experience of available accessibility. This gap can be the difference between a positive or negative experience in the study sites.

Equity may lie in the difference of experiences. Sites with a maintained focus on accessibility exhibit equitable use for all visitors. Barriers of specific features at the study sites present constructed discrimination. It was important to locate barriers and find where barriers have been removed as they represent challenges to situating accessibility. Investigating administrative reasons for deficient accessibility infrastructure or information allowed themes to emerge from the study sites. Observing what reported accessibility, situated against what accessibility exists, illustrated the gap between information and experience at the study sites. The attention to the problem highlighted in this research has a positive implication for improving accessibility and the dissemination of information.

1.2 RESEARCH OBJECTIVES

This research has four main objectives:

1. To examine how accessibility and disability are defined;
2. To examine the accessibility information that is available for the study sites;
3. To evaluate the actual accessibility at four parks;
4. To identify reasons for gaps that may exist in the accessibility information that is provided and the actual situation on the ground.

1.3 CONTRIBUTIONS TO THE ENHANCEMENT OF ACCESSIBILITY

As a benefit beyond the specific research objectives, this study sought improve the accessibility of parks. The implications of this research could lead to the provision of accurate information at these and other tourist sites.

Wu and Cheng (2008) suggest their Long Tail Theory whereby businesses looking to capture the niche market of accessible tourism could do so by providing enhanced information to travelers with impairment. The relatively uncomplicated concepts promoted by the Long Tail Theory are:

- Fixed Itineraries: for ease of trip selection;
- Accessible tourism evaluation: to provide user evaluations of accessibility;
- Accessible tourism knowledge-sharing to create online word of mouth information;
- An Accessible tourism audio/video area: to raise awareness of accessible tourism and to illustrate accessible features;
- Accessible tourism news: for updated information;
- Accessible tourism blogs: to post thoughts, insights and experiences (2008).

They suggested that these initiatives could be included in a comprehensive web site that would provide information on accessibility *by* people with impairment. The Long Tail theory may be beneficial to multiple tourist destinations and sites.

This document may be used to augment site management. Actors on accessibility can decide to increase monitoring, funding, or communication to enhance the level of inclusion. Designating time and resources to examine accessibility on a regular basis should lead to frequent improvements. Commitment to accessibility may be demonstrated by the allocation of funds for projects that specifically pertain to accessibility. Monitoring may also be a source for park information updates. Park conditions that compromise accessibility could be reported through available media outlets. Strengthening internal communication between web masters and site officials may be highlighted as a result of the findings of this research.

Improved access could lead to the generation of a more inclusive society. This research will promote the facilitation of a society, which people with impairment can move through without restriction. Site or management modifications may precipitate greater equity. Enhancements to accessibility will reduce barriers to people with impairment. More access will increase inclusion for an individual with impairment; and, greater equity.

1.4 ORGANIZATION OF THE THESIS

Following this introduction, Chapter 2 is a review of disability and accessibility literature. Key terms are defined by drawing upon and interpreting available literature. Chapter 3 describes the methods employed in conducting the research. Chapter 4 is the findings section where data collected from the field are reported. Chapter 5 is the discussion section where the implications of the research findings are discussed and related to the material in the literature review. Chapter 6 is the conclusion where the potential benefits of the research and its findings are further elaborated. Appendices include supporting materials and measurements from data collection.

Chapter 2

Literature Review

This chapter reviews literature that comprises various elements of disability. Social science models that define disability will provide a civil context of disability. A medical model definition of disability offers the dominant perspective of disability rhetoric. The definition of disability is examined by literature from multiple organizations. The mechanics of defining disability provided a definition to situate the research.

Many barriers exist, either social, attitudinal or physical, (Yau, McKercher & Packer 2004; WHO, 2010; Poria, Reichel, & Brandt, 2010, Smith 1987) that prohibit disabled people from traveling. This chapter will discuss the aforementioned barriers and their impacts on persons with impairment.

The market potential of people with impairment is an estimated \$800 billion USD (Debaise, 2009). However, many sectors of the tourism industry fail to provide adequate services for consumers with impairment. The implications of embracing and ignoring the disability market segment will be discussed.

Accessibility information assists in the avoidance of barriers for people with impairment. Websites and printed materials may contain specific details regarding access that a person with an impairment may rely on for trip planning. The accuracy of such information is vital to creating barrier-free itineraries. Potential solutions found within the disability literature will be examined for the conveyance of accurate accessibility information.

2.1 DEFINING DISABILITY

What constitutes a disability? The infirmities of disability can result from a personal catastrophe or incident, stem from a progressive deterioration of function or developed congenitally. Impairment can be the consequences of a car accident to the progression of age (Yau, et al., 2004). The former may have lasting traumatic effects where the latter may come with a degree of acceptance, as an advance of age.

Defining disability by deficit – the inability to walk – is a result of the medical model of disability. Functional limitations are the core of the definition (Devine & Sylvester, 2005). Impairment that restricts activity constitutes disability (Thomas, 2004). The medical model definition of disability is concerned with fixing the person with the impairments. Devine and Sylvester (2005) posit that society

will focus time and resources to curing impairment to demonstrate a social concern for people with limited function. Disability becomes individual. What is not considered are the barriers that in place due to societies' lack of accommodating people of any ability. Strictly using the medical model definition of disability discounts factors within one's environment that may prevent a person's full participation, limit their activity, or exacerbate the limitations of their impairment. It should be recognized that if medical treatment can limit or prevent impairment, steps should be taken for prevention. However, if person has an impairment then society should accept the person as they are and accommodate their needs with an accessible society.

The definition of disability is debated in social sciences' discourse from two sides. The medical model's definition of disability is based on the individual. The social model of disability is constructed in the actions of society. Jones' (1996) article of disability as a social construction denotes that the biological aspect of disability is left out of the social construct of disability. Disability, "framed in the eyes of others," promotes the SPAR model (services, programs, advocacy, research) of disability as a social construction according to Jones. The model serves to address a person with impairments' specific needs and expand the social boundaries of disability. The article recognizes the importance of an individual's impairment and limitations imposed by an exclusive society – one that creates oppressive structures. Social change benefiting individuals of multiple abilities will focus on altering the oppressive structures (Jones, 1996). The need to alter "oppressive structures" comes from "society's failure to accommodate its members who have impairments" (Devine & Sylvester, 2005 p. 87). The social model's goal of defining disability is to create an inclusive society where a person with impairment can be an active participant without encountering socially constructed barriers. Barriers that create exclusion could include the design of buildings, curbs or parks in a way that impedes a person with impairment (2005). "Disability as a form of social oppression – remains distinct" (Thomas, 2004 p. 580).

Many public organizations delineate "disability" in ways that try to express numerous characteristics. The World Health Organization (WHO) describes disabilities as a term that encapsulates a more comprehensive "bio/physical" definition (2010). Impairments, activity limitations and participation restrictions combine for their interpretation of disability. WHO explains the disability as a person's interaction of health conditions and contextual factors that would include personal and environmental factors (2010). The integration of the individual and their circumstances bridges the medical model and social model of definition of disability. The importance of the

coalescence is to consider that impairments alone are not the singular cause of disability. The barriers in one's environment may also contribute to disability. WHO recognizes that defining disability may be a challenge due to the dynamics, complexity, multidimensional, and contested nature of the term (2010). The current definition of disability seeks to allow for the elements previously described.

The National Organization on Disability (NOD) conducts regular research on people with impairment. NOD preserves their definition of disability in annual studies. The scope of the definition focused on people with impairment that were non-institutionalized individuals (2010). Respondents classified themselves to categories based on whether he or she currently:

Has a health problem or disability that prevents him or her from participating fully in work, school, housework, or other activities; or

Reports having a physical disability of any kind; a seeing, hearing, or speech impairment; an emotional or mental disability; or a learning disability; or

Considers himself or herself a person with a disability or says that other people would consider him or her to be a person with a disability (NOD, 2010, p. 4).

NOD's "soft" definition of disability may be constructed to allow for self-identification. This is beneficial since technically constructed definitions may not apply to some respondents. Definitions with strict guidelines that adhere to limitations of impairments may result in fewer people identifying as disabled. Participation and impairment are two common definers of the WHO and NOD's definition. WHO's meaning of activity limitations may be included with NOD's participation; the allowance for "consideration" of a disability offers a new level of self-reporting. Accuracy on that reporting may be unreliable. Focusing on the "self" in NOD's definition of disability is aligned with the medical model of disability. Current literature suggests that disability be a balanced definition considering social and individual aspects.

In 1990, the United States Congress passed the Americans with Disabilities Act. The ADA provided protections for people with impairment that were missing from the 1964 Civil Rights Act (Burnett, 1996). For the implementation of the law the term "disability" needed clarification.

Disability, defined by the ADA, is:

An individual is "disabled" if he or she meets at least any one of the following tests:

1. He or she has a physical or mental impairment that substantially limits one or more of his/her major life activities;
2. He or she has a record of such an impairment; or
3. He or she is regarded as having such an impairment. (1990, p.7)

Definitions by the ADA and NOD are similar when elements “such as walking, talking, caring for oneself, or working” are used as determinants. People with a record of an impairment are considered disabled. “Such as someone recovering from cancer or with a history of lower back problems, as well as people who are ‘regarded’ as having a disability, such as a person with a disfiguring injury such as a burn or scar, even though the individual has no physical limitations” (Burnett, 1996 p. 3). The exegetical category allows room for interpretation that may be beneficial to individuals with said symptoms. The variation of symptoms may be the grounds for allowing certain rights provided by government agencies. Short-term conditions, broken legs or arms, may have disabling effects, but are not covered under the regulations of the ADA. (Burnett, 1996)

The Canadian national government passed the Human Rights Act in 1977. However the act only protects people from discrimination for federal activities. Accessibility laws are legislated on a provincial level in Canada. In 2001, the province of Ontario passed the Ontarians with Disabilities Act (ODA). The ODA was a seven-year grass roots campaign to provide rights for people with impairment. Developed from an aggregate of acts (e.g. human rights, employment and education) the ODA led to the next level of accessibility legislation with hard target deadlines to make Ontario accessible.

The current Accessibility for Ontarians with Disabilities Act (AODA) defines disability as:

- (a) any degree of physical disability, infirmity, malformation or disfigurement that is caused by bodily injury, birth defect or illness and, without limiting the generality of the foregoing, includes diabetes mellitus, epilepsy, a brain injury, any degree of paralysis, amputation, lack of physical co-ordination, blindness or visual impediment, deafness or hearing impediment, muteness or speech

impediment, or physical reliance on a guide dog or other animal or on a wheelchair or other remedial appliance or device,

(b) a condition of mental impairment or a developmental disability,

(c) a learning disability, or a dysfunction in one or more of the processes involved in understanding or using symbols or spoken language,

(d) a mental disorder, or

(e) an injury or disability for which benefits were claimed or received under the insurance plan established under the *Workplace Safety and Insurance Act, 1997*; (“handicap”) (2005).

The AODA’s definition is carried over from the ODA. The specific categories within the definition are to help individuals self-identify as disabled. As well, the specifics delineate disability for binding legal applications. The merit of a well-defined definition of disability is that there are perimeters to determining disability. People within the perimeters are now legally protected from discrimination. The problem may be if perimeters of the definition exclude a group of individuals with impairment. However, the AODA mandates a regular review of the act every four years. The review serves as a method of monitoring to ensure any issues are addressed in a timely manner. An excluded group would be detected in the monitoring process.

Reedy (as cited in Burnett, 1996) proposes an alternative classification for people with impairment, divided into physical and sensory categories. The following are the impairments broken into four categories.

(1) Mobility impairments. These are limitations to movement, ranging from restricted upper body motions such as reaching, typing, or grasping to restricted lower body motions such as walking or climbing.

(2) Hearing impairments. These include diminished hearing abilities ranging from deafness to being hard of hearing.

(3) Sight impairments. These are visual limitations ranging from blindness to other severe sight restrictions such as retinitis pigmentosa.

(4) Speech impairments. These are limitations of intelligible speech resulting from many causes, such as congenital deafness to childhood illness to psychologically induced stuttering (Burnett, 1996).

While the classifications offer a new perspective, there is an exclusivity aspect that is addressed in the ADA's definitions of "disability." People "regarded" as having a disability are omitted from Reedy's listings. The categories may offer a new level of specificity but the omission may discount people already on the verge of being left out.

Neither Reedy nor the ADA considers society's ability to accommodate people with impairment. The focus on impairment places the responsibility of disability on the individual. Their environments can disable people. WHO's acknowledgment of societal barriers is evident in their definition.

Burnett and Baker warn not to treat those in the mobility-disabled group as if they were homogeneous (2001). The same warning could be used when classifying or identifying any group of people with specific impairments. Yet their study only addressed the mobility disabled. Sensory disabled people—visual impaired, hearing impaired or cognitive impaired people were not included in their study. To facilitate their research the authors created a singular group based on one trait – the inability to walk.

A census report of the United Kingdom, states that the mobility impaired account for only 4% of the population of people with disabilities. Even fewer depend on a wheelchair at all times. (OPCS, 1987) However, mobility impairments are the most visible and most accommodated impairments. The use of comprehensive definitions of disability may lead to the creation of more inclusive environments should social attitudes change towards the greater accessibility accommodation of people with impairments.

The research focused on mobility-impairment issues. Impairment can range from mild, moderate, or severe disability (Burnett & Baker, 2001). The range of impairment will mean different requirements for accessibility. If consideration is given that the most severe impairment – inability

ambulate – will require a high degree of access to accommodate those individuals, then the mild and moderately disabled people can reasonably expect adequate accessibility.

Many organizations offer various definitions of disability. Businesses in the travel and tourism industry define disability with their inconsistent levels of accessible services. Disability encompasses different categories that may be termed as impairments. For the purpose of this paper, disability will be related to people with mobility impairments. Mobility impairments can range from limited ability to ambulate with or without an assistive device to referring to people that require the use of a wheelchair – electric or manual

2.2 ISSUES FACING PEOPLE WITH IMPAIRMENT

Of the barriers people with impairment are sure to encounter, attitudinal ones are the least expected. “Societal attitudes to disabilities further complicate acceptance” (Yau, et al., 2004, p. 951). There are some cultures that foster negative attitudes. The Chinese culture perceives a disabled person as being punished by “the gods” (2004, p. 951).

Yau, et al., states that in Hong Kong the “traditional viewpoints teach that disability represents a form of punishment from ‘the gods.’” Disabled individuals seen in public are viewed as people who must have done something wrong. As a result, the same individuals are resigned to accept their role as the punished (2004). A respondent to Yau, et al’s study declared that, “neighbors might say that you must have done something wrong in a past life” (2004, p 951). The declaration is evidence that cultural attitudes can create a “social construction of disability as a state of marginalization” (Poria, et al., 2010 p. 217). Negative attitudes can create stigma for people with impairment and stigmas will continue to generate negative attitudes. Empowerment of people with impairment would help to break the cycle of stigmas and attitudes. Countries with support services have strong disability groups that lobby for rights (Martin Prosperity Institute, 2010). The empowered groups interaction with society changes attitudes merely by the initial interaction as well as the on going pursuit of rights.

Smith (1987) cites numerous authors on attitudes of non-disabled people as affected by exposure to disabled people. In his examination of Pearce’s study, Smith highlights the alienation that is derived from being an “outsider.” Social attitudes towards people with impairment compound alienation (1987). In West’s study of social stigma (as cited by Smith, 1987), 51.9% of 162 disabled participants noted a level of alienation. Teasing and overt lack of respect were encountered at some point in their travels. The negative attitudes led to reducing the participants outside exposure. Bullying, job

discrimination, and mocking are expressions of negative attitudes (Martin Prosperity Institute, 2010). Families may hide an impaired relative from society. Such expressions could lead to people with impairment withdrawing from participation in society. Empowerment of people with impairment could help reduce negative attitudes and expressions.

Avoidance behavior creates another type of attitudinal barrier (Langer, Fiske, Taylor and Chanowitz, 1976). People with impairment become objects of curiosity. Staring and awkward social situations result in obstacles to be overcome. People without impairment also fear saying or doing the wrong thing when a disabled person is around. Expressions like, “Let’s go for a walk.” may be taken as just an expression to a person in a wheelchair. However the able-bodied speaker may fear they were grossly inconsiderate. This fear leads to issues of avoidance. People without impairment may ignore someone with a disability to avoid uncomfortable situations (Ohlin, 1993).

Marginalization of disabled people can even occur when good intentions by non-disabled people are overdone. Situations can occur where a person with impairment will receive overly high praise for performing simple tasks – like grocery shopping. The attention may be unwanted. The person with impairment may interpret the praise as a lack of competence, having low maturity or little capability for independence (Smith, 1987). Over-praise may be intended as a compliment to the person with the impairment. However its negative effect is a form of marginalization. The praise is a form of judgment by the able-bodied speaker. It fosters the divide between health/sickness or abled/disabled.

Social attitudes may be formed from the media. In the past, people with impairment were portrayed in “negative, dramatic and stereotypical ways” (Gilbert, MacCauley, & Smale, 1997, p. 108) that perpetuated devaluation and marginalization. Mental illness is characterized as “The Joker” in the Batman series of movies and comic books. This could lead to a negative stigmatization of mental illness. The cartoon character Mr. Magoo makes light of blindness to achieve humor. “Victims” can portray people with impairment as weak and in need of help. These depictions could be a source of over-assistance or over-praise by able-bodied people. When people with impairment overcome their handicap they are fulfilling a role of “supercrip” (Media Awareness Network, 2010). It places value on overcoming impairment rather than acceptance. Conversely, the villain Ernst Stavro Blofeld in the James Bond movie *For your eyes only* is in an electric wheelchair. The correlation between villains and wheelchairs may brand people that use wheelchairs negatively. Stereotyping disability and the issues related to it generate lasting impressions through media (Burnett, 1996). Enduring impressions

“may result in low expectations and poor attitudes towards people with disabilities” (Gilbert, et al., 1997 p. 108).

However, there is an improved portrayal of the disabled in the media that has led to greater acceptance. “Television programs, advertisements, movies and news programs no longer stigmatize the disabled as not quite human. Instead, current portrayals now depict inspirations, not limitations” (Burnett, 1996 p.5). An example of this may be “Artie,” a character that uses a wheelchair on the television show *Glee*. While the best intentions are to portray the character in a positive light there are inconsistencies that are upsetting to some people with impairment. An Internet post by a person with impairment stated,

“He went on a date with Tina and she pushed him the whole time. Nobody I know in a wheelchair would have stood for this behavior. Also, why are they having him play able-bodied football? They are missing a golden opportunity to introduce the world to wheelchair sports. Please have him gain some confidence in his life as a person with a disability....” (US Weekly, 2009)

However, improved visibility and empowerment may lead to fewer social stigmas.

Cultural and learned attitudes may be difficult to change. A progression towards an inclusive society may depend on the reduction attitudinal barriers.

2.3 PHYSICAL AND INFORMATION BARRIERS

Empowerment can result from knowledge. Knowledge is obtainable through multiple sources of information. Miller and Kirk cite the Royal Institute for the Blind where, “Information is the key to independence. Independence is power” (2002, p. 5) Independence may motivate people with impairment to travel. “People with disabilities have the same needs and desires for tourism as others” (Yau, et al., 2004 p. 946). Whether the “need and desires” can be realized will depend on the individual. What barriers lie ahead? What accessibility is in place? The answer for these questions may be answered through the gathering of information that build knowledge and provide empowerment. The more obvious barriers to people with impairment while traveling are physical ones.

Disabled people know that there may be limitations to the activities in which they can participate (Kaufman-Scarborough, 1999). Preparation allows for increased participation in travel. Many take the initiative to be well prepared knowing the kind of experiences that could result from poor

planning. Pre-trip information gathering is vital to having greater expectations for the enjoyment of travel. Disabled travelers need to perform exhaustive research “in order to minimize potential problems” (Yau, et al., 2004, p. 954). Woodside & Etzel (1980) list elevator locations, wheelchair availability, types and weights of doors and availability of capable staff for assistance as concerns for leisure travel. Scenic spots, toilets, hotel accommodations, and transportation add to the list of information needed for a disabled person to plan ahead. “For these individuals, every stage of the travel process requires significant planning time and careful attention to detail.” (Daniels, Rodgers & Wiggins, 2005, p. 928). Accurate accessibility information provided by a tourist destination should ensure that the details will not prohibit a meaningful tourism experience for people with impairment. (Darcy & Dickson, 2009).

In Woodside & Etzel’s research on the impacts of physical and mental impairment on vacation travel behavior, they found that 39% of their responders would not travel and just “let things happen” (1980, p. 11). The statistic furthers illustrates the importance for detailed travel arrangements. Ideas of spontaneous travel are out of the question for some people with impairment. “Providing information on facilities, accommodations, special services, and precautions in promotion literature is thus more likely to be considered useful by parties traveling with a handicapped person” (1980 p.11). With the advent of Internet travel arrangements, there is great potential for information dissemination. NOD reported, that people with impairment use the Internet less than able-bodied people. However, the Internet is an important component to facilitating quality travel experiences among the disabled. Through the Internet, tourism suppliers can improve their information provision for people with impairment by reporting accurate accessibility information (Darcy, 2010a).

There are occurrences where information is misleading, inaccurate, or outdated. After arrival, disabled consumers find the accessible routes and rooms may be misrepresented or wrong. To prevent such encounters, Yau, et al. reported that participants highlighted the need for verification of information to ensure accuracy (2004). The “need” generates a purpose for creating a sound “knowledge management system” (Darcy, 2007, p. 10). People with an impairment search for explicit details of accessible accommodations (Darcy, 2010b). A system of monitoring may assist in decreasing inaccuracies. Through an improved discourse, between host and guests with impairment, information on room requirements and needs may result in improved reporting by the hosts.

Darcy’s research found that mobility impaired participants sought specific room criteria that was important in making accommodation arrangements. “Each said the level of detail provided was

essential as it identified particular information that they sought” (2010b p. 821). Digital photography was suggested to provide visual confirmation that room choices met their needs. More photos of the bathrooms were requested to ensure adequate access. Pictures of the grounds were not as significant as ones that show positions of handrails and room configurations (2010b).

People with impairment want accurate information from the tourism suppliers. Their diligence in seeking the information is to ensure the accommodation of specific needs (Yau, et al., 2004). Details of lodging, transport arrangements, accessible amenities, and the availability of assistance are key elements that the disabled seek in their decision-making process for travel (2004). Accurate reporting promotes Gadacz’s idea of the disabled consumer movement where people with impairment can participate more actively in the decision-making process for their services (2003). It makes the necessity of accurate information vital for disabled people anticipating travel.

People with impairment may organize part of their day “around their disability and the needs it creates but is not defined by them” (Pedlar & Haworth, 1999, p. 101). However, one participant in Henderson, Bedini, Hecht, and Schuler’s study reported that her impairment required thorough, time consuming, pre-trip examination for accessibility at various destinations (1995). The constant checking may apply to many individuals with impairment. The provision of accessibility information could assist people with various impairments in efficient planning.

Questions arise concerning whether and how much accessibility needs can be met at a tourist destination, thereby facilitating accommodation of an array of impairment types (Jones, 1996). Accessibility provision should go beyond what is required by law. Even the accommodations that fulfill the requirements of the law can still be flawed and limiting. Some tourist destinations may be labeled ADA compliant, but not meet the needs of a person with impairment. It is this disparity that needs further investigation (Kaufaman-Scarborough, 1999).

To create a more accessible tourism world, Universal Design has been suggested as a possible remedy (Darcy, Cameron & Pegg, 2011). The concept is more than accessibility compliance. Universal design is a construction paradigm that develops access for people with or without impairments. The paradigm may create an inclusive society where limitations are minimized by planning. In practice, universal design could make products and environments more inclusive to people of many abilities. However, without enforcement, universal design may only be philosophical discourse. The ADA’s (or soon the AODA’s) built environment regulations compel accessibility, where universal design’s principles are voluntary. Nevertheless, accessible tourism could borrow

universal design principles that would generate higher quality experiences for people with impairment. An argument could be made that universal design will improve services on a larger scale.

Barrier-free tourism may not just be appealing to people with impairment and the elderly. Families with young children have similar requirements for access as the aforementioned groups (Vignuda, 2001) due to the necessity of strollers and walkers. Access for people with impairment can lead to ease for the greater population. The consideration of people from any ability, when providing a useable environment, addresses the principle of inclusive design.

Critics of universal design state that people with impairment are consumers or customers of design products. Universal design principles guide the conceptual development of environments to serve people with impairment. Inclusive design seeks to place *people* as the guide for design. This is to be achieved through including people of any ability in the concept stages of product or building design. The debate between universal design and inclusive design is too extensive to incorporate in this research. Regardless of which design is used the importance lies on the provision of accessible goods, services or environments.

The accommodation of needs (necessities for accessibility) for one individual with an impairment at a tourist site could assist others in the future. Other destinations may follow suit to remain competitive. However social reinforcement may be needed, on a governmental level, to make change. Rules and regulations to accommodate access coupled with a measure of enforcement could yield more accessible destinations.

The *Asian-Pacific Conference on Tourism for People with Disability's* 2000 report generated three key elements to barrier-free tourism for people with impairment. One is to encourage more countries to pass accessibility legislation. The legal construct should protect the rights of people with impairment. Training and education is another key to raise awareness of the needs for people with impairment. Tourism suppliers armed with the appropriate ways to assist people with impairment will lead in the goal of barrier-free travel. Lastly, is the provision of accessible facilities for people with impairment (ESCAP, 2000). It is in this last point that the dispersal of accurate accessibility information of facilities would be useful to people with impairment in their decision-making.

2.4 TOURISM SERVICE PROVIDERS' ATTITUDES AS BARRIERS

In a demographic article for marketers, Burnett reports that people with impairment, within the study, have lower incomes than their able-body counterparts. "People with disabilities are still much more

likely to be living in poverty” (NOD, 2010, p. 9). In the province of Ontario, Canada people with impairment earn 28% less than people without impairment whose income increased in the periods between 2001 and 2006. (Martin Prosperity Institute, 2010). This fact undermines people with impairment, as a viable market segment. However, the active participation of the disabled in tourism proves that “neither perspective is accurate” (Burnett, 1996, p. 14).

“While traditional marketing researchers frequently employ segmentation studies on ethnic, age, and socioeconomic subgroups, the potential of the sizeable, accessible, and responsive disabilities market is largely ignored” (Burnett & Baker, 2001, p. 4). The Martin Prosperity Institute’s researched the financial impacts of accommodating the needs of persons with impairment in the province of Ontario. The report states that the earning potential for persons with impairment is an estimated \$441 million and \$4.8 billion dollars — ranges are based on statistical data from different collection sources (Martin Prosperity Institute, 2010). However to achieve the potential, issues of accessibility need to be addressed for inclusive employment opportunities. As wealth builds for people with impairment, their circle or range of entertainment options may expand. The parks studied represent different levels of tourism. As the entertainment options expand, the provincial and national parks may become more desirable, as those parks may require overnight stays.

The implications for people with impairment may be damaging in the promotion of accessibility. Tourism suppliers and managers may continue to ignore access issues. The propagation of accessible accommodation information may diminish. Due to the shortcomings, people with impairment will continue to struggle through a quagmire of deficient information. Since marketers deem people with impairment as an unpractical segment to target their strategies (Burnett, 1996) it will be those marketers that could be making a critical financial underestimation.

Yau, et al, state, “that the tourism industry in Hong Kong is too ‘commercialized,’ and profit driven, and thus not prepared to cater to their [people with impairment] needs” (2004, p. 952). This misguided focus on profit may lead to a loss of a substantial emerging travel market – the baby boomers and the people with impairment. Neglecting a large potential earnings segment may be the downfall of some tourism service providers. Others may flourish by offering, informing, and providing persons with impairment/elderly market the services required for travel. Literature indicates that people with impairment are more likely to be disproportionately loyal to businesses (such as specific travel agents and hotels) that best serve their needs or provide them positive experiences (Turco et al., 1998; Yau, et al., 2004).

There is some indication that “industry is reluctant to engage with the changes required to meet the needs of disabled visitors” (Shaw & Coles, 2004, p. 398). One view is that a strong concentration of people with impairment may deter core business. If this misguided view prevents accessible accommodations then the disabled will continue to be marginalized (Shaw & Coles, 2004). The view is also a reflection of negative attitudes towards people with impairment.

However one defines disability, those with a clear understanding, are the people who live with the limitations. Global and national efforts have improved accessibility and reduced the barriers encountered by travelers with impairment. Yet, “there are still many areas and attractions that are almost totally inaccessible to the tourist who uses a wheelchair (or another type of mobility aid)” (Smith, 1987, p. 382). “Most Americans with disabilities do not believe that the ADA has had either a positive or a negative impact on their lives” (NOD, 2010, p. 16). Constant confrontation with barriers may be the reasons for the uncertain benefits to the ADA. It is protective legislation like the ADA that helps to prevent further marginalization by people or society.

Another aspect, that can create barriers for people with impairment, is a loophole in the language of the law. Ambiguous phrases can foster unfavorable interpretations that lead to diminished or negated access. Burnett and Baker describe how, “Essentially, the act [ADA] requires businesses to alter existing facilities to accommodate disabled clients if such steps are readily achievable” (2001, p. 4). “Historical value” or “financial restrictions” could be claimed as reasons that do not make accessibility “readily achievable.” Scofflaws that use the loose definition of the latter part of the phrase will continue to do nothing. Further research is needed to analyze the specific terms of the ADA that may be loosely translated.

The AODA contains language that can be alternatively interpreted and exploited. Facilities “are encouraged to abide by the requirements in this document [Accessible Built Environment Standard] where it is reasonable and appropriate to do so” (Government of Ontario, 2009). The standards also allow for exemptions:

- a) in areas that are not normally occupied on a daily basis by people, including, but not limited to,
 - i) crawl spaces;
 - ii) catwalks;
 - iii) elevator rooms; or

- iv) utility vaults;
- b) where it affects the natural, cultural or heritage value of a protected facility or environment; or
- c) where it creates hardship that
 - i) Considers matters, such as impact on continuation of use of the building, the availability of individual accommodation, alternative measures; and
 - ii) assures that the use of the built environment is of optimum benefit for Ontarians (Council of Ontario Universities, 2010).

The language is meant to not cause any undue financial hardships to provide accessibility or destroy Canadian culture or heritage. The committee that generated the proposed standards recognized the broad usage of the term “hardship.” The Ontario Human Rights Commission was concerned that without the allowance for hardship exemptions to the standards that there is no concessions for building areas that require exception. The awareness of the potential loophole was cited as a source that may weaken the proposed standards. The determination of what is exempt is done by the individual organizations. Self-policing of standards may not be effective when the language can have multiple interpretations.

If the tourism industry understood the loyalty that people with impairment have for businesses that targets their needs, then accessibility standards would likely improve. “Market opportunity and social equity” are the loss of those tourism sector business that fail to “meet often the simple and reasonable needs of customers” (Miller and Kirk, 2002, p. 9). A start could be that tourism suppliers provide information that meets the needs of travelers with impairment (Turco, Stumbo, & Garncarz, 1998). Doing so could begin contact with a revenue potential estimated in the billions worldwide. “Tapping into this often-ignored market is a tremendous business opportunity, and can help any company” (Debaise, 2009, para. 6). Catering to this market segment is sound business (Shaw & Coles, 2004).

Furthermore, there is an expected population of 931 million people over the age of 65 by the year 2030. Their demand for travel will put pressures on the industry that should reach record levels for tourism. The progression of age increases the prevalence of disability. (Burnett, 1996; Freedman, Martin, & Schoeni, 2002; Martin Prosperity Institute, 2010). Acquired impairments may slow the aging population of baby boomers, however, their will to travel is predicted to be strong. Demand for

accessible accommodations may increase as a considerable amount of people with impairment and elderly begin to travel (Ohlin, 1993).

2.5 SOLUTIONS IN THE LITERATURE

There are significant barriers to participation in leisure activities for people with impairment (NOD, 2010) Education and information could be two important steps in eliminating the barriers. Education could come in the form of training. Embassy Suites Resort, located in Lake Buena Vista, Florida, is reported to be one of the first major hotels to comply with the standards of the ADA. Corporate mandated awareness training for employees was implemented to reinforce quality service to guests with impairment (Ohlin, 1993). The training included most of the aspects of disability as defined by the ADA. To emphasize mobility issues, participants were restricted to wheelchairs and then navigated through areas of the hotel. The immediacy of such an exercise can have a profound effect. It is unknown if the lessons learned in the exercise will persist. Where the assigned impairment is temporary the impact of the lesson may fade with time.

Daruwalla and Darcy posit that for “personal attitudes to change and become more positive, an intervention program that uses role-play and contact with disabled people will be more effective. It may be argued that in an industry context, the attitude change needs to be more personal” (2005, p. 562). Walking a mile in someone else’s shoes or rolling a mile in someone else’s chair may equate that personal experience.

“Training and education is one of the major challenges facing the tourism industry in relation to meeting the needs of people with disabilities” (ESCAP, 2000, p. 86). However, those corporations that follow the lead of Embassy Suites will assist people with impairment in overcoming many obstacles to have a quality travel experience. ESCAP recommends that training programs should extend to all levels of staff from policy setters and managers to the front-line staff. Doing so, will increase customer service to best facilitate the needs of a person with impairment (2000). The AODA has enacted customer service standards that mandated training for equal service provisions for people with impairments. This kind of legislation furthers the idea that education and training will aide people with impairment. From the top down and the bottom up, corporations can move forward collectively to provide accessible services.

Education as a form of information dissemination among travel service providers would foster positive experiences for people with impairment. Providers could learn ways to best serve people with

impairment that would avoid potentially experience-crushing scenarios. As exemplified by, Yau et al., where “very often flight crews are not trained to handle wheelchairs properly” (2004, p. 956). As a result, wheelchairs are lost or damaged; which can be of an extreme detriment to a travel experience. This kind of “mishandling” occurs in many other sectors of the travel industry for a people with impairment. Proper training would alleviate many “handling” mishaps.

In Europe, travel agents specialize in travel for people with impairment exchanging information, setting up data banks, launching joint marketing campaigns, and lobbying for better services (ESCAP, 2000). Through their combined efforts there could be a generation of quality accessible information.

The work of Rumetshofer and Wöß, (2004) promotes barrier-free tourism for people with impairment through tourism information systems. User profiles, which include specific needs of a person with impairment, are paired with the tourism data that focuses on accessibility to address core concerns of accessibility at tourist sites. This research will assist in providing accurate access information to people with impairment.

The needs of persons with impairment are not complicated (Wu & Cheng, 2008). Businesses looking to capture the niche market of accessible tourism (AT) could do so by providing accurate information for travelers with impairment. The concepts of the Long Tail Theory could assist in determining what specific elements to apply to “user profiles,” which are:

- (1) Fixed Itineraries: for ease of trip selection
- (2) AT Evaluation: to provide user evaluations of accessibility
- (3) AT Knowledge Sharing: to create an online word of mouth.
- (4) AT Audio/Video Area: to raise awareness of accessible tourism and to illustrate accessible features.
- (5) AT News: for updated information
- (6) AT Blogs: to post thoughts, insights and experiences. (2008, p. 956)

These concepts are to be integrated in to a comprehensive web site that will provide accessible information *by* people with impairment. The involvement of people with impairment in such a program addresses Patton’s issue of stakeholder involvement. When the people affected by the evaluation are a part of the evaluation then there is stronger support and will generate in a better

information base. The Long Tail Theory could be useful for multiple tourist destinations. The integration, of the specific needs to a person with impairment, could be incorporated into Rumetshofer & Wöß's tourism information system. Combinations of such ideas could lead to the improved accuracy of reported accessibility information.

Another method suggested for capturing the AT market is to include physical/built environment accessibility, information about accessibility, and accessible information online through Interactive Computing Technologies (ICT) (Michopoulou, Buhalis, Michailidis, & Ambrose, 2007). Through ICT delivery, businesses can begin to capture the AT market. People could access accurate information through the "e-Portal" (2007, p. 301). "E-Portals" could generate "e-learning" of specific attributes of tourism destinations. Destinations have invested in electronic transactions to innovate business. New technology will serve to create "cyber-spaces" (Stamboulisa & Skayannisb, 2003, p. 42) where tourists can browse through travel options with an eye on accessibility. In the web spaces, old myths can be re-innovated or new ones created as one element to increasing the tourists' experience (Stamboulisa & Skayannisb, 2003). Intangible elements, like knowledge, through technology can be developed for the tangible product of the experience (2003). Destinations should provide regularly updated access information. People with impairment could use current information in their decision-making process to generate quality travel experiences. Adding the element of stakeholder involvement – people with impairment contributing personal experiences – would help "e-portals" succeed. Technology could push the provision of such information from computers to hand-held devices for immediate information acquisition.

Due to the lack of adequate accessibility information provided to the public, Galveston, Texas could be a potential testing ground for the above-mentioned technologies. Sen & Mayfield's (2004) study found that there are accommodations made for people with mobility impairments in Galveston. However people with hearing, visual, or cognitive impairments have not been accounted for. The authors note the lack of accessible information of Galveston on the Internet. The recognition of the information deficit provides an opportunity to furnish information that is accurate from the start. A combined effort by tourism suppliers and people with impairment can generate accurate information for testing "e-learning" or "E-portals"

2.6 SUMMARY

Defining disability for this research showed that multiple definitions exist. Establishing what disability means for this study will guide the research. The review of disability literature reveals the importance placed on the provision of accurate disability information by tourist sites or destinations. The gap in the literature lies between the information and the experience. Misinformation and inaccuracies may lead to negative travel experiences for people with impairment.

Darcy promotes the paradigm of universal design to reduce the need for a reliance on access information, as accessibility will be omnipresent. Inclusive design is to accommodate the needs of *all people* whether impaired or not. However until the paradigms are implemented on a global scale, individuals with impairment will continue to rely on accessibility information.

People with impairment may be viewed as a viable market segment only attainable through a precise supply of accessible accommodations or information. The reliability of access information may be the determinate of repeat visits by persons with impairment. The question of reliability and accuracy helps situate this research.

Chapter 3

Methods

This research employs an interpretivist framework: Knowledge and meaningful reality are developed from human interaction and practices set within the world (Crotty, 1998). Examination of reality as depicted in the accessibility literature was the starting point of this study. As a result of this examination, influenced by the adoption of a constructivist perspective, I sought to understand the accuracy of accessibility information provided by parks of four different governing levels – local, regional, provincial and national.

The study is primarily a qualitative study, which is influenced by an assortment of worldviews. However, quantitative measures are also included through the undertaking of measurements in the field. The constructivist paradigm informs the understandings that are gained. Comprehension of the perimeters to one's existence is an element to the paradigm. Charmez (2009) states that understanding develops from lived experiences and deep comprehension of a phenomenon. As a paraplegic of twenty-three years, I am familiar with the rhythms and actions of a life with impairment. Ethno-methodology contributes to the constructivist worldview.

To construct an understanding of accessibility within park settings, literature review, field observations, key informant interviews and secondary sources were engaged to develop ideas of what accessibility exists and why. Gathering perspectives from across the discourse of disability should position the research in the disability conceptual framework. The research methods included participant involvement in the study and enabled the construction of the meaning of disability and accessibility, which informed the evaluation of accessibility information. Meanings as expressed by multiple participants in key actor interviews builds understand through the guidance of constuctivism. Coding interview transcripts assisted in the development of meaning.

Actors on accessibility provision were questioned for their insight. From the discussions, themes emerged that can be supported or refuted by observations and secondary sources of information. The level of inclusion for people with impairment may differ at the study sites. Inclusion is a step in the direction of equity from the perspective of a person with an who is limited by lack of accessibility provisions. The advocacy-participatory worldview promotes empowerment and change. As parks are guided with legislated accessibility mandates, there is a legal aspect that may be used to determine if equity is compromised. Exposure of situations in which there is a lack of accessibility may be a first

step in changing or improving information provision. As previously stated, information is power. Provision of accurate information could empower numerous people with impairment.

The collected data created an information base that was used to differentiate accurate and inaccurate accessibility information. The goal was not to test theory or hypotheses through application of a strict positivistic method. However, accessibility assessments were validated through empirical measurements of dimensions of access.

3.1 RESEARCH DESIGN

Qualitative methods were used to seek understanding meaning of human interactions within the world (Patton, 1987). Yet quantitative measurements have been made. Establishing the meaning of disability and accessibility by research participants aided in evaluating accessibility. People with an impairment form insights from a variety of perspectives that may differ from those who are not impaired. This research sought to capture the interactions people with impairment have with the world that they encounter and, by extension, how those interactions can be facilitated.

Survey data collection may provide a statistical basis for opinions on impairment and accessibility. Quantitative surveys have limitations in determining accessibility and disability because of the difficulty of gaining an adequate sample of participants in the context of parks that are of interest to this researcher. Quantitative methods, through use of surveys, may miss the rich details that interviews and observation may offer. However, qualitative methods of inquiry allow meaning to emerge from the participants. Rich description can be provided by qualitative methods. The aim of this research is to report unpublished barriers encountered by people with impairment in parks. A greater depth of information was required than what statistical surveys could capture.

The following important questions are adapted from Patton's work concerning the use of qualitative methods in evaluation:

- Who are the actors of accessibility at study sites?
Answers will assist in the selection of participants for interviews.
- What is the purpose of the evaluation? What will the research serve to answer?
These questions encourage the maintenance of focus on the research questions.
- What are the primary questions of the evaluation? What questions will guide the study?
The right questions will be determining from details provided by interviewees and research of accessibility information.

- What resources are available for the evaluation? What sources will provide the information necessary to achieve the goal of the research (1987 p. 44).
Secondary data sources could provide details that are important to the research, as well as.

Maintenance of the research focus was assisted by continually asking the above questions. The questions helped guide participant involvement.

3.1.1 Participant Observation

Through influences of autoethnography, the research ascertained evidence that interpreted what accessibility exists at each study site. Autoethnography rooted in anthropology, emerged as an adaptation of ethnography and autobiography (Reed-Danahay, 1997). Ethnography examines cultural phenomenon of people. Autoethnography situates the research as a participant within the group for study. It is the intention of the researcher to act as participant in this study.

As a participant observer I am an insider to people with impairment. A car accident in 1990 gave me the inside view to the world of disability and accessibility. I have accumulated twenty-three years of experience living with and without accessibility. Multiple barriers have been encountered over the period of time. Landlords have demonstrated blatant discrimination to the researcher. Due to poor reporting or training, barriers to hotel room accessibility has been encountered even after extensive pre-trip planning. Accessible washrooms were unusable due to placement at the top of five steps. Experience has been gained on a daily basis as the researcher has progressed through various environments over the course of time.

The perspective gained from experience was the lens to view accessibility at the study sites. With intimate knowledge of what accessibility works and what may be deficient, I evaluated the study sites. However observations were not conducted on guttural assessments. Accessibility was measured as a means to provide a calculated assessment, combined with the personal perspective. The integrated means of assessment gained insight to existing accessibility at the study sites.

Chang (2008) discusses weaknesses and misuse of autoethnography. Researchers have an isolated view, along with unethical views of others, where they focus on narration based on memory. This research is conducted for the consideration of people with impairment beyond that of the researcher, facilitated by interviews, secondary sources and data collected from the study sites.

As a participant observer I was not just looking to acquire insight beyond my familiarity. I sought further understanding of my world as a person with an impairment. My research helped comprehend the nature and context of accessibility. Accessibility is a daily matter. I unraveled the factors that

construct the bounds of my physical world. I visited a park, but there was no independent access onto the beach. I wanted to understand what reasons there were for the limitations. What drove accessibility? What perspective do park officials have? What does this imply beyond the bounds of the park?

My expression of “my world” may be a view shared by others. However, I want to be careful not to overstate my voice. My handicap does not represent all impairments. Accessibility for sensory, cognitive, or other forms of mobility limitations will require alternate solutions. However, the inability to ambulate represents not only the people with similar impairment but of a larger cohort where an impairment may exist with less severity. Amputees, elderly, or parents with children in strollers will benefit from fewer barriers to services. It has been observed that people carrying packages use push button doors for the convenience. Well-integrated accessibility may result in numerous benefits for people of any ability.

While quoting building code infractions may not be a part of normal discourse, the researcher knows what accessibility feels like. Other researchers with impairment may have similar perspective to add. Simon Darcy, researcher from University of Technology Sydney, applies his perspective to research for inclusion of people with impairment. Darcy experienced a spinal cord injury that requires the use of a power wheelchair. Our impairment types may have marked similarities and strong differences. Yet, few able-bodied researchers may have a deeper understanding of accessibility on a personal level. Utilizing this personal level perspective to accessibility and research is expressed through the influence of autoethnography.

This research is more than an autobiography or a memoir. The use of autoethnography was to study accessibility from within, rather than on. The researcher connects self with accessibility in forms of provision and information. A trait of autoethnography is the connection of “self to the social” (Chang, 2008, p. 2).

As an analytic autoethnographer, I sought to find “theoretical explanations of broader social phenomena (Ellingson & Ellis, 2008, p 445). Interviews, observations, and secondary sources were mined “to detect cultural undertones of what is recalled, observed, and told (Holt, 2003, p. 4). Personal reflection provided rich description from the user perspective.

As previously stated, the researcher’s perspective of having impairment will guide the study through the constructivist framework. I wanted to build understanding upon twenty-three years as a

wheelchair-bound paraplegic (injured at the third and fourth Thoracic vertebrae). It was experience that was beneficial to determining accessibility. Combining impairment experience and methodical collection of accessibility measures provided a perspective that few able-bodied researchers can attain. As a participant observer, I brought my perceptions, assumptions and biases to compare against measured accessibility. Multiple years of experience in a wheelchair provided the research with a genuine perspective of impairment and accessibility. At the same time, there is no reason to believe that these experiences are unique. They are likely common to those with mobility impairments.

Autoethnographic writing has been used to question representation of people or culture in government practices (Clough, 2000). An element of this research is driven to “motivate cultural criticism” (Clough, 2000, p. 290) to highlight the need of input from people with impairment in the planning process of accessibility. The hope is to evoke positive social change for the improvement of accessibility, which would advance equity to people with an impairment.

Inspiration from constructivism, advocacy-participatory, and postpositivist worldviews guided my understanding of accessibility in park settings. Information was gained through observations, key informant interviews and use of secondary sources.

3.2 DATA COLLECTION

Four parks in southern Ontario, Canada, were used to examine accessibility and information provision in the context of disability. Four sites were chosen for their management under different levels of governance: local, regional, provincial and national authorities. Three parks are guided by provincial legislation. The national park adheres to Canadian standards for accessibility. Originally this study was going to examine only provincial parks. However, it was decided that a greater variety of situations might be found through greater exposure to different types of parks. Thus, a choice of study sites was made to explore a variety of situations within the constraints of the time and money available. The findings cannot be generalized to all parks but they are indicative of the situation that is present in many parks. Table 3.2.1 illustrates the varied dimensions to the administrative influences. Administration types, regulations, and site-specific guidelines create a unique accessibility experience at each site.

The parks were chosen on the basis of proximity to Waterloo to reduce the temporal and financial costs of undertaking the research. Thus, researcher convenience was a consideration in site selection.

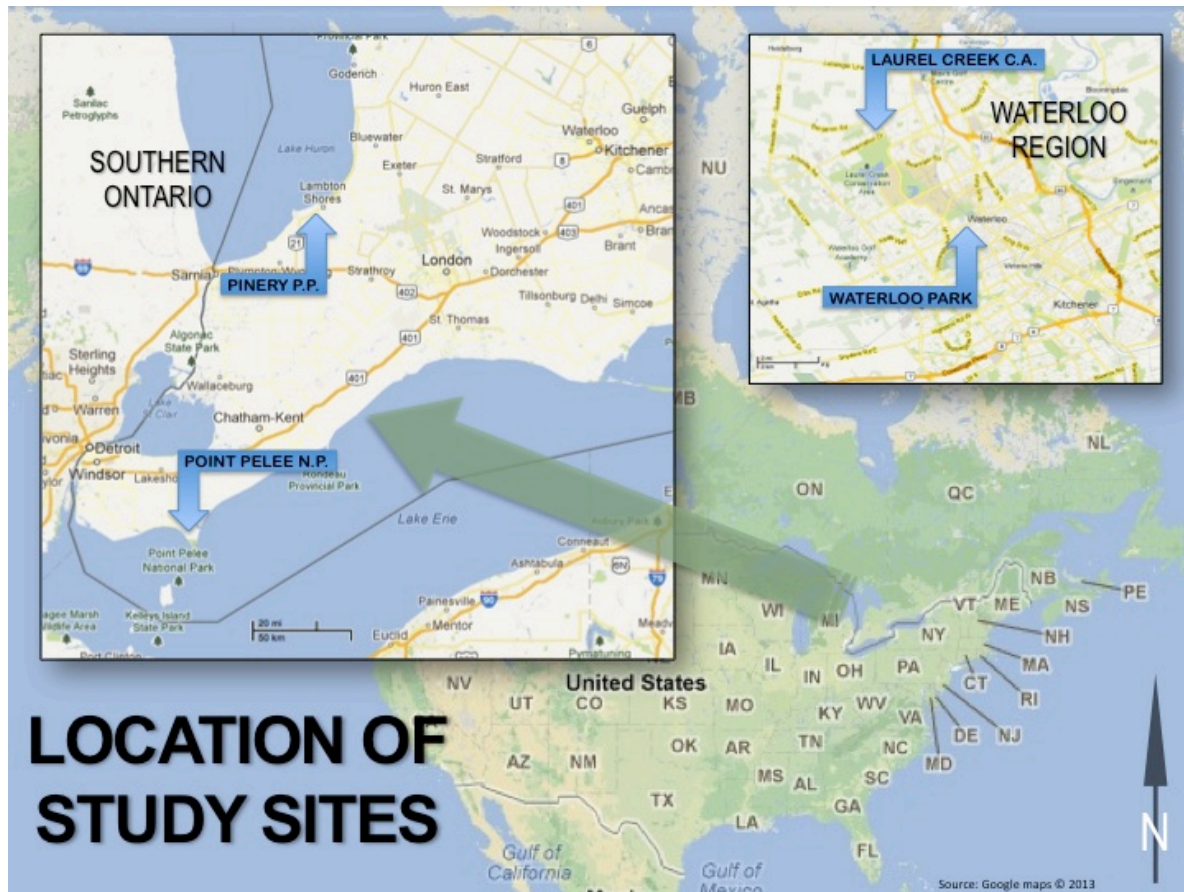


Figure 3.2.1, The map illustrates the location of the study sites.

However this does not mean that the assessment of accessibility is compromised by the site selections. The selected parks are: Waterloo Park – local; Laurel Creek Conservation Area – regional; The Pinery Provincial Park – provincial; and Point Pelee National Park – national. (See Figure 3.2.1)

3.2.1 Waterloo Park

As Waterloo, Ontario, changed from an agrarian to one of industry and urbanization, the importance of green space increased. The 111-acre section of land that is currently Waterloo Park was once Jacob Eby’s farm. Because parks provide respite for urban dwellers, the Canadian government passed the Public Parks Act, based on the British version of legislation. In 1883, Waterloo town planners elected to buy the 60 acres of Eby’s farm, which was then named “West-side Park” (www.waterloo.ca, 2013) Over 2,000 trees were planted in the park’s first two years. Silver Lake, built by Abraham Erb for his sawmill, was one of the park’s attractions.

Research study sites

	Administration type	Accessibility Regulations	Site specific planning guides
Waterloo Park	<ul style="list-style-type: none"> • Municipal • Local • public 	<ul style="list-style-type: none"> • AODA • Ontario Building Code for barrier free design 1992 • Canadian Charter of Rights and Freedoms* 	<ul style="list-style-type: none"> • City Plan • Accessibility Plan • Park Master Plan
Laurel Creek Conservation Area	<ul style="list-style-type: none"> • Municipal • Regional • public 	<ul style="list-style-type: none"> • AODA • Ontario Building Code for barrier free design 1992 • Canadian Charter of Rights and Freedoms* 	<ul style="list-style-type: none"> • Park Master Plan
Pinery Provincial Park	<ul style="list-style-type: none"> • Provincial • Provincial • public 	<ul style="list-style-type: none"> • AODA • Ontario Building Code for barrier free design 1992 • Canadian Charter of Rights and Freedoms* 	<ul style="list-style-type: none"> • Ministry of Natrual Resources directives • Park management plan
Point Pelee National Park	<ul style="list-style-type: none"> • Federal • National • public 	<ul style="list-style-type: none"> • CAN/CSA-B651-95 Barrier-Free Design • Canadian Charter of Rights and Freedoms* 	<ul style="list-style-type: none"> • Park Master Plan

* Canadian Charter of Rights and Freedoms guards Canadian's civil rights. Discrimination against people with disabilities is one aspect of the Charter.

Table 3.2.1, The table illustrates the different categories of administration types, regulations and planning guides.

Many buildings have been added or subtracted from the park’s landscape throughout its history. The Park Inn concession stand, schoolhouse and cookhouse are surviving structures from the park’s early days. Grandstands around the racing oval that is now the cricket pitch and a pavilion used for dances and functions were razed for new projects. Land west of Laurel Creek (currently the park’s west-side), a small zoo, washrooms, splash pad, gazebos and a Victorian garden were added over the years. The elaborate gates at the Young Street entrance were installed, removed and then repurchased from a private owner and replaced.

Currently, the park’s features or events attract residents and other Waterloo region residents. Picnicking, playgrounds, the splash pad, and the zoo attract many residents of the Kitchener-Waterloo region. Events such as the summer music series, movies in the park, Spark Music Festival,

Sustainability in the Park, and the Royal Medieval Faire likely attract people from beyond the Region of Waterloo. The 1996 restoration of the Erb Gristmill has generated revenue as a location for weddings. The Victorian garden is a very photogenic backdrop for wedding pictures. Thus, there is a broad base of users that is attracted for a variety of reasons.

The park master plan highlights a new vision for the park. Two phases of construction and renovation are set to redevelop the park's west side. A new festival area, play areas, and arboretum have been planned to reaffirm the park's role as "jewel of the city." It can be expected that accessibility will be improved as a result of renovations.

3.2.2 Laurel Creek Conservation Area

At the park's inception in 1965, 293 hectares of land were cleared and replanted with grass and trees. Prior to the establishment of the Laurel Creek Conservation Area (LCCA), the park's land was used as a potato farm. Flood control, low-flow augmentation and pollution abatement were the primary reasons for the development of the reservoir in the park. The non-overflow, non-rigid embankment dam to control spring floodwaters, pollution and periods of low-flow was completed in 1966. The Grand River Conservation Authority (GRCA) manages the LCCA. The GRCA owns and maintains numerous parks within their system, which serve the needs of the public for outdoor activities. However, the Laurel Creek Reservoir is of most importance to the GRCA. Reportedly, revenue from gate receipts is the main source of income for the authority. Multiple sources state that no federal or provincial tax dollars can be relied upon to support the GRCA. However, in spite of "no tax dollar" claims, a portion of tax money is collected from residents in the Grand River watershed; allocated by local governments. User fees support annual budgets and operating costs.

LCCA represents a park at a regional level of administration. The customer base resides primarily in Waterloo, Kitchener, and surrounding communities. A small number of users originate Toronto, Guelph and London. Day use visitation numbers have declined since 1977, falling from 43,000 visitors to 15,000 visitors in 2003 (Tupman, 2004). There is speculation that unrecorded guests are trespassing to avoid paying gate fees. Camping within LCCA has increased steadily since 1972 with a noticeable increase in 1997 when more campsites were added to the park. Thus far, camping attendance has mitigated losses from declining day-use attendance.

The Nature Center, youth day camps and special events attract an increasing number of visitors to the LCCA. With cooperation from regional school boards, the Nature Center provides space and a

curriculum for local schools. School groups account for over half of the visitors to the Nature Center. The remainder of the over 12,000 visitors (in 2003) were attendees of community programs, special events or environmental birthday parties. Birding, hiking and nature enjoyment are the predominant activities in the Nature Center area of LCCA on the west side of the park. The park's east side hosts summer programs conducted by area organizations. The LCCA is utilized as a staging site for youth day camps. Visitation numbers can exceed 700 campers and councilors during a summer season. Special events, such as the Dragon Boat Festival, can attract over 1,300 attendees (Tupman, 2004).

To supplement visitor revenues, the GRCA seeks grants to updating facilities to improve access. The Recreational Infrastructure Canada (RinC) grant provides funding from federal and provincial sources where each, including the GRCA, contributes one-third of the cost of a project. User fees, which are reliant on park attendance, pay for most capital expenditures in the park system and this reliance makes the GRCA vulnerable to economic fluctuations. Issues of access are considered when capital projects are being addressed. Reportedly, improvements in access are made when possible during new construction and when updating existing infrastructure. However, access enhancement is not the driving force for improvement. Trail upgrades are in order for Laurel Creek but budget limitations may prevent immediate action.

3.2.3 Pinery Provincial Park

Perhaps inappropriately named, The Pinery Provincial Park is known for its Oak Savanna ecosystem. The name's origin was derived from the large white pines on the landscape at the park's inception (P. Eagles, personal communication, October 31, 2012). After the passage of the 1954 Provincial Parks Act, the province of Ontario purchased the original 1,909 hectares of the Pinery for an outdoor recreation park (Eagles, 2010). The purchase prevented prospects of resort development, which had been proposed prior to the establishment of the park. Acquired in 1957 and opened in 1959, the park was immediately popular to a point where more than 700,000 people visited in one year (Eagles, 2010). In 1966, the park was expanded to its current 2,532-hectare size (Windsor Star, 1966). The level of visitation brought issues of overcrowding along with ecosystem degradation. The park's master plan was created to find a sustainable balance between visitors and maintenance of the park's natural attractions. The Pinery was Canada's first park to implement a master plan underpinned by ecosystem preservation based on carrying capacity (Eagles, 2010). After 1970, the background of park managers shifted from a training in forestry to park management (Eagles, 2010). New

management initiatives were introduced to reduce visitation numbers and preserve or restore ecosystems within the park.

Reportedly, 50% of the world's oak savanna is found in the Pinery (pinerypark.on.ca, 2012). The park administration is working to restore the Oak Savanna ecosystem and this has involved the removal of the Red and White Pine tree species. In the 1950's, over 3 million pine trees were planted, reflecting a failure to recognize the value of the oak savanna (Bazely, D., 2006; pinerypark.on.ca, 2012). The Pinery has the appropriate climate and topography to sustain the Oak Savanna ecosystem. However, forest fire suppression disrupted the savanna's natural rhythm. Scheduled controlled burns and the removal of pines are now undertaken to nurture restoration and preserve the ecosystem.

The Oak Savanna, camping, and the 10 km of beach on Lake Huron attract nearby urban residents, especially as the park is easily accessible from the cities of Kitchener, Waterloo, Cambridge, Sarnia, London, and Windsor in Ontario, and Detroit, Michigan. The Pinery is southern Ontario's second most visited camper park and it is first for winter-use activities (Park Statistics 2011, 2012). Camping, walking trails, biking, canoeing and fishing are some of the summer attractions. Nordic skiing, skating, walking trails and camping are some of the park's winter activities. The Pinery's primary draw is its beach and it is likely the basis for 94% of the park occupancy during the months of July and August (Park Statistics 2011, 2012).

The Pinery is a park administered at a provincial level by the Ontario Ministry of Natural Resource's (MNR) department, Ontario Parks. Operating budgets for the park have two streams: the ministry allocates 20% of the budget, generated from taxpayer dollars, and the remaining 80% is from user fees (MNR, 2011). The monetary support from taxpayers may result in a sense of public entitlement to use provincial parks. Public funding may increase the sentiment for equal access to ALL taxpayers. The MNR recognized the need to improve accessibility. Planning documents and reports promote the idea of equitable use.

Ontario Parks is an agency of the MNR. Planning, legislation and management decisions begin with the MNR for implementation by departments like Ontario Parks. Adherence to the AODA is

PARK NAMES	SITES	DATES AND FEES					SERVICES & ACTIVITIES															
		Opening/Closing Dates incl. Winter Day-Use Dates	Total # of Campsites	# of Electrical Sites	# of Non-electrical Sites	Group Camping	Camping Dates & Fees	Reservable Dates	Day-Use Fees per vehicle	Flush Toilets	Four Person/Marsh	Laundry	Swimming	Motorboat Restrictions	Boat Launch	Alcohol Ban (May 13-23)	Pet Exercise Area	Ridge-top Camping	Nature/Visitor Centre	Nature Viewing	Overnight Hiking Trails	
● Services ▲ Barrier free ☞ Reservations available ◆ Dog-free campsites																						
☞ Awenda ♦ (705) 549-2231	All year	333	102 ▲2	231 ▲4		● May 13-Oct 11	B	May 13-Oct 10	14.00	▲	▲	●	●	●	●	●	●	●	▲	●	▲	
☞ Bronte Creek (905) 827-6911 Day-use - exit Burloak Drive Camping - exit Bronte Road	All year	144	▲2	144		● April 1-Oct 23	B,C	April 1-Oct 22	16.25	▲	▲	▲	▲	▲	●	●	●	●	▲	▲	▲	
☞ Craigeith (705) 445-4467	April 8-Oct 23	157	67	90		● April 8-Oct 23	A,B	April 8-Oct 22	14.00	▲	▲	●	●		●	●	●					
☞ Earl Rowe (705) 435-2498	May 13-Oct 10	400	163 ▲2	237		● May 13-Oct 10	B	May 13-Oct 9	14.00	▲	▲	●	●	●	●	●	●	●	●	●	▲	
☞ Inverhuron (519) 368-1959	May 13-Oct 10	162	144 ▲2	18		● May 13-Oct 10	B,C	May 13-Oct 9	10.75-14.00	▲	▲	▲	●	●	●	●	●	●	●	●	●	
John E. Pearce (519) 874-4691	June 3-Oct 10					Day use only															●	
☞ Long Point (519) 586-2133	May 13-Oct 10	253	101 ▲1	152 ▲1		● May 13-Oct 10	A,B	May 13-Oct 9	10.75-14.00	▲	▲	●	●	●	●	●	●	●	▲			
☞ MacGregor Point (519) 389-9056	All year	380	173 ▲2	187		● All year	B,C	All year	10.75-14.00	▲	▲	▲	●	●	●	●	●	●	▲	▲	▲	
☞ Pinery ♦ (519) 243-2220	All year	1,000	379 ▲2	621 ▲2		● All year	A,B	All year	16.25	▲	▲	▲	▲	●	●	●	●	●	▲	▲	▲	
☞ Point Farms (519) 524-7124	May 13-Oct 10	208	131 ▲2	77		● May 13-Oct 10	B	May 13-Oct 9	14.00	▲	▲	▲	●	●	●	●	●	●	●	●	●	
Port Bruce (519) 874-4691	May 13-Oct 10					Day use only				▲		●	●									
☞ Port Burwell (519) 874-4691	May 13-Oct 10	232	123	109		● May 13-Oct 10	B	May 13-Oct 9	10.75-14.00	▲	▲	●	●	●	●	●	●	●	●	●	●	
☞ Rock Point (905) 774-6642	May 13-Oct 10	178	81 ▲1	97		● May 13-Oct 10	A,B	May 13-Oct 9	10.75-14.00	▲	▲	▲	▲	●	●	●	●	●	●	●	●	
☞ Rondeau (519) 674-1750	All year	262	153	109		● April 1-Oct 30	B	April 1-Oct 29	10.75-16.25	▲	▲	▲	▲	●	●	●	●	●	▲	▲	▲	

Figure 3.2.2, is an example of accessibility information. The Pinery was selected because the Ontario Provincial Parks Guide identifies it as a “barrier free” park. However, the guide does not provide any further details on barrier free features.

built into MNR policies. One aspect of adherence is that new buildings or renovations should meet the guidelines of *Ontario Building Standards Barrier-free Design 1992*. Creation of a quality experience for people with impairments is considered to require the provision of “barrier-free” features within parks. Staff and partners of MNR’s management system are expected to ensure that park users have access to barrier-free features (see Figure 3.2). However, barrier-free features are not clearly defined or thoroughly reported. The MNR’s report on the State of Ontario’s Protected Areas boasts the number of accessible trails, campsites and visitor centers in the system but does not provide specific information.

3.2.4 Point Pelee National Park

The Point Pelee peninsula is Canada’s southern-most point and a national park. The remains of early aboriginal settlements indicate that the marshes of Point Pelee have had a long history of human use. First Nations peoples used the area for seasonal agriculture until tribal conflicts resulted in

abandonment. The name, “pointe pelée - bald point,” was given by French travelers that crossed the marshes to avoid the strong currents around the tip. In 1799, the park became a British Naval reserve. The land was protected for its timber that was used for replacing ship masts and spars. Though the reserve was not meant for settlement, early European immigrants – squatters, later known as “pointers” – created homesteads on the peninsula. The next hundred years saw the development of agriculture and 22 fisheries on the point until fish stocks were depleted and the industry closed or moved. Agriculture then replaced fishing. Subsistence farms turned to cash crops. Apples were the most successful crop with the award-winning “Jonathan” apple variety (www. pc.gc.ca, 2009).

As the Lake Erie currents changed the configuration of the cape over time, additionally the types of land use changed. Primary sector activities declined and recreational uses gradually increased to the extent that conservationists became concerned that the natural environment could be irreparably harmed. Ever-increasing visitors created unsustainable pressures on the 15.5 km² area of land.

Point Pelee was popular with bird and butterfly enthusiasts. The park is a migratory location for numerous bird species and monarch butterflies. Local amateur and professional ornithologists drove the push for national park status, which was declared in May 1918.

National park status did not change land use patterns. Cottages, hotels, camping, hunting and trapping practices continued without regard for preservation. Cottage real estate development dwindled due to the lack of buyers in the late 1950’s. Unregulated camping transformed the park into what was described as a “carefully manicured urban landscape” (www. pc.gc.ca, 2009). Washrooms, parking lots, picnic pavilions and other park infrastructure were constructed to accommodate the needs of campers. Though officials recognized the conflict of use versus preservation, little action was taken towards preservation. Hunting, which was allowed within the park, was only eliminated in 1989. Trapping diminished when the price for muskrat pelts dropped below a profitable point and “rats” were no longer appealing to trappers.

Point Pelee evolved slowly to become a park emphasizing preservation while limiting harm from visitation. After visitation peaked in 1963 with 781,000 visitors, the park was nearly declassified as a “national park.” Point Pelee National Park (PPNP) was Canada’s smallest park with the highest use. To maintain national park status, park managers had to concentrate on conservation and managing use. In 1972, a master plan was created that addressed visitor needs while supporting regeneration of the natural environment. Camping was eliminated, except for group camping in one area of the park, which can accommodate up to 44 people. A tram system that transports people from the visitor

center to the tip was introduced to reduced vehicle use. Privately owned land within park boundaries was purchased. Trail and boardwalk systems were created to minimize damage to terrestrial and aquatic ecosystems.

The plan was largely successful as Canada's southern most point is valued for,

“Its natural beauty, its role as a ‘home and haven for birds and many other plants and animals, its importance as a place for people to relax and connect with nature and each other, and its role as a ‘four season tourist destination for our county’” (Parks Canada, 2010, p. 3).

Thus, Point Pelee has evolved from being an area of heavy human use to an area that emphasizes preservation. The success of the conservation can be seen in the natural habitats and numerous wildlife and floral species of the park.

Most visitors originate from Ontario, along with a cohort of visitors from the United States. Over half are repeat visitors. Though park visitation has been in decline since 1995, visitation numbers have increased 21.5% over the two seasons of 2009 and 2010 with a decline of 4355 visitors in 2011 (Parks Canada, 2011).

The park's current master plan highlights initiatives for preservation, increasing visitation, development as a community education resource, and strengthening connections to the area's First Nations communities. The Friends of Point Pelee (the Friends) provide financial and staff support to assist in preserving the park's ecosystem and providing a quality experience for visitors. Education, research, and habitat restoration/management are the three mandates of the Friends. The proceeds of retail sales, memberships and donations provide financial support. The Friends handle many of the park's service operations, including the shuttle, the gift shop, the café, and the canoe/bike rental shop. The Friends group is important to the success of PPNP. Should the Friends embrace accessibility initiatives and support such an agenda, accessibility in the park might be improved.

3.3 INTERVIEWS

An interview of key informants was conducted to build understanding, influenced by the constructivist paradigm. Various definitions of disability and accessibility were established at the selected study sites. People that provide or maintain accessibility within parks were targeted for their perspective. This study acquired information from park officials, supervisors, employees, managers, and friends group members. Semi-structured interviews provided an opportunity to probe for more information (Barriball & While, 1994). Conversations were constructed to allow anecdotes and

fortuitous insights. Incidental narratives, with expressed enthusiasm, yielded stories of accessibility provision. Qualitative interviews granted individuals to be expansive in their answers to questions.

A range of five to fifteen interviews provided a sound perspective on the discussion topics. Twelve in-person, phone, or email interviews were collected with four other attempts of unresponsive targets. It was important to secure an official perspective from each study site. However accessibility doesn't begin or end with officials' decisions. There was great value in asking, "Whom should I talk to next?" (Creswell, 2009). Thus, potential interviewees (or participants) supplied leads for other interview targets. The multiple interview targets served as a way to cross check information from alternative sources. Information collected from interviews assisted in uncovering themes that emerged from coding the transcripts. Post-interview contact was maintained to provide clarity on issues concerning characteristics of park features noted during data collection.

Participants were valuable sources to verify information found during the fieldwork. Through multiple conversations, trust may be built to get at core issues that may have not been revealed with a single interview.

The following is a sample of questions for participants:

- "How is accessibility defined in regards to parks?"
- "Are there access issues that have received your attention?"
- "Is there an outlet for people with disabilities to report issues?"
- "Are there current access issues that need to be addressed?"
- "What improvements do you think should be considered for better access for people with impairment at parks?"

Questions were altered or added as there were unexpected facets that needed further inquiry. An example was the influence Friends organizations had on accessibility within parks. It generated the question, "Does the Friends group have any authority to make improvements?" Coded interview transcripts were productive in developing meaningful themes of accessibility. A full list of questions is provided in Appendix F.

Typed and written notations were used to record conversations. A tape or video recorder may be suitable for capturing every word. However recorders can be intimidating to interviewees. Transcribing conversations can also be time consuming. It is recognized that a level of bias may be reduced without a recorder. The interviewer cannot capture every word or inflection of tone.

However, the researcher has years of interviewing experience, which captured the essence of each discussion. Note taking was preferable to bestow ease on the interviewees. The full scope of the conversations was captured by transcription of notes immediately following interviews.

To further develop themes from interviews, secondary sources were sought. Information from the sources assisted in supporting themes.

3.4 SECONDARY SOURCES

To assist in triangulating the data, secondary sources were examined. Sources included guidebooks, brochures, master plans and policy documents. In addition, park websites furnished information concerning accessibility.

Park guidebooks and brochures were materials given to the public when entering the park. Rules, regulations, site descriptions, and a variety of information can be found in park materials. The basis of the research is to determine the accuracy of accessibility information; however, accessibility information was deficient in guidebooks and brochures. The low level of accessibility reporting provides an opportunity for improvement. The data collected at the study sites could be used to present details of accessibility in park sources.

Master plans were the park's public expression of intent. Plans may not be current or recently updated; however, officials devised objectives, targets, and actions for park initiatives. Past performance and future expectations were elements found within plans. Accessibility was not specifically addressed in park plans. One park has accessibility mandates imposed through the overarching administration.

Standards for accessibility were used to evaluate collected data. The proposed the *Ontario building codes standard for barrier-free design 1992*, and the *CAN/CSA-B651-95 Barrier free design* provided alternate lenses of analysis. Each was evidence to what has been used to the present as standards for accessibility. They established where accessibility may need to be upgraded to meet the new standards for built environments – should the premier of Ontario ratify the Built Environment standards of the AODA. The proposed built environment standards are based on numerous aspects of the Ontario building code. The building code standards are measureable. Compliance to the standards is evidenced in items that are measured accessible and items that are not. Observing each study site was to collect data that can support or refute the accuracy of their accessibility information. Details of

park features may also determine the extent of accessibility. Observations and measurements were vital to supporting the themes

3.5 OBSERVATION

To limit the effect of being an outsider conducting research (Kluckhohn, 1940) on disability, I acted as participant observer. The perspective provided a bridge between the information and the experiences of the researcher. First-hand observations of accessibility were conducted. Observations of “barrier free” areas were conducted to determine what access exists at the study sites. As well, observations were performed to collect information on possible discrepancies between public information and what is on the ground. Email inquiries were sent to parks without listed accessibility. Parks without access information were observed for features that could be listed through park sources.

An inventory of park features, trails, or sites was created from park websites. The inventory served as a checklist to audit the parks’ accessibility. Priority was given to park aspects labeled “accessible” or “barrier-free” on the websites. Yet equally important were park aspects that were not accessible. The non-accessible sites have a level of usability that depends on the ability of a person with impairment. Non-accessible sites also served as evidence to exclusion and inequity. Once Internet information was collected for each site a visit to the park ensued. Three study sites provided guides at the point of admittance. The guides were studied before conducting collection to cross reference with the Internet information.

Checklists were coordinated with park maps for efficient routes to make observations. In most cases, observations began at, or just after, entrance to the park and flowed along the main park road. Data was collected at outlying areas and areas with lower time requirements, by radiating outward from the central route. Each observed park feature was then checked off the map or list.

Many photographic images were collected as evidence and for reference. The photos provide proof of the existence of challenges to accessibility and barriers. It was an enjoyable form of documentation. Numerous perspectives on landscapes and accessibility were important for recall after collection was completed. A collection of images is provided in the Appendix of Photographic Evidence – Appendix G.

The specific measurable characteristics were unknown until arrival at a particular feature within a study site. Facilities, trails, washrooms, and parking areas have a plethora of unique characteristics that were measured. Calculating the height of washroom fixtures, transition differences from one

surface to another, or trail widths are a few examples of the type of collected data. Selected devices were used for collecting data. The following is a list of tools employed in the research process with a brief description of use.

Stanley 12-foot lever-lock measuring tape – It was used to collect height, width and lengths many characteristics of features within study sites. The tape broke during collection of data at Waterloo Park. It was replaced with a Fuller 5-meter tape measure.

Mastercraft 60-meter fiberglass tape – There were some distances that required measurement beyond the limits of the regular measuring tape. The longer tape measure determined the distance from the line of vegetation to the estimated center of the beach at Point Pelee. There were more applications where the longer distances were important as they may have been the difference in accessibility.

Pen, paper, clipboard, and washroom form – Pen and paper were useful for documenting characteristics and personal reactions. Field sketches were useful for noting specific details that may be overlooked in a photograph.

Olympus Stylus Tough Camera – The shockproof, waterproof camera captured images where accessibility was provided, limited, or non-existent. The collection of photos from each park gave convenient recall to specific settings described in field notes.

Suunto clinometer – The angle of inclines were measured with the use of the clinometer. Initially angle collection was designed similar to survey methods. The rise and run were to be measured of ramps and small hills. However, the method was inaccurate and time consuming. Efficiency was greatly improved with the use of the clinometer.

Maglite flashlight – A 2-cell D flashlight illuminated dark washrooms. There were days when data collection exceeded daylight hours. The light was useful for observing fixtures inside structures or counting spaces in parking lots.

Quickie model GPV wheelchair – The mobility device is used daily by the observer. Accumulated experience in the wheelchair was used to evaluate the new adventures within the study sites. An important aspect to the wheelchair is the potential for the front wheels to penetrate soft ground surfaces. The penetration depths were measured to illustrate the extent of inaccessible ground surfaces. Further instrumentation was used to calculate the pressure exerted by the front wheels for other researchers to duplicate, which is explained in the next section.

3.5.1 Wheelchair as a tool

To define the wheelchair as a device for evaluation, measurements were taken for the weight on the front wheels. There is a penetration point of 2.6 cm² on each small wheel of the wheelchair. The point is the area of contact between the front wheel the ground. The weight range on the penetration point is 88.22 – 96.61 kg. A digital platform scale was used to determine the weight range. The weight calculation includes the legs of the observer, notebook, clipboard, tools, and personal items contained within a backpack. The significance of the preceding information is how it was used to measure trail surface incision caused by the observer's wheelchair. The penetration depths highlight trail inconsistencies that may limit accessibility. The shearing of front wheels on trail materials has measureable factors that can be duplicated.

Shearing is the “strain in the structure of a substance produced by pressure, when its layers are laterally shifted in relation to each other” (shearing, 2012). Without friction force there would be no movement. There were trails observed that had 1 cm of loose material that caused shearing from the small front wheels of the observer's wheelchair. The effects of shearing increased the level of friction between trails and wheels. Increased friction and loose surface material result in the greater exertion of energy needed for the propulsion of a wheelchair.

Researcher Peter Axelson has conducted extensive research on different trails surface materials. Axelson uses rotational penetrometer to measure the depth of a single penetration point. The penetrometer is designed to simulate the front wheel of a wheelchair to collect data. However, there are variables that may affect the measurements. The weight of the person making calculations could influence the depth of penetration. The single point of measurement may miss weight dispersal that would be generated over two wheels on a wheelchair. The penetrometer costs \$2,795. USD. To duplicate the penetration measurements provided by this research, rental of a wheelchair would be more affordable. It is argued that the use of a wheelchair to evaluate penetration is unreliable (Chesney & Axelson, 1996). What is important in the replication, using a wheelchair, is the means to evaluate is more attainable for park officials to test trail density. A high degree of calculation is not needed to determine sections of trail where the front wheels penetrate the surface.



Figure 3.5.1, Graph of downward force on the front wheels of a Quickie GPV wheelchair. The graph illustrates the downward force and dispersal of weight over two wheels.

The penetration data collected in the fieldwork was based on the two front wheels of a Quickie GPV wheelchair. Two wheels may diffuse weight, and load bearing of the wheelchair’s occupant, to generate measurements directly related to the trail surface density. However, there are other variables to consider. The weight applied to the front wheels will vary with individuals. Dimensions of the front wheel may offer more or less penetration into surfaces based on the width of the wheel. Force plate data was collected on the GPV wheelchair’s front wheels.

Calculations for the front wheels are measured in newtons. Newtons are the measure of force collected at a rate of 1000hz (per second). The horizontal axis is frames per data point, 1000hz per second.

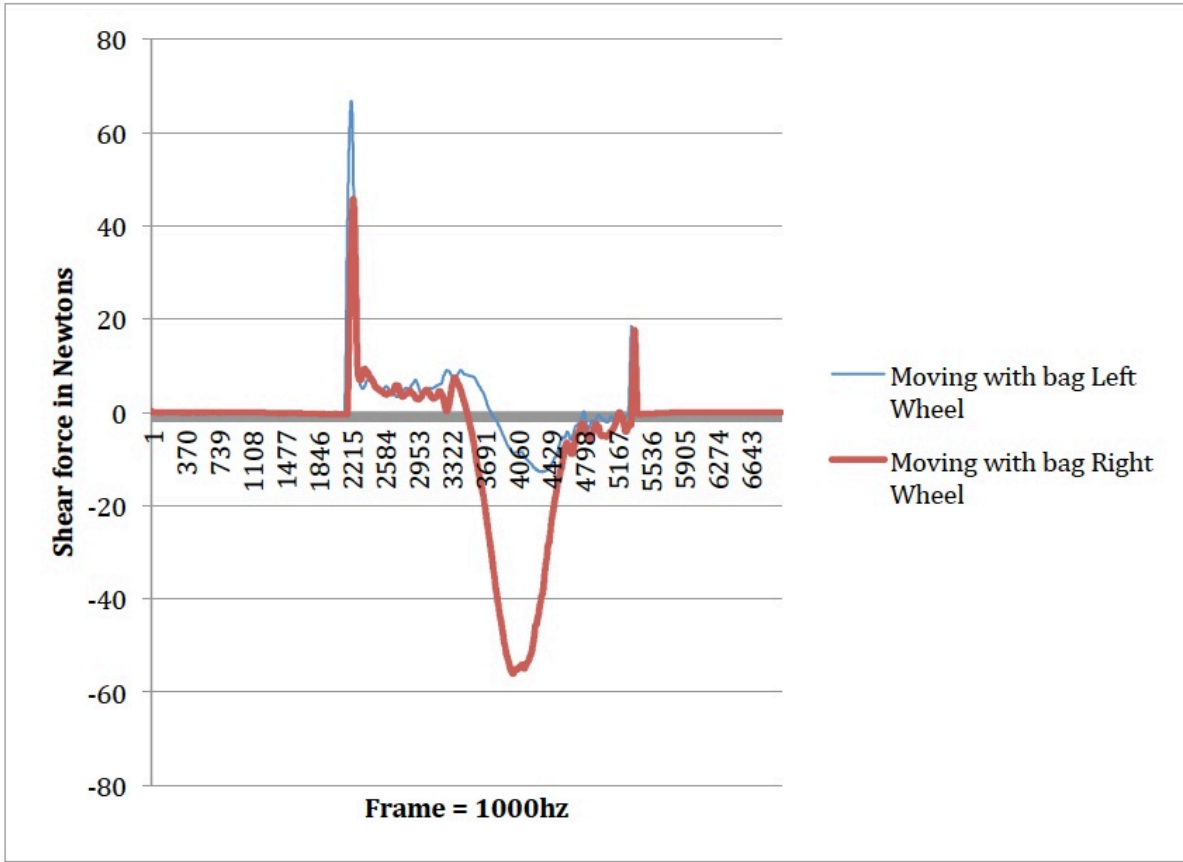


Figure 3.5.2, Graph of shear force on the front wheels of a Quickie GPV wheelchair. The graph illustrates the effects of shearing with a change in direction of two wheels.

Figure 3.5 and figure 3.6, demonstrate the difference in vertical and shear force placed on two front wheels. The red and blue lines represent the left and right wheels respectively. The contact point has a surface area of 2.6 cm² for each wheel. The peaks on both figures illustrate the progression on and off the force plates. The difference in force from left to right side tires is attributed to the motion of a right turn before backing off the force plate. Low values (near zero) are lateral movements. Figure 3.5, the red line (right side front wheel) has higher force. Figure 3.6 shows a negative succession in the measures as it represents the shear force exerted in reverse direction.

The graphs illustrate how weight is distributed on the front wheels, which would affect performance on trails. Two wheels, spaced 45.72 cm apart created a diffusion that diminished negative trail surface features or highlight extreme problem areas. The amount of force exerted by the front wheels of a wheelchair dictated the penetration depths in trail surfaces. Wheels with larger surface area contact points may experience less penetration.

The preceding information is to strengthen the point that a rotational penetrometer may not be required to locate trail sections with poor surface density. The use of a wheelchair may prove to be as effective (if not more so) in finding trail density issues. Park officials could obtain a wheelchair for trail assessments at a greatly reduced cost. Furthermore, park administrations that build relationships with disability advisory groups may find group members to provide trail feedback with their own mobility devices. With tools, maps, and information data could be collected at specific features within parks.

3.6 STUDY SITE DISSECTION

Examination began at the arrival of a location within the study sites. In many instances parking areas were first observed. Accessible and non-accessible spaces were counted. Future legislation requires specific ratios of accessible/non-accessible parking spaces. The lot surface was noted for the type of surface material. Unique characteristics were documented to provide an impression of the conditions.

Walkways and trails leading from parking lots were observed. Similarly, surface materials were noted. Transitions from one surface to another were recorded, as there was a range of level to uneven. Crowding vegetation, inclines, cross slopes, surface penetration, and trail widths were documented. On accessible trails, documentation was conducted as a continuous trail survey combined with the problem assessment method. Areas of diminished accessibility were observed and measured.

Structures were observed beginning at the entrance. The types of structures depended on use. Visitor Centers were more spacious than gift shops. Measurements of door widths, desk heights, counter heights, and aisle widths were collected. Aspects that were designated for visitor use were targeted for observation.

Washrooms were observed at each study site. Similar to the observation of structures, measurement began at the entrance. The dimensions and position of washroom fixtures were collected. Heights, widths and lengths of washroom stalls, sinks, toilets, toilet paper dispensers, soap dispensers, paper towel dispensers, and trash cans comprise a list of observed features.

Not all measured items were anticipated. A category of “Miscellaneous” is created to organize observed features that may not be consistent across sites. Features unique to a site were observed to determine accessibility. There were measurements on unexpected features. Campgrounds, park shuttles, beach chairs, water faucets, and snack bars are a few features that vary between study sites.

An appendix of measurements was created for each of the study sites. The appendix contains the calculations of each of the measured features. It is not the goal to embroil the findings section with measurements. However, the calculations provide a measured perspective of accessibility.

Observations were conducted and recorded systematically in journal form during data collection. The significance of the measurement is to illustrate the dimensions of accessibility. Reflective notes captured personal reactions, speculations, and feelings (Creswell, 2009), which is important to generating meaningful themes. To ensure the quality of data collection methods a pilot study was conducted. The importance of the pilot study was to test collection procedures and find efficiencies.

3.7 PILOT STUDY

A pilot study was conducted in Kitchener Ontario's Victoria Park. Practical problems in following the research procedure may be discovered through testing (van Teijlingen & Hundley, 2001). Errors in the methods can be addressed as a result of the pilot study. Testing created an efficient procedure from the rehearsal of the pilot study. Means of collecting measurements may be adjusted. The usage of different tools may expedite the collection process. Ways of streamlining collection may be developed as a result of the initial pilot study data collection. Measurement techniques were refined through the pilot study.

A key informant interview was conducted with the Kitchener-Waterloo Accessibility Coordinator. The quality of questions and duration of interviews were evaluated. The importance of the pilot study was to assess interview times. An assessment of the interview provided an accurate projection of time to be communicated to future targets. The strength of the questions was determined by the answers provided by the participant. Unnecessary questions were eliminated.

Chapter 4

Findings

4.1 INTRODUCTION

Four parks were selected as study sites to determine if a gap exists between the accessibility information and the experience. Four parks were selected for examination, partly on the basis of convenience but primarily to ensure that a diversity of types of governance was represented. Thus, the parks reflect a variety of situations, but do not constitute a representative sample. Parks that were managed by different administrative authorities were selected since it was suspected that such parks might have different management strategies concerning accessibility.

The four parks are: Waterloo Park which is managed by the City of Waterloo's Parks Department, thereby providing a municipal perspective; Laurel Creek Conservation Area (LCCA) which is managed by the Grand River Conservation Authority (GRCA) and is part of a larger network of parks and reserves in southern Ontario's Grand River watershed, providing a regional perspective; the Pinery Provincial Park is under the jurisdiction on Ontario's Ministry of Natural Resources; and Point Pelee National Park provide a federal level perspective on park management.

The study sites, thus, provide a range of examples from municipal to national and they will be discussed in this order. Of course, each site is unique with respect to the attributes of land and water that it contains and these attributes are vital influences on accessibility. Nevertheless, it is assumed that although sites may vary in the specific experiences provided, management policies and strategies, and funding arrangements, common themes promote or impede access may also emerge from the study.

Findings for each study site are reported in turn. Table 4.1 illustrates an account of interviews, along with data collection dates and times for each study site. Available accessibility information is discussed. Field observations on accessibility are reported to illustrate existing accessibility. With the influence of autoethnography, a personal perspective provides a vision of the study sites based on the experience and expectations of participant observer to gain understanding. An administrative perspective follows. Findings based on interviews with park officials or advocates, present insight to the management of accessibility. A summary concludes the section.

Within each major section, the information is further categorized to permit presentation of information systematically and, ultimately, to permit comparison between the parks.

All parks have facilities, visitor centers, stores, cafes and gatehouses that serve visitors' needs and that are integral to park operations. Trails are common features at all four sites. Parking and

washrooms are other items that are of concern to visitors with impairments. Also, a miscellaneous category is included to encompass discussion of items that are not found in all parks. For example, campgrounds, shuttles and beaches are important features at some, but not all, of the parks.

4.2 Waterloo Park

The City of Waterloo's website has extensive information about the park. Maps, information and documents are provided through the portal. No clear information on accessibility is listed. Descriptions of park amenities include historical significance of the schoolhouse or picnic areas. Information on the locations of accessible washrooms, parking or trails is not provided. The downloadable park aerial map has a legend through which specific features can be located. Accessible paths, washrooms, and features could easily be noted but are currently neglected. The map is useful for analyzing the layout of the park. People with impairments may find the map useful in planning their time within the park. Locating parking near desired features or washrooms could be facilitated with an accurate map. Upon inquiry and observation, it was found that there are accessible park features that could be communicated through existing sources of information.

Research interviews and collection dates

	Interviews	Observation collection dates
Waterloo Park	1 On-site Park official 1 Friends group official	September 17, 2011, 3-hrs. October 8, 2011, 5-hrs. October 9, 2011, 4-hrs. October 17, 2011, 2-hrs. November 3, 2011, 1-hr.
Laurel Creek Conservation Area	1 On-site park official 2 Off-site park officials 1 Friends group official ¹	September 11, 2011, 4.5-hrs. July 23, 2012, 1-hr.
Pinery Provincial Park	1 On-site park official 2 Friends group officials ²	September 24, 2011, 7.5-hrs. September 25, 2011, 10-hrs.
Point Pelee National Park	2 On-site park officials ³ 1 Friends group official ⁴	September 4, 2011, 7.75-hrs. September 5, 2011, 9.5-hrs.

¹ Communication was conducted via email. • ² Communication with one source was in person; the second source was via email.
³ Communication with one source was conducted over the phone; the second source was via email. • ⁴ Communication was conducted via email.

Table 4.1.1 illustrates the number of interviews, dates of observation and duration of observation.

Many of the park features have been evaluated for accessibility. The measurements and observations are noted in the next section of findings. The results of the research in Waterloo Park could be used to improve website information for future visitors.

4.2.1 OBSERVATIONS

This section discusses the field observations and measurements made in Waterloo Park. Detailed information is provided in the appendices. Accessibility information is not currently made available on the park's website and much of the information could be used to improve website content.

4.2.1.1 PARK FACILITIES

LION'S LAGOON SPLASH PAD – The splash pad in Waterloo Park is a seasonal feature that is open during the summer. Children are the primary users of this feature. Six different water-play areas provide a mist for amusement. The area has smooth open slopes to collect water. The wide entrance to the splash pad is complicated with uneven transitions that decline to the play surface. There is a large covered picnic shelter at the back of the splash pad. This picnic shelter is not considered to be a picnic area for general public use as use of the splash pad requires the payment of an entrance fee. There are no accessible picnic tables. A ramp at the back of the shelter provides access to the picnic tables.

SCHOOLHOUSE –The building is Waterloo's first schoolhouse. It was built in 1820 and is designated as an historical building. It has supported a variety of uses over its life as a school, residence, concert hall and snack bar. The building does not currently have a regular daily use. Schools and children's organizations arrange viewing times by contacting the park administration. The schoolhouse is not accessible to persons with a mobility impairment due to a small flight of steps at the entrance. The structure sits on the side of a hill.

PARK ADMINISTRATION BUILDING – This building is not open to the public. Park and city employees are permitted access. There is no push button door at the entrance. The door has a slight threshold, which complicates entrance to the building if the door is not held open.

BANDSHELL – The City of Waterloo present summer concerts and movies at the band shell. It is located on the park's west side and it can be approached from many directions by crossing a sprawling uneven grassy area. The band shell is located near the intersection of three trails, which connect to several parking areas. The trail leading from the west-side parking lots has numerous

impediments to access. Specific issues are described in the Paths, Walkways and Trails section. Visitors are expected to provide their own seating or to sit on the grass. There is an uneven transition onto the stage.

VICTORIAN GARDEN – Landscaping, combined with a variety of plant and flower species, makes the Victorian Garden a popular place to take photographs. The garden can be reserved for wedding ceremonies. Paths through the garden are hard-packed dirt with places of water damage. Areas affected by water have washouts or sections of loose surface material. There is a slight step up from the pathways into the gazebo.

ABRAHAM ERB GRISTMILL – The original structure, in operation for 111 years, was destroyed by fire in 1927. The mill was rebuilt to the original specifications in 1998. The gristmill's current use is to serve as a location for wedding ceremonies. The interior is a simple room that can be arranged to suit the needs of the rental party. The double-door entrance has a slight threshold of 1.27 cm. The rough floor surface may create uneven footing for people.

EBY FARM AREA – As a part of family fun, the park has areas to view animals. Birds, rabbits, miniature horses, pigs, deer, donkeys, and llamas are housed in six different fenced areas. Visitors can approach the fence to watch the animals. The pathways running along the animal areas provide an unobstructed view through fencing of the animals. Inclines along the path are slight. Pathways through the farm area are paved. The Laurel trail passes the farm area's west side and is hard-packed dirt. Two viewing areas along the Laurel trail have softer dirt surfaces.

EAST-SIDE PLAYGROUND #1 – The playground is located near the splash pad with views of Silver Lake. This feature has numerous entry points with one designated for wheelchair access. The ramp onto the play feature does not have handrails for the first 4.31 m. The boards on this same section of ramp are knotted and worn, which may make it difficult to pass for small wheels. The ground surface around the play feature is wood chips that have compacted over time and use. Not all elements of this play feature could be accessed from a wheelchair.

EAST-SIDE PLAYGROUND #2 – This small playground is located near the Eby Farm Area. It is a small lot with two play features that are not accessible to children with impairments. The surface material of the lot is loose, large-grained sand.

WEST-SIDE PLAYGROUND – This play area is located across from the Park Maintenance facility. There is one large play feature of 50 m in length. A swing set designed to have four swings

has only one remaining. There are numerous points of entry for the play feature with one designated for wheelchair access. The decking of the ramp and feature are worn and knotted, which may make it difficult for those using a mobility device with small wheels. The “bridge” section of the play feature has wide gaps between boards. The decline from the level surface and the gaps in the boards may be hazardous. Not all elements of this play feature could be accessed from a wheelchair.

Not all park facilities were measured specifically for accessibility. Many of the features listed above are part of regular park use. The gristmill, schoolhouse and band shell require a reservation or fees for use. Facilities that are generally available to the public were measured for accessibility.

4.2.1.2 PATHS, WALKWAYS, TRAILS

Waterloo Park maintains a small system of walking trails throughout the park. Maintenance is performed as needed. Trails rise and fall with the topography of the Park. Multiple sections of trails have steep slopes and the hills in the park may be challenging to people with an impairment.

Trails surfaces vary in type, ranging from pavement to informal paths through grass. Trails on the park’s east side are primarily paved. However the Lake Walk, History Trail and the Victorian Garden have hard-packed dirt surfaces. West-side trails consist of hard-packed dirt surfaces. Numerous bicycle tire marks can be seen in the dry trail surface. The marks are evidence of a loose muddy surface after rain. The rain event that occurred while observing Waterloo Park turned many trail surfaces to mud. Higher use trails have less debris and small rocks, which benefits accessibility.

Transitions from one trail surface to another were inconsistent. The change in levels from one surface to another depended on the surface material. Locations with transitions from dirt to pavement had greater level changes. Conversely, the transition from dirt to the bridge crossing Laurel Creek is smooth without a level change.

Though trail widths were inconsistent, none of the formal trails were too narrow for pedestrians or cyclist to pass when moving in opposite directions. Pathways or “sidewalks” with low-density surfaces were noted to have more water damage. Cross-slopes on the same pathways created difficulty in forward progression for a person in a wheelchair. Park roadways were a more attractive but less safe alternative to pathways.

The Laurel trail is part of the Trans-Canada trail system and it runs alongside the Canadian National railroad tracks that divide the park into its east and west sides. The Laurel trail surface consists of sections of pavement and packed stone dust.

Two locations have trail intersections with the railroad tracks. The Seagram's lot crossing does not have a smooth transition. Decrepit wooden ties, rails, a steep slope and crumbling asphalt create a series of miss-matched levels that complicate crossing for those in wheeled mobility devices or with strollers. The rail crossing at Father David Bauer Drive has fewer complications. The aforementioned crossing has rubber spacers situated on each side of the track. The spacers create a level surface to cross the tracks and prevent the hard-packed dirt trail surface from obstructing the rails.

The trails in Waterloo Park serve as avenues of connectivity for residents commuting to and from work as well as a means of recreation. The Laurel and the Band shell trails experience more foot traffic during commuting hours.

4.2.1.3 PARKING

Ten parking areas are situated throughout Waterloo Park. Five locations are specific to particular park attractions. The remaining five are either not specifically designated parking areas or are for event use. The specific attributes of each lot can be found in the Waterloo Park Appendix of Measurements.

The conditions of the parking lots are not consistent. Grass, dirt and pavement were found as surface materials. Lots with pavement had fewer potholes than the dirt lots. However, the condition of the asphalt has deteriorated in various sections. Grass surfaces in the ball field area parking had large pools of water and mud. As with the trails in the park, the topography dictates whether parking spaces are level or angled.

Accessible parking spaces were found at five parking lots. Dirt, grass and informal lots did not have accessible parking spaces. However, persons with various impairments may find the informal, grass and dirt lots acceptable. Rarely were there smooth transitions from pavement to walkways.

As Waterloo Park is a city green space, vehicular accommodation is limited. On days with large events, parking infrastructure capacity is exceeded. Off-street parking occurs in random places. Park events were the basis for people to utilize informal parking lots and along roadways. On the weekend of this data collection, there was a wedding and Renaissance fair taking place within the park. Pedestrians used roadways that were narrowed by roadside parking. Narrowing may present an increased danger for persons with mobility impairments traveling on park roadways.

Transition onto sidewalks or pathways were rarely smooth. Design and construction material can hamper or stop the forward momentum for persons using a wheeled mobility device.

4.2.1.4 WASHROOMS

There are two washroom facilities within Waterloo Park. One washroom is located in each of the park's two sides, east and west. The washrooms are closed at sunset. There is no signage at various points of the park to indicate the washroom locations. Coincidentally, both washroom locations are at the top of small hills. Access is not prohibited by the location of the washrooms. However, gaining entrance to the washrooms may be slightly diminished due to these inclines. Entrances were generally unobstructed. However, rutted pathways or narrow sidewalks slow forward momentum.

The accessibility of washrooms is not discussed in park literature or on the park's website. Yet both of the regularly available washroom facilities may be accessible to a person with a mobility impairment. The east side washrooms are modern from renovation within the last three years. The dimensions within correspond to current building codes for barrier free design. Access was determined by measuring stall widths while observing the direction of opening of the stall door. Most stalls allowed entrance within; however, a protruding concrete vent next to the stall door of the west-side washrooms diminishes the utility of the accessible stall. There are slight differences in the height of toilets throughout the park. The central positioning of the commode within the stall at the west-side washrooms may limit transfers from a wheelchair. Other bathroom fixtures (e.g. sinks, soap dispensers, trash cans) have similar degrees of difference. However placement of some objects, e.g., soap dispensers or trash receptacles, may limit effective use or block access. Nevertheless, there was no major impediment to washroom accessibility. Door widths provide entrance and facilitate use of the west-side washroom facility. However specific accessibility provisions with modern design specifications are absent.

Specific attributes of washrooms can be found in the Waterloo Park appendix of measurements.

4.2.1.5 MISCELLANEOUS

PICNIC AREAS / TABLES – Numerous locations in the park are designated for picnicking. There are ten different picnic areas within the park. There is no specific perimeter to six of the areas. The other four have structural elements that allow them to be reserved for private events. Three of the four have a shelter. The fourth area is in front of the Park Inn Snack bar. Two of the three have small kitchens that can be arranged for use by private parties. The accessibility varies at each location and none is designated as an accessible location. However, these picnic areas and shelters may be usable to people with various impairments.

Parking lot surfaces vary near each location (as explained in a previous section). The lack of proximity of parking next to picnic areas may be inconvenient for people with or without impairment. When picnic areas do not have adjacent parking, the supplies for a picnic have to be carried greater distances.

Cooking grills are not provided in picnic areas. Three accessible picnic tables were found that provide access for persons with mobility impairments using wheelchairs. The table design allows access on one side of the table. Placement of the accessible tables was random. One table was at the ball fields. The remaining two were near picnic shelter #10 on the park's west side. While the number of accessible tables is limited, the standard picnic table has two ends that a person in a mobility device can access. The physical location of tables may change because users move tables to suit their needs. Table placement blocked the best access into the shelters.

Picnic areas and table locations are comprised of large grass surfaces. The inconsistency of the grassy ground surface creates uneven terrain that can be difficult to traverse. Picnic shelter #10 has a hard-packed dirt pathway leading to the structure. Recycling bins and trash barrels were consistent throughout the park.

TRASH BARRELS AND RECYCLING CONTAINERS – The placement of barrels and recycling containers are near high use areas. Placement of barrels and containers within those areas are at random. The heights of the barrels and containers are at heights consistent with other parks. The closed-lid design of recycling bins prevents animals from scattering garbage. The lids were lightweight. However the open barrels may be prime targets for nocturnal garbage scavengers. Large recycling containers in some picnic areas may be difficult to use for a person in a wheelchair. Lifting the lid with one hand and discarding material with the other may be hampered because of the height of the container. Recycling containers in the east side playground are lower and provide an ease of use. However off-path placement requires crossing a grass surface to use the container. Placement of trash barrels along trails could be improved. Closer placement to trail would be beneficial so not to cross grass or get over inclined transition from dirt to grass.

INTERPRETIVE PANEL ALONG SILVER LAKE – The area is bordered by iron fencing that blocks the lake view of a seated person. The panel contains text and historical images of the park, with the surrounding neighborhood, to educate visitors of the site's previous use. The angled position of the panel allowed viewing and reading for a seated person.

BASKETBALL COURT – The location of this court may not be the optimal spot due to the park’s topography. The court’s hillside position is adjacent to the schoolhouse. The hill could result in a basketball rolling many meters downhill to an area difficult for a person with impairment to access.

Access to the court is from a hard packed dirt road to a narrower path with similar surface material. The uneven transition from the path to the court is up an incline with a difference in levels. The asphalt court surface is level. The bench along the court is boxed in with wooden framework. The box prevents access to the bench for persons using wheeled mobility devices.

BASEBALL FIELDS – Accessibility to the two separate ball fields are not the same. Ball field #1 has clear and level hard packed dirt pathways to approach the grandstands. There are no grandstands, at either field for a spectator in a wheelchair.

There are no accessible pathways to get to ball field #2 for spectators with impairment. A large grass crossing (with areas of mud or standing water) acts as a barrier to this park feature. The primary path to field #2 is washed out and rutted. Both fields are bordered with chain link fence. The fences have protective tubing across the top railing, which blocks visual access to the field for persons seated at ground level.

The next section provides the personal perspective of the researcher as a participant observer. I express my reaction to accessibility and data collection at the study site. It was important to convey what I learned; what held my attention; what may be the reasons for my reactions; or what I would do differently. The goal of this reflection is for a deeper understanding of accessibility at the site. Of importance is the life that is given to accessibility. Accessibility does not just dictate the dimensions of a structure. It serves as the bounds in which I live.

4.2.2 PERSONAL PERSPECTIVE

Since I am a newcomer to the City of Waterloo, my knowledge of the city’s past may be limited. It is my perception that the park had been in the city for years, since it is fondly nicknamed, “the jewel of the city.” Buildings like the Park Inn and the schoolhouse reinforced my sense of age. Yet, the updated washrooms reflected the park’s progression of time for accessibility. While the park dates back to the late 1800’s, the modern washroom facility indicates a present-day attitude of inclusion.

My research assistant (my wife) and I had been in Waterloo Park numerous times. We meandered its trails, attended events, and breathed a sigh of relaxation overlooking park vistas. There were

numerous encounters of compromised accessibility for a person with impairment. Usually there is another way around an obstacle. However I had not looked at obstacles through the lens of research.

The park does not have a brochure for visitors. I didn't expect to find one since it is a municipal park. Prior to research, I studied the City of Waterloo's website for park information. Hours of operation, amenities, and contacts for reservations were on the lead page. Fields connect to pages that provide history and descriptions of park amenities. There is a field to select a park map. The map is deficient for accessibility information. I surveyed the map for areas of the park I had not experienced.

Since accessibility is underreported I was keen to find what could be reported. Immediately, trails, washrooms, and parking spaces could be described and listed. I was committed to discover more.

Due to the public nature of the study site the role of participant observer felt diminished. The absence of gate fees eliminated the gatekeeper — the watchful authority granting permission to enter was missing. We were free to come and go with any purpose we wished. Without the anticipation of leisure, our concentration was focused on data collection.

Data collection of this park was conducted over a series of days. Due to my close residential proximity to the park I did not feel that same intense data collection needed to be performed as with other study sites.

The park was a familiar place attributable to previous excursions. As a result of repeat visitation, I knew where to look for inaccessibility. Previous challenges along trails or locating washrooms gave experience, which I could draw upon. Twenty-three years of impairment fostered my experience.

My encounters with accessibility bestow a perspective that many do not understand. Many people live with limits to their lives. Yet tension will arise when the limits are constructed by others. This research is a push of my limits. I want the same chances and opportunities as others without impairment. Data collection helped me understand what limitations exist and why.

On weekends of data collection, the park's vibrancy was enhanced from the energy of people. The park appeared to be a place where people could allay the pressure of urban confinement. Some roamed and others relaxed. My wife and I carried on relatively unnoticed collecting measurements and taking notes. Our focus was on observation. However small breaks along Silver Lake provided pleasant repose between park features.

Inclines, transitions, and washrooms were measured. Prior park visits had not necessitated finding the washroom on the park's east side. I was surprised to discover it on a hillside. I thought that the urgency of answering "nature's call" might be exacerbated by the elevation getting to the washroom. The facility was not on a mountain peak; however, pushing a wheelchair up hill may increase the pressure to "answer." Inside, the washrooms appeared to be the pinnacle of accessibility in its normalcy. The measurements were comparable to accessible washrooms at other study sites. The push button door at the entrance garnered my favor of the location.

My perception of trails met my expectations. I had estimated, based on experience, that there would be large sections with accessible trail surfaces. I also envisioned incidences of compromised accessibility. Poor transitions, loose trail material, or potholes were found to diminish trail use. Yet considering barriers along the trails, I did not perceive a reduction of enjoyment. I have learned to embrace challenges with a positive attitude. I believe it is this attitude that guides my perception.

Data collection was completed over the course of five interspersed days. Two study sites were observed during this span of observations at Waterloo Park.

Collection at other study sites was more intense. Waterloo Park observations were more relaxed. It is not perceived that the intensity made any difference in the quality of findings. Yet, I did not have the sense of achievement when completing data collection. Relief came when collection had finished in Waterloo Park. The expanded data collection time may have diminished my sense of accomplishment. The sense of fulfillment might have increased with an intensity of time or a greater distance to travel for collection. Future research of a similar nature may avoid prolonged timelines.

Interviews of park officials were conducted gain a managerial perspective on accessibility within Waterloo Park. Staff was given an opportunity to elaborate on decisions for planning, budgets, and regulations that would affect accessibility. Their insights are examined for emerging themes that may indicate what promotes or hinders accessibility at the study site. The next section is a discussion of their viewpoints.

4.2.3 ADMINISTRATIVE PERSPECTIVE

It is important to understand the administrative guidelines that need to be adhered to as well as the personal perspectives of park officials. As key actors in Waterloo Park, their decisions affect what access is provided and reported. This section presents their viewpoints.

In 2009, a study was undertaken of accessibility in the park. The report called attention to accessibility the deficiencies in the east-side washrooms. The researcher was informed, “The initiative to reconfigure the east-side washrooms was a direct result of the report. We were able to make the upgrades with funding specifically for accessibility.” The next initiative will be to address signage within the park for many signs need to be placed or updated to conform to the Ontarians with Disabilities Act requirements; however, funding is extremely scarce: “There is no money. Funds are limited” officials said. There is no contingency fund to address important issues: “Money has to be borrowed from other areas within the organization for repairs.” The park attends to issues that require immediate remediation. New projects that may or may not include accessibility are not being developed. The west-side playground has reached the end of its life cycle and needs to be replaced: “It [the playground] will be updated to compliance in the near future.” The administration recognizes the opportunity to provide a new playground with greater accessibility. The estimated cost is reported to be \$1.4 million CDN. “There is no money for this project.” External funding sources may be required for the playground project.

Priority is given to projects requiring immediate attention. In some cases, park users draw attention to issues: “We react on requests; we document emails sent in through the city’s website. There are a limited amount of requests,” reported officials. Requests or concerns are logged into the City of Waterloo’s website. There is no specific area for filing accessibility concerns but the City’s website is a means for providing feedback. However, “There has been no complaints from persons with disabilities filed [for Waterloo Park],” said an official.

Officials were familiar with a request for repair to be made in Hillside Park, Waterloo. A complaint was filed on the City’s website by a person with an impairment. A gate had been placed to prevent vehicles from driving on the paved path into the park. Most people were able to walk around the end of the gate to gain entry to the park. However the spot consisted of grass, dirt and mud. An official said, “The Parks department created a paved walkway around the blockade for people with disabilities to pass.” The incident demonstrated the administration’s conscientious attitude toward addressing accessibility. “All projects are dealt with to enhance accessibility,” an official added.

Accessibility may increase or diminish with the seasons. Summer weather in southern Ontario creates conditions where little maintenance of trail surfaces is required. When warm, dry conditions change to wet, snow or ice, then accessibility is reduced on trails. An official commented on winter trail conditions that, “We do maintain the trails around the Eby Farm displays and the Laurel trail.

The trail [Laurel Trail] is an issue since it's constructed with stone dust rather than asphalt. We plow and sand this trail. I imagine it would be a challenge during the winter season for people with disabilities to navigate wheelchairs. I've never received any requests from people with disabilities during the winter months on accessibility issues within the Waterloo Park area.” While staff is conscientious about accessibility in winter months, there are too few resources to maintain every trail.

While particular buildings adhere to the *Ontario Building Standards for barrier-free design 1992*, other standards may be unknown except to contractors. Construction specifications are left to project managers. Other construction standards (e.g. for trails – Time-saver Standards for Landscape Architecture) may be based on the experience of contractors or landscape companies. The Accessibility for Ontarians with Disabilities Act has a pending section on standards for built environments that are available for public scrutiny. Public or private entities may have to abide by new regulations. Building projects that take the specifications into consideration may advance the cause of accessibility. However, “I’m not sure the AODA [pending standards for built environments] is considered in Waterloo Park,” an official said. With limited financial resources, there may be little opportunity to comply in advance.

Officials at Waterloo Park maintain the park with an awareness of the importance of accessibility. “There are no current issues of access in the park,” but officials are prepared to address issues that may be reported. Financial resources may be limited; however, there seem to be resources that can be drawn upon to undertake urgent projects.

Waterloo Park does not have a cohesive Friends group that could provide advocacy or fundraising support. However, the Waterloo Park Committee is a group of residents that could serve as a “friends” group to the park. The committee consists of eight members. Most members live adjacent to the park. One member, who used to be a Waterloo Park employee, is from Kitchener. The goal of the committee is to shepherd the implementation of the master plan but it was reported, “It is tough to figure out how to do that when there is no money – even though there is money if you ask the right people.” One of the members has experience in fund-raising for trail projects. A committee member reported, “There is a drive to establish a fund-raising initiative. The experience of the fundraising board member should help in starting this process of raising funds in a ‘Friends of...’ manner.”

The committee convenes once or twice a year but has no formal structure. At one time, a Waterloo Park Board had a stronger role in park management but decision-making powers were bestowed on city council when the Board was transformed into an advisory committee. The committee can make

recommendations but council makes final decisions. However, the committee formulates ideas that may assist with park improvements. A current issue that they are emphasizing is to replace the old, cracked, and reportedly unsafe playground with a new accessible one. “We would like to see the main trail (Laurel Trail) paved – to get away from stone dust,” said a member who added that paved surfaces would weather better and would be better under wheels. Recommendations may be made on paving materials: “There is talk of asphalt, paving-stones or bricks,” the member indicated.

The band shell in the park was, reported, condemned: “The electric transformer is busted and won’t be replaced. It is no big loss since its location is hidden behind a hill. It is also located in a flood plain and cannot be replaced or repaired.” Ideas for constructing a new band shell in a more visible location were discussed in a committee meeting: “We have ideas of ‘here’s what we would like to do...’ but there is no money.” Accessibility might be considered only peripherally in such a project for the committee has no specific focus on improving or making recommendations regarding accessibility.

It was suggested that the City of Waterloo’s Safe and Healthy Community Advisory Committee may be working on ways of making the city inclusive, safe and healthy. However, the Waterloo Park Advisory Committee operates independently of this committee and members have not sought out groups that may provide advice on accessibility. The Grand River Accessibility Advisory Committee is a group that offers guidance to improve accessibility in numerous community settings. Forging links between the two committees may be a means of strengthening and providing greater visibility for accessibility improvements within Waterloo Park.

There is also hope that interest in Waterloo Park can be enhanced by improving the website and, thereby, improving the committee’s visibility and garnering more support for park improvements: “We are hoping a new website may increase our Internet presence,” commented the member. Currently, the committee’s site is “buried in the links of the City of Waterloo’s website.” The committee’s visibility may improve with an updated website; however, real interest may come from effective fundraising where park improvements can be supported by the committee in a tangible way.

4.2.4 SUMMARY

Waterloo Park is gradually becoming more accessible. Planning documents and legal regulations are guiding administration towards the removal of barriers. However, replacement and facility upgrades are done extemporaneously; when the deterioration of a feature has become too dangerous to ignore. The reporting of accessibility information is lacking specific details and a degree of

accuracy. Rich descriptions may enhance website content. Accuracy may be maintained with a consistent method of monitoring accessibility within the park. Monitoring may also lead to accessibility improvements. Accessibility information is grossly under reported. There is extensive information that could be described in currently used information outlets. The collected data are a good example of how accessibility exists but is not described or published in any meaningful way. Providing access information could lead to more meaningful park use by people with impairment. The information presented in the previous sections are attributes that may be useful to pre-trip planning.

The City of Waterloo's budgetary constraints will foster or hinder capital improvements that may or may not include accessibility. Waterloo Park is without an active Friends group that may assist with fundraising for park improvements. When structures are damaged or issues need immediate attention, funding is directed from other areas within the park system. New projects will be limited until expenses of the proposed project can be covered with current or new revenue sources.

4.3 Laurel Creek Conservation Area

The information in the preceding paragraphs was generated through interviews together with the assessment of the park's website, master plan and brochure. Information for the Laurel Creek Conservation Area (LCCA) is provided through a website and a printed brochure. The brochure can also be accessed through the website. No clear accessibility information is listed in the park materials. The brochure contains a map of the park, which is useful for locating different areas and features. The legend indicates specific features, such as paths and washrooms, but details are lacking. The map is useful for understanding the layout of the park. People with impairment may find the map useful in planning their time within the park, locating parking near desired features and finding washrooms. Upon inquiry and observation there are accessibility details of features that could be communicated through existing sources of information dissemination. Upon inquiry and observation, it was found that accessible park features exist that could be communicated through existing information sources.

Many of the park features have been evaluated for accessibility. The observations are noted in the next section of findings. The results of the research in LCCA could be used to improve website content and brochures for future visitors, for there is currently no accessibility information in the park's media outlets.

4.3.1 OBSERVATIONS

This section presents the field observations made in the LLCA. Much of this information could be used to improve the content of the website. Information on the park is organized into sections for ease of presentation and to permit later comparison among parks. Detailed measurements of accessibility are presented in the appendices. The first section discusses facilities that are used by visitors. Structures that are used for park operations, such as maintenance buildings, staff housing and administration offices, were not sought for examination as they are not generally used by the public, although incidental observations may be made. Sections that discuss parking, trails, and washrooms follow. Content is used for comparison across other study sites.

An assistant and a person with a mobility impairment who assessed the park by car and wheelchair collected the data in the field. The observer's use of a wheelchair facilitated, with great clarity, the identification of areas or items with good access, as well as places with deficiencies within the park. Measurements were made systematically and are used as supporting information in the sections that follow.

4.3.1.1 PARK FACILITIES

In this section, information on the accessibility of features in LCCA is presented based on field observation.

GATEHOUSE – This location is the park’s headquarters and serves numerous other functions. Operating as an entrance gate, fees are collected for day use and camping at this site. Payment of day-use fees can be done without the visitor leaving their vehicle. However, camping requires registration forms to be completed inside the office. Complaints, problems or issues may be filed with park staff at the gatehouse. Ice and firewood are sold at this location. Firewood can be delivered to the campsite without an extra charge. Ice may be purchased car-side for people with impairment. Arrangements for canoe rentals are conducted at the gatehouse. A pay phone and soda machine are located at the rear of the gatehouse.

CRICKET PITCH / SKI CHALET – A small building is available for use with reservation at the cricket pitch. Water and hydro are available at this facility. Three picnic tables within the building service the small seating area. In winter months, the building serves as a chalet for cross-country skiers. The building is not available for regular park use, though it includes accessible washrooms. Measurements of the washrooms can be found in the LCCA appendix of measurements and are discussed below.

4.3.1.2 PATHS, WALKWAYS AND TRAILS

The accessibility of the pedestrian systems is limited and no list of access is provided. The trail system may not be usable by a person seated in a mobility device. However, the paved park roads may allow a person in a wheelchair to explore the park. Pedestrians and cyclists currently use the roads for recreation. However, roads may be dangerous due to the presence of vehicular traffic.

The LCCA maintains a small system of hiking trails throughout the park. Three trails extend into different areas within the boundaries of the property. Trails follow the topography of the landscape. Based on visual observation, inclines are estimated to exceed 10% grades. Informal trails can be found that have been created by residents of surrounding neighborhoods who avoid the payment of user fees. The network of trails crosses park roads at six different intersections. At a majority of the intersections, the trail dips down from the roadway to rise back onto the landscape. Dips, cross slopes, bumps and ruts may be hazardous to hikers and make the trails inaccessible for persons with limited

mobility. Furthermore, trail surface imperfections are difficult to discern as they are disguised by grass. Maintenance consists of mowing the grass trail surface and clearing debris.

4.3.1.3 PARKING

Parking is permitted in designated parking areas within the park. Not every shelter or feature has an adjoining parking lot. The Critter Shelter and the Baseball Shelter lack formal parking areas. Though parking should be restricted to specific areas, it is evident that it also occurs at points of convenience. For example, informal parking areas exist at the previously mentioned shelters.

No accessible parking was found in the park. Surface materials included asphalt, crushed rock and packed dirt. Lots were in various levels of decay. Plant growth and weathering, combined with years of use, have caused the deterioration of lot surfaces. Parking stops and space demarcation were not utilized in any of the lots. The lack of such parking controls prevented a calculation of the capacity of parking areas from being made. However, the calculated distance of each designated parking area divided by vehicle width (and clearance) generated an estimated capacity of 280 vehicles.

Parking within campsite relies on the composition of the ground in a specific site. Campsites were observed to have hard packed dirt. Variations included coverage from leaves, pine needles and grass.

Visitors with impairment may find that accessible parking is not necessary to the enjoyment of areas with limited access. Details of parking for specific areas can be found in the Laurel Creek appendix of measurements.

4.3.1.4 WASHROOMS

Washroom designs and structures varied throughout LCCA. Variations in design may or may not compromise usability. Good usability requires the seamless or unimpaired use of a feature. When construction choices create variations of features, usability may be enhanced or reduced for persons with impairments. Eight locations within the park have washroom facilities. Five locations are vault toilets. The vault toilets do not offer accessibility for persons with a mobility impairment and were not measured for access. The simple structures that house the toilets have narrow doors and there is no room inside to position a mobility device.

Floor plans within washrooms both aided and hindered access in different locations. Entrances were generally unobstructed. The Dam Shelter washroom entrance has a step up through the door and a step down from the threshold. The Critter Shelter washrooms are not designed specifically for

accessible use. However, the design may permit use by people with physical impairments. Washrooms in Campground Area 1 are designed for accessibility but the approach to the building is hampered by the presence of an uneven grass surface.

Accessible washrooms are not listed in park literature or on the park's website. However, upon inspection, one facility was found that was designed for accessibility. Access was determined by stall widths and the direction of opening of the stall door. Most stalls allowed entrance; however, in some stalls, privacy or use was hindered by the configuration within. For example, the stall may have been too narrow or the door opened inward and could not be closed following the entrance of a wheelchair. The toilets throughout the park had slight differences in height, as did other bathroom fixtures. Placement of some objects, e.g., soap dispensers or trash receptacles, may limit use or block access.

Accessible washrooms were measured to determine specific characteristics of access. Measurements can be found in the Laurel Creek appendix of measurements.

4.3.1.5 MISCELLANEOUS

PICNIC AREAS / TABLES – Numerous locations in the park are designated for picnicking. Picnic tables are scattered throughout areas near the reservoir and baseball diamond. At each location, basic amenities such as parking, washrooms and tables are provided consistently. Particular features exclusive to some locations include shelters, beach access, swimming and canoe rentals. More features or topographic elements could be listed; however the most prominent ones have been highlighted.

Three locations are picnic shelters that can be reserved for events. The shelters vary in size and, accordingly, can accommodate different numbers of people. All three have water available and the two larger shelters have hydro. Each location is unique with respect to relationship to the landscape and the types of amenities available so that the degree of accessibility differs.

Park administration has not provided accessible facilities at any designated locations. Picnic areas consist of large grass surfaces. The inconsistency of the grass-covered ground surface creates uneven terrain that can be difficult to cross. Transitions from grass surfaces onto the concrete floors of the large picnic areas are significant. The difference in levels may prohibit some visitors from using the structures. However, picnic areas and shelters may be usable by people with various impairments. Parking lot surfaces vary at each location (as explained in a previous section.) Also, the proximity of parking to picnic areas may be inconvenient for people regardless of impairments. Because some

picnic areas do not have abutting parking, the supplies for a picnic have to be carried greater distances. Cooking grills are not provided in picnic areas. No accessible picnic tables were found at LCCA. However, while specific accessible tables may not be available, the standard picnic table has two ends that a person in a mobility device can access. Physical locations of tables may change as users move tables to suit their needs. It was noted that table placement blocked the best access routes into the shelters. Recycling bins and trash receptacles were consistent throughout the park. The closed-lid design of recycling bins prevents animals from scattering garbage. Recycling lids were light in weight. However the open barrels may be prime targets for nocturnal scavengers.

WATER TAPS – There are seven locations where access to potable water is supplied within the park. Four are placed within the two camping areas and the remaining three are with the picnic shelters. The park staff embedded a wooden frame to maintain the ground surface under the faucets. Dimensions of the frames are inconsistent. Smaller frames may provide more usability. Crushed rock is placed within the frame to assist drainage. The frame and rocks impede access to the faucet by a person in a mobility device. The Baseball Shelter water source has no frame or rocks and, as such, permits easier access. Here, water is allowed to drain through the grass surface.

BEACH – There are no accessible services at this location. The beach consists of sand (loose granular). There is no accessible beach access. No all-terrain chairs are available for visitors with mobility impairments. There are vault toilets and a change house without an accessible option. There is an adjoining parking lot that does not have accessible parking. The approach to the beach is lengthy over an uneven grass surface.

BOAT LAUNCH – There are no accessible services at this location. Accessible parking spaces have not been allocated. The roadway, from the Critter Shelter parking to the boat launch, transforms from pavement to gravel. There are no accessible picnic tables. The surface before the dock is grass and crushed rock with areas of loose and densely packed surfaces. There is a step for access onto the dock. There are no railings or retaining edges. Accessible parking spaces have not been allocated. Nevertheless, this area is a good location for a person with a mobility impairment to get close to the water's edge.

CAMPGROUND TRASH AREA – Trash disposal and recycling facilities for the campgrounds are located at the intersection of Campground 1 and 2. The surface area around the dumpster is loose, uneven sand. No access provision has been made for a person with an impairment. Dumpsters have lids that need to be lifted in order to deposit waste.

AREA 1 CAMPGROUND – There are seventy-six sites serviced with hydro and water, and twenty-four (plus 1 group campsite) un-serviced sites. The topography of Area 1 results in the campsites having varying characteristics. Variations include grassy level surfaces or hard packed dirt with crushed rock surfaces. Flora and fauna alter with each site. Seasonal campers occupy many sites in this area. The seasonal campers keep up their sites by clearing the spaces of debris and maintaining the grass. Roadways within Area 1 consist of sections of dirt and pavement. This area is the only location with an accessible comfort station.

CAMPGROUND AREA 1 – COMFORT STATION – As part of the amenities in the camping area, a comfort station has been built, which houses washrooms and showers. This facility has accessibility provisions for persons with impairments. The comfort station parking area is 20 m from the washroom.

As found in other areas with grass, the surface was uneven with ridges and depressions that hinder the forward progression of mobility devices. Driving across and parking on the grass next to the building gained the most efficient access.

Washrooms have water and hydro. There are accessible stalls within each of the men and women's washrooms. The facilities are equipped with all the amenities one would expect in a washroom.

In addition to washrooms, six coin-operated showers are provided for campers. One shower stall is accessible. However, an individual's level of impairment will determine whether the shower can be used independently. Non-accessible showers have interior designs that may prohibit use for people with limited mobility. Narrow shower stall widths along with the absence of a hand-held shower and bench are limiting factors.

The accessible shower includes a hand-held shower, bench and grab bars, which are installed in one usable cluster. The coin-operation mechanism, which activates the water, is placed on a far wall. The mechanism cannot be reached from the bench. Assistance may be required to activate the water for a person that is seated on the bench. The specific dimensions of the washrooms and showers are described in the LCCA appendix of measurements.

AREA 2 CAMPGROUND – There are twenty-six un-serviced (no water or hydro) sites in this radio-free campground. Campsites in the park can be leased for the season. While Area 2 is primarily for tent camping, campsites 421 through 424 are occupied by recreational vehicles. Semi-permanent

wood decking around a camper or RV is evidence of long-term occupation. The attraction of these sites is proximity to the reservoir waterfront.

The level ground surfaces of campsites consist of grass with hard-packed dirt. Over half of the campsites in Area 2 have grass surfaces. However, sites have a variety of surface characteristics, which include exposed roots, a cover of pine needles, or uneven ground. Inclines within campsites are determined by the topography of the campground. Fire rings are not movable, which may or may not create difficulty in tent placement on level ground. The road consists of gravel and rock. The framed water tap in the Area 2 campground is on a slope with a 20% grade.

PLAYGROUND – This small play feature is located 50 m inland, between the beach and the boat launch. There are no accessible features. There is no accessible pathway to the feature from either of the two parking areas, which are located 60 m away.

DIGNITY MEMORIAL GROVE – This small area is designed to be a place of remembrance. The benches in this area are dedicated to the memory of loved ones. The sloped terrain of this area reduces the access for persons using a wheeled mobility device. Access to the benches is limited by grass surfaces on inclines.

The next section provides the personal perspective of the researcher as a participant observer. I express my reaction to accessibility and data collection at the study site. It was important to convey what I learned; what held my attention; the reasons for my reactions; or what I would do differently. The goal of this reflection is for a deeper understanding of accessibility at the site. Of importance is the life that is given to accessibility. Accessibility does not just dictate the dimensions of a structure. It serves as the bounds in which I live.

4.3.2 PERSONAL PERSPECTIVE

A warm September sun illuminated our observations at Laurel Creek. At first appearance, the park looked as if it has been in the region for hundreds of years. Evergreens and tall grass built that illusion. The quaintness of the log cabin style gatehouse helped to imbue my sense of age.

The park's brochure and website did not provide information on accessibility. I was eager to reveal what was underreported. Gatehouse staff could not offer information on what park features were accessible. Entry was permitted for us to discover.

The picnic shelters were reminiscent of ones from my childhood. The smallest shelter was a series of posts under a simple roof with an assortment of tables underneath. I imagined my family there in the midst of developing a memory. The remaining shelters gave a more festive, family gathering, air. Their larger sizes aided the feeling.

I estimated the age of shelters and their adjoining washrooms to date in the 1970s era. Washroom facilities were designed at a time prior to the consideration of accessibility. Narrow stall doors, steps into the entrance, and older fixtures reinforced my estimated time frame. Vault toilets and change rooms at various locations in the park fostered my perception of age.

The absence of accessible parking spaces and long grass crossings to reach park features highlighted a time when accessibility was not mandated. Strangely, I embraced the lack of accessibility. The landscape was aesthetically pleasing with older structures, grassy trails and basic campsites. At times accessibility can diminish the appearance of structures or vistas. Perhaps poor planning or integration may offer a reason for scarred facades.

Rolling, grassy trails that disappear into a curve of tall grass looked to be a nice setting for serene walks. I wanted to know what was around the bend. However my enjoyment of the trails was limited to roadway intersections.

The Area 2, radio free, campground has simple campsites. Campsites along the back section of the campground road may be matted with pine needles, nestled in leaves, or carpeted with grass. There were tables, fire rings and level spaces for tents. The rusty metal fire rings made me wonder how many stories have been told around it. Each of the sites appears to be nice locations for camping. Unfortunately there are no accessible washrooms in this area. However, knowing that information prior to visit could help someone with impairment plan ahead.

Area 1 campground has a sense of modernity. Flashy RV's, serviced with water and hydro, populated the area. I perceived that people come from all over Ontario to create their own neighborhood in this wooded camping area. There was a notion of community as people raked or swept their campsites to keep good appearances for the neighbors. Area 1 is the location of the single accessible washroom within the park.

The facility is modern compared to its counterparts. However modernity has been tempered with time. The structure is not brand-new. Yet, it was built with the consideration of accessibility. The

consideration is diminished by the poor easement to the structure. It is these incidences where one may claim, “so close... yet so far.” I want it to be so close and make it closer with an accessible path.

The date of data collection marked the 10-year anniversary of the September 11 attack on the United States. My research assistant and I felt like we were participating in something that would improve the world rather than destroy it. Darkness chased us out of the park as we drove off with a sense of accomplishment.

A repeat visit followed, a few months later. The gatehouse and the ski chalet needed observation. Other minor measurements were collected to ensure accuracy.

Based on my time in the park I understand that improvements come at a cost. But minor modifications could be executed to make older facilities more usable. Modified structures may not meet precise building code specifications. However, more access may be granted into aging structures as a result of improvement.

My perception of Laurel Creek being an old rural park may have been flawed. However the age of park structures confirms that, at the time of the park’s conception, accessibility was not a consideration. Moving accessibility forward while preserving the structural appearance of the past would create a nice balance between access and aesthetics in Laurel Creek.

Interviews of park officials were conducted to gain an administrative perspective on accessibility within the LLCA. Officials were given an opportunity to elaborate on decisions for planning, budgets, and regulations that would affect accessibility. Their insights are examined for emerging themes that may indicate what promotes or hinders accessibility at the study site. The next section is a discussion of their viewpoints.

4.3.3 ADMINISTRATIVE PERSPECTIVE

The degree of accessibility may be affected by the policies and decisions of park officials. Thus, it is important to understand the administrative guidelines that need adherence as well as the personal perspectives of the park officials. As key actors in the LCCA, their decisions affect the accessible features that are provided and reported. Staff members may make recommendations for access improvement. Final decisions are made at the organizational level that manages numerous parks within the Grand River Conservation Authority (GCRA). Accessibility regulations made at this level dictate what degree of access is provided.

Officials recognized that “access is behind” and “we have a fair bit to do” to offer more accessible experiences. According to informants, the AODA standards for customer service have been implemented throughout the GRCA park system to comply with the law. The section on AODA standards for built environments has yet to be ratified. Until such standards are put into effect, accessibility decisions will be based on lesser standards.

Officials are amenable to receiving suggestions from the public concerning management of the park: “We want people to get in touch with issues and concerns they would like to have addressed.” A staff member reported that the park’s program “Please help us help you!” encourages visitors to voice their concerns to staff immediately so that issues can be addressed promptly. The aim of the program is to address problems to improve visitor satisfaction. Individuals could alert staff to access issues. The gatehouse staff should be contacted should no staff be available. However, structural modifications may not be feasible or may not be undertaken quickly. Nevertheless, voicing a concern may be important in starting a dialogue about issues, including accessibility, which will lead to the resolution of problems in the future. There is no link on the LCCA website to provide written feedback, but there is such a link on the GRCA website. This visitor input mechanism could be used to convey valuable comments from people with impairments.

In recognition of the value of their experiences, people with impairment and related organizations may be sought to provide inputs on projects throughout the park system. It was acknowledged that feedback from a person with an impairment assists in addressing issues, concerns or aspects of inaccessibility that may have been missed by an able-bodied person. However, although no current consultations of this type are occurring within LCCA, officials are “definitely looking in that direction.” At the higher administrative level, the GRCA consults with other conservation authorities about many issues for cooperative edification.

When asked, “What improvements do you think should be considered for better access for people with disabilities within the park?” The response was:

“Vision impairment and other impairments have to be considered as most focus was on physical access. For physical impairments, we need to designate specific campsites in our park. We need to put push buttons on heavy washroom doors. There needs to be changes at the counters in the washroom. The faucets are so far away. Perhaps buttons on the walls that would activate the water would work in some instances. I would like to see the conversion of trails to make more access in the park” (Park Official, 2012).

The above quotation indicates that officials are aware of some impediments to accessibility and what might be done about them. However, there are no accessibility issues being addressed at LCCA. Public events held in LCCA draw large crowds of people with a great variety of abilities. It was reported that, during one event, a person with a mobility impairment could not locate an accessible washroom. The closest location was about a kilometer away (0.94 km). Fortunately, event organizers provided accessible, portable sanitation units placed close to the event location. The existing vault toilets at the event location were too small to accommodate a person with a mobility impairment.

While accessibility projects may be absent at the LCCA, the GRCA is making improvements at other locations. Campsites in other parks are being modified to increase access by providing accessible tables, sites in closer proximity to washrooms and a hard packed ground surface. A staff member commented, “We need a good path to access our washrooms [in LCCA].” This response was based on knowledge of the park’s current trails and issues on the trails that compromise access. Trail upgrades that would convert grass trails to stone dust, “that packs hard for a solid surface,” is one way that was proposed to improve access. However, funding to make such upgrades may not be readily available.

The GRCA emphasizes that user fees provides the predominant revenue stream for the authority, not taxpayer dollars. Funds for capital investments rely on visitation numbers. Park budgets may be affected by economic fluctuations that impact visitor numbers. Government grants are sought when projects align with requirements of a particular grant. Private companies have also funded individual park projects. A funeral home and a car manufacturer have sponsored projects that have improved trails in other parks of the GRCA. If a weakened economy persists, alternative forms of funding may become increasingly sparse. Budgets may be restricted to maintaining current park infrastructure rather than making improvements to accessibility.

Officials and administration are eager to improve access in the park and the system as a whole. Accessibility for persons with impairment is “coming forward as a big attention piece” for the LCCA. There will be increasing legal pressure as more standards are implemented from the AODA. The LCCA and the GRCA recognize the importance of improving access but capital improvements are restricted by annual budgets. Low or no-cost solutions may be developed through consulting local accessibility groups. The experiences of those groups may be used to generate access solutions that can be implanted with little capital investment. The lack of accessibility information provided by the

park may be highlighted and addressed at minimal cost. The Customer Service Standards of the AODA may drive the improved provision of access information.

4.3.4 SUMMARY

Laurel Creek Conservation Area is becoming more accessible in sluggish increments. Planning documents and legal regulations are guiding administration towards the removal of barriers. Budgetary restrictions will foster or hinder capital improvements that may or may not include accessibility provisions. Increased revenues from entry fees may not be directly invested within the site. Budgets allocated by the GRCA may scarcely cover yearly operating expenses, making marked improvements unlikely in the short term. Replacement of structures reaching the end of their life cycles will create opportunities for improving accessibility.

The public reporting of accessibility information is absent. Rich descriptions may enhance website content. Accuracy may be maintained with a consistent method of monitoring accessibility within the park. Regular audits of accessibility may also lead to improvements.

The LCCA does not have an active ‘Friends’ group that fosters park improvements. The dependence for revenue on user fees will make the park prone to economic fluctuations. Visitor camping-nights increased as day-use visitation decreased. Increasing camping infrastructure may be a way to keep the park sustainable economically. Should the park maintain or increase its viability, opportunities may emerge for capital improvements that proliferate accessibility.

4.4 Pinery Provincial Park

Park information for the Pinery Provincial Park is provided through a website, printed brochures, and Friends of the Pinery Park (FOPP) website. The brochure cannot be accessed through the website. Brochures are distributed at the park, which contains articles on park events and features. Maps, regulations and advertisements are also included. Accessibility information is limited. There are very brief descriptions of accessible trails and the international symbol of access is placed on park maps to indicate accessible features. Accessibility descriptors, photos and or details are lacking in the brochure. The absence of quality access information is mirrored on the park’s website.

Ontario Park’s website for the Pinery has limited information on barrier-free park features. The site issues scant descriptions of washrooms, beaches, trails, and facilities. Yurts in the Pinery have ramps to provide access, yet they are not listed on the park’s website. Barrier-free access is not described

any further than the building title and “yes” (e.g. showers – yes). There is one field on the website designated to accessibility, which directs to a new page. However, the same page is used for minimal description of the park store, flush toilets and laundromat. Information updates on the various Ontario Park’s web pages are listed for the years 2002, 2004, 2008, which may explain the lack of current information (e.g. The Heritage Trail is an accessible trail but not listed on the park website).

The Friends of the Pinery Provincial Park (FOPP) contribute more information through their Internet outlet, including descriptions of accessible and non-accessible trails. Camping regulations, park features and events are included on FOPP’s website. Visitors should be critical of the content posted the website as there are numerous Internet posts that dispute accuracy. While information on accessibility exists, it is limited. The amount of information could be increased and inaccuracies could be addressed.

The FOPP’s website provides slightly more details than the Ontario Parks’ site. However details are misleading. The following excerpt describes the accessibility of the park, “The facilities within Pinery are also impressive - wheelchair accessible general store and restaurant; laundromats; firewood; picnic shelter; rental shops for canoes, kayaks, hydro-bikes, bicycles and cross-country skis; Savanna Shores nature gift shop; and year-round Visitor Center featuring nature exhibits” (2012). There are several features that may not be as fully accessible as claimed. While the rental shop may be accessible, there are no hand-cycles, lifts for access to watercraft, or sit-skis for persons with impairment. Upon observation there are accessible park features that could be further and accurately described through existing sources. Park staff may provide further details on accessibility.

Many of the park features have been evaluated for accessibility. The measurements and observations are noted in the next section of findings. The results of the research in the Pinery could be used to improve web content for future visitors.

4.4.1 OBSERVATIONS

This section presents the observations made in the Pinery. There is little information about accessibility on the park’s website. Thus, much of the information presented here could be used to improve website and brochure content.

Technical measurements of access are presented in the appendices. The first section discusses visitor facilities: structures for park operations, e.g., maintenance buildings, staff housing, and

administration offices, were not examined in detail. However, incidental observations are made occasionally.

4.4.1.1 PARK FACILITIES

Remembering that people with mobility impairments may determine a location more or less accessible depending on the severity of their limitation, numerous factors influence the accessibility of park facilities. The accessibility of the visitor facilities in the Pinery Provincial Park are evaluated in turn.

VISITOR CENTER – The visitor center has numerous features for guests to explore. It contains a gift shop, theatre, park naturalist, educational panels, and aquariums. The center is situated on a small hillside. Access into the structure is gained by a long ramp, with a significant rise, from the parking lot. Transitions between various levels (e.g. parking lot, sidewalk, ramp) are not smooth. The difference in levels could be tripping hazards or impediments to accessibility. There is no button to open the two sets of double doors at the entrance of the center. The interior is spacious with an abundance of natural lighting. The gift shop has an open concept without merchandise blocking access. The theatre has a loop of educational videos that can be sampled at the visitor's convenience. Accessible washrooms are provided in the visitor center and are discussed in a later section.

PARK STORE – The ramp up to the store is pockmarked and rough. The store sells a mix of grocery items, postcards, candy, t-shirts, and camping supplies. There are open areas between store fixtures and the aisles in the store have wide clearance. There is a small fast-food counter in the park store as well as an area with tables for patrons to sit and eat. Although no table had specific accessibility provisions, a person in a seated mobility device could access a table. The patio area adjoining the store has no accessible picnic tables. The walkway to the bike/canoe rental shop and ice cream stand has a transition from a brick patio surface to sand with a significant difference in levels that could be hazardous. Pay telephones outside the store are placed at a lower height to provide access to people with short stature.

ICE CREAM STAND – The small stand offers a modest selection of ice cream flavors. The service window is high for a person in a seated mobility device.

BIKE / CANOE / SKI RENTAL SHOP – There are no accessible bicycles for persons with impairment. The rental shop has an open concept with a wide garage door entrance. A beach chair can

be secured at this location. However, there is no protocol for delivering the chair to a specific site. This issue is discussed further in the miscellaneous section.

Canoes, kayaks, paddleboats and hydro-bikes can be rented at this location. The ability of people with impairment to canoe or kayak will vary with their individual circumstances. People with few limitations may have little difficulty transferring to and from a watercraft. Staff reported that they had rented canoes to people with impairments. Ramps onto docks have a modest grade with smooth, flush transitions from the ramp to the dock.

Numerous trails and other facilities are open during the winter months. Cross-country skis and skates are available to rent. Skating is permitted on long stretches of the Old Ausable Channel. There are no sit-skis or skate sledges to rent for persons with mobility impairments.

FIREWOOD STAND – There is no accessible parking at this location. The transition from the hard packed dirt parking lot to the concrete walkway that leads into the stand area may be prohibitive to those in a wheelchair. Also, carrying a bundle of firewood from the stand to a vehicle may be complicated by the difference in levels. However, an attendant is available to transfer wood into vehicles. Although no formal system is in place, it was reported that attendants can conduct transactions car-side.

AMPHITHEATRE – It is necessary to negotiate a hill with paved path to ascend to the amphitheater. An accessible seating area is provided for patrons that use mobility devices. However seats and the accessible seating area are on an incline. The slope of the theatre may cause seating issues (rolling downhill) for persons with wheeled mobility devices. There is one accessible vault toilet available on site. The structure is like the vault style toilets at other locations in the park to be discussed in a later section.

PARK OFFICE – There is one step to enter the park office that is circumnavigated by a ramp to an accessible entrance.

4.4.1.2 PATHS, WALKWAYS, TRAILS

The Pinery offers opportunities to experience the natural environment. There are ten hiking / walking trails within the park that facilitate nature appreciation. The trails are 3 km or less in length. Three trails are listed in the park literature and on the Friends of the Pinery website as being “wheelchair accessible.” The trails lead through an assortment of forest types. The variety of forest types creates varied environments for visitors to view plants, birds or animals specific to the habitat. Trail guides

(pamphlets) are available for five trails to educate visitors about the park's ecosystems. Five trails lead to the Old Ausable Channel that was once used for flood control, farm irrigation, or to mitigate the geomorphological changes of Lake Huron. Of the trails that lead to the lake, none provide an accessible route.

Trail accessibility is strongly connected to the park's topography. "Flat terrain" means the surface of the trail is flat, with little or no cross slopes. However, the trails rise and fall with the landscape so that "flat" does not equate with the absence of inclines.

The primary composition of the accessible trail surfaces was hard packed dirt and small stones. The top 1 cm of the accessible trail surfaces had loose material that cause sheering on the small front wheels of a wheelchair. The effects of sheering are increased friction between trail and wheel. Sheering was noticeable on the accessible trails. Increased friction and loose surface material result greater exertion of energy for the propulsion of a wheelchair. Furthermore, sections of trails were found to be inconsistent in surface composition. Loose sand, extreme cross-slopes and exposed roots were impediments to accessibility. Inconsistencies were also found to be limiting as independent propulsion on the trail was halted. The changes in trail surfaces may be hazardous for people walking or persons using wheeled mobility devices.

Inclines along the accessible trails were moderate. Most inclines were no more severe than the ramps found in the park. However, some sections of trail had steep inclines which, when combined with loose surface material, resulted in slow progress.

It had rained two days prior to observation and this may have affected trail conditions. Areas without long periods of sun exposure had damp trail surfaces. However, on the second day of observation, most trail surfaces were dry. The timing allowed trail conditions to be observed in with alternate moisture conditions.

The paved park roads allow a person in a wheelchair to explore the park. However, pedestrians and cyclists currently use the roadways. The roads may be dangerous due to vehicular traffic.

The park is open year-round. It is reported that two trails are maintained during the winter months. Snowy trail surfaces are packed for ease of use. Five trails are maintained for cross-country skiing. Persons with mobility limitations may experience differences in ease of use depending upon the severity of their impairment.

The following paragraphs describe the characteristics of the accessible trails. Cross-slopes, inclines, and railing heights are features that promote or impede accessibility. Traverse times for trails were not found in the park information. “Guides available” means that interpretive paper guides can be picked up at the trailhead and returned at the end of use.

CEDAR TRAIL – Distance 2.3 km. The trail has a guide available. The trail is listed as being accessible. The exception is the 1 km extension that leads to the beach, which is not accessible to people with mobility impairments. The trail was constructed in the early 1990’s when accessibility was only just beginning as a priority and, therefore, was ignored. Trail width is sufficient for two wheelchairs to pass in opposite directions. Most of the trail’s surface consists of hard packed dirt. However there are numerous sections of loose dirt that impede forward progress. Inclines were consistent with other park trails. There is a viewing platform along the Old Ausable Channel. The narrow boardwalk leading to the platform has vegetation along the aisle, which narrows the walkway further. The ground in front of the boardwalk loosened to where the front wheels of a wheelchair penetrated the trail surface. The railing of the viewing platform blocks the line of sight for a person in a wheelchair.

HERITAGE TRAIL – Distance 2.5 km. The trail has a guide available. This trail is listed as being accessible. The trail was upgraded in the last 1-2 years to improve accessibility. The characteristics of this trail are strikingly similar to the Cedar trail. Because of the relatively new trail surface, no sections of trail had loose dirt. There is a viewing platform along the Old Ausable Channel. The narrow boardwalk leading to the platform had vegetation along the aisle, which narrows the walkway further. The railing heights of the viewing platform obscured the view for a person in a wheelchair.

RIVERSIDE TRAIL – Distance 1 km. The trail has a guide available. This trail is listed as accessible. The trail surface had many changes in level, width, material, and surface density. The effects of the recent rainfall were noticeable at the first trail intersection. Ruts and soft sand were evidence of washouts. The trail is listed as being “flat.” However, this refers to the level trail surface rather than the topography for it rises and falls over numerous hills. Furthermore, multiple trail sections had cross slopes that contradict the “flat” label.

At the outer perimeter, of the trail there is a viewing platform that extends into the Old Ausable Channel. It has a low railing for good visibility for a person in a seated position. An educational panel describes the habitat for turtles within the park. The panel is plastic-coated for protection against weather. Past the viewing platform, the trail conditions changed drastically, almost to the

point of impasse. Exposed roots, holes and a severe cross slope were too dangerous to proceed independently. Exposed roots on declines are hazardous for they catch the small tires of wheelchairs and could result in falls. Poison ivy discourages off-trail negotiation. After crossing the hazardous area, the trail surface density changed to loose soil, resulting in the penetration of the observer's wheels into the soil. Trail conditions further degraded to a narrow muddy footpath lined with poison ivy. Further along, a section of concrete created a difficult surface transition.

The trail reconnects to a narrow boardwalk that follows the channel. Gaps between the boards greater than 2.54 cm impede forward momentum and create a bouncing effect on wheeled mobility devices. There are two other viewing platforms similar to the previously described platform. The transition from boardwalk to the trail was hampered by a 3 m section of soft (loose granular) sand. Other sections of loose granular trail material halted forward progression. These sections were especially hazardous on declines. The combination of momentum and a sudden stop nearly caused the observer to fall.

SAVANNA MULTI-USE / BIKE TRAIL – Distance 14 km. The trail is listed being accessible for persons with impairment. At various points along the route, the trail surface changes between hard packed dirt and pavement. Much of the trail follows the one-way park road, which is relatively level over large distances. The dirt sections of trail rise and fall with the terrain. There are steep grades and cross slopes, which reduce ease of use at various points along the trail. Bike traffic and trail widths may create complications on dirt sections of trail where people pass one another.

The remaining seven trails are not listed as accessible. Some of these trails were observed at their trailhead to evaluate if a person in a wheeled mobility device might use them. A person with impairment can use them until a point of impasse is reached due to a narrow pathway, low-density trail surface or stairs. Due to the lack of opportunity to observe these trails directly, the following trail information was derived from the Friends of the Pinery website and the Pinery Information Guide. The accuracy of the information could not be confirmed through observation.

BITTERSWEET TRAIL – Distance 1.5 km. The trail is described having a guide available, flat terrain, stairs and a viewing platform. The trail follows a section of the channel. It is recommended to use the trail at the start or the end of the day for the highest potential to view wildlife.

CAROLINIAN TRAIL – Distance 1.8 km. The trail is described having a guide available, hilly terrain, stairs, a pond and multiple viewing platforms. Located along the park's western boundary, the

trail lies on a floodplain. Carolinian plants and animals are the primary species in this area of the park.

HICKORY TRAIL – Distance 1 km. The trail is described having flat terrain and stairs. This trail follows a section of the Old Ausable Channel. Notable features of the trail are the shagbark hickory trees and bladdernut shrubs.

LOOKOUT TRAIL – Distance 1 km. The trail is described as having hilly terrain, stairs and a viewing platform. The attraction of the trail is the viewing platform atop a dune ridge.

NIPISSING TRAIL – Distance 2 km. The trail is described as having hilly terrain, stairs and a viewing platform. This trail is noted for offering views of the park, Lake Huron and nearby farmland. Forest ecosystems resulting from a 1993-controlled burn can be seen from this trail.

PINE TRAIL – Distance 0.8 km. The trail is described having flat terrain, stairs and year-round availability. In contrast to trails through Oak Savanna, this trail leads through a stand of Red Pine, which flourished after a fire in the 1800s.

WILDERNESS TRAIL – Distance 3 km. The trail is described as having a guide available, flat terrain, stairs to the beach, and a viewing platform. This trail leads through the park's oldest forest that includes stands of red pine and oak. There is entry to the lake from this trail.

4.4.1.3 PARKING

Multiple areas of parking are available throughout the Pinery. The types of parking lot surfaces coincide with the site use or topography. Parking stops or space demarcations were not utilized in many of the lots. The lack of parking controls prevented a calculation of the capacity of parking areas. The number of parking spots had little relationship with the type of use. Park sites with high volume use have solid surfaces. The Visitor Center, Park Store, Canoe / Bike Rental Shop, campground entrances, and park entrance have paved asphalt surfaces. With the exception of the campground entrances, the other listed areas are used year-round.

The beach parking areas 1-6 have a mix of grass and loose sand surfaces. Areas 8-9 have soft sand surfaces. However, there are parking areas inland from beach area 8-9. The inland sites have hard packed dirt and gravel surfaces. The topography of the beach areas dictates the type of parking surfaces. The closer to the lakeshore a visitor gets, the more sand one encounters for parking. This

facet of surfaces is noted with the beach and inland parking areas of beaches 8 and 9. The inland parking surface is denser as the area is on the forest side of the beach dunes.

The beach areas receive high volumes of use during the summer months. However, there is no winter maintenance of the road near the beach sites. The park store compound, visitor center, Riverside area 1, and ski trail heads are cleared during winter months.

The observed trailhead parking areas, canoe launch, and firewood stand had hard packed dirt surfaces. Each of the observed sites could accommodate four or more vehicles.

Parking in the camping areas varies with the ground composition of the specific campsite. Campsites were observed to have hard packed dirt, grass, and loose or compacted sand. Variations include coverage from leaves, pine needles, roots, and rocks. The front wheels of a wheelchair, while dense under foot, penetrated the sand surfaces. Sand surfaces were unusable by the observer. Accessible parking at the campground washrooms was intermittent. Designation of accessibility was established with a sign but there were no other features that would enhance access (e.g. concrete, pavement, painted lines). The surface around the washrooms consists of hard packed dirt and gravel.

Visitors with impairment may find that it is not necessary to have accessible parking to enjoyment areas with limited access. Details of parking for specific areas can be found in the Pinery appendix of measurements.

4.4.1.4 WASHROOMS

Information on washrooms was found to be inaccurate. Numerous washrooms are listed at campgrounds, beach areas, and facilities throughout the park but very few indications are given to their accessibility. However, numerous washroom structures are accessible by design. The remaining sites have potential for use based on an individual's ability. There are three types of washroom facilities within the park: washrooms, vault toilets and comfort stations.

The first type is a formal washroom with hot and cold water, hydro and most of the fixtures one would expect. These washrooms were found at high use areas (e.g. Park Store, Visitor Center) and the campgrounds. The Visitor Center washroom was perceived to be an older washroom. The age is apparent in the wear of the fixtures. The Park Store washrooms are modern and slightly more accommodating. The Park Store washroom has a smaller threshold at the entrance and greater clearance under the sink.

The campground washroom structure is replicated in each of the camping areas – Dunes, Riverside and Burley. Campground washrooms have continuous or automatic lighting. A large concrete sidewalk surrounds each of the washroom structures. There are transitions from the parking surface onto the sidewalks. Some transitions were very slight while other transitions were essentially a step. The buildings have multiple individual shower stalls in conjunction with separate washrooms for men and women. Accessible showers and washrooms with consistent fixtures were found at each of the locations. Fixtures common to washroom facilities are consistent. However, no hand towels or dryers were found in the accessible showers.

The Burley Campground was closed. However, as previously stated, the structures are replicated throughout the park so that there is a high probability of accessibility. Officials confirmed that the structures in Burley are the same as in the observed washrooms. Additionally two washrooms remain to be updated to the current structural style.

The second type of washroom facility in the park is vault toilets. Accessibility is not reported for these facilities. However, the ample door widths, grab bars and spacious interiors provide room for a person in a wheeled mobility device to use the facility. It is a small one or two-room structure (unisex accommodation) with a single toilet inside. The structures have clear roofing material for natural lighting within. Cold water is provided at an attached exterior sink. There were slight steps into some observed locations, which could be easily addressed. The basic structure of the vault toilet appeared consistent throughout the park. Specifics of the interior were not recorded. However, due to replication, there is a high probability of accessibility at the vault toilet locations.

The third washroom facility type is comfort stations. The four comfort stations are located on beaches 3, 8, 9 and Burley Beach. At beaches 3, 8 and 9, there were narrow, sand-covered paths that prohibited access to the structure for observation. A narrow doorway and step further limited entrance into the structure. The interior was not evaluated thoroughly. The assistant reported that there was limited lighting and small stalls within.

The Burley Beach comfort station was not observed as that section of the park was closed. An official reported that there has been a recent update to the Burley comfort station. Upgrades include water and hydro. Improvements would need to adhere to the *Ontario Building Code's Barrier-Free design of 1992*. However, accessibility could not be confirmed. Also there is no access, listed or reported, to that beach for persons with impairment.

With the exception of the two observed beach comfort stations, most washrooms provided some level of use for a person with a mobility impairment. The toilets throughout the park had slight differences in height, as did other bathroom fixtures. Placement of some objects, e.g., soap dispensers and trash receptacles, may limit effective use or block access. The variations of washroom features may create a variety of levels of accessibility. The more modern facilities, especially the Park Store and Campground washrooms, provided greater ease of use.

Specific washroom measurements can be found in the Pinery appendix of measurements.

4.4.1.5 MISCELLANEOUS

PICNIC AREAS / TABLES – One area in the park is designated for picnicking adjoining beach area 9. The parking surface is hard packed dirt and stone. The area has a shelter, water, grill, and vault toilet (within close proximity). Transition onto the shelter floor was complicated by table placement. Table placement was noted to block the best access points into the shelter. A cooking grill was provided in this area. The grill is adjacent to the shelter on a concrete surface, which has a noticeable transition between surfaces.

There are also numerous picnic tables throughout the park, campgrounds, and at the park store. One accessible table was observed in the Pinery. However, while specific accessible tables may not be available, a standard picnic table has two ends that a person in a mobility device can access. Physical locations of tables may change as users move tables to suit their needs.

WATER TAPS – Sixty-two locations with taps exist within the park. Most are placed within the three campgrounds and the others are at the picnic shelter. Wooden frames have been placed around the taps to maintain the ground surface under the faucet. Sand and soil have been placed within the frames to assist drainage. The frame impedes access to the faucet in a mobility device. Dimensions of the frames are inconsistent. Smaller frames may provide more access. Alternatively, the ground level concrete framing at the picnic shelter is more useable. Faucet handles are rotationally activated.

BEACH – No accessible beach paths were found in the park. There is no accessible parking at any location. All parking areas consist of loose (fine granular) sand. One beach path has limited potential for access: a makeshift boardwalk is in place. However, the space between boards is wide, which eliminates independent use in a wheelchair. Due to the uneven surface of the path, boards shift under foot. The grade from the parking area to the beach is steep. The step at the end of the boardwalk is limiting. The transition from boardwalk to sand (or in the reverse direction) is too great for one

person to push another onto the boardwalk and up the hill again in the park's beach chair. There is no independent beach access for a person with a mobility impairment.

BEACH CHAIR – The park provides a beach chair for persons with a mobility impairment to rent for a cost of \$10. The chair is designed to traverse sand with wheels that do not penetrate the loose sand surface of the beach. The large stainless steel chair is outfitted balloon tires. The wide, low air pressure tires are designed to have a larger surface contact area for ease of traversing over sand. However, transporting the chair to the beach is cumbersome. The chair does not fit easily into the trunk of a vehicle. Transferring from a wheelchair into the beach chair is impeded by the balloon tires and chair design. There are no handrails for a person to push the rear wheels forward. A person with impairment's independent use of this chair is eliminated by the design of the device. Once at the beach, a person with impairment and their companion may have an extremely difficult time navigating the one "accessible" beach access location (described in a previous section).

CANOE LAUNCH – The parking area is packed dirt and uneven. There are an estimated 6 parking spaces but none is marked for users with an impairment. The dock may be in need of repair. Weight placed on one side or another allows water to submerge the surface of the dock. There are no handrails around the dock. A new dock may be needed to resolve safety issues.

TRASH AND RECYCLING – The metal trash containers are angled forward. The lid and opening were at a low height. The lids are lightweight for ease of opening. Recycling containers were not noted.

CAMPGROUNDS – Campground reservations can be made online or by telephone. Online reservations allow customers to pick sites and view photos of the spaces. A brief description provides site information such as: site amenities, allowed equipment, parking, shade, proximity to water, fire pit location, ground cover, quality, privacy, and rates. Barrier-free sites are also indicated. Whether booking online or over the phone, there is a booking fee for all reservations. Sites are reserved in the order of when the request is received. Ground surfaces are described briefly but details of surface firmness are lacking. This detail was determined upon arrival. People with impairments are given priority to book accessible campsites.

A wooden framework, to increase the stability and density of the ground, borders accessible sites. A framed tent platform is designated within the site, which creates a space of increased surface density. The increase in density reduced the penetration of small wheelchair wheels. One accessible

table was found on an accessible site in the Riverside campground. Other accessible sites had regular picnic tables.

The gate attendant at the Dunes campground entrance was very comprehensive and accommodating when securing a campsite. The researcher was allowed to evaluate campsites to determine which site would be best. The attendant easily transferred camping fees paid at the Dunes campground to the Riverside location. Campsites in the Dunes campground consisted of packed sand, which is easily penetrated by the front tires of a wheelchair. The accessible spaces in the Dunes area were occupied at time of observation. Numerous other campsites were observed to determine whether or not ground surface was adequate. After extensive site searching, it was determined that the Riverside campsites provide the best surface firmness. The loose sandy terrain of Burly and Dunes campgrounds abuts the shores of Lake Huron. Riverside campground is 1.38 km from the shore with a firm terrain. Multiple Riverside sites here were deemed usable compared to sites in the Dunes (and most likely Burley) campgrounds.

Sites have a variety of surface characteristics: exposed roots, a cover of pine needles, leaf debris or uneven ground. Inclines within campsites are determined by the topography, which eliminated use of sites on small hills or valleys.

Fire rings are not movable which may or may not create difficulty in tent placement on level ground. The campground road consists of gravel or compacted sand. Some core routes within campgrounds extending from the campground office are paved.

Amenities in the camping areas include numerous washrooms (with shower units), vault toilets, and water taps. The washrooms have accessibility for persons with impairment. Campsite location will determine the distance to the nearest washroom. The surface materials of road or paths to the washrooms may impede access. The packed sand surfaces in the Dunes campground may cause the penetration of a wheeled mobility device. Riverside campground roadways consist of gravel. Terrain and topography may also determine access to and from washrooms.

In addition to washrooms, showers are provided for campers. Accessible shower stalls were noted at campground washrooms. However, an individual's level of impairment will determine whether the shower can be used independently. Included in the accessible shower are: sink, toilet a handheld shower nozzle, bench and grab bars. The fixtures are installed in one usable cluster. The handheld shower and water control is placed close to the bench so the user can reach the items.

The campgrounds possess emergency phones. Many phones are located next to the washrooms and most have a clear path of access. In some locations, picnic tables, inclines or grass surfaces diminished ease of access.

RIVERSIDE YURTS – The park offers 12 yurts with hydro, a durable structure, and accompanying decking. Roads are maintained during the winter months to accommodate year-round use. The parking areas alongside the yurts are surfaced with packed dirt and stone. The units have decking and ramps attached to them. However, most ramps have a noticeable transition from the ground onto the wood decking. Notable transitions are equivalent to a step. The ramps have gentle slopes.

The connected decks have picnic tables and cooking grills. There were no accessible tables at the yurts. The configuration of ramps and decks was different for each yurt. Placement of the deck railing made for awkward door configurations. The door widths permitted the entry of a wheelchair. However, the thresholds for entering or exiting the doors were inconsistent and created difficulty. Lower threshold heights facilitate use. The yurts include: 2 bunk beds of different sizes (single and double), a table, and chairs. Outside, fire rings are placed away from the yurts.

Detailed campground, washroom and showers characteristics are provided in the Pinery appendix of measurements.

FISHING PLATFORMS – The 2 fishing platforms outside the Burly campground entrance are not accessible to a person with a mobility impairment. Anglers are required to climb over a roadside guardrail to enter the platforms and fishing in the Old Ausable Channel. Adherence to provincial fishing laws is required. Other platforms along the channel may provide suitable locations for a person with a mobility impairment and the two platforms on the Riverside trail and the canoe launch provide the best opportunities to get in close proximity to the water's edge. However, fishing is not permitted at the canoe launch. The platforms on the Cedar Trail and Heritage Trail were elevated an estimated 2 m. There is over a meter of weeds and scrub between the water and the platform. They were not good fishing platform locations.

The next section provides the personal perspective of the researcher as a participant observer. I express my reaction to accessibility and data collection at the study site. It was important to convey what I learned; what held my attention; the reasons for my reactions; or what I would do differently. The goal of this reflection is for a deeper understanding of accessibility at the site. Of importance is

the life that is given to accessibility. Accessibility does not just dictate the dimensions of a structure. It serves as the bounds in which I live.

4.4.2 PERSONAL PERSPECTIVE

Increasingly cooler nights and inclement weather were narrowing the opportunities for research at the park. We were fortunate the weekend we selected was relatively rain free. Collection at this research site required an overnight stay. My research assistant (my wife) and I enjoy camping. The camping endeavor was done to experience camping within the Pinery. The overnight stay also provided more time to complete observations.

As our collection weekend was later in the summer season, there was no requirement for campsite reservation. The gate staff at separate campground entrances were knowledgeable to the needs of accessibility. They were familiar to the location of accessible washrooms. They were sensitive to my needs for selecting the right site. We were permitted to examine specific sites for suitability.

Internet research of the parks camping areas yielded specific site selections of accessible campsites. However, due to seasonality some sections of the park were closed. Two accessible sites in the Dunes area were occupied. The terrain of the Dunes camping area was primarily a base of sand. Camp roads and sites were packed from years of use and weather. Unfortunately due to the permeability of sand, I found sites in the Dunes campground unusable. The front wheels my wheelchair sunk into the sand surface. The terrain on the other side of the old Ausable Channel had a conglomerate base of dirt and stone. A site in the Riverside Campground was accommodating to my needs.

I knew as a result of prior trip planning there would be wheelchair accessible trails to observe. Washrooms, the visitor center, and park store would be measured and observed. An inventory of park features was used as a checklist. My expectations were that I would find places with accessibility and places without. Similar to the Point Pelee data collection, the Pinery was observed in a fashion that considered the constraints of time. Smaller features requiring less time were observed and measured the first day. Larger park feature, like Riverside Trail, required more time and was reserved for the second day.

At the end of the first day, we huddled around our iron hearth for our hobo dinner of franks and beans. We were present in the moment. The firelight danced in the branches of pine. The ceiling of darkness sparkled with stars. The chill of the evening increased as the embers of our fire died. We

escaped to the warmth of our beds and tried to block out the nocturnal sounds of the forest. Day two would require all the rest we could muster.

The Riverside Trail was listed in sources as accessible. However, the trail changed over the course of observation. It appeared as the first incident of gross inaccuracy. The trail narrowed and the surface materials changed. On the outlying section of trail the pathway changed drastically. Sections of trail were loose soil. Exposed roots and a sharp cross slope could have resulted in a watery end. The path narrowed to the point where poison ivy was at the rear wheels of my wheelchair. I encountered a step onto and a randomly placed concrete slab. Being unfamiliar with the park, I was uncertain on the length of the inaccessible trail. Aggravation and frustration increased as slower progress may impact observations later in the day. Fortunately, the trail's accessible characteristics returned with noted exceptions. Other accessible trails observed later in the day did not have such compromised accessibility. Inconsistencies were found yet they did not impede forward progress at the level experienced on the Riverside Trail.

It was noted that washroom styles were replicated in different areas in the park. Vault toilets were consistent. Beach comfort stations were similar. Campground washrooms shared structural style and dimensions. The recognition of the washroom styles made collection easier, as many measurements could be anticipated. Structures with inconsistent styles were carefully examined for differences.

When considering the distribution of campgrounds and park features it could be argued that accessibility is centered in the core of the park. Accessible trails border the Old Ausable Channel. The park store and the visitor center may be considered the heart of the park. We found that the terrain in the Riverside camp areas to be the most favorable. Yet, in spite of the core's access, I wanted access to the periphery, the beach.

One of the primary attractions to the park is the beach. I was greatly disappointed to find that there was no beach access for a person with impairment. I was angered to think that I could drive more than two hours to get to this location and impeded over the last 15 m. There are no accessible parking spaces at the beach locations. I would have been stuck in sand merely exiting my vehicle.

Stairs were found at one beach access location. I was puzzled to wonder why they had not put in a ramp instead of stairs. Friends of the Park were implementing a semi portable boardwalk system for dune preservation. However the nature of their system and placement did not create new accessibility.

I felt this was greatly shortsighted. If boards were placed at closer increments the one accessible beach access point would have been created.

The park creates an illusion of accessibility by providing a beach wheelchair. However there is a rental fee to use the chair. There is a lack of equity since able-bodied people are not required to pay an extra fee to get onto the beach. The beach chair is big and cumbersome. It would not fit in the trunk of our car. The park does not offer transportation of the chair to a beach location. The beach chair is not even an independent solution for accessibility. Each of these factors makes the inaccessibility at the beach infuriating.

I enjoyed the accessible trails. I found the washrooms, accommodating to my needs. Our campsite was quaint and sheltered beneath pine. But I did not want to have to leave the park to go to the nearest town for closer access to the water's edge. Because there are many other park improvements, I felt the lack of access was discrimination that not one accessible beach access point had been created. It was as if someone let the air out of my tires. There are numerous inexpensive solutions that could have addressed this issue prior to my visit. It is at points like these when I really feel disabled.

Once again data collection ended at the setting of the sun of the second day. Our checklist was complete. The evaluation was exhausting. We measured, wrote, and ran from one park element to another. The intensity of conducting research at the study site was not restricted to the limitations of time. Formal approval to conduct research from the Ministry of Natural Resources heightened the intensity.

The intensity added to the sense of satisfaction and contribution beyond the completion of observation. Warily we search Lambton Shores for a late-night food option before our trip home. Gratification came with a warm meal and the achievement of good work.

Interviews of park officials were conducted to gain an administrative perspective on accessibility within the Pinery. Staff was given an opportunity to elaborate on decisions for planning, budgets, and regulations that would affect accessibility. Their insights are examined for emerging themes that may indicate what promotes or hinders accessibility at the study site. The next section is a discussion of their viewpoints.

4.4.3 ADMINISTRATIVE PERSPECTIVE

Park officials were given an opportunity to express their thoughts on accessibility at their sites. The degree of accessibility may be affected by the park policies and decisions of officials. Thus, it is

important to understand the administrative guidelines that need adherence as well as the personal perspectives of the park officials. As key actors in the Pinery Provincial Park, their decisions affect what access is provided and reported.

Accessibility is seen as providing opportunities to use various campsites, buildings or trails. The directive for accessibility comes from the Ministry of Natural Resources (MNR) and Ontario Parks. “Training for more accommodation [for persons with impairment] has a top down flow,” said an official. The ministry implements organization-wide adherence to accessibility laws within individual parks. At the park level of management, accessibility is implemented by providing facilities and features that are usable by people with impairments. The responsibility for access in the park ultimately devolves to the park staff.

Regular maintenance using checklists are used to monitor park infrastructure. There is no specific audit or monitoring of accessibility. Staff handles accessibility as part of the regular inventory of itemized features. However, where the changing seasons may alter trail, facility, or campsite conditions, a formal system for monitoring, improving, and reporting accessibility could be useful. Visitors could be encouraged to report their observations; yet, there is no accessibility-specific system for reporting concerns. Complaints and comments are facilitated through comment cards located on the back of camping fee receipts. This outlet could be used to encourage further feedback on accessibility. An official said, “We find that regular or loyal campers have formed lasting relationships with staff over the years. They tell us how we are doing and what may need to be improved.”

Access to the beachfront is an issue and remediation was required when this research was being undertaken. The beachfront access project was being led by the Friends of Pinery Park (FOPP). The Friends have their own mandate regarding education and information provision at the visitor center. Officials reported, “The group approaches us with what they would like to do [for improvements]. Then they submit their idea to Ontario Parks for approval.” The Friends collaborate with park staff and other contributors to see projects through. They are responsible for seeking partners and other funding sources to pay for projects. FOPP has contributed a reported \$467,000 CDN for park projects. Currently FOPP is working with designers to create a viewing platform at the top of the beach. Developments are to be arranged for easier use of beach chairs. The Friends group will have a significant role to play in future park improvements.

Accessibility is treated as one aspect of a project and there are numerous projects that could improve accessibility. The replacement of comfort stations, road paving, boardwalk, and viewing platform upgrades are among the projects on the capital list that has been submitted to Ontario Parks by Pinery staff. However, an official reported, “Projects are on hold as the province is in a budget deficit.” The current platforms and boardwalks have nearly reached the end of their lifecycle. Further deterioration of those structures may limit the park experience for some mobility-impaired visitors.

The Heritage Trail was recently upgraded to provide a “barrier-free” experience. The trail improvement was assisted with resources from FOPP. Staff and landscape contractors altered the original trail by having it “widened it to 6 or 8 feet, leveling the grades, and putting down a hard surface for people to walk or roll on.” Ontario Parks provided specifications. The selection of paving material, stone dust, “was a directive of the main office,” said officials. Other standards, like the *Ontario Building Standards for barrier-free design 1992*, are part of the requirements for capital upgrades mandated by Ontario Parks. The organizational flow of management decisions from Ontario Parks to the Pinery maintains a level of consistency throughout the provincial park system, which may minimize any organizational restrictions to improving accessibility. However, financial restrictions are the main reason for limited capital improvements.

Regardless of the availability of money, there may be other limitations on the provision of accessible recreation opportunities. For example, there are concerns regarding the tension between providing access versus natural aesthetics. Some trails may be too vulnerable to support accessibility infrastructure; the risk of damaging a fragile ecosystem may outweigh the provision of access for people with impairments. An official stated that, “We want to find the right balance between them [accessibility and ecosystems],”

Trail improvements, facility upgrades, and improved beach access are at the top of the park’s capital improvement list. However, funding from internal budget sources is likely to be severely limited until the province of Ontario resolves its deficit challenges. A fragile economy may create shortages of revenue and partners. The FOPP may be the park’s greatest potential for generating revenue and partners for park improvements that could include accessibility enhancements.

4.4.4 SUMMARY

The Pinery is becoming more accessible. Planning documents and legal regulations are guiding the administration towards the removal of barriers. However, the reporting of accessibility information

lacks details and accuracy. Rich descriptions may enhance website content. Accuracy could be improved with the adoption of a consistent method of monitoring accessibility, including regular accessibility audits.

Budgetary restrictions will foster or hinder capital improvements that may or may not include accessibility provisions. The Friends of Pinery Park do not have authority to make park improvements but they have an important role in affecting change through administrative channels. The Friends may be one of the park's largest assets.

4.5 Point Pelee National Park

Accessibility information is provided on the park's website and in the visitor's guide. The guide can also be accessed through the website. However, details are limited. Facilities and trails are marked with the international symbol of accessibility and there are short paragraphs that highlight unique aspects of different trails. However, descriptions of the accessibility aspect of features are missing from the text. Washroom specifications, trail conditions and beach access points are not outlined. Thus, people with impairment cannot access thorough information for pre-trip arrangements. Information on The Friends of Point Pelee website does not provide details for individuals with impairments.

The park map, which can be downloaded, contains a legend enabling specific features to be located. Accessible paths, washrooms, and park features are noted but details are lacking. The map is useful for analyzing the layout of the park and people with impairments may find the map useful for planning their time within the park; locating parking near desired features; and finding washrooms. Upon inquiry and observation, it was learned that further accessibility information is available that could be communicated through existing means of information dissemination.

Many of the park features were evaluated for accessibility. The measurements and observations are noted in the next section of findings. The results of the research in Point Pelee could be used to improve the website information for potential visitors.

4.5.1 OBSERVATIONS

This section presents the field observations that were obtained in Point Pelee National Park (PPNP). As in the other findings sections, results are organized into sections and technical measurements can be found in the appendices. There is a limited amount of accessibility information

on the park's website and much of the information could be used to improve the content of the website or brochure.

4.5.1.1 PARK FACILITIES

PARK ORIENTATION AREA – This area is located near the main entrance and is provided to allow visitors to familiarize themselves with various aspects of the park. Interpretive panels highlight important facets of the park. The hours of operation for various park services are provided. Specific bird species are noted for potential sightings. The park's mission, which is to provide a haven for wildlife, is posted for visitors to read. An informal footpath leads to the beach on the park's west side. This unmaintained pathway does not provide access for persons with a mobility impairment. A weather event that occurred the day before observations were made may have been responsible for the fallen limbs and debris in the orientation area.

SANCTUARY POND LOOKOUT – An observation platform at the Sanctuary Pond extends over the water, beyond the line of vegetation, providing a broad view of the wetlands. Benches on the platform create a pleasant location to observe the marsh habitat. The height of the handrails is low, offering an unobstructed view for a person in a seated position. A boardwalk that extends from the roadside provides access onto the platform. The gravel slope and cross slope to the boardwalk have been affected by water damage. Soft sand, washouts and ruts are evidence of the damage. Parking at this location is limited to four roadside spaces.

CATTAIL CAFÉ – The Cattail Café is a small snack bar that serves a variety of food from frozen treats to an assortment of fried food. There is a slight but wide ramp that provides access to reach the ordering/pick-up window. The transition between the dirt parking area and the brick seating area in front of the café is flush at some points but has measurable differences in others.

The café fronts the building where canoes and bicycles can be rented. The rental office has several steps and is not wheelchair accessible. The park offers bike rentals to patrons. However, no hand-cycles are available for people with impairment of the lower extremities, but an all-terrain wheelchair (ATC) can be acquired (Details of the ATC follow in a later section).

MARSH VIEW OBSERVATION TOWER – The large three-story tower provides a view of the UNESCO-designated wetland (which is of international significance), the nine ponds within the marsh, and Lake Erie. There is no wheelchair access.

MARSH BOARDWALK – The Marsh Boardwalk is a system of stationary and floating boardwalks that create a 1.4 km loop into the marsh. The various sections of the boardwalk are bordered by tall marsh grass, flowers, brush, and water. The pedestrian route between the parking area and the entrance of the boardwalk is a narrow path bordered by tall marsh grass on one side and has a cross-slope into the water. The hard-packed, stone-dust path is narrow but just wide enough for a wheelchair. On the day of observation, rain had softened the trail surface making the path muddy and slower to traverse. The transition from the dirt surface to the boardwalk was smooth and without a difference in levels.

MARSHVILLE – The Marshville center is a small nature center that provides a view of the marsh's ecology. The ramped access into the center is steep. A large aquatic tank in the center of the structure allows people to view native vegetation and fish that populate the marsh. Small children have a short bench that provides height to view the contents of the tank. However, the bench blocks access to the front of the tank for people with impairment. There is room behind the tank that allows a person with an impairment to get a closer view.

A “Bug Bowl,” in the corner of the structure, is a feature that enables people to touch some bugs of the marsh. The height of the bowl may be too tall for small children and people in a seated position. Information posters on the wall describe the types of vegetation and species of fish as well as conservation methods. A small observation deck at the back of the center overlooks the marsh and the handrails around the deck do not obstruct the view.

DELAURIER HOMESTEAD – The DeLaurier homestead is one of the first settlements by European settlers on Point Pelee. The homestead preserves the human heritage of the park. A series of boardwalks and paths encircle the house and barn, providing access over uneven terrain. At various points along the path visitors are allowed into restricted areas inside the home to see the technology, furniture and relics of the early nineteenth century. The tightly nailed boardwalks have widths with ample room for pedestrians and people with impairment to pass. The step into the door of the home has been leveled by the placement of the boardwalk. However, due to the time period of construction and the type of structure, doorways are narrow compared to current average door widths. The width of the doors did not permit entry of a wheelchair with a standard 73.66 cm wheelbase.

The ground floor of the barn at the homestead has been transformed into an education center. Wall panels educate visitors about the geomorphology of the Point Pelee land mass. An interpretive timeline highlights important milestone in its evolution. The human and cultural connections to the

land are also explained. First Nation and European settlements are marked as milestones on the timeline. Audio recordings are available for visitors to hear stories told by the descendants of the park's first European settlers. Electricity is not available at the homestead. An accessible hand crank generates power for the audio device.

VISITORS CENTER – Transitions between different paving surfaces, such as brick, asphalt and concrete were relatively smooth. Curb cuts from the parking lot to the visitor center's sidewalk were smooth but sections of walkway had brick pavers that were displaced and uneven, creating a tripping hazard and compromising the use of a wheelchair. A small foliage-viewing area featuring cacti is located off the walkway. There is an incline on each side of the viewing area. The path for viewing cacti is crowded by vegetation, which may have the effect of bringing visitors closer to nature.

There are automatic doors at the front and back of the visitor center. The front entrance may be the most used entrance as it faces the parking lot. Entering the doorway is hindered by the five different transitions of surfaces to cross the threshold. The numerous transitions are difficult for small wheels on strollers or wheelchairs. A push-button door at the rear of the visitor center does not open to the full width. Once the door has opened to its limit, there is only 3 seconds to enter or exit.

A public phone is available and placed at a level for a person in a seated position.

A computer is provided for visitors to investigate other parks in the Parks Canada system. The height of the desk may not be at the optimal position: it placed the computer's keyboard under the observer's chin. In contrast, the information desk was at a level that permitted a view of the park map. The lower desk allowed inquiries with park staff from a seated position.

The Friends of Point Pelee gift shop is entered through a wide door. The aisles in the shop are crowded with merchandise. The presence of other customers in the aisles impedes movement. As in many small shops, merchandise is shelved or displayed from floor to ceiling. Reaching over displays or items on high shelves may be difficult for some people. The store clerk is available for assistance upon request. However, there is only one clerk so that timely assistance may be delayed should the clerk be assisting other customers.

There is one family washroom that serves as the accessible washroom for the visitor center (Details of this washroom are provided in an upcoming section).

STAFF HOUSING – Staff housing is not part of the visitor facilities. However the housing is located and was observed along the main park road. Of particular interest were two ramped entrances.

Exact accessibility configurations were not determined. However, the presence of ramped entrances suggests that the park seeks to provide equity in employment opportunities as well as accessible experiences for visitors.

4.5.1.2 PATHS, WALKWAYS, TRAILS

Visitor surveys show that the trails for hiking and cycling are major attractions. Eight different trails cross the park's Carolinian ecozone. A multitude of ecosystems can be encountered over the 14 km of trails. The park map indicates with the international symbol for accessibility that two trails are accessible. When asked, "What trails are accessible?" the gate attendant stated, "They all are." With some exceptions (e.g. footpaths, informal trails, and numerous beach access points) the statement was legitimate. Trails not designated with the accessibility symbol were found to be accessible, although the types of trail surfaces, widths and features vary across the park.

Trails were found to be fairly consistent in surface composition. The primary composition of the accessible trail surfaces was highly consolidated stone dust. The main exception was the Marsh Boardwalk, which consisted of set or floating sections of decking. Trails surfaces were generally clear of loose material that causes sheering on the small front wheels of a wheelchair. The effects of sheering are increased friction between the trail and the wheels. Sheering was noticeable in a few areas where water may have loosened the density of the trail. Increased friction and loose surface material result in greater exertion of energy for the propulsion of a wheelchair. Places with greater affects from water had increased depths of penetration of the front wheels of the wheelchair.

Trail variations include boardwalks that create a solid base over tracts of wet terrain or marsh. Trails that terminate at the east or west beaches lose their compaction, which is transformed to loose granular sand within the last few meters of vegetation. There is no independent access onto the beaches where the trail density changes. The same occurrence is found on beach paths.

Trail accessibility is strongly connected to the park's topography. Trails rise and fall with the landscape but very few hills were encountered along the park trails. The Delaurier Trail was observed having notable inclines that were greater than some ramps within the park. The remaining trails had only minor elevation changes.

Footpaths were not accessible. The paths narrowed to less than a meter in width, bordered by encroaching vegetation. The path surface may be compacted in some areas but, typically, turns to

loose soil or sand. It was not planned to observe informal footpaths but the observer experienced a footpath accidentally due to poor directional signage along the trail.

Walkways around the orientation area, visitor center, the tip trailhead and random beach access points were paved with brick or asphalt. Transitions between surfaces on paved sections were generally flat. However, upheaved, broken or deteriorated bricks created uneven surfaces for travel as well as tripping hazards.

Numerous wooded trails were littered with leaf and branch debris. A storm the previous day brought high winds and rain. Debris on one trail nearly caused an accident for the observer. A tree limb hidden by leaves stopped forward progression of the observer's wheelchair. The loss of balance and steep embankment could have resulted in serious injury. A trail monitoring system is reportedly in place. However, more than one day is required to address issues. Also, people with mobility limitations may experience differences in ease of use depending on the severity of their impairment.

The following paragraphs describe the attributes of the accessible trails. Cross-slopes, inclines and railing heights are some of the attributes that promote or impede accessibility.

MARSH LOOP – The trail is marked as a 45-minute trail. The marsh loop walkway consists of large floating and stationary sections of boardwalk that are linked to create a 1.4 km loop. The boardwalk is edged by vegetation and open water at various points along the loop. Seating areas and sections with no handrails provide quiet, peaceful places to observe the marsh landscape. Diamond-plate pieces of metal created smooth transitions between separate pieces of boardwalk. There is a sharp drop at the first transition plate onto main section of boardwalk. Differences in walkway heights may change seasonally with water levels. There are handrails to assist the mobility impaired. Some parts of the boardwalk are without handrails or they are placed in low positions to permit unobstructed marsh views. Sections of floating boardwalk sink under the weight of an individual, creating unsure footing and exacerbating issues of balance.

The following three features are located at intervals around the Marsh Loop.

1. Diversity Pavilion – At approximately the mid-point of the loop there is an open-air pavilion that offers a modest amount of shade and benches for resting or enjoying the marsh landscape. The nature of the walkway changes at this point. The new sections of boardwalk have boards that are screwed into place, securing the planks more tightly resulting in less warping from weathering and use. In the older sections, boards are nailed

in place and more warping occurs as nails pull out over time from weather and wear. Uneven planks cause a rough surface for rolling or walking, with greater likelihood of tripping.

2. Nature Pavilion - This is another resting/viewing area. Sections of the boardwalk have vegetation that reduces the width trail, reducing the passing space for visitors with or without impairment.
3. Observation platform - This is an elevated section of boardwalk that is designed to permit visitors to rise above the level of the marsh grass. The ramp on the north side of the platform begins with a slight slope, steepens at the top portion, and has a level section for resting in the middle. In the center of the platform, spotting glasses are placed for people to utilize in a seated position. However, the glasses are foggy from use, misuse or age. Handrail heights are slightly higher than along the new sections of boardwalk. The south side ramp of the platform has a steep slope on both sections with a level section for resting in the middle. Weeds have grown into sections of the ramp. Broken boards at the bottom of the ramp on the north side may be a result of age, weathering or wear.

BLUE HERON AREA – Transitions between surfaces (e.g., from brick, to concrete or stone dust) varied from level to uneven. The path from the Café/Boardwalk parking lot to Blue Heron had large sections of hard-packed stone dust with areas of loose sand and gravel, especially at the intersection of two trail sections approximately half way between the two areas. The trail surface became a small stream during a rainfall event. Large areas of standing water developed and the trail intersection experienced further loosening of the trail surface, while collecting more sand and silt. More strength and energy were required to traverse the section in a wheelchair.

BLACK WILLOW BEACH – This beach is not accessible. Four paths provide beach access but none is an accessible route for a person with a mobility impairment. Beach access for persons with impairment may be permitted with the use of the ATC that can be obtained from the Canoe/Bike rental office.

NORTHWEST BEACH – This beach is the closest one to the Marsh Loop and Cattail Café. Boardwalks provide access to the beach through vegetation. Board placement is not done in small increments and large gaps between boards are problematic for small wheels. No level transitions to the sand were found at the termination of the boardwalks. Interlocking bricks were used for pathways

near the washroom facilities. Brick pathways connected the parking area to the washrooms and one accessible picnic area (parking and picnic areas are discussed in later sections). The accessible picnic area does not align with the picnic tables that are placed at mid-beach. The area was surrounded by vegetation that limited beach vistas. The brick pathways were smooth and level. Beach access for persons with impairment may be permitted with the use of the ATC that can be obtained from the Canoe/Bike rental office.

THE DELAURIER TRAIL – Estimated time to traverse, 50 minutes; distance - 1.2 km. The trail is listed as wheelchair accessible. However, a staff member indicated, “The Delaurier trail is not considered to be accessible due to a grade on the trail that exceeds the standards.” Most slopes on the trail are moderate and align with the inclines on most ramps. The incline steepens on two sections of the trail, requiring more energy or assistance to ascend. The trail has a base of hard-packed stone dust with small stones but the inclines showed evidence of washouts from rainfall. In these areas of water damage there are ruts, uneven surfaces and areas of soft sand.

The outer third of the trail near the wetlands is a boardwalk and the transitions to and from the boardwalk were smooth. Numerous boards on the decking were broken, warped or deteriorated from age, weathering and use. Warped boards rise 2.54 cm from the level deck surface. There are locations along the boardwalk that have cross slopes. They may cause strollers or wheelchairs to list. There are no handrails along the boardwalk. Encroaching vegetation narrows sections of trail and boardwalk.

A viewing tower is located on the wetland area of boardwalk. The tower deck rises above the lower vegetation but it is not accessible by a person in a wheelchair.

WOODLAND NATURE TRAIL – Estimated time to traverse, 1 hour; distance - 2.75 km. This is a self-guided trail in the park’s oldest forest habitat and a booklet can be purchased in the gift shop that describes numbered sites. The trail surface is level with slight slopes that rise and fall with the terrain. The trail is hard-packed stone dust with small stones. Some loose rocks may catch the small wheels of strollers or wheelchairs, increasing the energy that is needed to maintain forward momentum.

SHUSTER TRAIL – Estimated time to traverse, 15 minutes; distance - 0.5 km. The trail, which begins along the Tilden Woods Trail, leads to the East Barrier Beach. The trail is wide enough for people using wheelchairs or strollers to pass other pedestrians. However, the trail may be too narrow for two wheelchairs to pass. At the trailhead there is a section of crushed rock that is difficult to traverse with a stroller or wheelchair. The trail surface is hard-packed dirt (without small stones); this

differs from other trails that use stone dust as a base. The surrounding vegetation traps moisture along the trail making the surface slightly slippery. Ruts in the middle of the trail indicate that rainfall may turn the surface into soft mud. Broken branches and limbs reduced the accessibility of the trail on the day of observation. Some sections of the trail had areas of loose sand. Sand and debris can “catch” the small front wheels of a wheelchair, halting forward momentum causing the user to lose control. This kind of hazard may not be limited to this trail so caution is advised for visitors who are unfamiliar with the park’s trails.

The surface of the final stretch of the trail is looser and more difficult to traverse in a wheelchair. The section that could provide access onto the beach is loose sand and this impedes beach accessibility.

A person with an impairment that uses a wheelchair would have to stay within the woods and have only a limited view of the beach. Beach access for persons with impairments may be permitted with the use of the ATC from the Canoe/Bike rental office.

CHINQUAPIN OAK TRAIL – Estimated time to traverse, 2 hours; distance - 4 km. This trail winds through woods that have a species of oak that can be found as far south as Mexico. The trail can be started from the White Pine picnic area or the Visitor Center. The section of trail closest to the visitor center intersects with the Centennial Bike and Hike Trail and the Tilden Woods Trail. The section of trail closest to White Pine intersects with the Anders Footpath that connects the Delaurier Homestead with the Visitor Center. Due to time constraints, only the last third of the trail was observed. Small slopes along the trail rise and fall with the terrain. The trail ends at the Visitor Center parking lot. The last 1.5 m of trail has a loose surface with crushed rock on an inclined cross-slope. Also, there is a noticeable difference in levels between the trail and the pavement of the parking lot. The combinations of trail material, cross-slope and poor transition made it difficult to use the trail without assistance.

TILDEN WOODS TRAIL – Estimated time to traverse, 45 minutes; distance 1 km. The first 6.4 m of the trail is surfaced with crushed rock, which impeded access. This material may have been used to address erosion issues near the trail entry. The Tilden Woods/Shuster beginning of the trail is packed dirt (without small stones). Ruts in the middle of the trail show that water may have affected the trail’s surface. After the Tilden Woods trail separates from the Shuster trail, the surface changes to stone dust with small stones. Broken branches blocked access at some points on the trail. A transition from the trail surface to the boardwalk section of trail was uneven. The width of the boardwalk is

narrower than the boardwalk on the Delaurier Trail. Passing oncoming pedestrians or persons in wheelchairs may be difficult. There are slight slopes on various sections of the boardwalk. Although the trail is marked as a maintained trail, tree limbs, leaves and debris on the trail showed that the trail had not been maintained for some time. This trail is closest to the visitor center; therefore, it may be expected that monitoring or visitor reports on this trail might be more frequent. This trail is part of the Centennial Hike and Bike Trail and the Chinquapin Oak trail and the challenges at the cessation of this trail have been described at the end of the previous paragraph.

CENTENNIAL HIKE AND BIKE TRAIL – Estimated time to traverse, 2 hours (one way); distance - 4 km. The trail is surfaced with hard-packed stone dust. Observations of this trail were made at its intersections with other trails. The observation points were: the trailhead at the Cattail Café; the Dunes, Sleepy Hollow, Pioneer driveway intersections; White Pine beach path intersection; Park road intersection; Henry Community Youth Camp driveway intersection; and the Tilden Woods Trail intersection. Trail conditions were consistent at each observation point. The trail surface and inclines are similar to other trails within the park. However, the trail changes to crushed rock near the visitor center. This trail is part of the Tilden Woods trail and the Chinquapin Oak trail. The challenges at the cessation of this trail are described at the end of the Chinquapin Oak trail paragraph.

TIP TRAILS – Estimated time to traverse, 20-40 minutes; distance - 1 km. Decking and washroom facilities serve as a gateway to the Tip trail. Interpretive panels describe the transformation of the tip and the Western Basin Islands of Lake Erie over the years. A large “42” decorated as a Canadian flag informs visitors of their absolute geographic location (The actual 42nd parallel is 9.48 km to the north, outside of the park). Passengers of the park shuttle disembark at this location to walk the trails to the tip. The transition from the sidewalk onto the decked “gateway” is up a slight incline. Some deck boards in the display area are broken or rotten. The transition at the back of the “gateway” has a greater slope, especially from the decking to the trail. Sections of the tip trail have cross-slopes, causing a wheelchair or stroller to list into the depressions. The lack of trail signage created confusion, especially where an unmaintained and unmarked side trail with areas diverged from the main trail. The trail ended as a narrow path with loose sand. The erection of signs indicating the direction of the main trail to the tip may reduce confusion for first-time visitors. The Tip trail ends in loose sand within a vegetated area, far from the trail’s main attraction. The difference in heights between the trail and the beach prevent access to the tip. The ATC would not be a viable option at this location.

4.5.1.3 PARKING

Vehicle access within Point Pelee is limited to the main park road and parking areas, although this permits reasonable access between areas of the park. Private vehicle access to the Tip area is restricted from April to October. However, shuttle service is provided. Parking after shuttle service hours and during winter months is permitted at the Tip area.

Park attractions have adjoining parking lots. Parking infrastructure is reported to accommodate over 1,000 vehicles. Five out of 15 formal parking areas do not have accessible parking spaces (The marsh lookout near the park entrance does not have designated parking – there is space to park on the roadside). Visitors with impairments may find that accessible parking is not necessary to the enjoyment of areas with limited access. The surface materials at each of the 15 different parking areas consist of dirt, crushed rock, gravel, or asphalt. When parking infrastructure upgrades occur, asphalt has been the primary choice. However, some parking areas with dirt or gravel surfaces were upgraded using brick pavers to construct pads where people with impairment can exit their vehicles on a stable surface. The accessible parking spaces provided throughout the park are wider than other spaces. Details of parking for specific areas can be found in the Point Pelee appendix of measurements.

4.5.1.4 WASHROOMS

Twelve visitor areas within Point Pelee have washroom facilities. The park is open year-round; however, not all services are available during the winter months. Washrooms are closed for the winter in eight seasonal areas. Four washroom facilities are open throughout the year. Blue Heron, White Pine, the Visitor Center and the Tip Exhibit area have year-round facilities and are locations that may attract winter visitors. The many seasonal washrooms do not offer accessibility for persons with impairment and were not measured for access. Washrooms with accessibility have been measured to determine their specific characteristics accessibility attributes. Measurements can be found in the Point Pelee appendix of measurements.

Accessibility was provided in areas that were reported to have access for persons with impairment. Washroom designs and structures varied throughout the park. Variations to design may or may not compromise usability. Usability is the seamless or unimpaired use of an accessible feature. When construction choices create variations of features, usability may be enhanced or reduced for persons with impairment. Floor plans within washrooms aided and hindered access in different locations.

Entrances were generally unobstructed but an open stall door, which limited the width of an entrance, obstructed access into one washroom. Access was determined by measuring stall widths and the direction of opening of the stall door. Most stalls could be entered but privacy or use was hindered in some by the configuration of the stall. The stall was too narrow or the door opened inward and could not be closed due to the placement of the wheelchair. Toilets in the park have slight differences in height. Other bathroom fixtures have similar differences and placement of some objects, such as soap dispensers or trash receptacles, may limit effective use.

4.5.1.5 MISCELLANEOUS

PICNIC AREAS / TABLES – Picnicking is an important activity in the park. Twelve locations in the park are designated for picnicking. Seven are seasonal areas and are closed during the winter months. Each location is unique to the landscape and the types of amenities available. However, basic amenities, such as parking, washrooms, tables and cooking grills, are provided consistently at each location. Particular features exclusive to some locations include: shelters, beach access, swimming, emergency phones, first-aid and shuttle access. Accessibility varies from place to place. Accessibility provisions exist at designated locations. However, in addition, locations without designation also provide a modicum of access and may be usable by people with various impairments. Parking lot surfaces vary at each location (as explained in a previous section.) All sites had at least one picnic table that could accommodate a person seated in a mobility device. There is no signage to indicate accessible tables. Numerous sites had multiple accessible tables: while specific accessible tables may not be available, a standard picnic table has two ends that can be used by a person in a mobility device. The physical locations of tables may change as users move tables to suit their needs. The types of ground surfaces that had to be crossed to reach tables varied. Hard-packed dirt, loose gravel, boardwalk, pavement, brick, and grass were all present, changing the ease or difficulty of accessing tables. Recycling and trash receptacles were consistent throughout the park. The closed-lid design prevents animals from scattering refuse and lids were lightweight.

YOUTH CAMP/GROUP CAMP – The group camp is not listed as being accessible. Use of this area requires park permission and day-use visitors may not be inclined to frequent this location. There is no groomed path, trail, or paved access to the camping area. Access to the campground is gained by crossing a large grass area over a small elevation. However, people with various levels of ability may find the area acceptable. Washrooms are available without specific access provisions. The facilities may be usable to people with various impairments.

PARK SHUTTLE – The shuttle to the tip of the park leaves the Visitor Center every 20 minutes. There is wheelchair access on the tram at the front of the vehicle, behind the driver's cabin. The tram has a ramp that is pulled out manually by the attendant. Seats in the accessible compartment fold up to allow a person in a wheelchair to enter the tram. Shorter wheelchairs may sit in line with the fixed seats and longer wheelchairs can be positioned sideways. Unless requested, staff provides no assistance for people with an impairment. The driver does not assist with seatbelts but may be of service upon asking. The ramp onto the tram has a steep slope. Assistance may be required, depending the degree of impairment.

The tram travels at slow speeds over a flat, level, paved road. The cornering of the vehicle is smooth. Travel is not jarring or bumpy so that balance issues should not be a problem.

BEACHES – The beaches in the park consist of a loose course quartz grains containing rocks of assorted sizes. Access onto the beach is restricted by a person's ability due to the limited infrastructure for accessibility and sand type. However, two locations within the park had boardwalks that extended towards the beach but did not proceed further than the line of vegetation. Areas for people with impairments were surrounded by foliage, which limited the feeling of being on the beach.

ALL-TERRAIN WHEELCHAIR – An all-terrain wheelchair (ATC) is a special chair that distributes the weight of a person with impairment over large tires that resist penetrating sand or soft surfaces. ATC models vary in size, durability and independence of use. The ATC at Point Pelee does not permit independent use and, to move about, a person with impairment will be reliant on a person without impairment. Handlebars across the back allow for pushing and hand brakes are used to stop the ATC. No clear instructions are provided on how to acquire the park's all-terrain wheelchair. Inquiries are complicated by the lack of access to the rental office. There is no fee for use of the ATC. The user(s) must transport the ATC to and from the desired location. The size and weight of the ATC impedes lifting and loading the item in and out of a vehicle. Of further limitation is the park has only one ATC. Accessibility will be limited should more than one user request the device. Park staff has no clear protocol for loaning the ATC. Inquiries on the procedure were deferred to staff at the visitor center. There is no inventory of accessible equipment and services for persons with impairment.

The next section provides the personal perspective of the researcher as a participant observer. I express my reaction to accessibility and data collection at the study site. It was important to convey what I learned; what held my attention; the reasons for my reactions; or what I would do differently. The goal of this reflection is for a deeper understanding of accessibility at the site. Of importance is

the life that is given to accessibility. Accessibility does not just dictate the dimensions of a structure. It serves as the bounds in which I live.

4.5.2 PERSONAL PERSPECTIVE

Park observation began at the gate. Paying our fees, collecting materials, and interacting with staff commenced data collection. Gate fees heighten the role of participant observer and visitor. As observer, I wanted to know what accessibility I was going to get for my money. As a visitor, I wanted more time for leisure. The gate attendant was the authority granting permission to enter. Passing through the gate seemed like a validation of my study. Our time in the park was limited by daylight and the gatekeeper.

Some sites required more time to collect data than others. In recognition of time constraints features were collected in a manner that fit within our timetable.

I was on site to determine what accessibility exists on the ground. I knew there would be accessible facilities and park features. I studied the park map. I examined the parks website. But I did not know to what extent accessibility would be in place. Since point Pelee is a national park I had expected newer, stately facilities. What I found were modest accommodations that served the needs of visitors. Newer facilities were obvious as they contrast against older ones. Similar to the aged structures in Laurel Creek, there was a charm in their age.

Examining every specific park feature would be difficult. No features with accessibility were to be missed. Upon arrival at a park feature, a visual scan of the area prompted items to be noted first. What was important about this feature? What accessibility was there? What should be measured? What should be accounted for? While an inventory of park features populated our checklist, characteristics specific to each area had to be to determine for observation.

Ordinary events, like getting out of the car and rolling to an interpretive panel, were aspects to observe. Parking space width, paving materials, and the smooth transition from parking surface to sidewalk were aspects to note. It was unexpected that I may need to document all my movements.

My perspective as a participant observer with an impairment was important. I know my feelings about accessibility. Disappointment and anger may develop at barriers to park features I wish to visit. At the beginning of data collection my expectations for accessibility were uncertain. I knew there would be barriers; yet, I was surprised at places without barriers.

The park's trail system was accessible for persons in a wheelchair. My enjoyment of being on those trails may have been limited due to the intense observation of measuring widths, noting surface inconsistencies, or calculating inclines. However, the unrestricted movement on hard packed trail surfaces was liberating.

My research assistant (my wife) was certain to point out places of wonder. She made sure that we took moments to appreciate the surroundings in the midst of the work. Watching the release of baby turtles was a pleasant distraction during observation.

While Point Pelee might be just a narrow spit of land, the access in the woods connected me to the environment. I thought we were in a remote location. It felt like we could spend half a day walking from one shore to the next and not encounter another visitor. The environmental connection was also felt along the Marsh Loop.

The extensive boardwalk system of the marsh loop trail places visitors beyond the waters edge. Fortunately, the boardwalk system permitted access for the entire loop. Rain clouds cleared to humid sunshine, which was grasped by marsh weeds. Sections of boardwalk without railings permitted me to sit at the water's edge. Such access allow for the unobstructed appreciation of nature. There was even a temptation to take the next "step." Our actual next step was to observe places without listed accessibility.

Picnic areas without designated accessibility were examined. Specific accessibility features may have been lacking, but the site still had a level of usability. As I believe with many people, individuals learn how to live with their impairment. The picnic table may lack an extended end, but it is still a table. The nearest washrooms are a kilometer away; but I planned ahead. People with impairment may use the site more if they knew what conditions existed. From experience I have been able to apply the same principle beyond the boundaries of the study site.

Germ infested, pee scented washrooms had to be measured - both men and women's. While it may not have been the glorious aspect of data collection it was part of being thorough. When I say a stall was too narrow, I want the dimensions as proof. Parking spaces and picnic tables were counted, noting which ones are accessible and those that are not. Having such evidence provides support to the experience I have accumulated as a person with an impairment.

My biggest expectation was to sit on the southernmost tip of Canada. It was an experience I wanted to collect for my memories. But when the moment of truth came, I could not proceed any further than

the line of trees on shore. Expectations were not met. The trail surface in the last few meters loosened to the point where it was difficult to traverse. Finally, due to erosion or geomorphic changes, the formal pathway disappeared. Similar beach expectations were also dashed at other locations. Pathways or boardwalks ended in the line of vegetation. I could see the beach but I could not get to it.

The park offers an all-terrain wheelchair for beach access. However the chair is big and cumbersome. We traveled over three hours to get to the park. Our trunk was full of items for us to spend the night nearby. There was no room to place the chair in the trunk. The chair does not permit independent use. I would have relied on my wife push me around, which is not what I wanted.

Over the course of our visit I did not encounter another person in a wheelchair. I did not see another person with moderately impaired mobility. Observation in the spring or summer may have more encounters.

Data collection closed on the first day in the cover of darkness. We drove to the tip area to acquaint ourselves to the location. We sat in the car and watched red and orange ribbons of light fade to black over the lake horizon. The remaining list of park features became our plan for the next day. Knowing that we only had a limited amount of time at the study site, next day would be even busier.

With increased familiarity of park feature locations a sense of confidence grew. I became certain in the information I was collecting. I had a greater sense of what to look for. Inclines became routine enough to the point that I could guess the degree of slope with instrumentation to confirm my estimate. Collection was expedited with improved confidence.

As the day progressed our time grew shorter. Our observations on the Tilden Woods trail were collected at a quicker pace as dusk settled into the trees. The sounds of the woods coming alive for the evening hours hurried our steps.

Daylight was gone when we observed our last beach area and washrooms. It was the last item on the checklist. Our time was up and the light was gone. We were able to get to the edge of the beach to see the last red flames of the sun dazzle the clouds over Lake Erie to mark the end of our day.

This site was the first park observed. I wanted to do a thorough job. My advisor, Dr. Geoffrey Wall, describes a thesis as “an opportunity to say something.” I wanted to be sure when I “spoke” that my thoughts were based on more than guttural reactions. Measurements were collected to provide more than reactionary details. Additional time in the park may have yielded more data collected. Yet

over the course of two days there was enough information to provide a clear depiction of accessibility at the study site.

It is been my desire to return to Point Pelee. The ability to move through the park on the accessible trails gave a great independent feeling. I enjoyed being in nature unassisted. Yet, I desired to get closer to the water's edge. It is the hope that this study “said something” that will affect change to fulfill my desire.

I entered the park with two identities – a researcher and a visitor. As a researcher, my focus was to examine accessibility. I look forward to returning as a visitor with a focus on enjoyment.

The park’s brochure and website did not provide information on accessibility. Interviews of park officials were conducted to gain an administrative perspective on accessibility within PPNP. Staff was given an opportunity to elaborate on decisions for planning, budgets, and regulations that would affect accessibility. Their insights are examined for emerging themes that may indicate what promotes or hinders accessibility at the study site. The next section is a discussion of their viewpoints.

4.5.3 ADMINISTRATIVE PERSPECTIVE

As actors on accessibility, access provisions within parks may be influenced by the attitudes of park staff and officials. Thus, their perspectives may limit or enhance the experience of a person with impairment.

A Point Pelee park official indicated “We are always thinking of access” suggesting that affordability, low demand or compromised natural aesthetics are not sufficient excuses to avoid addressing accessibility. Accessibility is deemed to be a “high priority” by Parks Canada and seems to be part of a genuine concern for increasing the quality of experience for all visitors to the park. “Accessibility is not seen as cost prohibitive” even a time of economic challenges and tight budgets. Park officials recognize that when opportunities for recapitalization develop, the opportunity arises to improve access for visitors of any ability. Thus, accessibility is an ongoing concern and access issues “addressed right away” as they arise. Park officials seek to exceed accessibility provisions dictated by the *National Standard of Canada, Barrier-free Design*. Mere adherence to the standards for access is deemed to be not “good enough” for Point Pelee: “We find we have areas that are technically accessible. But we work to go beyond that.”

Park officials consult local disability groups to provide feedback and support accessibility provisions that exceed the standards. An official stated that “The key is the connections to with

people with disabilities and their organizations make things right at the onset of a project.” It is necessary to consult with people with impairments before construction begins. Relationships have been developed with accessible communities for consultation. For example, when the park was to replace a floating section of marsh boardwalk, an informed accessibility organization contacted the park to provide feedback on railing heights: “We incorporated their feedback into the railing heights.” An additional benefit to the railing height feedback was confirmation of the value of consulting with persons with impairments or accessibility organizations before executing access improvements. It was stated, “We have contacts with people from disability community groups where a large number of visitors may have accessibility needs. I contact them if I have a question to see if they can help or point me in the direction of someone who can.” Additionally, visitor feedback provides a way to connect with visitors of any ability.

“Let’s keep in touch” is an initiative that serves as an outlet for people with impairments to address access issues or considerations. Visitors are encouraged to contact the front gate, park staff or the visitor center to communicate their concerns. To ensure clarity and understanding, park management contacts people that register a concern so that the issue can be addressed properly. Not every issue can be resolved. However, park officials work within their means to address concerns. Situations that can be resolved quickly are attended to promptly: “We work very hard to improve access and fix issues right away. Accessibility is ongoing.”

A system of trail monitoring is in place that helps to maintain a high level of accessibility. Though trails are comprised of stone dust, chosen for its affordability, ease of maintenance and consolidation qualities, regular monitoring is required to address potential hazards. Trails are monitored seven times per season/summer for clearing, trimming and surface maintenance. Officials recognized that maintenance is always needed, “So we rely on people to help us monitor our trails,” said an official. After major weather events there may be a period of time before all trails have been cleared of debris, “unless issues are reported.” An official said. The monitoring system helps to maintain the level of accessibility that was already in place.

Many improvements to access have been made in recent years. At one time, the traffic patterns at the visitor center were unsafe for pedestrians for people had to cross incoming/outgoing traffic to get to the visitor center. An official said, “We saw this [parking lot redesign] as an opportunity to improve things.” Traffic flow patterns were redirected. More accessible parking spaces were added

where people could get onto the sidewalk with ease. “The visitor center parking lot was redesigned so people do not have cross high traffic areas. It was made to be better,” said an official.

To reduce carbon emissions and increase accessibility, a natural gas tram system is now in operation to transport visitors to the tip of Point Pelee during the peak season. Pressurized tanks of natural gas were installed behind the cab of the tram in the same location as the accessible seating. “There was no standard for vehicle access. We received comments from visitors about the design – so we set up a meeting for redesign ideas to make the shuttle useable” said officials. The seats in the accessible area fold up to allow mobility devices to pass. There is ample room for wheelchairs, walkers and scooters.

During the summer of 2011, beach access was improved in various locations in the park. In order to enable people with impairment to enjoy the beach, some pathways were upgraded through the provision of platforms at the end of boardwalks. Picnic tables were placed on the platforms to encourage extended use. The beach pathways at the Northwest Beach were upgraded by surfacing with interlocking bricks. The hard surface creates sure footing and ease in pushing a wheelchair.

Areas that cannot be made fully accessible are made usable even though they may not meet technical accessibility requirements. For example, sections of the Delaurier Trail were reported to have slopes that exceed what is considered accessible. Although the slopes may be difficult for some users with mobility limitations, others may be able to use the trail with ease. An official indicated, “We are always thinking of access. However, we have areas where full access is difficult to provide. The Delaurier House is an example.” The doorways into the heritage house are too narrow to enter for a person in a wheelchair, “So we are trying to provide interpretation outside the Delaurier house,” said an official. The parking lot, boardwalk and viewing tower at the Marsh boardwalk area of the park are being examined for upgrades. An official stated that parking may be a challenge for “it is a tough area and so many vehicles pack in there.” There is “room to improve” the boardwalks through the marsh. Access to the viewing tower will not change until the lifecycle of the tower has reached its end. “Then there may be a chance for [access] improvement,” an official said.

When asked if the provision of accessibility infrastructure might degrade the aesthetics of the park, an official stated, “We see the opportunity to get creative with the design so as not to ruin the experience.” Officials recognize the need to preserve the natural appearance of the park and the challenge to cultivate a balance between visitor use and nature while providing access. It was indicated that the physical attributes of the park may assist in maintaining balance: “We have an easy

time with access due to the terrain we have” said an official who recognized that terrain characteristics may afford more or less access: “The Park at the Bruce Peninsula may tell a different story about accessibility” said the official.

Park officials recognize the need to provide access that goes beyond what the standards dictate. They seek opportunities to improve access, gather visitor feedback and consult with persons with impairment and groups interested in accessibility. Forward thinking on access should lead to improvements in accessibility.

4.5.4 SUMMARY

Point Pelee National Park is increasingly becoming more accessible. Planning documents and legal regulations are guiding the administration to remove barriers. However, reporting of accessibility information is lacking in detail and accuracy. The inclusions of rich descriptions may enhance website content. Accuracy may be improved with use of a consistent method of monitoring accessibility (not just trails) within the park. Monitoring may also inform accessibility improvements.

Budgets will foster or hinder capital improvements that may or may not include accessibility provisions. The Friends of Point Pelee does not have the authority to make improvements in the park but they promote education, research and habitat restoration. The Friends may be one of the park’s largest assets as they provide revenue and personnel for park operations.

4.6 Comparing expectations to experience

It was important to make a connection between findings and the discussion. The following tables (Table 4.2 & Table 4.3) were developed illustrate park features and their assessment of accessibility. Each observed feature is listed. Based on the observation and personal perspective created a series of checks.

The assessments of each feature are subjective. However, justification of evaluation has been provided in the findings and corresponding appendices. Each specific has been described and/or measured in the aforementioned sections. A critique of the evaluation could be that the scoring is too simplistic. It could be argued that the simplicity may be more comprehensive to a wider audience.

Observed Park Features

	Waterloo Park	Laurel Creek Conservation Area	Pinery Provincial Park	Point Pelee National Park
VISITOR INFORMATION SOURCES:	n/i Website	n/i Website n/i Brochure	✓ - Website ✓ - Friends group website n/i Brochure	✓ - Website n/i Friends group website ✓ - Brochure
	✓ + Accessibility information that addresses volumes, specifics, or accuracy. ✓ Accessibility information in place, which may or may not have issues of volume, specifics or accuracy. ✓ - Accessibility information that has issues of volumes, specifics, or accuracy. n/i Park details exists with no information on accessibility.			
BUILDING REGULATIONS:	Ontario Building Code Standard for Barrier-free Design 1992	Ontario Building Code Standard for Barrier-free Design 1992	Ontario Building Code Standard for Barrier-free Design 1992	B651-04 Accessible design for the built environment
PARK FACILITIES:	✓ Lion's Lagoon Splash Pad n/a Schoolhouse ✓ Park Administration Building n/a Bandshell ✓ Victorian Garden ✓ Abraham Erb Gristmill ✓ Eby Farm Area ✓ East-Side Playground #1 n/a East-Side Playground #2 ✓ - West-Side Playground	✓ Gatehouse ✓ Cricket Pitch / Ski Chalet	✓ Visitor Center ✓ Park Store ✓ - Ice Cream Stand ✓ Bike / Canoe / Ski Rental Shop ✓ - Firewood Stand ✓ Amphitheatre ✓ Park Office	✓ + Park Orientation Area ✓ Sanctuary Pond Lookout ✓ Cattail Cafe n/a Marsh View Observation Tower ✓ + Marsh Boardwalk ✓ Marshville ✓ Delaurier Homestead ✓ Visitors Center ✓ Staff Housing
PATHS, WALKWAYS, TRAILS:	✓ Laurel Trail ✓ - Railroad Crossings ✓ History Trail ✓ History Trail (Lakeside Section Of Trail) ✓ Lake Walk ✓ - Intersection At Silverlake Bridge ✓ East Side Playground Pathways n/a Washroom Trail ✓ Schoolhouse Pathway n/a East-Side "Sidewalk" ✓ - Tennis Club Walkway ✓ - Bandshell Trail ✓ - University Of Waterloo Access Trail ✓ - Access Road ✓ East/West Connection Trail ✓ Seagram Drive Access Trail ✓ - West-Side Sidewalk	n/a Green Trail n/a Blue Trail n/a Red Trail n/a Campground Trail	✓ Cedar Trail ✓ Heritage Trail ✓ - Riverside Trail ✓ Savanna Multi-Use / Bike Trail n/a Bittersweet Trail n/a Carolinian Trail n/a Hickory Trail n/a Lookout Trail n/a Nipissing Trail n/a Pine Trail n/a Wilderness Trail	✓ + Marsh Loop ✓ - Blue Heron Area n/a Black Willow Beach ✓ - Northwest Beach ✓ The Delaurier Trail ✓ Woodland Nature Trail ✓ Shuster Trail ✓ Chinquapin Oak Trail ✓ Tilden Woods Trail ✓ Centennial Hike And Bike Trail ✓ Tip Trails

✓ + Accessibility with aspects to enhance the experience. ✓ Accessibility in place, which may or may not have compromising aspects
 ✓ - Accessibility with aspects that compromise the experience n/a Not accessible

Table 4.6.1, Part 1 – The table illustrates the connection between accessibility and the experience.

Observed Park Features — CONTINUED

	Waterloo Park	Laurel Creek Conservation Area	Pinery Provincial Park	Point Pelee National Park
PARKING:	<ul style="list-style-type: none"> n/a Central Street ✓ - Seagram's Drive Lot ✓ Rink In The Park n/a Eby Farm ✓ Lions Lagoon n/a Picnic Area #1 n/a Westside Informal Lot ✓ Westside Drive Parking Lots n/a Waterloo Diamond Parking Lots n/a Waterloo Park Service Center n/a Father David Bauer Drive 	<ul style="list-style-type: none"> n/a Gatehouse n/a Cricket Pitch / Ski Chalet n/a Dam Shelter n/a Baseball Shelter n/a Critter Shelter n/a Beach n/a Boat Launch 	<ul style="list-style-type: none"> ✓ Visitor Centre ✓ Park Store n/a Beaches n/a Firewood Stand n/a Canoe Launch ✓ - Campground Washrooms 	<ul style="list-style-type: none"> ✓ + Park Orientation Area n/a Sanctuary Pond Lookout n/a Sanctuary ✓ Marsh Boardwalk ✓ Blue Heron Area n/a Northwest Beach n/a Dunes n/a Sleepy Hollow n/a Pioneer ✓ - Delaurer Homestead n/a Black Willow Beach ✓ White Pine ✓ Youth Camp/Group Campground ✓ West Beach ✓ + Visitors Center ✓ Tip Area
WASHROOMS:	<ul style="list-style-type: none"> ✓ East Side ✓ - West Side 	<ul style="list-style-type: none"> ✓ - Cricket Pitch / Ski Chalet ✓ - Critter Shelter n/a Dam Shelter n/a Baseball shelter n/a Beach ✓ Campground Area 1 n/a Campground Area 1 (west) n/a Campground Area 2 n/a Group Camping Area 	<ul style="list-style-type: none"> ✓ Visitor's Center n/a Beach Comfort Stations ✓ Riverside 4 Washrooms ✓ Riverside 15 Washrooms ✓ Riverside 16 – Accessible Washroom / Shower ✓ Riverside 17 Washrooms ✓ Riverside 18 Washrooms ✓ Dune 5 Washroom ✓ Dune 7 Washroom ✓ Park Store Washrooms ✓ Vault Toilets 	<ul style="list-style-type: none"> ✓ Blue Heron ✓ Visitor Center ✓ Tip Of Point Pelee ✓ White Pine ✓ Youth Camp ✓ Northwest Beach ✓ Black Willow ✓ West Beach n/a Sanctuary n/a Dunes n/a Sleepy Hollow n/a Pioneer
MISCELLANEOUS:	<ul style="list-style-type: none"> ✓ - Picnic Areas / Tables ✓ Hospitality Area ✓ Trash Barris and Recycling Containers ✓ Interpretive Panel Along Silver Lake n/a Silver Lake Dock ✓ Basketball Court n/a Baseball Fields 	<ul style="list-style-type: none"> ✓ - Picnic Areas / Tables ✓ - Water Taps n/a Beach ✓ - Boat Launch n/a Campground Trash Area ✓ Campground Area 1 – Comfort Station n/a Playground ✓ - Dignity Memorial Grove 	<ul style="list-style-type: none"> ✓ - Picnic Areas / Tables ✓ - Water Taps n/a Beach ✓ - Beach Chair ✓ - Canoe Launch ✓ Trash And Recycling n/a Fishing Platforms ✓ - Canoe Rental Dock ✓ - Emergency Phones 	<ul style="list-style-type: none"> ✓ - Picnic Areas / Tables ✓ - Youth Camp/Group Camp ✓ Park Shuttle n/a Beaches ✓ - All-Terrain Wheelchair
CAMPGROUNDS:		<ul style="list-style-type: none"> ✓ Area 1 Campground ✓ - Area 2 Campground 	<ul style="list-style-type: none"> ✓ - Buryly ✓ - Dunes ✓ Riverside 1-4 ✓ Riverside Yurts ✓ - Group Camping Sites 1-3 	<ul style="list-style-type: none"> ✓ - Youth Camp ✓ Group Camping

✓ + Accessibility with aspects to enhance the experience. ✓ Accessibility in place, which may or may not have compromising aspects
 ✓ - Accessibility with aspects that compromise the experience. n/a Not accessible.

Table 4.6.1, Part 2 – The table is part two of the illustrated connection between accessibility and the experience.

Chapter 5

Discussion

Through application of aspects of constructivism, advocacy-participatory and postpositivist worldviews, the following discussion topics were developed from overlapping layers of observations, secondary sources and perspectives gained from key actor interviews.

Parks are designed to provide green space, a place of leisure and escape from urban congestion and, in some cases, to protect natural environments and associated species. They are, with few exceptions, places for public use and they are widely perceived as being public spaces, even though gates or entrance fees may suggest otherwise. “Public,” a conventional term, encompasses people with a wide variety of characteristics, including: gender, age, ethnicity, race, color and ability. Parks should welcome people with a diverse assemblage of attributes.

None of the sites inquired about racial, economic, or religious background before or as a condition of admittance. Three of the parks had entry fees for day use or camping and the remaining park had fees for special events held within the park. Non-payment results in no admittance. Refusal of entry as a result of personal conditions would be shocking and could lead to a public outcry. Nevertheless, not all amenities within parks are of equal utility to all visitors.

5.1 EQUITY

Interests will vary among visitors but ability dictates what experiences may be had within a park. The AODA provides enforceable regulations against discrimination based on ability. Nevertheless, discrimination may exist unintentionally through the types of built environments and landscape architecture — making the parks and their features more or less usable. The ability to move through a park environment has far-reaching consequences for inclusion and exclusion. People who can walk may have independent access to beaches, remote trails, facilities and services, but those with an impaired ability to walk may find themselves prevented from using park features independently.

People with an impairment are not forbidden from using park features but the lack of adapted equipment or structures make this impossible, turning the impairment into a disability. Building styles and regulations that precede the AODA result in the consequence of structures and facilities suitable for people that can walk. Inaccessibility is the legacy to those with a mobility impairment. AODA regulations, which have been widely endorsed in Ontario, made it compulsory to create inclusive built

environments. However, many barriers still exist. Time and money, as well as changes in relevant laws and attitudes, may slowly result in reduction in the number of inaccessible buildings, trails and other park features. Meanwhile, for those in a wheelchair, no sunsets can be observed from the beach in the Pinery; there is no wind in the face from a ride using a hand-cycle on a trail through Point Pelee, nor is there exploration of a new accessible trail in Laurel Creek Conservation Area.

Structural equity for people with impairments is a relatively new concept considering that built environments date back more than 7,000 years. The current limited accessibility offered in parks can be seen as compromised equity and limited inclusion. Although equity is now widely recognized as a right, it has taken time for society to change its thinking to embrace inclusivity. Improved accessibility has not immediately followed the passage of accessibility laws, for many barriers had to be removed or reversed. These include social, structural, and attitudinal barriers. However, the erosion of barriers is occurring slowly with the passage of time and the commitment of money. Time weathers and erodes old structures that represent a past representation of society's views of inclusivity. As structures decay, their replacement provides opportunities for the creation of more inclusivity and greater equity. Such changes are evident in the study sites.

New buildings and other facilities reflect contemporary accessibility philosophies, including designs for more inclusion. Push-button doors, curb cuts, ramps, and trail upgrades are an example of positive initiatives. As trail surfaces are widened, leveled, and stabilized, the trails can be used by people with a wider range of abilities and equity is promoted.

The medical model of disability conceptualizes the problem of disability as an outcome of individual deficiencies that should be cured or treated by medical means. This viewpoint may undermine equity. Parks like Laurel Creek may not see the need to upgrade facilities because impairments are individual and treatable. Alternatively, proponents of the social model of disability view impairments as disabilities when the environment provided by society has limited accommodation for individuals with unique characteristics. This approach implies that failure on the part of society to be inclusive is disabling.

The experience of reduced mobility resulting from deficiencies in accessibility provisions emphasizes the differences in the debate between the medical and social models of disability. Limitations of function, such as the inability to walk, are individualistic. If an individual's impairment can be fixed by medical intervention, then inaccessibility would not be an issue for that

person. Conversely, the provision of park features that facilitate the independent enjoyment of outdoor experiences are evidence that society's accommodation to impairments can promote equity.

Impairments, and associated limitations are complex. Accessibility infrastructure that creates equity will be equally complex. A visitor with impairment at any of the study sites will have a unique experience based on their limitations. Yet, parks with more accessibility provide experiences equitable to visitors without impairment. Every park that was studied included places where personal limitations prevented further progress on a trail or to a feature. Yet, personal limitations were compounded by lack of accessibility infrastructure. Society, in this case, park officials, had failed to create equity with a barrier-free experience. Application of laws and design principles are gradually increasing inclusivity through accessibility, which reduces the need for an individual to be limited by their impairment.

Doing so will gain equity for people with impairment. Equity and inclusion may depend on the attitudes of park officials.

5.2 ATTITUDES

Interviews were conducted with park officials to capture an administrative perspective on accessibility. Officials may be defensive in their discussions of accessibility. Directives may come from higher levels of management within the park organization. A ground level perspective on accessibility within parks was valuable to understand what access is in place.

All officials were willing to openly discuss accessibility, yet an air of guardedness emerged. Officials may have adopted defensive positions as cautious, measured responses were given to questions on accessibility. One official avoided contact for more than eight-months. Questioning the lack of accessibility might be interpreted as a criticism of character or as an attack on performance. Park officials were cognizant of accessibility issues and were generally proud of their efforts for improving access. Willingness was expressed to increase inclusion by providing more accessible park features. Yet, it was recognized that accessibility could be improved in each study site.

The willingness articulated by officials to address accessibility issues is not at odds with their perceived reluctance to take immediate actions. Enthusiastic officials understand the merits of offering quality accessibility accommodations to people with an impairment, and not only for equity reasons. This study provides a small representation of park officials' attitudes. However, should the

enthusiasm spread to other parks, then the market segment of people with impairment will be more widely acknowledged.

The goal for this thesis was to explore possible gaps in information on accessibility and the situation on the ground in the parks. It is not the intention to emphasize only unsuitable accessibility in each of the sites. Indeed, each site has elements of accessibility and can provide a quality experience to persons with impairment. Existing accessibility was discussed positively and with enthusiasm as being a notable accomplishment. Improvements have been made as opportunities developed. The advancement of accessibility should reflect the positive attitude by park officials to provide barrier free experiences. However, accessibility may not be controllable by the officials in the park, who are guided by organizational policies. A greater commitment to willingness could be strengthened with a dedication of monetary resources.

5.3 UPGRADES AND COSTS

Infrastructure at the study sites eventually need to be replaced, but renewal will require substantial expenditures. Financial restrictions may elongate the timelines for capital improvements that would advance equity. Parks operate within narrow budgetary margins. Operational expenses may deplete funds, leaving little for capital expenditures, including improving access with infrastructure upgrades.

Enhancement of accessibility can be a driver for initiating capital upgrades. However, facility upgrades or renovations at the expiration of a structure's life cycle provided the opportunity for improving accessibility. When structures, facilities or features reach the end their usable life cycle, the replacement often includes accessibility provisions. Of the four studied parks, one reported that an upgrade was done specifically to improve accessibility. However, upon further questioning, it was found that the structure was outdated and was in need of renovation. Thus, planning to improve accessibility is usually handled as part of new or renovated site improvements rather than as an end in itself. However, there are exceptions. One park took the initiative to upgrade their trails. Not all were refurbished at once; rather it was done progressively to limit financial impact. Another park's friends group was responsible for upgrading trails to improve accessibility.

Financial resources are usually a restriction to the initiation of new projects. Improvements are only made when projects can be supported financially. Yet the increased expense for including accessibility infrastructure sits at a range of 1-2% (Martin Prosperity Institute, 2010). It is a small cost for a substantial gain. Benefits could include more support of the social model of disability, greater

equity, and more acknowledgment for people with impairment as a viable market segment. Officials should understand that without accessibility, people with impairments might not visit their park.

5.4 INACCESSIBILITY AND LOW RETURNS

Inaccessible park features may deter visitation by people with impairment. The deficient facilities demonstrate Burnett and Bakers position that people with impairment may be ignored as a market segment. As previously stated, people with impairment are loyal to businesses that serve their needs. Parks with aggressive accessibility strategies may generate a greater numbers of visitors resulting in increased revenue from entrance fees. The greater financial stability will increase the financial viability of the operation and increase the potential to make further infrastructure improvements.

Laurel Creek Conservation Area operates on revenue gained solely from user fees. Operating budgets released by the Grand River Conservation Authority fund expenses incurred in daily park management. Remaining resources may be insufficient to subsidize large capital improvements. Dated structures, facilities, and park features limit accessibility. For example, out of eight washroom facilities in LCCA, only one provides designed accessibility. Furthermore, access to the structure is limited by an uneven grass surface. Visitors with impairment may frequent the park more if it had more accessible features. Figure 3.2, on page 34, illustrate the reason for selecting the Pinery as a study site. The Pinery has numerous barrier free features. Increased access may interest public event organizers to the park, which could boost revenues.

The Pinery Provincial Park depends on user fees to augment the 20% of funds provided by the Ministry of Natural Resources. The Pinery and LCCA share the dependence on user fees; however, visitation numbers are very different. The Pinery receives over 600,000 annual visitors where LCCA had less than a tenth that number of paying visitors and is one-eighth of its size. The Pinery offers newer, accessible trails and facilities than LCCA. Accessible washrooms, campsites and trails promote a greater sense of inclusion, which may increase the attraction for persons with an impairment. However the attraction of the beaches on Lake Huron may maintain the disparity in visitor numbers between the two parks. Facility upgrades may increase if visitation revenues grow and a positive feedback loop is realized. The loyalty of visitors with impairment may foster revenues.

The LCCA offers a smaller supply of accessible park features and this may be a cause of lower visitation numbers, although a large proportion of visitors is unrecorded. Upgrading facilities may attract more visitors, increase revenues and lead to accessibility improvements.

5.4.1 Accessibility tradeoffs

The price versus value ratio may be worthy of consideration. The services offered within LCCA may not be considered worthy of entry fees. People with impairments may be reluctant to pay \$5.50 if few opportunities are acceptable. A reduced entry fees for persons with impairment could be provided as a compromise. Attracting people with impairments may stimulate long-term growth through the reduced fee strategy.

Entry fees are a form of economic exclusion. People lacking in financial resources may be unable to afford recreation expenses. Three of the study sites charge admission fees. Many people with impairment may have limited financial resources that restrict their recreational expenditures. Accessibility could be extended through reduction of user fees. Provincial and national parks receive a portion of their budgets from taxes so that taxpayers may have a sense of entitlement to park admission. People with impairments are members of the public, taxpayers, and may hold a similar sense of entitlement. Furthermore, their prerogative for park use may demand accessibility. A trade-off may mitigate accessibility and financial exclusion concerns. However, reduction of fees may be poorly received by those responsible for managing parks on slender budgets. Fee reductions may be seen as loss of revenue. It is possible that people with impairment may be willing to accept fewer accessible services or features for a lower entrance fee. Park officials could investigate public interest of reduced fees through contact with community disability groups.

5.5 COMMUNITY INVOLVMENT

Comprehensive park planning can be enhanced by nurturing communication between officials and visitors with an impairment i.e. collaboration. A positive attitude towards accessibility is expressed through consultation with those with an impairment. Three of four study sites collaborate with accessibility groups or visitors of all abilities. Encouraged by officials, organizations, and individuals have come forward to provide feedback on accessibility improvements within parks.

The perspective of the impaired user may assist in the detection of ineffectual aspects of proposed accessibility. One park official sought input from community organizations on facility upgrades during the planning process. An example, when new boardwalks were planned, the local disability group was consulted. They explained that railings could block scenic views. The group proposed that sections of the boardwalk should have no railings. The park incorporated the feedback into the project with positive user response.

Accepting and respecting input from individuals or groups with impairments enhances empowerment, which fosters inclusion. Officials are indirectly affecting changes that liberate people with impairment through inclusion. The advocacy-participatory worldview is reflected in the feedback process. Furthermore, the parks are focusing more on responding to the social model of disability and inclusion. Participation in accessibility planning may result in the creation of a stronger sense of belonging and loyalty to a park. As accessibility improves, discourse between officials and visitors with impairment may increase as more such individuals use the park.

5.6 GUIDING LEGISLATION AND DOCUMENTS

The 2005 AODA mandates an accessibility standard for customer service. The standard applies to any organization that provides goods or services, and has one or more employees (Accessibility Standards, 2011). Staff training may encourage the cultivation of deeper relations between officials and visitors.

The AODA requires mandatory staff training. Employees are instructed in the avoidance of discrimination and equity in the use for goods and services in order to promote respect and dignity, which strikes at the core of the Canadian Charter of Rights and Freedoms. Interaction, communication, training in relevant technologies, and the provision of assistance are taught in order to address the educational deficit that often exists in the provision of goods and services for people with an impairment. Trained park staff may be more active in facilitating conversations to address the needs of visitors with impairment.

Barrier free building codes, whether Ontarian or Canadian, dictate accessibility. Though the codes date back to the mid-1990s, current accessibility must adhere to the standards. Park officials have not deviated from standards. Compliance is evident in the campground washrooms at Laurel Creek and the Pinery. The visitor center in Point Pelee and east side washroom of Waterloo Park reflects applied standards. It will be interesting to see what structural compliance looks like should the Built Environment Standards of the AODA be enacted. Until then, directives, accessibility committees, and master plans assist in carrying the standards forward on specific park projects.

Plans, directives, and committees guide the visions for park futures. Master plans for Laurel Creek - 2004 and the Pinery - 1986 should be updated. While their visions may be broad, they need revision to include a focus on accessibility; one that considers provincial mandates. The Pinery's master plan would benefit from including the accessibility directives levied by the Ministry of Natural Resources.

This theme developed from examination of secondary sources and administrative perspectives revealed that through mandated training (as part of AODA) or improved building codes. It suggests that access will most likely be advanced by legal means. The ratification of the Built Environment Standards of the AODA should promote the creation of a more inclusive, equitable landscape.

Whether guiding documents may be up to date or need of reassessment, each park would benefit from more aggressive pursuit of user feedback.

5.7 USER FEEDBACK

Reporting, demand, and accessibility requirements, may strengthen accessibility provisions, regardless of budgets or scale. Comment cards, “ask us” programs, website inquiries and visitor relations are ways of eliciting visitor feedback. Each of these forms of feedback elicit a passive form of inclusion. Comments are administered differently at each park. However, at all sites there was a genuine interest in responding to users’ requests. Informed officials are in a better position to seek solutions to concerns.

“Ask us” programs are implemented to provide immediate redress. Visitors are encouraged to contact park staff to relay their concerns. Issues may be addressed immediately if solutions are straightforward but complex issues may require more time.

At one study site, website inquiries is the only system provided user feedback. The “contact us” field on the administration website enables users to navigate to a specific department to direct their concerns to the appropriate officials. Visitors who raise concerns may then be contacted via email for clarification. One official had only one incident of inaccessibility to report. However the concern was in a park beyond the study site.

Improving communication between visitor and staff may generate a greater understanding of park operation restrictions on behalf of the visitor. Those inquiring to the lack of accessible features may find that ecosystem preservation, older facilities, or minimal operating budgets restrict projects that may include accessibility. Understanding may be developed through communication.

Officials may value user feedback; however, it seemed under utilized. One site’s master plan acknowledged the limited reach of their user feedback. Proactive park officials could seek visitor’s email addresses to send email inquiries for feedback. Park websites could provide simple fields that connect visitors to webpages for providing input. Multiple page redirection or searching diminishes interest in filing a concern. A specific field for feedback could be placed on the park’s webpage to

encourage visitors to provide comments. Visitor relation strategies could promote user feedback outlets.

“Visitor relations” at one site was staff’s development of relationships with regular visitors who shared opinions. It was reported that, “regulars let us know how we are doing, what works, and what doesn’t.” There is great value in gaining feedback from loyal visitors, yet none of the “regulars” were reported to have an impairment. Incisive accessibility feedback might be gained from visitors with impairments. The AODA standards for customer service are used in providing training for employees, encouraging them to engage people with impairment to ensure that their needs are being met. Increased engagement of visitors with impairment may yield improved accessibility.

Adoption of Wu and Cheng’s (2008) Long Tail Theory could generate a steady information source for officials to identify accessibility issues. Through the better use of current Internet outlets, the theory could be applied to specific sites. The reliability of information may be enhanced when user feedback is used to populate the fields. An amalgam of user opinions may inform potential site visitors on what access exists and its quality. The negative effects of outdated and incomplete information provided by off-site webmasters or Friends group members might be diminished.

In spite of all human effort, accessibility may not be fully realized due to park topography

5.8 TERRAIN

Topography may promote or limit access within parks. Changes in elevation, the geologic composition of ground materials, and the flora influence accessibility. Hills and depressions of varying size were experienced at the study sites. Small elevation changes required less effort to traverse than hills or inclines that necessitate greater exertion to overcome. Sections of park trails had segments of loose sandy soil, which were difficult to cross in a wheelchair. Dense, consolidated trail materials were easier to traverse. The two study sites adjacent to the Great Lakes had large sections with sandy ground surfaces that prevented independent use of some park features. Encroaching plant life narrowed trail widths, which reduced accessibility. Landscape elements may work against one another or in unison.

One official of a site with relatively flat terrain commented that, “We have an easier time here. I wonder what it would be like up north.” Trail surfaces at this site were compacted stone dust, gravel or soil. Vegetation grew freely but did not prevent forward progress. However one trail had steep inclines beyond the AODA recommended 8.33% slope. Another trail ended at a beach where the soil

changed from compacted stone dust to loose granular sand. Encroaching bushes narrowed an additional trail. Accessibility was affected by elements of nature and topography. Natural conditions may need to be modified to improve accessibility. However, there may be a point where accommodating accessibility infringes on natural processes and the aesthetics of nature.

5.9 ACCESSIBILITY VS. PRESERVATION

There may be limits to the provision of accessibility enhancements in natural environments. Accessibility infrastructure may be too damaging to fragile park ecosystems. The rights of some individuals may need to be curtailed to protect the environment. However, officials did not feel that the provision of accessible trails, services, or infrastructure would damage natural aesthetics, although they are diligent to maintain a healthy balance between infrastructure and environmental protection. Actors on accessibility will be successful if they can identify area where accessibility enhancements and ecosystems can co-exist.

However, if the habitat is extremely fragile, then the question should be asked, “Should any visitors be allowed in that section of the park?” Some park officials understand the challenge and one official recognized the opportunity to “get creative with the design so as not to ruin the experience.” There may be instances where economic or environmental feasibility limits the enhancement of accessibility and visitors may be forced to acknowledge park limitations, based on their impairment.

The classification of parks may dictate usage types and preservation permitted within an area. Based on Wall’s categorization of provincial parks, Waterloo Park and LCCA could be considered recreational parks as they provide open spaces for outdoor leisure. Ecosystem is not a high priority. The Pinery is a natural environment park. Officials strive to balance use with environmental protection. PPNP does provide restricted camping opportunities, which may have natural environment park tendencies; however, due to the fragile ecosystems of birds and butterflies the park may be aptly considered a nature reserve (Wall, 1979). Each designation of type carries specific management and use guidelines. Park types were not determiners of accessibility.

5.10 ACCESSIBILITY: INFORMATION AND IN PLACE

Differences exist between accessibility information and accessibility on the ground. The accessibility information from the study sites varied in volume, specifics, and accuracy. The Pinery web content had the most information regarding accessibility but lacked details and was deficient in the above three aspects. The Friends of Pinery Park (FOPP) and the Ontario Parks campsite reservation page

supplied more content for visitors to make determinations of access. Yet, FOPP's description of an accessible Riverside Trail is flawed. Features listed on the Pinery's website may not meet the information requirements for a person with a mobility impairment. Point Pelee has a brief paragraph describing accessibility on their "facilities and services" page. The LCCA and Waterloo Park do not include accessibility information on their websites. Accessibility content in park brochures is absent for the Pinery and LCCA. Point Pelee uses the international symbol for accessibility to highlight sites of accessibility on a map in their printed material. There are no details to what access means on the ground.

The gap between published accessibility information and reality should be minimized. As Darcy states, people with impairments perform extensive pre-trip planning investigations (2010a). Decisions should not be made on faulty information. It should cost little to close the information gap although there may be financial limitations on modifying park brochures. Internet outlets may facilitate the provision of substantial information pertaining to accessibility with a minor expense. Each study site has a web presence. However, the pages contain dated information that indicates that the websites are an underutilized asset. All parks reported that they undertake maintenance checks regarding grounds and facilities. The checklists may provide information on accessible park features. Officials appear not to be fully aware of the extent of accessibility information that could be provided for potential visitors with impairments. All parks have many features that could be described and publicized through Internet sources. However, no formal systems appear to exist for posting information.

Updates to park websites are done extemporaneously. None of the park officials have a specific person for reporting web updates. Website updates had occurred in the current year for one park and as far back as 2008 for another. The LCCA does not report when web content is updated. However, sporadic visits to the LCCA webpage since 2010 have not revealed any noticeable changes. The possible disconnection between webmasters and park officials may be a cause of inconsistent or lack of accessibility information. Systems of communication should be strengthening or developed. Park administration webmasters should take the initiative of emailing officials on a regular basis for updates to post on park websites. The lack of accurate information could be construed as a violation of the customer service mandates of the AODA. Providing and updating information could assist potential users. Regular monitoring could generate the necessary information.

Internet outlets should be utilized to promote a positive image by providing detailed accessibility information. The Internet is a well-established tool for arranging travel plans. Parks interested in

increasing their visitation may consider the dissemination of accessibility information, which could result in an increase in visitor numbers. Wu and Cheng's (2008) Long Tail Theory (LTT) may provide a framework to attract the niche market of visitors with impairment. Accessibility information may be integrated into the steps of LTT. Itineraries may be more readily developed where information on trails, traversing times and distances are available. Park websites could become forums where visitors provide their experiences, opinions, and insights on accessibility that may generate positive "word of mouth" advertising. Photos, videos, and audio information could be available for potential visitors to determine if access is in place to meet their individual needs. The provision of updated and accurate information is vital to the success of LTT. Accuracy is important, as it is the foundation for decisions by individuals with impairment who are seeking to avoid barriers to an accessible experience. Parks with greater focus on accessibility will provide greater equity. This aspect can be realized by improving the concentration on supplying accurate accessibility information.

The next section of this discussion is a presentation of recommendations to improve accessibility. The recommendations illustrate the items that a regular system of monitoring could identify. During data collection, specific locations or features were noted for potential improvements. The entire section of "Observations" from the findings chapter (including the appendix of measurements) could be used to create a working list of initiatives within a park. The cost of making some improvements may be minimal. Quick fixes could be added to daily or weekly work orders handled by park maintenance. For example, the rearrangement of washroom fixtures (e.g. placement of trash cans) may be simple low-cost fixes. Others may require time, effort, and a financial commitment involving long-term planning.

5.11 SITE SPECIFIC DISCUSSION

The following sections examine aspects of accessibility of the various study sites.

To further facilitate comprehension of issues, the Appendix of Photographic Evidence is provided as Appendix G. Images capture specific aspects of accessibility and inaccessibility. Photographs reduce the subjectivity of the interpretation of accessible features. Sections within the appendix correspond to the different study sites and their accessibility.

The next section discusses a variety of items that are unique to each study site.

5.11.1.1 CAMPSITES

The campsites in the Pinery Provincial Park have a close proximity to the washrooms. This may or may not be desirable to persons with impairment. Having a close proximity may be useful. Short distances between a campsite and washrooms would mean less travel on campground roads that may be limiting. Campground roads in Burley and Dunes are compacted sand that can be penetrated by the front wheels of a wheelchair. However, close washroom proximity may result in a high volume of people passing the accessible campsite. It was noted that informal trails around and through campsites often are developed near washrooms. As well as high foot traffic, light pollution may emanate from the washroom structure. An accessible campsite in Acadia National Park, Mount Desert Island, Maine shares these issues. In this case, the washroom is within 20 m of the site. Trails have been formed around three sides of the accessible campsite. The exterior light illuminated the campsite so that the camping experience was diminished to the point where it was akin to sleeping in traffic. Increasing vegetation between campsites in the Pinery may reduce light pollution at sites close to washroom fixtures.

5.11.1.2 BEACHES

Out of the four study sites, three have water or shoreline recreation opportunities but lack provision for independent access to the water's edge. The exception is the LCCA where the water's edge can be approached at the boat launch. However, there was no access for a person in a wheelchair to get to the water unassisted at beach areas in the LCCA, the Pinery and Point Pelee. The impediments come from the lack of infrastructure or from the misunderstanding of needs. The Pinery and Point Pelee offer a beach chair/all-terrain chair for people with mobility impairments. However, as previously described, the devices are not designed for independent use. Moving the device from the procurement location to the access point is hampered by the size and weight of the chair. Thus, provision of a beach chair or all-terrain chair does not provide satisfactory beach access, particularly for a person with an impairment that does not want to be assisted at all times. Boardwalks, high-density trail surfaces or sand locking technology could facilitate independent use of beaches.

Point Pelee has two locations where boardwalks extend to a large decked surface on the beach's perimeter. The convenience resulted in people without any perceived impairment utilizing the location. However, the decking area is placed along the line of vegetation on the beach. There is no convenient access to the line of mid-beach concrete picnic tables. A person with a mobility impairment can get to the beach but not on the beach.

The Pinery provides no shoreline access for people with an impairment. The lack of accessibility appears to be shortsighted since the main attraction of the park is the beach on the shores of Lake Huron. The provision of ramps, platforms, decking, and boardwalks could facilitate access onto the beach at one dedicated access location. More locations or pathways could be developed for accessibility as funds become available. Accessibility infrastructure does not have to be permanent. Currently, decking material is placed on top of the sand; however, poor placement limits access. Systematic placement of decking with smaller gaps between boards could improve accessibility. Also, accessible locations or pathways could be restructured so that slopes of less than 12% improve accessibility onto the beach.

As a person with a mobility impairment, the observer was frustrated by the lack of beach access in the study sites. Close beach proximity could be achieved with a vehicle. However, independent access opportunities to use the beaches were not found. Another trade-off could be proposed. In the case of the researcher, upgrading on-beach access would be preferable to updating another washroom. As beaches are a primary attraction in summer, more accessible opportunities should be available.

5.11.1.3 TRAILS

Dense trail surfaces that were clear of loose material did not impede forward progression in a wheelchair. The compaction of dirt surfaces loosened with the presence of water. The composition of trail or parking lot materials determined the severity of damage. Trails or walkways with high use had greater compaction and were noted to have less water damage. Low use trails or walkways often had sections where washouts or loose surface tension impeded forward progress. Other park features (e.g. picnic areas) of high and low usage experienced similar water issues. Drainage enhancements should be considered to maintain dense ground surfaces. Small rills carved along trails may divert runoff away from surfaces prone to water damage at minimal cost. Areas with severe effects of water damage may require more drainage infrastructure at greater expense.

Debris or a layer of loose granular material and small stones covered some trails. The loose material created sheering on the front wheels of the observer's wheelchair, slowing forward propulsion. Sheering, results from the downward force of small wheels that push loose material away from the dense lower layer of the trail surface. Sheering was noticeable on the accessible Pinery trails and on some sections of trails in Waterloo Park. Laurel Creek did not have trails that were passable for independent use by a person in a wheelchair. Trails in Point Pelee consisted of hard-packed dirt. However, there was not a thin layer of fine stone or dirt material to slow forward progression.

Compaction devices or stabilizers could be used on trails with loose material. The increased stability would increase the level of accessibility.

5.11.1.4 REPORTING OPPORTUNITIES

Washrooms provide an example of how parks need to audit their facilities to provide accurate reporting of their features. Many washrooms in the study sites are accessible and this could be reported in park information. The campsite booking process can be completed online for the Pinery and LCCA. Specific campsites at the Pinery can be viewed online. Brief descriptions of the campsites are provided. The web format that is used to report detailed information could be utilized for other park features, especially washrooms. The availability of photos could assist potential visitors in making decisions. Provision of accurate information would assist in making appropriate camping arrangements and site selection.

5.11.1.5 WASHROOMS

Differences in washroom measurements were small, often within 5 cm, and access is not affected drastically by slight differences. However, problems arise if the placement or layout of a feature is poor. The height of the toilet paper in the accessible stalls was low and at roughly the same height as the toilet, although reaching under the toilet paper dispenser and starting the roll may be difficult for those with diminished fine motor skills. The observer found difficulty in acquiring toilet paper, as it requires reaching down, under, and then up to start the roll. The best placement for the toilet paper dispenser may interfere with the location of grab bars. Appropriate layouts should be devised to provide the best accessibility possible. In one of the Pinery shower/washrooms, the placement of the toilet paper is far away from the toilet and low. In this instance, locating the toilet paper dispenser closer to the commode and clear of the grab bar may enhance visitor use.

5.11.1.6 TRANSITIONS

Numerous locations within the study sites had doorways with thresholds. The *Ontario Building Codes Barrier-free Design 1992* indicates accessible threshold heights should be 1.27 cm. This height was exceeded in numerous locations; however, this could be easily remedied with use of an angled piece of wood (Fig.7) fastened to the exterior or interior threshold. The cost for door replacements may exceed budget allotments but the proposed remedy would be cheaper than replacement with a positive return on access.

Transitions between surfaces were noted impediments at numerous areas across study sites. Specific fixes may need evaluation on a case-by-case basis. Actions would need to reflect the composition of the different surfaces. Brick transitions may need leveling. Concrete transitions may need to be ground or chiseled down to create a level surface. Asphalt may be needed to fill in holes between paved surfaces. Angled boards may reduce the difference in levels between surfaces. The cost for such repairs will be dependent on the actions needed.



Figure 5.1.1 – The threshold into the doorway was higher than 1.27 cm. To fix the difference in transition over the threshold an angled board is placed on the in/outside of the threshold, which reduces the impact of a poor transition.

5.11.1.7 SUGGESTED IMPROVEMENTS FOR PRACTITIONERS

The following section is devoted to specific recommendations at the study sites. Throughout the data collection there were many instances where accessibility could be improved. Enhancements to accessibility would benefit an individual in a wheelchair. Other beneficiaries to access would be parents with strollers or the elderly. Proposed access may not meet regulatory guidelines for accessibility. However, modifications could result in more individuals utilizing a park feature independently.

The cost of improvements has not been estimated. However, many solutions could be low or no cost. It is expected that some low financial impact suggestions may be implemented quickly.

There may be numerous alternatives that would result in improved accessibility. Recommendations are subjective. Proposed solutions are based on the researcher's prior experience in similar situations where access has been compromised.

Tables have been created with the name of the park, the issue and the potential solution with some context if needed.

Recommended improvements at specific study sites

Waterloo Park

Issue	Recommendation
Transitions from parking areas onto walkways or paths were rarely level.	Transitions in excess of 1.27 cm could be leveled to reduce the difference in surfaces. The type of surface materials will dictate the type of repair. Grinding or chiseling the concrete down to the level of pavement may address concrete/asphalt transitions.
Accessible parking spaces without proper signage.	The international symbol for accessibility was painted on the ground, in the center of the space at the Seagram's lot. Ice, snow, or leaf debris may obscure the symbol, which would increase the likelihood of people without impairments using accessible spaces. "Oh, I did not see it," is the common phrase noted from years of accessibility experience. Posting signs at each accessible space should eliminate confusion.
Schoolhouse does not have wheelchair access.	The structure does not have regular visitor hours. Community groups and schools can arrange times for visitation. Periodically, public events (e.g. concerts, lectures, poetry readings) are held in the schoolhouse. Stairs impede egress for people with impairment. The steps to the schoolhouse are not part of the original structure. Therefore accessibility should not be impeded for "historical preservation." A ramp could be constructed along one side of the building for access to the entrance. A ramp would not need to be secured to the exterior of the building. The ramp would provide access not only for people requiring the use of a wheelchair but also people with ambulatory difficulty where steps are prohibitive. Accessibility should be included if the building is repurposed for further public use.
Railroad crossings were deteriorated or uneven with walking surface.	An inexpensive option may be to fill around the tracks with a hard packing surface material. Stone dust is used on trail surfaces and may be a good option. Replacing materials for concrete and steel may provide a longer service life. Metal boundaries on each side of the rail are part of a level concrete surface, which minimizes the impacts of crossing the tracks
Loose sand at sidewalk of bridge (next to clay / glass museum).	Loose sand "grabs" small wheels of a wheelchair (or could offset footing) that lead to a near fall at the mouth of the river access. Hard packed surface material could be placed. A sign indicating loose material may be an alternative.
East and west sidewalks lacked width, hard packed material, a level surface, or maintenance.	The preference was to stay on the paved roadway. However park traffic on narrow roads may be dangerous. The east side would require infilling along roadway for a wide, level surface. Costly, long term solutions may need to be devised and planned. The west side sidewalk needs leveling to eliminate cross slopes. Areas with soft sand need hard packed surface material added.
Lack of edging around basketball court.	The basketball court is located on the hillside next to the schoolhouse. There may be a propensity for a errant ball to roll down the hill. Fencing or natural fencing (hedges) may prevent balls from rolling a great distance down hill.
Way finding	Signs would be useful to indicate the direction of the washrooms within the park. A park map could be included near high traffic trail intersections, parking areas and park/trail entrances to show the location of various features of the park.
Maps without details	The locations of washrooms are not marked on maps provided on the park's webpage. A "W" symbol indicates the location of the washrooms. The international symbol of accessibility could be added to the Internet map for improved information provision.
There is no access onto docks at Silver Lake.	A ramp could be added to the existing dock that would provide access for a person in a wheelchair.

Table 5.1.1, List of recommended improvements for the practitioners at Waterloo Park.

Recommended improvements at specific study sites

Laurel Creek Conservation Area

Issue	Recommendation
Staff was unfamiliar with accessible park features.	At the time of observation, the gatehouse staff had no knowledge of accessible features. Itemized lists, maps with accessible locations, and staff training may improve gatehouse staff responses to accessibility inquiries. (The AODA's customer service standard may bring needed improvements to the information deficiency.)
Accessible park features are not listed within the brochure.	The international symbol of accessibility could be added to park maps within the brochure. A section denoting specific features and locations could be included as well. Promoting user feedback outlets within the brochure could improve the communication of accessibility concerns.
Lack of a user feedback field on the park's web site.	User feedback could be linked from a field on the park's web site. The addition of the field could also be enhance with a button for accessibility concerns. Improved visibility for concern may lead to an increase in user feedback and solutions.
Only one accessible washroom is available during regular park hours.	Accessible sanitation units (ASU) could address the lack of accessible washrooms on a seasonal basis until permanent structures could be stationed. Vault toilets could be rebuilt to improve the structure improved access. Washrooms at the Critter Shelter could be renovated for improved access at a minimal cost. The washroom stall is too small to maneuver within its perimeters. Stall walls and door could be removed. The washroom would then service one person at a time with more open space.
Dumpster lids are too high to dispose of waste.	Providing dumpsters with access panels at the side may assist a person with a disability. Side panels would allow for waste to be deposited without lifting lids at the top.
Poor transitions from grass surfaces to shelter floors.	Transition from grass to concrete needs to be addressed where a person with impairment can gain access onto the shelter floor. An easement could be created where the grass surface is leveled with the floor. Infill of hard pack dirt or curb cuts may be alternate solutions.
Park trails do not offer accessibility for a person in a wheelchair.	Accessible trails could be created on existing routes. Pavement, hard packed dirt, or stone dust could be material options that would provide accessible routes throughout the park. If trails surfaces were leveled for incline and cross slopes then grass stabilization mats could be an alternate choice to providing access.
Accessible easement from parking areas to park features is deficient.	People with impairments could have special access granted to allow for parking on grassy areas next to park features. The "no vehicle entry" access road may provide easement to the Dam Pavilion for persons with impairment. Similarly, the Critter Shelter lacks accessible parking. The single accessible washroom location does not have an accessible path. Alternately, stone dust pathways could be placed for accessible routes.
The park is without accessible parking spaces	Accessibility could be implemented at a minimal cost merely by allocating one accessible parking space in each lot at points closest to park features. Parking areas with dirt or gravel surfaces could be upgraded using brick pavers to construct pads where people with disabilities can exit their vehicles on a stable surface.
Deficient beach access	The beach side canoe rental structure could house a beach chair or all-terrain chair for persons with impairment. Boardwalk or sand mats may provide independent beach access.
Accessible shower's coin mechanism is beyond reach of the bench.	Independent use of this shower would be difficult without relocating the mechanism closer to the bench. A time delay for the dispensing of water may facilitate use.
Camping registration and ice or firewood sales are conducted in the gatehouse.	Car side arrangements can be facilitated by asking staff for assistance.

Table 5.1.2, List of recommended improvements for the practitioners at Laurel Creek Conservation Area.

Recommended improvements at specific study sites

Pinery Provincial Park

Issue	Recommendation
Placement of washroom fixtures created a level of difficulty in use.	Inaccessible washrooms, the varying differences in dimensions of many fixtures were slight, most within 5 cm. The height of the toilet paper in the accessible stalls was low and at roughly the same height as the toilet. Heights of some toilet paper dispensers were too low for the observer. Reaching under the toilet paper dispenser and starting the roll may be difficult with diminished fine motor skills. The observer found difficulty in acquiring toilet paper, as it was required to reach down, under and up. The space between the dispenser and the toilet may be out of reach for some. The low height and distance make reaching the paper difficult. Optimal placement may interfere with the location of grab bars. Locating the toilet paper dispenser closer to the toilet and clear of the grab bar may improve accessibility. Soap dispensers placed behind the sinks were more difficult to reach. When possible, placement of dispensers at the side of the sink may improve use.
Dunes 5 washrooms has diminished accessibility due to placement of parking blocks.	Adjusting the parking blocks would create an accessible route from the road to the washroom.
Railing heights on various viewing platforms blocked the scenery for a person in a wheelchair.	Railing heights would be a preferred height of 91.44 cm. Where possible; railings could be eliminated for unobstructed views. Railings could be modified to a lower height at a minimal cost. Since fishing is permitted along the Old Ausable Channel, platforms or boardwalks without railings may create more locations for a person with impairment to fish.
There is a lack of accessible fishing platforms.	Locations on the Riverside trail have two platforms that may be offered as locations for fishing for persons with impairment. There are numerous other locations along the channel that could be modified for accessibility at a minimum of expense. Fishing is not permitted at the canoe launch. However, the gradual slope to the water and the dock are good elements for persons with impairments. Special permission could be granted to fish in the canoe launch location.
Access at the firewood stand needs improvement.	Transitions from the parking surface onto the sidewalk need leveling. Transportation of wood from stand to vehicle is difficult over the uneven stone and gravel surface. An accessible parking space created with brick pavers may reduce difficulty. Arrangements can be made for car side service. This service needs promotion in park brochures or Internet outlets.
Accessible equipment rental offerings are not available for people with mobility impairment.	Where a large amount of bicycles are offered with numerous variations of style and size, it is not unreasonable to expect an offering for a person with impairment. The inconsideration is further highlighted where child trailers (two-wheeled attachments for bicycles) can be attained at the bike shop. Attachable hand-cycles could be purchased for rent. For accessible winter recreation options, sit-skis and hockey sledges could be added.
There is no canoe rental protocol or equipment for assisting people with impairment.	An extensive ramp system leads onto the canoe rental dock. A lift could be added dockside to assist people entering or exiting a canoe. A staff person could be trained and assigned to assist people with impairment.
The visitor center has two sets of double doors.	The issue would be resolved with the installation of a pushbutton device that activated the interior and exterior door simultaneously.
Uneven transitions between walking surfaces.	Solutions to transitions will depend on the surfaces. The addition of concrete, brick, and hard packed dirt may resolve the difference in levels. Some transitions could have extractive measures to level the surfaces. Concrete grinding or the leveling of dirt under pavers may solve transition issues.

Table 5.1.3, Part one — list of recommended improvements for the practitioners at the Pinery Provincial Park.

Recommended improvements at specific study sites

Pinery Provincial Park — continued

Issue	Recommendation
There are no accessible beach access points.	Enough landscape alterations have been made for non-accessible purposes. There should be one beach access point created for persons with impairment to gain entrance to the beach. A ramp or landscape alteration could provide a person with a mobility impairment independent access to the beach. An accessible parking space will need to be created at the access point. Brick pavers, boardwalk or sand stabilization mats could be used to create the parking space and access point.
Fee to rent the beach chair.	The fee to rent the beach chair should be removed. A system for delivering the chair to an access point should be created as the chair may be oversized for most vehicles. Since the chair does not permit independent use, a beach access point should be created for unassisted beach enjoyment.
Lack of accessibility details on park websites and in brochures.	The park needs to audit their facility to provide accurate reporting of their features. Many washrooms have access that could be listed in park information. As the campsite booking process can be completed online, and specific campsites can be viewed, providing accurate information would help in making appropriate camping arrangements and site selection.
There is a lack of signage at specific points of trail changes.	The accessible Riverside Trail has a change in conditions near the Old Ausable Channel. The trail changes from an accessible trail to a narrow, muddy wilderness path. A sign needs to state the change for visitors to proceed with the understanding of a different trail surface.
One accessible picnic tables were found.	Accessible picnic tables could be added to the current accessible campsites. As a table needs replacement in a different location the new table could be put on the accessible site.

Table 5.1.4, Part two — list of recommended improvements for the practitioners at Pinery Provincial Park.

Recommended improvements at specific study sites

Point Pelee National Park

Issue	Recommendation
Accessible beach access points are limited to the line of vegetation.	Numerous beach access points could be improved with the addition of plastic stabilization mats. Northwest Beach, East Barrier Beach, West Beach, Black Willow Beach and the Tip Viewing Area have trails or boardwalks that terminates at the beach edge within the line of vegetation. Sand stabilization mats would create access on to the beach. Mats are spiked into the sand creating a semi-firm surface that limits the penetration of small wheels. It was noted at West Beach where an extension of 11 m 80 cm of stabilized sand would provide access to mid-beach picnic tables. The solid surface would allow independent access onto the beach without the use of the all-terrain wheelchair (ATC). Northwest Beach access points 10, 11, and 12 are closer to the waterline. The locations would be prime spots to improve independent access for people with impairments. An alternative is to extend boardwalks on to the beach.
The method for procuring the ATC is not clear.	The office to secure use of the ATC is not accessible. A clear procedure needs to be implemented for the use of the ATC. Staff should know what steps to follow in the transaction of the ATC. Access in to the office needs to be address with a ramp or method of transacting business outside of the office. The size of the ATC is cumbersome to move from the office to a designated beach. Part of the ATC transaction should be the delivery of the device to a requested beach. Park vehicles are better suited to transfer the ATC. Since the chair does not permit independent use, a beach access point should be created for unassisted beach enjoyment.
Accessible equipment rental offerings are not available for people with mobility impairment.	Where a large amount of bicycles are offered with numerous variations of style and size, it is not unreasonable to expect an offering for a person with a disability. Attachable hand-cycles or three-wheeled hand-cycles could be purchased for an accessible equipment rental.
There were picnic areas that did not have accessible washrooms.	Sanctuary, Dunes, Sleepy Hollow, and Pioneer picnic areas have washrooms usable for able-body people. The five locations could be improved with the installation of an ASU. The ASU would facilitate the needs of people with impairment at sites without accessible washrooms.
Many locations have limited accessible parking spaces.	An accessible parking space could be created in each of the lots at the above listed picnic areas. A section of brick pavers could stabilize ground material for entering and exiting a vehicle. Purchasing recycled brick and/or cinderblocks may be a cost saving method for implementing this access recommendation.
West Beach has two accessible picnic areas in line with the vegetation.	Access to the mid-beach picnic tables is limited by the soft sand surface. Sand stabilization mat would allow independent access to mid-beach tables. Also, the accessible areas could be moved out of the line of vegetation with an extension of the current boardwalk.
The increased frequency of monitoring of trails after severe weather events could maintain accessibility.	Currently, trails are assessed seven times a year. However, it is suggested that evaluations should be performed more and after severe weather events. Trail conditions could be reported through the park's website. The heightened focus could address access issues posthaste. A daily monitoring of accessibility in park areas could note places that require maintenance. An employee could simply drive though areas to locate issues, if any that need to be addressed. The "Lets keep in touch" program would benefit from stronger promotion. User feedback could identify areas for maintenance. Drop boxes for comments and suggestions could foster the relationship between visitors with impairment and the park.
Numerous sections of boardwalk in multiple locations were noted to have warped boards.	Weathering, age, use, or fastener types are variables that determine the degree of warping. Replacement or undercutting boards in place would reduce warped boards that could be tripping hazards. Screw fasteners were noted as the best form to prevent warping. Nail fasteners were noted on warped boards.

Table 5.1.5, Part one — list of recommended improvements for the practitioners at Point Pelee National Park.

Recommended improvements at specific study sites

Point Pelee National Park — continued

Issue	Recommendation
Lack of accessibility details on park websites and in brochures.	A pamphlet or page in the park brochure could be designated to list accessible park features. Park websites could also feature the same list. Upon inquiry, one park staff member stated, "We had a brochure that listed accessible features. The brochure is out of date and not printed anymore." A regular system of monitoring for accessibility issues could help maintain an accurate account that could be updated on a timely basis through park information outlets. Computer stations available at the visitor center could access the parks website to assist with accessibility questions. The cost of maintaining and reprinting a pamphlet on regular basis could be eliminated. However it is important that the information published online is accurate and consistently updated.
It was noted that most polled staff were unaware of accessible park features.	A training program for staff to assist people with impairment could lead to improved customer service. The program could be as simple as knowing what park areas and features are accessible. Perhaps a designated staff member could be the customer service liaison to assist people with impairment. The staffer could inform visitors of trail conditions, feedback outlets, and the location of accessible park areas.
There is no canoe rental protocol or equipment for assisting people with impairment.	A lift could be added dockside to assist people entering or exiting a canoe. A procedure could be developed to assist people with impairment for transferring in and out of a canoe. A staff person could be trained and assigned to assist people with impairment.
Limited access at the Marsh Outlook.	This location has three to four informal parking spaces on the side of the road. Paving a section of the roadside could create one accessible parking spot. Brick pavers may be suitable to allow water to seep through the surface as opposed to run-off towards the marsh. Similarly, access onto boardwalk could be improved with pavement for better access.
The doors to enter the Delaurier homestead are too narrow for a standard wheelchair to enter.	The structure at this location exhibits technology and décor from the period of first European settlement of Point Pelee. Visitors are allowed to walk into the house. Circulation is restricted with a glass partition. There is a back door, which is locked/nailed shut. The door could be removed and replaced with glass that would provide a viewing area for persons with impairment.
There are numerous areas within the park where vegetation encroaches into the pathways.	The vegetation reduces the width of the trail where it may be difficult for people to pass. Trail monitoring and maintenance will clear areas that become too narrow to pass. However, crowding vegetation adds a level of aesthetics to the pathways.
The Tip Viewing Area trail's surface density loosens and is uneven.	The surface density changes for the last 27 m 50 cm of trail. The hard packed stone dust trail surface loosens and requires more exertion to traverse. Furthermore, the trail ends within the line of vegetation. Since the tip is prone to geomorphic change due to currents and storms, sand stabilization mats, temporary boardwalks, or decking could provide access further out for people with impairment. The modified trail could extend a short distance onto the beach in advance of changing tip sections. Accessibility infrastructure could be removed in low seasons or during periods of increased storm activity. The incongruent trail surfaces may be dangerous as it could be a tripping threat for people walking or in wheelchairs. Twisted ankles or overturned wheelchairs may result. Trail materials could be replicated from trails with hard packed, level surfaces.

Table 5.1.6, Part two — list of recommended improvements for the practitioners at Point Pelee National Park.

5.12 SUMMARY

The preceding site recommendations are to encourage more equitable experiences at the study sites. The attitudes of park officials can assist in the facilitation of equity by advancing accessibility within the restriction of tight budgets.

User feedback and community involvement can provide officials with valuable insight into developing accessibility within their parks. Officials can inquire what solutions may improve park experiences. Solution examples may include increased reporting and reduced entry fees.

Feedback loops and involvement can open channels of communication between visitors with impairment, community groups, and officials that may garner understanding of the limitations in which officials operate. Comprehension of upgrade expenses, budget restrictions or ecosystem degradation could provide reasons of limited accessibility for park users.

Chapter 6

Conclusion

6.1 GOALS & OBJECTIVES

The purpose of this research was to analyze the accessibility and information made available from four different parks in southern Ontario, Canada. Parks of different management levels were studied to reveal a variety of accessibility unique to each site. Accessibility was examined through the triangulation of observation, user perspective and administrative perspective. Elements of the constructivist, advocacy-participatory, postpositivist worldviews guided the work in this study. This study is more than an audit of park features for accessibility. It an evaluation of accessibility through the perspective of a person with an impairment using research methods to find explanations for access and information deficiencies.

6.2 WHAT AND HOW

Four study sites were selected as they represented a municipal, regional, provincial and national park. The differences of governance may influence the accuracy of accessibility information and what accessibility is in place.

The accessibility information (or the lack there of) was examined for it would serve as targets for observation within the study sites. Sites without accessibility information were observed to detail what accessibility currently exists.

Before entering the field, a pilot study was conducted to refine data collection methods. The study highlighted inefficiencies, documentation procedures, and tools that could be adjusted for a streamlined collection procedure.

Fieldwork was conducted in the study sites to experience the degree of accessibility on the ground; to collect measurements of accessibility; and, ultimately, to compare the on-site experiences with those indicated in the information available to potential users. In conjunction to observations, measurements of accessibility were collected to provide more than subjective interpretation. The measurement of park features provides the physical dimensions to accessibility. Extensive measurements in the appendices represent what accessibility exists at the study sites.

As participant observer, the researcher's mobility impairment provided a perspective of visitor. Accessibility at the study sites was scrutinized from the viewpoint of a wheelchair and twenty-three years of experience in it. Through autoethnography, I could examine what feelings I had towards the accessibility at the study sites. Reasons could be expressed for my reactions. This method provided the opportunity to connect my past experience to the current accessibility within the sites. Furthermore, I could analyze my role as a researcher with impairment.

Key informant interviews were conducted to further examine accessibility within the study sites. The method of inquiry permitted themes to emerge from the interview transcripts. Interviews with park officials provided an organizational and management perspective to the study. Their decisions may directly affect the degree of accessibility that exists at the sites, making them appropriate key informants. Intuitive aspects, like attitudes, were discovered through coding interviews as part of grounded theory

To assist in uncover the origin of informant attitudes; secondary sources were culled to explain accessibility at the study sites. Websites, master plans, statistical reports, brochures, and annual reports provided insight into site operations and administration. Print materials and web content were accessed and examined to ascertain what accessibility information is promulgated. Planning documents and administrative reports were also examined to establish the internal mandates, if any, which may promote accessibility. A variety of sources were deficient of perspective on accessibility. Similarly, there were sources that maintain a focus on accessibility.

The combined data was used to substantiate and refute claims concerning the existence of "barrier-free" amenities. Furthermore, the measurements and other information may be offered to provide supplementary information concerning accessibility that could be disseminated to the public.

6.3 FINDING ACCESSIBILITY

Participant observation, study site observation, and key informant interviews revealed important factors to explain accessibility at the study sites.

Equity will be based on the degree of accessibility in park environments and visitor's impairment. Barriers may be encountered where the individual's ability determines whether or not progress is halted. Parks that provide accessibility infrastructure that does not limit progress will have a greater sense of equity for visitors.

Financial restrictions have multiple affects on accessibility. Parks relying primarily on visitation numbers have limited budgets for capital improvements that would facilitate accessibility upgrades. Budgets allocated during periods of economic turmoil are designated to cover operational expenses. Maintenance upgrades are performed when needs arise. In most cases, facility improvements include accessible features and appear the most common way in which accessibility upgrades occur. Functioning structures are unlikely to be razed to improve accessibility. However, newer facilities that grant greater accessibility will be constructed as time erodes building constructed in the pre-accessibility legislation era. Guiding legislation should maintain a minimum for accessibility in new structures. Should the Built Environment Standards of the AODA receive ratification then more access may be gained. Officials expressed a willingness to make improvements to accessibility. However, they are constrained by limited budgets, which demonstrate that financial restrictions compromise accessibility related improvements.

Park officials eagerly and openly discussed their willingness to improve accessibility at the sites. However, officials also conveyed hints of defensiveness when questioned on accessibility within their parks. Questions concerning accessibility may be seen as a negative evaluation of the official's decision-making responsibilities. Furthermore, willingness may not result in action. This point is emphasized when budgets are constrained, influencing the number and types of projects that can be executed. Limited capital improvement allocations may reflect the effect of financial restrictions on accessibility. Yet positive attitudes of park officials will continue the promotion of equity by advancing accessibility within the perimeters of limited budgets.

Fortunately, there was widespread willingness to move ahead with accessibility improvements. Community involvement may be a means of advancing accessibility beyond willingness. Some of the best examples of accessibility improvements that were made at the study sites involved input from the local disabled community. Where officials sought inputs from people with impairments, the disabled community's ideas were incorporated at the planning stages, resulting in greatly enhanced accessibility. Moreover, park vistas were not impeded by accessibility infrastructure. Officials of sites that have not sought such community involvement recognize the merits of such contributions. They comprehend that people with impairments are in a unique position to detect deteriorating accessibility and to suggest improvements.

People with impairments are familiar with limitations. They may have to accept that modifying natural environments to improve accessibility is not a viable option. Park officials with limited

financial resources may not have funds to make all park features available for independent use. However, a reduced entry fee may be a compromise to limited accessibility.

Park officials interested in finding compromises need to stimulate community involvement. Accessibility planning could be enhanced through greater communication between park officials and visitors with impairments. Whether through accessibility committees or user feedback outlets, officials should be compelled to gain insight from the very people that accessibility would benefit. The AODA mandates communities to have accessibility committees to provide feedback. Officials should take advantage of that resource. Seeking private sponsorship for park projects may be another form of community involvement.

To alleviate financial concerns private sponsorship may assist in promoting accessibility. Friends groups or park administration could seek community contributions specifically for accessibility projects. Ramps, accessible trails, and campsite improvement projects could be funded by local businesses. In turn, businesses could gain visibility from sponsorship signs at point of access improvements. A business could gain a positive community image from their participation in social responsibility by promoting park projects that advances equity. Businesses may be rewarded by an increased business from the market share of people with impairment.

People with impairments use park websites to find, locate, and target accessible features to avoid potential barriers. Poor provision of information affect visitors' experiences. Internet sources would be an exceptional tool for reporting facility upgrades. Facility upgrades and accessible features can be reported on the underutilized park websites. Stronger communication between park officials and webmasters may be the key to improving on-line accessibility information.

A key research question concerns the level of accuracy of the accessibility information that is available to the public. It is concluded that the accuracy is uneven both within and between parks. Information is provided that is consistent with the degree of accessibility that was found at the study sites. However, where accurate information is provided, it is limited in scope. At the same time, errors in the information were identified, which conceal barriers, and consequently, undermined the experience of a visitor with impairment.

The gap, between information and the accessibility on the ground, is from the absence of systematic monitoring and reporting. Although informants indicated that accessibility audits have been performed, the timing of the audits was not clear and, at least in one case, may not have been

undertaken for more than six years. At one park, personnel are designated to undertake site inspections to locate maintenance issues. However, no inventories of issues were generated that could be used to support park information updates. Accessibility issues could be located and addressed as part of seasonal maintenance activities. Notes on specific locations and concerns could be used to generate information for park updates that could be released to the public. These activities would serve the need for monitoring and reporting.

Study sites that reported accessible features did provide barrier-free experiences. Trails, washrooms and campsites were among the features that were reported and found as being “barrier free.” Recently updated washrooms usually met the requirements of current accessibility building codes. Wood-framed ground surface areas increased the surface density to make campsites accessible. Trails with a dense ground surface, boardwalks and inclines of less than 12% offered people with mobility impairments opportunities to experience nature independently.

Unfortunately, the accessibility information was limited in breadth and depth. Rich descriptions or photographs were lacking in numerous information outlets. Often there was little detailed information on items that were listed as “barrier-free.” Such details may be of importance to a person with impairment making travel arrangements. To further illustrate the lack of detail, two study sites had maps that use the international symbol of access to denote accessible locations. The remaining two study sites had maps lacking denoted accessible features. Maps could be more effective communicators if additional details concerning accessibility were included in an adjacent section of the published material. Brochures and websites were found to be deficient in their provision of accessibility information. Such information is important to park visitors of any ability. Those responsible for providing information to the public should take action to reduce the information deficits by providing more details.

A system of monitoring beyond the most basic level is lacking in all the study sites. Although inspections of facilities occur, accessibility is not targeted for regular investigation. Systematic analysis of accessibility could generate information for updates to the administration’s media outlets. At all four sites, there seemed to be no clear connection between officials and those responsible for updating public information. Enhanced communication within park organizations may result in improved accessibility information provision. A reduction of inaccuracies may result from augmented monitoring and communication.

6.4 IMPLICATIONS

The themes of this research are not endemic to the four selected parks. The disconnection between experience and information occurs in many areas of tourism. Hotels, as demonstrated by various authors in the literature review, are a prime example of the gap. There have been numerous occasions where this researcher had informed expectations of accommodation only to find the contrary upon arrival.

Pre-trip decisions may be based on information that was created for marketing purposes. Numerous websites could be highlighted that display destinations in a highly positive manner. Less desirable images that may reveal accessibility issues may not be considered as strong marketing points. People with impairment need to be wary of information sources. Statements like, “You shouldn’t believe everything you read on the Internet” resonate with truth when observing web sources employed in this study. Searching for information with a critical eye may lead to the making of better-informed decisions.

The information/experience gap could be a reflection of the attitudes of the supplier, their reluctance to provide proper accessibility accommodation or, more broadly, the lack of social inclusion. The best path forward may be to reduce reluctance or overcome attitudes through legislation. Currently, mandated building codes generate accessibility. Perhaps regulations on the provision of accessibility information would provide a level of accountability. Tourism suppliers would no longer just promote marketing content. Specific details about accessibility provisions could be mandated. Infractions, as highlighted by this study, could be curbed through disciplinary measures. Social equity and inclusion would then be an enforced directive in the tourism industry.

6.5 FOR FUTURE RESEARCH

It would be irresponsible to assume that this mobility impairment analysis of accessibility represents all forms of impairment. Provision of improved access for those with mobility impairments may not necessarily meet the needs of another person with a different impairment. However, the research could be readily expanded to include analysis of accessibility for multiple impairment types. Exploration of the information on accessibility for people with sensory or cognitive impairments may reveal that there is a dearth of such information at the study sites. A guiding question could be, “Why has needs of people with sensory or cognitive impairment not been considered in accessibility?”

The data collection for this study was conducted in late summer. Park conditions were relatively dry, with some exception for periodic rain. This study could be expanded to determine what effect seasonality has on accessibility.

The foundation of this research could be applied beyond the scope of parks. Communities or businesses could benefit from the themes of this research. Entities with a genuine concern for promoting accessibility could develop an internal analysis of their accessibility information. The realization of people with impairment as a viable market segment could initiate monitoring programs, infrastructure upgrades, or information audits for accuracy. Such actions could gain positive attention from people with impairments resulting in increased revenues. Parks from this study, or other sites, could incorporate similar initiatives that would attract new market shares while furthering equity through accessibility.

6.6 FINAL THOUGHTS

This research on accessibility provides insights into the broader values of inclusion and equity. The actions of park officials are, to a large extent, a reflection of public attitudes. Inaccurate and limited information may be linked to disability as a social (and potentially physical) construction. Society, as exhibited in legislation, has recognized that individuals should not be excluded based on impairments of the body. However, further actions are needed to move beyond pre-accessibility legislation landscapes.

My goal for conducting this study was to change the world. Change will come with community involvement and legislation. I hope through, site evaluations, participant observation and interviews that the world for people with impairments becomes more accessible.

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Appendix A

Waterloo Park Appendix of Measurements

6.7 PARK FACILITIES

LION'S LAGOON SPLASH PAD – The flat open area has slight declines for drainage, estimated to be less than 1%. The top of the entrance ramp into Splash Pad has a transition of 5.08 cm reduced to 3.175 cm with a 1.27 cm lip at the bottom. The entrance gate is 309.88 cm wide. There are no accessible picnic tables. The ramp leading up to the picnic shelter has a 5% incline.

SCHOOLHOUSE – Closed to public - permission is required to view this building. There are six steps to enter the building.

PARK ADMINISTRATION BUILDING – This building is not open to the public.

BANDSHELL – The City of Waterloo present summer concerts and movies, which are held at the band shell. The park feature is located on the park's west side. Access to the band shell can come from many directions. The trail leading from the west-side parking lots has numerous impediments to access. Specific issues are described in the Paths, Walkways and Trails section. The 10 m approach to the band shell consists of an uneven grass surface. Transition onto the stage area is greater than 2.54 cm.

VICTORIAN GARDEN – Meter-wide paths narrow to widths of 76.2 cm. Places of water damage have cross trail washouts that measure 10.16 cm that widen to 91.4 cm. The transition from the pathways into the gazebo is greater than 2.54 cm.

ABRAHAM ERB GRISTMILL – The original structure, in operation for 111 years, was destroyed by fire in 1927. The mill was rebuilt to original specifications in 1998. The gristmill's current use is to serve as a location for wedding ceremonies. The interior is a simple room that can be arranged to suit the needs of the rental party. The double-door entrance has a slight threshold of 1.27 cm. The rough floor surface may create uneven footing for people.

EBY FARM AREA – Transitions between surfaces were found to have differences of levels from 1.27 cm to 5.08 cm. Inclines along pathway were 5% or less.

EAST-SIDE PLAYGROUND #1 – Play feature has a walking area of 20 m in length. The ramp onto the play feature does not have handrails for the first 4.31 m. The incline up the ramp is 5%.

EAST-SIDE PLAYGROUND #2 – There are no accessible features to measure.

WEST-SIDE PLAYGROUND – The play feature has a walking area of 50 m in length. The “bridge” section of the feature has gaps between boards of 7.62 cm. The ramps have inclines of less than 5%. The exception is the unstable “bridge” section, which may have declines greater than 10% depending on the movement of the surface.

6.8 PATHS, WALKWAYS, TRAILS

The organization of the following trails is done in correspondence to the separate sides of the park. East side trails are listed first followed by West side trails. Specific measurements of trail characteristics are listed. The characteristics that are common to all trails have been addressed in the finding section for Waterloo Park.

LAUREL TRAIL – This trail is not part of the Waterloo Park system of trails. However, it was important to observe this trail as it acts as a central corridor through the park. The Laurel trail makes many connections with trails that are managed by Waterloo Park. The trail starts in Waterloo Park next to the Canadian Clay and Glass Gallery. Trail width is 2.54 m - 2.74 m and extends 0.94 km through park.

The gallery and park entrance is a design of brick and concrete. Through use and weathering some bricks are broken and missing. Spots of missing brick have a depth of up to 2.54 cm. Transition between brick, pavement, and dirt surfaces have level changes that range between 1.27 cm to 6.35 cm. There is a 5% slope outside of Clay Museum.

There are some places where brick has been filled in or replaced. This repair may be evidence that there is a level of monitoring or reporting to address certain situations like missing bricks. Missing bricks may not be just a hazard for people with impairment but also pedestrians in that high traffic area.

The trail surface changes at various intervals, from brick to asphalt or stone dust. The first two materials are rarely affected by water damage. The stone dust forms places where standing water collects causes potholes of various size (30.48 cm – 1.5m).

Slope on trail by Seagram Drive entrance is an estimated 17.8%. (Slope estimated with a 89 cm rise and a 500 cm run.) To avoid the steep slope, the Seagram parking area has a more gradual slope to traverse but is dangerous with vehicle traffic.

RAILROAD CROSSINGS – There are two railroad and trail crossings in the park. The Seagram parking lot crossing is hazardous for people with mobility impairment that use a wheelchair. The 22% slope at the crossing has broken pavement at the low end. (Slope estimated with a 63 cm rise and a 243 cm run.) The protrusion of the iron rails and deteriorated wood ties create awkward transitions.

Railroad crossing at father David Bauer Drive is packed dirt with crushed rock. There is a 1.27 cm to 5.08 cm difference between dirt and rail. However this rail crossing is less complicated than the Seagram parking lot crossing.

HISTORY TRAIL – The trail begins at the junction of the Laurel Creek bridge, Father David Bauer Drive access point, and Laurel trail. The trail surface has sections of hard packed dirt and pavement. A section of pavement bisects the trail that creating uneven transitions from pavement to dirt. There is a cross trail slope from 2.54 cm – 5.08 cm.

Areas of the hard packed dirt trail show evidence that water may reduce the accessibility of trail. Tracks left from bicycles in the path indicate that collected water from rainfall may diminish the surface tension of the trail surface.

Fallen leaves on the trail disguise holes and depressions that may be hazardous. A section of trail washed out next to the Erb Grist Mill bridge. At the area of washout, there is a 10% cross slope that declines into softer trail material – loose sand.

HISTORY TRAIL (LAKESIDE SECTION OF TRAIL) – The trail is 2.60 m wide with a 10% slope at beginning. Lakeside trail turns from hard packed dirt and stone to pavement. The pavement section of trail starts at a width of 210.82 cm wide which narrows to 167.64 cm. The narrow section of trail extends 2.5 m to the handrails of a bridge. The handrail heights on the bridge are 118.11 cm with a surface width of 111.76 cm. Transition from pavement to bridge surface has a 2.54 cm – 5.08 cm difference. There is a 5% slope of pavement at the beginning and end of bridge to address the issue of a step.

Sections of pavement collect water with other areas “bubbled” up creating an uneven trail surface. There is a 15% slope from lakeside area back to the main portion of the History trail (behind the Perimeter institute).

LAKE WALK – Trail begins at the Abraham Erg Grist Mill. Cross slope of sidewalk next to Old Mill is 15% into the street. Sidewalks are the responsibility of the Transportation Services department of the City of Waterloo.

Ramp from street level to path along Silver Lake (near the docks) starts off with a 5% slope that steepens 10%. The trails surface transitions three times in 3 m from concrete to brick and hard packed dirt. Trail begins with a 264.16 cm width. There are sections of the trail near the Silver Lake dock that have exposed rocks, which are tripping hazards. The trail narrows to 223.52 cm with a level hard packed dirt surface.

The trail meets with long sections of boardwalk under a gazebo at the water's edge. The trail narrows to 111.76 cm, which is barely passable with the observer's wheelchair. There is a 15% cross slope from the right side of the trail down to the left. Trail material on left side of trail is soft with loose rock and sand. Sinking front wheels on the cross slope could cause a fall. Along with the cross slope there is a 5% slope from trail onto boardwalk, which has a smooth transition between surfaces.

The 340.75 cm wide boardwalk along water's edge is open with no handrails or edging. Boards in walk are tight fitted placed with screws. Some screws are sticking out of the wood planks. Protruding screws may be a tripping hazard. The cause may be from high traffic use. Transition from boardwalk to dirt path has 3 different types of transition surfaces: 1.27 cm from boardwalk to rock and 2.54 cm – 3.81 cm from rock to dirt. Muddied trail section with tracks show the effects of water on the path.

INTERSECTION AT SILVERLAKE BRIDGE – Area is the intersection of three trails. $609 \text{ cm} \times 439 \text{ cm} = 264,915 \text{ cm area}$. Area can be difficult to cross due to loose trail material. Dirt has been packed with larger stone pieces (1.27 cm – 5.08 cm rock pieces), which lock dirt in place. Area in center is still loose and may be problem when wet.

The Laurel Creek bridge crossing has a slight transition difference of 1.90 cm. Space between boards of the decking is less than a 1.27 cm. The transition from trail to bridge is seamless.

EAST SIDE PLAYGROUND PATHWAYS – Paths are paved. The path leading away from the lakeside gazebo to play area has 3.81 cm lip to a 5% incline. There is a surface transition from asphalt to hard packed dirt at the entrance to the Victorian Garden. Path from Lion's Lagoon Parking lot to the play area has multi-surface transition over concrete, metal grate, and brick, which is 105.27 cm in length and a width of 2.54 cm.

WASHROOM TRAIL – This short path connects the Lion’s Lagoon parking lot to the hilltop, east side washrooms with a length of 40 m. The 60.96 cm trail surface is concrete pavers that are uneven. Transitions between pavement, grass, and concrete are uneven.

SCHOOLHOUSE PATHWAY – This is a 3.48 m wide pathway that connects the Lion’s Lagoon Parking lot and the Park Inn snack bar to the east-side washrooms. There are numerous cross-slopes along this path.

The path’s transition to pavement is washed out near the top of the hill. The washout runs at a width from 2.54 cm at the narrowest to 10.16 cm at the maximum. The depth coincides with the width. The washout could be avoided by going further down hill along a paved section of roadway then back up hill. As the washrooms are located at the top of the hill this pathway would be the shortest route for a person with impairment. However, those with more mobility could cross the grassy areas going up hill to access the washrooms from other directions.

EAST-SIDE “SIDEWALK” – The use of quotation marks around sidewalk is to designate that there is no formal sidewalk in place along a majority of this walkway. However users that follow the roadway have created a walkway.

The “sidewalk” runs alongside the park road that connects the Central Street entrance to the Seagram parking lot. The first 300 m of walkway is a narrow trodden grass footpath. Persons using mobility devices may find this section of walkway difficult. Using the roadway would be a more solid, but less safe (due to vehicle traffic), alternative. 130 m of surface is hard packed stone dust (nearest the Seagram lot). The width of this section of walkway is 228.6 cm. There are areas with a reduced surface density, washouts and cross slopes.

TENNIS CLUB WALKWAY – The walkway connects the parking area at the Rink in the Park to the parking area of the tennis club. The path is paved with deteriorated sections of asphalt. There is a 10% slope with a 10% cross slope of on half of the 152.4 cm wide, 120m long pathway.

The following trails are located on Waterloo Park’s west side.

BANDSHELL TRAIL – The trail begins along the west side driveway with a width of 174 cm. The trail surface is gravel, rock, and hard packed dirt. There is a 10 m 44 cm stretch of trail that has exposed roots. Some roots protrude 10.16 – 12.7 cm in height. Trail then continues as it began until the trail narrows to 50 cm with a surface of loose stone and rocks. Rock sizes are roughly 3-4 cm in

width. Narrowing is worsened by the formation of a rut depth with a depth of 10.16 cm. The uneven grass surface along the trail was easier to traverse. Access to the band shell is across grass surface.

UNIVERSITY OF WATERLOO ACCESS TRAIL – At the bottom of the Band shell Trail, a small spur with a footbridge provides access to the University of Waterloo Parking lot C. Rain of that day made the surface muddy. The trail surface softens leaving ruts from small wheels on wheelchair of 2.54 cm to 5.08 cm depths. Trail width is 192 cm prior to bridge and narrows to 75 cm. 17m 98cm of distance between the solid trail and the bridge to cross the brook to the parking lot. The 122cm wide bridge across brook has 89cm railing heights with 15% grade on and off the deck.

ACCESS ROAD – This trail serves as an access road for park vehicles. The trail/roadway begins at the Ball field's parking lot and extends to the band shell. Personal vehicles are prohibited from using the road. Cyclists and pedestrians are the primary users of the lane. The roadway surface is hard packed dirt, which is prone to water damage evidenced by potholes and standing water. A large 3.19 m wide by 6.96 m long section of road was covered with leaves and standing water. The size of the collected water eliminated space for wheelchair to get around.

EAST/WEST CONNECTION TRAIL – This wooded trail joins the east and west side of the park. A small footbridge spans over Laurel Creek. Near the west side access road entrance to the trail there is a concrete staircase that rises to the ball fields (the previously mention access road serves as the accessible route for persons with impairment). The trail's footbridge has a width of 235 cm with a 2.54 – 5.08 cm (range) transition onto the bridge. Railing heights are 104.14 cm. The trail surface is uneven hard packed dirt with rock. There are large areas of mud and puddles of standing water. Leaf debris disguise surface issues and rocks.

SEAGRAM DRIVE ACCESS TRAIL – This short access trail leads to Seagram Drive. Trail surface is dirt and stone with a cover of leaf debris. A storm drain situated in the middle of the trail, and is disguised by leaves in a dark section of trail. The section is dark from the cover of bushes and trees. Leaves on trail may add to the surface density. However leaves disguise “pitfalls,” places of wash out, or drains in the path. People of any ability could sustain serious harm should the hazard not be seen.

WEST-SIDE SIDEWALK – The 145 cm wide sidewalk runs alongside the park road that connects the Westmount Road entrance to the Ball field parking lot. The surface is hard packed stone dust. There are areas with a reduced surface density, numerous washouts and cross slopes. The ruts and

cross slopes make the sidewalk less useable to a wheelchair user. Using the roadway would be a more solid, but less safe (due to vehicle traffic), alternative.

6.9 PARKING

EAST-SIDE PARKING

CENTRAL STREET LOT – There are an estimated 47 parking spaces with no accessible parking spaces. Spaces were estimated. There were no markings to indicate formal parking spaces. Parking lot consists of dirt, rock, and gravel. Low area may collect water during rain.

SEAGRAM'S DRIVE LOT – There are 98 parking spaces with 2 accessible spaces. Accessible spaces are marked by faded handicap symbols painted on the asphalt surface. Spaces may not be visible during winter months with a covering of snow and ice. There are no posted signs to designate the accessible spaces.

RINK IN THE PARK – There are 191 parking spaces with 1 accessible space. A posted signs warns “for rink patrons only.” Parking lot is used for large events in the park. Parking lot surface near building is paved. Parking beyond the building is gravel and dirt.

Backside of the rink – There are 12 parking spaces with 2 accessible spaces. One sign designates accessibility between the two spaces. On the day of observation it was noted that illegally parked vehicles may block access into the building.

EBY FARM HOUSE – paved, 7 on-street parking spaces. There is no accessible parking.

LIONS LAGOON – paved, 46 parking spaces, 2 of which are accessible with appropriate signage. Splash Lagoon closed after Labor Day. Washroom closed. Women's washroom has one step to get in.

PICNIC AREA #1 – informal parking area with limited space. There is no accessible parking.

WEST-SIDE PARKING

INFORMAL LOT – near entrance has 9 potential spots. There is no accessible parking. Transition between pavement and parking area is 10.16 cm. Pavement transitions between asphalt and dirt.

WESTSIDE DRIVE PARKING LOTS – Parking near gazebo #2 – 20 parking spaces, 2 of which are accessible with appropriate signage.

WATERLOO DIAMOND PARKING LOTS - 74 parking spaces. There is no accessible parking. Lot surfaces are dirt and gravel with grass areas in the outlying section. There are large areas with mud and standing water.

WATERLOO PARK SERVICE CENTER – 10 asphalt parking spaces. The area is designated for staff parking. There is no accessible parking.

FATHER DAVID BAUER DRIVE LOT – 76 spaces. City of Waterloo parking is permitted Monday through Friday 6 a.m. – 6 p.m. Lot surface is hard packed dirt. There is no accessible parking.

6.10 WASHROOMS

The following data is measurements of washroom features. The data was analyzed further in the discussion section. The data represents what accessibility is in place within each of the observed and measured washrooms.

EAST SIDE WASHROOMS – There is no signage to indicate direction of the washroom. No signage is present at the outset of the building to indicate access until at the door to the washroom. Washrooms are not listed as accessible; however, accessible features were found within. The 145 cm concrete path to washrooms narrows to 124cm. Brush and foliage narrows the path further to 87 cm. Exterior door widths are 99.06 cm. Sidewalk may be too narrow for two people (one with a mobility impairment requiring an assistive device) to pass. There is a 5-10% slope up to women's washroom.

Men's washroom – Access signage on door. Door threshold height: 1.905 cm, Push button door 90 cm height outside, 95 cm inside. Exterior door handle height 86.36 cm – interior 86.36 cm, Door pull strength – exterior 12 lbs. interior 16 lbs. Automatic light switches. Accessible stall door width: 88.9 cm. Handle height 96.52 cm Accessible stall width: 152.4 cm, length: 160.02 cm. Toilet paper height: 121.92 cm, Toilet height: 45.72 cm, grab bars: 81.28 cm up to 152.4 cm (L shaped). Sink heights: top 86.36 cm, bottom 76.2 cm, depth 53.34 cm, automatic faucet. Soap height 88.9 cm – on back wall. Automatic hand dryer height: 116.84 cm, trashcan height: 73.66 cm. Coat hook height: 114.3 cm.

Women's washroom – Access signage on door. Door threshold height: 1.905 cm. Push button door 91.44 cm exterior height, 93.88 cm interior height. Exterior door handle height: 86.36, interior 88.9 cm. Door pull strength: exterior 10 lbs., interior 14 lbs. Automatic light switches. Accessible stall door width: 88.9 cm, handle height: 86.36 cm, accessible stall width: 140.97 cm, length: 170.18 cm to 134.62 cm (accessible stall has angled wall). Toilet paper height 58.42 cm, toilet height: 43.18 cm.

Grab bars height: 83.82 cm to 160.02 cm L shaped, horizontal 86.36 cm, 71.12 cm (behind the toilet), Sink heights: top 83.82 cm, bottom 73.66 cm, depth 53.34. Automatic faucet. Soap height: 91.44 cm – placed on back wall, automatic hand dryer height: 114.3 cm, trashcan height: 63.5 cm.

WESTSIDE WASHROOMS – There is no signage to indicate direction of the washroom. No signage is present at the outset of the building to indicate access. Washrooms are not listed as accessible; however, accessible features were found within. There is a hard packed dirt pathway that leads to the structure from the driveway. Inconsistent transitions heights onto the structure’s decking reduce ease of use. Westside washrooms ramp up to washrooms is dirt that have areas of washout from precipitation. The washouts generate ruts in the pathway. Transition from dirt to brick has a 4cm difference. Transition from brick to decking is 3 cm. Decking is weathered and aged with holes in some boards. One hole measured 80cm long and 9 cm wide.

Men’s washroom – No signage to indicate access. No push button door. Door threshold height: 1.905 cm. Exterior door 92 cm width, handle height 83 cm. Door pull strength 6.5 lbs. Light switch height: 135.89 cm. Stall door width: 80.01 cm, handle height: 91.44 cm, Accessible stall width: 137.16 cm, length: 142.24 cm. Toilet paper height: 83.82 cm, Toilet height: 45.72 cm. Grab bars (diagonal) 95.25 cm down to 57.15 cm no bar on back wall. Sink heights: top 80.01 cm, bottom 70.485 cm, depth 43.18 cm. Sink handles no levers-knobs. Soap height 93.98 cm, hand dryer 100-110 cm, trash can height 64 cm. No accessible mirror.

Women’s washroom – No signage to indicate access. Door threshold height 2.54 cm. No push button door. Exterior door 91.44 cm wide, handle height – 87.63 cm. Door pull strength 5lbs. light switch height 127 cm. Stall door width 87.63 cm, hand height 92.71 cm, Stall width 139.7 cm, length 147.32 cm. Toilet paper height 85.09 cm Toilet height 43.18 cm. Grab bars (diagonal) 93.98 cm down to 55.88 cm. No bar in back of toilet. Sink heights top – 80.01 cm, bottom – 71.12 cm, depth 43.18 cm. Sink handles – no levers, knobs. Soap height 91.44 cm. Hand dryer 93.98 cm. Trash can 63.5 cm height. No accessible mirror. Coat hook 162.56 cm, latch 111.76 cm, dispenser 99.06 cm

6.11 MISCELLANEOUS

The following listed areas are briefly described with the type of amenities provided. The areas are not completely described, yet the important features of note are listed.

PICNIC TABLES – There is no count of picnic tables as there was no accessible tables found within the park. Found two on the parks’ west side that may offer access. Tables are halved for a person in a seated device to sit at the table.

PICNIC AREA 1, 2 – Areas can accommodate 300 and 200 people respectively. The two locations can be serviced with hydro from kitchen hut. However the hut is not accessible. Two steps and a narrow door prohibit entry to the hut. Access to each area requires a lengthy crossing over an uneven grass surface.

PICNIC AREAS 3,4,5, 9 – Areas are small consisting of a random number of tables. Area 3 and 4 can accommodate up to 100 people each. Area 5 has space for 70 people. No hydro or water is available at these locations Access to each area requires a lengthy crossing over an uneven grass surface. Area 9 can be serviced by the Hospitality Area and rented in conjunction with the Picnic Shelter for increased capacity.

HOSPITALITY AREA – Transition from dirt walkway to brick has a 4 cm difference. The transitions from dirt walkway to brick, to decking are uneven with a 4 cm difference. Transition from brick to decking is 3 cm. A hole in the decking measured 80 cm long and 9 cm wide.

The area accommodates up to 100 people. A kitchen, complete with water and hydro, is available for hosting large events. The kitchen structure also houses the West-side Washrooms. The incline to the structure is dirt that has areas of washout from precipitation. The washouts generate ruts in the pathway. Decking of the area is weathered and aged with holes in some boards.

PICNIC SHELTER – 30 m from Hospitality Area to shelter. And 30 m from shelter to nearest accessible parking space; 10 m of which is over an uneven grass surface.

The shelter, on the park’s west side, can accommodate up to 100 people. Water and hydro are available at this location when secured by reservation. The level pathway to the shelter from the Hospitality Area is hard packed dirt. The direct route from the nearest parking lot is over uneven grass. The large concrete surface under the shelter is congested with picnic tables. Random table placement impedes entrance for a person using a mobility aid.

GAZEBO EAST AND WEST – Available for reservation. Each location has a random number of tables available. The gazebo on the east side is larger than the west side location. Gazebo East can accommodate up to 30 people under the structure. The east-side location has a lengthy crossing over an uneven grass surface.

Gazebo West can accommodate up to 16 people under the structure. The west-side location has a short loose packed dirt pathway leading to the gazebo. The site may be reserved for special events or parties. Access into the gazebo is blocked by table placement. There is a 7.62 cm lip to get onto the cement platform under the gazebo. Each location has a transition of varying heights from the grass or path onto the concrete floor of the structure.

INTERPRETIVE PANEL ALONG SILVER LAKE – The area is bordered by iron fencing that has a height of 134.62 cm. The distance from the trail to the panel is 3.5 m over a dirt surface that has evidence of water damage. Ruts in the dirt pathway indicate that the tension of the surface loosens when wet. The height at the back of the panel is 127 cm, which slopes down to 76.2 cm at the front. The positioning made viewing and reading of the sign useable for a seated person.

SILVER LAKE DOCK – The dock is located near the Erb Grist Mill. There is no access for wheelchairs onto the dock. Two steps create a 55.88 cm transition from the path to the dock.

TRASH AND RECYCLING – Trash barrels have a 92 cm height. Placement is 120 cm off trail. Heights of recycling containers at picnic areas were 111 cm. The height is consistent with the design to most recycling containers. However there was a more “user-friendly” recycling containers with a height of 99.06 cm. Placement is 165.1 cm off the trail.

BASKETBALL COURT – Path to court is hard packed dirt/stone 174 cm wide. The 153.7 cm transition of surfaces from path to court is up a 15% slope. There is a lip of 5.08 cm onto the asphalt incline.

BASEBALL FIELDS – Sections of fencing heights range from 122 cm - 130 cm, which blocks the line of sight onto the field.

Appendix B

Laurel Creek Appendix of Measurements

6.12 PARK FACILITIES

GATEHOUSE – The roadway and parking area around the gatehouse is uneven. Heavy traffic through this area is the probable cause for the asphalt ruts in the roadway. Small crushed stone (average size of stone is estimated at 1 cm or less) and asphalt comprise the surface of the parking area. The transition from pavement to concrete at the entrance to the gatehouse was smooth. There is a slight threshold through the door with a height of 1.27 cm. Exterior door width: 76.2 cm. The registration counter height: 111 cm. Aisle width at front of counter is 120 cm by 4 m long. No accessible parking. The pay telephone has a clearance of 86.36 cm from the ground. The height of the keypad and receiver is 110 cm.

CRICKET BUILDING / SKI CHALET – The admittance to this facility is limited. This building is not open for regular park use. Public use may occur during cricket games and winter activities.

There are no accessible parking spaces designated at this location. The transition from the asphalt to the concrete sidewalk that surrounds the building has a 10.16 cm wide, 2.54 cm deep, and 182.88 cm long grass depression in the middle. The depression may be halting to persons using wheeled mobility devices or strollers. Exterior door to the facility has a width of 95.25 cm. inside; the pathway to the washrooms is over 1 m in width. However, poor table placement may alter the accessible path.

6.13 PATHS, WALKWAYS, TRAILS

GREEN TRAIL – grass and maintained (mowed). Uneven trail surface. Trail widths vary due to encroaching vegetation.

BLUE TRAIL – grass and maintained (mowed). Uneven trail surface. Trail widths vary due to encroaching vegetation.

RED TRAIL – grass and maintained (mowed). Uneven trail surface. Trail widths vary due to encroaching vegetation.

CAMPGROUND TRAIL (to Area 1) – not a marked trail. Trail surface is wood chips, with grass. Trail widths vary due to encroaching vegetation.

6.14 PARKING

Elements of parking infrastructure (e.g. painted lines, parking stops) are absent within the park. The combined length of each designated parking measured to be 880 m. The average width of medium to large vehicles was 192 cm. This figure was calculated from vehicle specifications for a 2013 Dodge Grand Caravan (199.898 cm), 2013 Ford E150-van (201.676 cm), 2000 Chevrolet Monte Carlo (183.642 cm), and an Internet source that stated a multi-vehicle average of 6-feet (182.88 cm). A distance of 121.92 was added for clearance on both sides of the vehicle. The length of the parking areas divided by the combined vehicle width calculated to 208.304 potential parking spaces.

GATEHOUSE – No accessible parking is offered at this location. The surface is packed dirt and stone. The firmness of the surface is not as dense as other locations.

CRICKET BUILDING / SKI CHALET – There are no accessible parking spaces designated at this location. The lot surface is hard packed dirt.

DAM SHELTER – No accessible parking is offered at this location. The lot surface consists of hard packed dirt, deteriorating pavement, and crushed rock. There is evidence on the grass (i.e. tire tracks) that vehicles drive across the grass areas to load and unload cargo at the Dam Shelter.

BASEBALL SHELTER – No accessible parking is offered at this location. A formal parking area has not been constructed at this site. Parking is permitted on grass next to shelter. The lot surface consists of grass.

CRITTER SHELTER – No accessible parking is offered at this location. Tire marks in the grass indicate people park illegally. The nearest parking is 140 m further along the road. That lot surface consists of asphalt.

BEACH – No accessible parking is offered at this location. The lot surface consists of deteriorated pavement and hard packed dirt with crushed rock.

BOAT LAUNCH – No accessible parking is offered at this location. The lot surface consists of hard packed dirt and crushed rock.

6.15 WASHROOMS

The following data is measurements of washroom features. The data was analyzed further in the discussion section. The data represents what accessibility is in place within each of the observed and measured washrooms.

CRICKET BUILDING / SKI CHALET WASHROOMS – The admittance to these washrooms is limited. This facility is not open for regular park use. Public use may occur during cricket games and winter activities.

Men’s Washroom – Area is not listed as accessible. There is no sign to indicate washrooms are accessible. Door pull strength: n/a. Light switch height: 134.52 cm, Stall door width 81.28 cm. Handle height 106.68 cm, Stall width: 149.86 cm, length: 149.86 cm. Toilet height: 41.91 cm, Toilet paper height: 71.12 cm, Grab bars: angled, low end height: 66.04 cm high end height 109.22 cm. Sink heights: 82.55 cm, bottom 69.85 cm, depth 53.34 cm. There are lever handles to activate faucets. Soap dispenser height: 101.6 cm Hand dryer height: 111.76 cm Trash height: 60.96 cm.

Women’s Washroom – Area is not listed as accessible. There is no sign to indicate washrooms are accessible. Door pull strength: n/a. Light switch height: 134.52 cm, Stall door width 81.28 cm. Handle height 106.68 cm, Stall width: 149.86 cm, length: 149.86 cm. Toilet height: 41.91 cm, Toilet paper height: 71.12 cm, Grab bars: angled, low end height: 66.04 cm high end height 109.22 cm. Sink heights: 82.55 cm, bottom 69.85 cm, depth 53.34 cm. There are lever handles to activate faucets. Soap dispenser height: 101.6 cm Hand dryer height: 111.76 cm Trash height: 60.96 cm.

CRITTER SHELTER – Access onto the main floor of the shelter is limited due to the difference between the ground and floor.

Men’s washroom – Washrooms are not listed as accessible. No pushbutton door available. Door pull strength 4 lbs., Exterior door has no threshold. Exterior door handle height: 101.6 cm. No light switch–lights are automatic or turned on/off at the beginning/end of the day. Stall door 81.28 cm wide, door handle height: 96.52cm. Stall–width: 137.16cm, length: 152.4 cm. Grab bars –none. Toilet height: 40.64cm, Sink heights: top 83.82 cm, bottom 73.025 cm inches, depth 48.26 cm, no lever handles on sink. No accessible mirror. Soap dispenser height 93.98 cm, hand dryer height: 119.38 cm, trash height 38.1 cm.

Women’s washroom – Washrooms are not listed as accessible. No pushbutton door available. Door pull strength 4 lbs., Exterior door has no threshold. Exterior door handle height: 101.6 cm. No light switch–lights are automatic or turned on/off at the beginning/end of the day. Stall door 81.28 cm wide, door handle height: 96.52 cm. Stall–width: 137.16cm, length: 152.4 cm. Toilet height: 40.64 cm, toilet paper 63.5 cm. Grab bars–none. Sink heights: top 83.82 cm, bottom 73.66 cm, depth 58.42

cm, no lever handles on sink. No accessible mirror. Soap dispenser height: 99.06 cm, hand dryer height: 119.38 cm, trash height: 38.1 cm.

CAMGROUND AREA 1 (Comfort Station location) – Men's washroom – Washrooms are not listed accessible – however accessible features were found within. No signage to indicate accessibility. No pushbutton door available. No door threshold. Exterior door handle height: 96.52 cm. Door pull strength 18 lbs. Automatic light switch. Stall door width: 81.28 cm, door handle height: 106.68 cm. Stall width: 147.32 cm, length: 165.1 cm. Toilet height 45.72 cm, toilet paper 53.34 cm. Grab bar height: 86.36 cm level behind toilet. There is an angled bar at the side of the toilet Sink heights: top 81.28 cm, bottom 66.04 cm, depth 55.88 cm, No lever sink handles–knobs need to be pushed down. Soap dispenser height: 119.38 cm–placed on back wall behind sink. Hand dryer height: 119.38 cm, Trash height: 58.42 cm.

Women washroom – Washrooms are not listed as accessible – however accessible features were found within. No signage to indicate accessibility. No pushbutton door available. No door threshold. Exterior door handle height: 96.52 cm. Door pull strength 18 lbs. Automatic light switch. Stall door width: 81.28 cm, door handle height: 104.14 cm. Stall width: 152.4 cm, length: 182.88 cm. Grab bar height: 86.36 cm level behind toilet. There is an angled bar at the side of the toilet. Toilet height: 45.72 cm, toilet paper height: 58.42 cm. Sink heights: top 83.82 cm, bottom 68.58 cm, depth 57.15cm. No lever sink handles–knobs need to be pushed down. Soap dispenser height: 119.38 cm–placed on back wall behind sink. Hand dryer height: 124.46 cm, trash height: 55.88 cm.

The following washrooms were not accessible. The structure of the last five listed buildings are vault toilets with the same structure and design at each location. In depth observations and extensive measurements were not conducted on these facilities.

DAM SHELTER – Washrooms are not accessible. Exterior door threshold 3.81 cm to enter the washroom, 5.08 cm to exit. It is 3.49 cm down to the floor level of the washroom from the threshold. Door handle height: 129.54 cm.

No stalls were found that may provide access within. This washroom facility was not measured. There is no clear pathway to door. There is a distance 11 m 90 cm of grass to cross from the parking area to the washrooms. Grass covers an uneven ground surface.

BASEBALL SHELTER – Washrooms are not accessible. There is 1 one step to enter the structure. The door width is 60.96 cm.

BEACH – Washrooms are not accessible. There is one step to enter the structure. The door width is 60.96 cm.

CAMPGROUND AREA 1 – Washrooms are not accessible. There is one step to enter the structure. The door width is 60.96 cm.

CAMPGROUND AREA 2 – Washrooms are not accessible. There is one step to enter the structure. The door width is 60.96 cm.

GROUP CAMPING AREA – Washrooms are not accessible. There is one step to enter the structure. The door width is 60.96 cm.

6.16 MISCELLANEOUS

The following listed areas are briefly described with the type of amenities provided. The areas are not completely described, yet the important features of note are listed.

PICNIC TABLES – Tables were not counted because no accessible tables found within the park.

BASEBALL SHELTER – The picnic area is not listed as accessible. With no formal parking lot, parking is permitted on grass next to shelter. Water is available on site.

DAM SHELTER – The picnic area is not listed as accessible. Floor under shelter is concrete. Transition from grass to floor has a range of 7.62 cm to 17.78 cm. Two parking areas service this shelter. No accessible routes are provided for a person with impairment to access the shelter, which is at a higher elevation than the parking lots. Water and hydro are available on site.

CRITTER SHELTER – The picnic area is not listed as accessible. Floor under shelter is concrete. Transition from grass to floor has a range of 6.32 cm to 10.16 cm. no access to water faucet–access to water is not easy with grass and concrete transitions. Washrooms on site are not listed on the website or in the brochure. Water and hydro are available on site. There is this 165.1cm space between the cement of the shelter floor to the water source. Accessing the water tap is hampered by the transition from the floor to the grass then over the framework around the tap.

There is no formal parking area next to the shelter. Tire marks in the grass indicate people park illegally. The nearest parking is 140m down the road without accessible parking. The lot is paved.

MISCELLANEOUS PICNIC AREA – Location is adjacent to the Critter Shelter parking lot. The picnic area is not listed as accessible. Access to the picnic area is down a grass incline with a ditch that must be crossed.

BEACH – The picnic area is not listed as accessible. There is no accessible parking in the adjoining parking lot. The crossing from the parking lot to beach edge is 47.5488 m over grass. The distance between grass and water's edge is 32.9184 m across very loose granular sand. The sand has a foot penetration depth of 11.34 cm (measured by stepping into the sand).

BOAT LAUNCH – The picnic area is not listed as accessible. The area around the tables is grass and crushed rock with some stretches of loose and dense packed surface. Accessible parking spaces have not been allocated in the adjoining parking lot. Access onto the dock has a 7.62 cm step.

WATER TAPS – Wooden framed areas with crushed rock around taps were observed with dimensions of 182.88 cm width by 182.88 cm length in one location; and 101.6 cm width by 101.6 cm length at another. The Baseball Shelter water source has no framework. Knobs activate water flow for the taps.

COMFORT STATION ACCESSIBLE SHOWER – Door pull strength: 12 lbs. Door lock height: 104.14 cm, Stall width: 152.4 cm, length: 226.06 cm. Coin-operation mechanism height: 132.08 cm, coat hook height: 165.1 cm, bag hook height: 121.92 cm, shower bench height: 43.18 cm, adjustable hand-held shower heights: 55.88 cm to 111.76 cm (from low to high), L-shaped grab bar heights: 83.82 cm level area to height of 91.44 cm. Distance from shower bench to coin-operation mechanism is 134.62 cm.

Appendix C

Pinery Provincial Park Appendix of Measurements

6.17 PARK FACILITIES

VISITOR CENTER – Curb cut transition from paved parking lot over concrete edging onto brick is covered with crushed rock with 1.27 cm difference in levels. A large ramp ascends from the parking area to the entrance of the visitor center. The ramp has a length of 80.46 m with a 4.76 m rise and a width of 127 cm. Metal handrails on the ramp are placed at a height of 81.28 cm. There is a 7.62 cm difference in levels from the sidewalk on to the ramp. Descending the ramp with the poor transition onto a 5% down slope could be a hazard. Educational displays have a clearance of 88.9 cm. The gift shop layout was an open concept. There were no aisles to be too narrow. The water fountain in the visitor center has a height of 88.9 cm top, 71.12 cm bottom with the button placed on front to activate water. The entrance to the center has two double doors with 16 lbs. pull strength.

PARK STORE – Aisles in the store have a 114.3 cm clearance. The check out counter had a height of 111 cm. Easement between store and bike rental/ice cream stand transitions from the brick patio surface to sand, which has a significant difference in levels of 5.08 cm - 10.16 cm. The transition could be hazardous. There are four pay telephones at the side of the park store. The height of the unobstructed phone was 110 cm to keypad and receiver. There is a clearance of 86.36 cm from phone to the ground. The remaining three phones have a counter that extends 30.48 cm with a height of 94.5 cm and a clearance of 80 cm. The counter may not prohibit use of phones but may be limiting.

ICE CREAM STAND – The height of the service counter is 120 cm.

BIKE / CANOE / SKI RENTAL SHOP – The transition into the rental shop is smooth and level. The park's beach chair can be secured for use at this location. The chair is signed out to the user. The chair then has to be transported by the individual(s) to their desired location. There is no formal process for delivery of the chair by park staff. Ramps onto docks to access watercraft have a 5% grade with smooth flush transitions.

FIREWOOD STAND – The uneven transition from the parking lot to the concrete walkway measures 2.54 cm up to 7.08 cm. The difference in heights creates a wedge-shape step onto the walkway.

AMPHITHEATRE – The distance from the parking area to the Amphitheater is 240 m. The difference in elevation between the two locations is 6.96 m. The calculated incline is 2.9%. The incline is less than many ramps or other trail sections with 5-10 %. However the change in elevation over the distance may be limiting for individual with limited or reduced physical strength.

PARK OFFICE – The ramp at the park office is estimated to have an incline of less than 5%.

6.18 PATHS, WALKWAYS, TRAILS

Accessible trails are listed first. Trails without accessibility have limited or no specific measurements. Specific measurements of trail characteristics is listed. The characteristics that are common to all trails have been addressed in the finding section for The Pinery Provincial Park.

CEDAR TRAIL – The trail width is 264.16 cm. Inclines on the trail ranged from 5% slope to places with 15% slope. (3 locations with 10% grade, 2 with 15% grade and 2 with 5% grade). The boardwalk that leads to the viewing deck is 116.84 cm wide. Encroaching vegetation further narrows the boardwalk. The railing heights on the viewing platform are 106.68 cm. The penetration depth of the front wheels into the loose trail surface was 6.35 cm.

HERITAGE TRAIL - Three sections of trail have 10% inclines. The 152.4 cm wide trail surface is hard packed dirt with small stone. Boardwalk to viewing deck along Ausable Channel has a width of 114.3 cm which is narrowed by trees that reduce the width of the boardwalk to 66.04 cm. Railing height on viewing deck is 106.68 cm. The railing on the viewing platform blocks the line of sight for a person in a wheelchair.

RIVERSIDE TRAIL – The trail had cross slopes that measured 5%, 10%, 12% and 15%; with a maximum at 20%. Inclines on the trail measured 5%, 10% and 15%.

The first observed viewing platform extends 4.87 m into the channel. The interpretive panel has a height at the low end of 88.9 cm that rises to 127 cm. Railing heights were 73.66 cm, which did not block the line of sight for a person in a wheelchair.

At the point of independent impasse the cross slope began at 10% and declined to 20% before dropping off to the water's edge. Exposed roots protrude at heights up to 7.62 cm. Damp soft sand allow for a penetration depth of 5.08 cm of a wheelchair's small wheels.

On the outer perimeter the trail narrows to less than 60.96 cm. Due to the constricted trail width, poison ivy was at each side of the handrails on the observer's wheelchair. Vegetation was pulled into the wheels of the observer's chair.

The ground surface changes from hard packed dirt to soft, slightly packed dirt, which was damp and slippery from recent rainfall. Density increases to solid. For a distance of 4.87 m the trail changes to concrete. The concrete section of trail had a transition of levels that measured 6.35 cm high. The width expanded to 116.84 cm wide before narrowing again to 60.96 cm.

Two people with mobility impairments requiring a wheelchair could not pass on the narrow sections of trail or boardwalk. Trail comes to a 100 m section of boardwalk. Gaps between boards of the decking (greater than 2.54 cm) causes halting of forward movement. The boardwalk had a width of 111.76 cm. Sand washed on to boardwalk from poor trail drainage. The sand stopped forward momentum. Three meters of trail are loose sand and exposed roots. The trail then changes to a more accessible path. However there were sections of soil loose. Density was reduced enough to penetrate to a depth of 7.62 cm. The same area, on a slope with a 10% grade, nearly caused a fall of the observer.

The following trails are without listed or actual accessibility.

Bittersweet Trail (1.5 km).

Carolinian Trail (1.8 km).

Hickory Trail (1 km).

Lookout Trail (1 km).

Nipissing Trail (2 km).

Pine Trail (0.8 km).

Wilderness Trail (3 km).

6.19 PARKING

VISITOR CENTER – This parking lot includes parking for the Cedar Trail. There were 91 regular parking spaces, 5 accessible parking spaces and 5 recreational vehicle parking spaces. The parking area was paved.

PARK STORE – This parking lot includes parking for canoe/bike rentals. There were 65 regular parking spaces, 6 accessible parking spaces. The parking area was paved.

BEACHES – The beach parking areas are without parking infrastructure. However the calculated distance of each parking area divided by vehicle width (and clearance) generated an estimate of 1,465-vehicle capacity. The combined length of beach parking is measured to be 4.6 km. The average width of medium to large vehicles was 192 cm. This figure was calculated from vehicle specifications for a 2013 Dodge Grand Caravan – 199.898 cm (Automobile, 2012), 2013 Ford E150-van – 201.676 cm, 2000 Chevrolet Monte Carlo – 183.642 cm (Carfolio.com, 2012), and an internet source that stated a multi-vehicle average of 6-feet (182.88 cm) (Learners Online, Inc., 2002). A distance of 121.92 was added for clearance on both sides of the vehicle. The length of the parking areas divided by the combined vehicle width calculated to 1,465.22 potential parking spaces. Park staff reports and estimated 1,100-vehicle capacity. Inland parking areas 1-9 have hard packed dirt and gravel surfaces. The beach parking for areas 8 and 9 are loose soft sand.

TRAILHEADS – Most of the observed trailhead parking area surfaces were hard packed dirt and stone. The exception was the previously noted Cedar trail. Hickory, Bittersweet, Wilderness, Riverside, Heritage, Nipissing, Pine, and Cedar trailheads were observed. The Hickory and Bittersweet trailheads share a parking area. The area had spots of standing water that may loosen the surface density. The Riverside trail has 6 parking spaces no accessible parking spaces. The remaining observed trailheads were not counted for vehicle accommodation.

FIREWOOD STAND – The parking area length was 30 m. The calculated parking spaces available in this area are 9.555, with no accessible spaces.

CANOE LAUNCH – There are 6 regular parking spaces available with no accessible parking spaces. The uneven surface of the lot is hard packed dirt and stone.

CAMPGROUND WASHROOMS – Parking near or at the front of campground washrooms was hard packed dirt and stone. The Washroom #5 in Dunes is accessible but parking blocks are placed with spaces too narrow to fit wheelchair through. Building is on an incline up a 20% slope with hard packed dirt and crushed rock. The area with a gentle slope to building consists of loose fine grain sand. Dune's Washroom #7 has no accessible parking. The level surface is hard packed dirt with crushed rock. Other washroom locations had similar variations. Inclines may be a result of

construction or topography. There was a minimum 3-car capacity at each of the observed washroom locations.

6.20 WASHROOMS

The following data is measurements of washroom features. The data was analyzed further in the discussion section. The data represents what accessibility is in place within each of the observed and measured washrooms.

The park has numbered washroom buildings for referral to specific locations. The number of campground washrooms and vault toilets include: Burley – 6 washrooms, 1 vault toilet; Dunes – 5 washrooms, 2 vault toilets; Riverside – 4 washrooms, 4 vault toilets. The subsequent text is the measurements of selected washrooms from numerous areas within the park.

RIVERSIDE 4 WASHROOMS – 5.08 cm to 7.62 cm transition onto sidewalk. No signage to indicate accessible washrooms. Exterior door threshold height: 1.90 cm. No push button door available. Exterior door handle height: 116.84 cm. Door pull strength: 18 lbs. Lights are activated automatically. Accessible stall door width: 88.9 cm., door handle height: 142.24 cm., Stall width: 215.9 cm, length: 228.6 cm., Toilet height: 45.72 cm, Toilet paper height: 53.34 cm, Grab bar heights: level, behind toilet 93.98 cm, angled beside toilet 71.72 cm to 127 cm, Sink heights: top 86.36 cm, bottom 73.66 cm, depth 58.42 cm, Automatic faucets, Soap dispenser height: 104.14 cm, No hand dryer or towels available. Trash height: 46.99 cm. Accessible mirror.

RIVERSIDE 16 WASHROOMS – Men’s Washroom – No signage to indicate accessible washrooms. Exterior door threshold height: 1.90 cm. No push button door available. Exterior door handle height: 116.84 cm. Door pull strength: 18 lbs. Lights are activated automatically. Accessible stall door width: 90.17 cm., Lever slide - door handle height: 104.14 cm., Accessible stall width: 149.86 cm, length: 266.7 cm., Toilet height: 45.72 cm, Toilet paper height: 45.72 cm, Grab bar heights: level, behind toilet 91.44 cm, angled beside toilet 71.12 cm to 124.46 cm, Bag hook height: 119.38 cm, Sink heights: top 85.09 cm, bottom 73.66 cm, depth 58.42 cm, Water faucet is activated by a button on the wall at the side of the sink – button height 106.68 cm, Soap dispenser height: 125.73 cm – placed on wall behind sink, Hand dryer height: 102.87 cm. Trash (suspended to the wall) height: 96.32 cm. There are accessible mirrors.

Women’s Washroom – No signage to indicate accessible washrooms. Exterior door threshold height: 1.90 cm. No push button door available. Exterior door handle height: 118.11 cm. Door pull

strength: 18 lbs. Lights are activated automatically. Accessible stall door width: 90.17 cm., Lever slide - door handle height: 101.6 cm., Accessible stall width: 149.86 cm, length: 271.78 cm., Toilet height: 45.72 cm, Toilet paper height: 48.26 cm, Grab bar heights: level, behind toilet 93.98 cm, angled beside toilet 73.66 cm to 127 cm, Bag hook height: 119.38 cm, Sink heights: top 83.82 cm, bottom 73.66 cm, depth 60.96 cm, Water faucet is activated by a button on the wall at the side of the sink – button height 106.68 cm, Soap dispenser height: 111.76 cm – placed on wall behind sink, Hand dryer height: 92.71 cm. Trash (suspended to the wall) height: 93.98 cm. There are accessible mirrors.

RIVERSIDE 16 – ACCESSIBLE WASHROOM / SHOWER – Exterior door threshold height: 1.90 cm. No push button door available. Exterior door handle height: 118.11 cm. Lights are activated automatically. Toilet height: 45.72 cm, Grab bar behind toilet height: 93.98 cm. Sanitary napkin receptacle height 144.78 cm, Toilet paper height: 45.72 cm, clothing hooks to high to use. Shelf height 119.38 cm. Shower bar height 86.36 cm to 134.62 cm with a level bar at 91.44 cm. Shower bench height 44.45 cm. Hand held shower nozzle. Soap dish height: 73.66 cm from bench.

RIVERSIDE 17 WASHROOMS – This location was visually observed to confirm that the design is similar to the measured Riverside washroom.

RIVERSIDE 18 WASHROOMS – This location was visually observed to confirm that the design is similar to the measured Riverside washroom.

DUNE 5 WASHROOM – This location was visually observed to confirm that the design is similar to the measured Riverside washroom. The poorly placed parking blocks limit access to the structure. In Dunes is accessible but parking blocks are placed with spaces too narrow to fit wheelchair through. Building is on an incline up a 20% slope with hard packed dirt and crushed rock. Area with gentle slope to building consists of loose fine grain sand.

DUNE 7 WASHROOM – This location was visually observed to confirm that the design is similar to the measured Riverside shower/washroom. There is a push-button door for the uni-sex shower / washroom. Automatic lights. Bag and coat hooks are placed lower for people of short stature.

VISITOR’S CENTER – Men’s washroom – There is signage to indicate accessible washroom. Exterior door threshold height: 3.81 cm. No push button door available. Exterior door handle height: 80.01 cm. Door pull strength: 10 lbs. Lights are activate with an automatic switch. Accessible stall door width: 80.01 cm., Door handle height: 99.06 cm., Stall width: 147.32 cm, length: 223.52 cm., Toilet height: 48.26 cm, Toilet paper height: 24 cm, Grab bar heights: level, behind toilet 91.44 cm,

angled beside toilet 81.28 cm to 142.24 cm, Bag hook height: 114.3 cm, Sink heights: top 78.74 cm, bottom 63.5 cm, depth 64.77 cm, Water faucets activated with lever handles, Soap dispenser height: 93.98 cm – placed on wall behind sink, Hand dryer height: 111.76 cm. Trash height: 53.34 cm. Accessible mirror.

Women's washroom – There is signage to indicate accessible washroom. Exterior door threshold height: 3.81 cm. No push button door available. Exterior door handle height: 78.74 cm. Door pull strength: 8 lbs. Lights are activate with an automatic switch. Accessible stall door width: 80.01 cm., Door handle height: 99.06 cm., Stall width: 160.62 cm, length: 224.79 cm., Toilet height: 48.26 cm, Toilet paper height: 23.5 cm, Grab bar heights: level, behind toilet 91.44 cm, angled beside toilet 83.82 cm to 144.78 cm, Bag hook height: 119.38 cm, Sink heights: top 78.74 cm, bottom 63.5 cm, depth 66.04 cm, Water faucets activated with lever handles. Soap dispenser height: 101.6 cm – placed on wall behind sink, Hand dryer height: 111.76 cm. Trash height: 53.34 cm. Accessible mirror.

PARK STORE WASHROOMS – Men's washroom – There is signage to indicate accessible washroom. Exterior door threshold height: 1.27cm. No push button door available. Exterior door handle height: 93.98 cm. Door pull strength: 18 lbs. Lights are activate with an automatic switch. Accessible stall door width: 90.17 cm., Door handle height: 101.6 cm., Stall width: 149.86 cm, length: 264.16 cm., Toilet height: 45.72 cm, Toilet paper height: 50.8 cm, Grab bar heights: level, behind toilet 91.44 cm, angled beside toilet 71.12 cm to 124.46 cm, Bag hook height: 104.14 cm, Sink heights: top 83.82 cm, bottom 74.93 cm, depth 60.96 cm, Water faucet is activated by a lever to be pushed down to get water, Soap dispenser height: 116.84 cm – placed on wall behind sink, Hand dryer height: 104.14 cm. Trash (suspended to the wall) height: 114.3 cm. Accessible mirror.

Women's washroom – There is signage to indicate accessible washroom. Exterior door threshold height: 1.27 cm. No push button door available. Exterior door handle height: 93.98 cm. Door pull strength: 15 lbs. Lights are activate with an automatic switch. Accessible stall door width: 90.17 cm., Door handle height: 106.68 cm., Stall width: 152.4 cm, length: 264.16 cm., Toilet height: 45.72 cm, Toilet paper height: 48.26 cm, Grab bar heights: level, behind toilet 91.44 cm, angled beside toilet: 73.66 cm to 127 cm, Bag hook height: 121.92 cm, Sink heights: top 86.36 cm, bottom 73.66 cm, depth 66.04 cm, Water faucet is activated by a lever to be pushed down to get water, Soap dispenser height: 116.84 cm – placed on wall behind sink, Hand dryer height: 104.14 cm. Trash (suspended to the wall) height: 99.06 cm. Accessible mirror.

VAULT TOILETS – These facilities are not listed as accessible. However there is 88.9 cm doors which would allow a wheelchair to enter. The beach 9 parking area location was observed for measurements. There is a 3.81 cm lip into the door (other locations were observed with a level transition). Toilet height: 45.72 cm, Toilet paper height: 71.12 cm, Stall width: 226.06 cm, length: 175.26 cm. Sinks are located outside of the washroom building. Sink heights: top 86.36 cm, bottom 76.2 cm, and 60.96 cm deep. Faucets have knob handles. Soap dispenser height: 101.6 cm placed on back wall, Paper towel dispenser height: 106.68 cm. There was no accessible parking. Other locations for vault toilets include: the Amphitheater, Hickory Trailhead, Group camping areas 1-3, Dunes beach, beach parking locations, numerous locations in the Burley, Dune and Riverside campgrounds – 8 total.

BEACH COMFORT STATIONS – The stations are not listed as accessible. Inaccessible pathways to the structures prevented the collection of data. The Burley Beach comfort station has had a recent upgrade, which includes water and hydro. It is highly probable that access within facility was improved. Access from the parking area to the structure may or may not be limited due to a soft sand surface on the walkway.

6.21 MISCELLANEOUS

The following listed areas are briefly described with measurements of amenities provided. The areas are not completely described here. The important features of note are listed.

CANOE RENTAL DOCK – The ramps onto docks have a 5% grade with smooth, flush transitions from ramp to dock.

BEACH – Space between boards measured 5.08 cm. Incline from parking level to beach level measures 22%.

EMERGENCY PHONES – The Riverside washroom 16 has a 142.24 cm crossing over grass and packed soil on an incline.

BURLY CAMPGROUND – The area was closed for the season on date of observation. No accessible campsites are listed. Two accessible washrooms listed however, most of the modern washroom structures in other areas of the park provide accessibility. Only two washroom facilities remain for upgrade. The terrain and topography is similar to the Dunes campground. Campsites and roads will likely have the same ground surface issues.

GROUP CAMPING SITES 1, 2 AND 3 – There are no accessible washroom and no accessible campsites. Terrain is relatively level. Camping surfaces include: hard packed dirt, stone, and grass. While there is no formal accessibility in these locations, some people with impairment may be able to manage the challenges of these campsites.

RIVERSIDE CAMPGROUND AREA 1 – There are accessible washrooms. The design of the structure is similar to washrooms in other campgrounds. Specifics of the washrooms were described in the washroom section. No accessible parking is available at the washrooms. The parking area at the front of the washrooms has a flat surface of hard packed dirt and stone. The structure includes an accessible bathroom/shower combination.

Large concrete sidewalks surround the building up into each of the doors. Access to the concrete areas has slight inclines of packed dirt and stone ramps from the parking area. Parking area has some areas of standing water.

RIVERSIDE CAMPGROUND AREA 2 – Campsites 608 and 609 are accessible sites. Site 609 had an accessible table; site 608 has no accessible table. Both sites are in close proximity to the washrooms. The ground surface of 608 was hard packed dirt. The surface of 609 had more soil than dirt but was still hard packed. Site 609's increase in soil resulted in more patches of thin grass. The design of the structure is similar to washrooms in other campgrounds. There is one accessible parking space. Parking area consists of hard packed dirt and stone.

RIVERSIDE CAMPGROUND AREA 3 – The washroom structure includes a family washroom unit with an accessible shower. No accessible sites are listed for this section of the campground. Numerous sites were noted to be up or down inclines; some had stairs to get to the campsite. An emergency phone is placed just off the cement platform and is blocked by picnic tables. Transition from the dirt gravel parking lot to the concrete platform has a 2.54 cm difference.

RIVERSIDE CAMPGROUND AREA 4 – This area was chosen by the observer for an overnight stay. The selected site 719A had a hard packed dirt surface with some small patches of grass. There was a regular picnic table. Water damage was suspected as small channels were carved into the site. The site was surrounded by foliage on three sides. The surrounding foliage diminished light pollution from the washrooms. The washroom was located 220 m away. The washroom structure was measured and discussed in the washroom section. The design of the structure is similar to washrooms in other campgrounds. Access to the washroom is up a slight incline of 5%. The transition from the hard

packed dirt surface onto the washroom sidewalk measured 2.54 cm up to 5.08 cm. A picnic table blocks the section without a difference in transition.

DUNES CAMPGROUND – This terrain in this area is primarily sand with level areas punctuated by small rises. The ground surface of campsites has been compacted due to years of use. However the compaction is weak and the small wheels of the observer's wheelchair penetrated the surface.

The design of the structure is similar to washrooms in other campgrounds. Access to the washroom is up an incline of 8%. The transition from the loose sand and hard packed dirt/gravel surface onto the washroom sidewalk measured 2.54 cm up to 5.08 cm, with one spot measuring 10.16 cm. The family washroom/shower is not listed as accessible. However the interior is a duplicate to Riverside 16 accessible washroom/shower.

Campsites 45 and 46 are the designated accessible sites in the Dunes campground. Their distance from the nearest washroom is 10 m and 80 m respectively. The close washroom is not listed as an accessible facility. However, the washroom has accessibility that is hindered by poor placement of parking blocks; an incline; and loose ground surface. The nearest, listed accessible facility is 700 m away over roads that have sections of loose sand.

RIVERSIDE YURTS – Most ramps have a 2.54 cm transition from the ground onto the wood decking. A few were noted to have a 6.35 cm transition between decking and the ground. Ramps were observed to have a 5% slope. The door widths measured 91.44 cm, with 104.14 cm height of the door handle. There is a 5.08 cm lip or threshold entering or exiting the yurt doors. Another unit was observed to have an exterior lip 2.54 to the threshold with 1.27 cm lip into the yurt.

Appendix D

Point Pelee National Park Appendix of Measurements

6.22 PARK FACILITIES

SANCTUARY POND LOOKOUT – The width of the boardwalk onto the platform is 142.24 cm and it extends 23.05 m. Boards of walkway are uneven with differences of 1.8 cm. Handrails are 83.82 cm. The height to the opening of trash receptacle is 81.3 cm.

CATTAIL CAFÉ - Café ramp 5% grade, with 124.5 cm width. Transition between parking level comprise of dirt to the brick seating area varied to 0 cm to 2.5 cm at various points of the edge.

MARSH BOARDWALK – Pathway to the boardwalk entrance has a narrow section where the level passageway is 114.3 cm wide. The width of the wheels on the observer's wheelchair is 73.66 cm. Small puddles or small sections with the appearance of a soft surface further narrow the pathway. Footprints offer evidence to the surface firmness.

MARSHVILLE – The first section of ramp into the structure has a 15% slope, the second section 10% slope. The bug bowl feature is 91.3 cm high and may be too high for children or persons with impairment Handrails, at the back of the Marshville center are placed at 99.06 cm high

DELAURIER HOMESTEAD–Boardwalk widths around the homestead 1.524 m wide.

Ramps at the front and back of the homestead have slopes of 5%. Door widths of front and back door are 68.58 cm (height – 149.86 cm). The two doors of the porch area are 81.28 cm. (height – 152.4 cm) Timeline wall panels ranged from a low height of 47 cm to a top height of 170.688 cm. Audio player hand crank 74 cm.

VISITORS CENTER –Incline up and down to foliage viewing area has a 5% slope.

The Friends of Point Pelee Gift shop has a door width of 101.6 cm. Aisle widths within the gift shop are 86.36 cm, which is wide enough for standard wheelchair with the wheel base of 73.66 cm

Door widths to enter the front and back of the center were 83.82 cm.

Desk height of the computer information desk is 96.52 cm.

Desk height of the information kiosk is 70 cm with a cutout at the front for a person in a seated position to get their knees under.

6.23 PATHS, WALKWAYS, TRAILS

MARSH LOOP - There is a 10% slope at the first transition to the floating sections of boardwalk. The handrail heights are 106.6 cm at maximum with lower section of handrails at 81.2 cm. The ramp at the Observation Platform has an initial slope of 5% then changes to a 10% slope at the top portion. There is a level section in the middle to rest. Clearance width and height under the mount for the spotting glasses was 88.9 cm wide and 80.6 cm high. Handrail heights are 91.4 cm. The height is 10.2 cm higher and 15.2 cm lower than the new sections of boardwalk.

BLUE HERON AREA –There were level transitions. Also found was a 3.175 cm transition difference between the brick and concrete entrance to the washrooms. The path between the Blue Heron Area and the Marsh Loop parking lot is uneven. Rain was observed affecting trail conditions. At various points along the path there were differences of levels with depths of 7.62 cm.

BLACK WILLOW BEACH - This beach has no accessibility.

NORTHWEST BEACH – Placement of boards of the boardwalk ranged from 1 cm to 6.35 cm. Transitions at the termination points of the boardwalks ranged from a 7.62 cm change in levels to 17.78 cm.

THE DELAURIER TRAIL – Two separate sections of trail have slopes of 10%. The greater inclines are prone to issues of rainfall washing out sections of the trail. The remaining slopes on the trail rise or fall at 5%. Warped boards along the boardwalk rise 2.54 cm from the level deck surface. Trail width ranges from 167.64 cm at its widest and 129.54 cm at its narrowest. Narrowing is a result of encroaching vegetation. The viewing tower deck rises to a height of 228.6 cm.

WOODLAND NATURE TRAIL – Slopes along trail were 5% or less.

SHUSTER TRAIL – The trail width is 51 inches. The last 30 m 50 cm of the trail surface has a reduced density. The final 6 m is very loose sand.

CHINQUAPIN OAK TRAIL –Slopes along trail were 5% or less.

TILDEN WOODS TRAIL – The first 6 m 40 cm of the trail is covered with crushed rock. Transition from trail surface to the boardwalk section of trail had a 2.54 cm difference. The boardwalk is 119.38 cm wide. Slopes on various sections of the boardwalk were 5%. The transition from the trail to the pavement has a difference of 3.81 cm. Also, there is an angled slope measuring

less than 5%. (Due to the nature of the slope and trail material it was difficult to get an accurate incline reading on the inclinometer.)

TIP OF POINT PELEE – Transition onto the “gateway” decking has a difference of 2.54 cm from the sidewalk. The slope of the ramp at the front of the “gateway” was 5%. The ramp at the rear was 10%. Transition from “gateway” decking to trail surface had a 2.54 cm to 3.8 drop. The Tip trail changes to a sandier surface until there is a point where the trail drops 45 cm into soft sand.

6.24 PARKING

PARK ORIENTATION AREA – There were 7 regular spaces with 1 accessible parking space. The accessible space had wide access. The width was 5 m within the white lines. The parking area was paved.

SANCTUARY POND LOOKOUT – There are 3 informal off-road parking spaces with potential for a fourth. Spaces were estimated. There were no markings to indicate formal parking spaces. There is no accessible parking. The parking surface is level with hard packed dirt and gravel.

SANCTUARY – There are an estimated 8 parking spaces with no accessible parking spaces. Spaces were estimated, as there are no designated spaces to count. The parking surface is packed gravel and stone.

MARSH BOARDWALK – There are 58 parking spots with 3 accessible spaces. The lot surface consists of packed dirt, gravel and stone. Larger stones in the gravel catch the small wheels of strollers and wheelchairs. The parking area collects large pools of water and mud after a rain event, as noted on the day of observation.

BLUE HERON AREA - There are 28 parking spaces with 1 accessible space. The accessible parking space has a brick pad for persons with impairment to exit/enter their vehicles. Vegetation blocks visibility of the accessible parking sign. The lot surface consists of packed gravel and stone.

NORTHWEST BEACH – There are an estimated 186 parking spaces with no accessible spaces. The area is designated for parking but does not have a clear demarcation of spaces. The parking surface is a moderate pack of gravel and sand. Grass and weeds permeate some portions of the parking area. Grass and weeds stabilize loose surfaces.

DUNES – No accessible parking is offered at this location. The lot surface consists of packed dirt with small stones.

SLEEPY HOLLOW – No accessible parking is offered at this location. The lot surface consists of crushed rock.

PIONEER – No accessible parking is offered at this location. The lot surface consists of packed dirt with small stones.

DELAURIER HOMESTEAD – There are an estimated 58 parking spaces. The area is designated for parking but does not have a clear demarcation of spaces. Two spaces are designated for accessible parking. The lot surface consists of packed dirt and grass with no clear demarcation of spaces.

BLACK WILLOW BEACH – No accessible parking is offered at this location. There are 49 parking spaces. Railroad ties (aka - railway sleepers) delineate parking spots. People with impairment may experience difficulty exiting or entering their vehicles. Vehicles parked on the left side will limit the room a driver has to pass their vehicle and the ties that mark the adjoining space. Right side parking raises the same issue for passengers. Attentiveness of the driver in space selection may reduce the potential for difficulty.

WHITE PINE – There are 30 parking spaces with 1 accessible space provided. The lot surface consists of packed dirt. The easement from the accessible parking space to the brick walkway is impeded with a 1.2 m section of crushed rock. The choice of the crushed rock reduces accessibility.

HENRY COMMUNITY YOUTH CAMP/GROUP CAMPGROUND – There are 3 accessible parking spaces. The lot surface consists of packed dirt and gravel with small stones.

WEST BEACH – There are 99 parking spaces with 3 accessible spaces. The lot surface consists of packed gravel and small stone. Grass and weeds permeate some portions of the parking area. Grass and weeds stabilize loose surfaces.

VISITORS CENTER – There are 167 parking spaces with 6 accessible spaces. The lot surface consists of asphalt.

TIP AREA – There are 20 parking spaces with 2 accessible spaces. The lot surface consists of packed gravel.

6.25 WASHROOMS

The following data is measurements of washroom features. The data was analyzed further in the discussion section. The data represents what accessibility is in places in each of the observed and measured washrooms.

BLUE HERON – Men's washroom – Pull strength weight of exterior door-1: 26 lbs., exterior door-2: 26 lbs. Threshold height: 2.54 cm. Accessible stall door width: 80.01 cm. Accessible stall width: 186.69 cm., length: 152.4 cm. Grab bars are placed behind and beside the toilet. Toilet height: 50.8 cm. Sink heights: top 77.47 cm, bottom 66.04 cm, depth 35.56 cm (from front to back). Lever handles operate the faucet of the sink. Soap height: 100.33 cm, automatic hand dryer height: 91 cm, trash height: 81 cm. Mirrors are angled for people of shorter stature.

Woman's washroom – Pull strength weight of exterior door-1: 17 lbs., exterior door-2: 17 lbs. Threshold height of entrance: 2.54 cm. Accessible stall door width 78.74 cm, stall width 152.4 cm length 190.5 cm. Grab bars are placed behind and beside the toilet. Toilet height 50.8 cm, sink heights: bottom 71.12 cm, top 78.74 cm, depth 45.72 cm (from front to back), Lever handles operate the faucet of the sink. Soap dispenser height: 88.9 cm, automatic hand dryer height: 93.98 cm, trash height: 111.76 cm. Mirrors are angled for people of various height.

NOTE– One of the exterior doors in each men and women's washroom opens onto an accessible stall door, which reduces access by blocking the entrance.

VISITOR CENTER – Unisex washroom – Door to enter the washroom has lever door handles and there is no threshold. Stall width: 163.83 cm, length: 227.33 cm. Grab bars are placed behind and beside the toilet. Toilet height: 50.8 cm, toilet paper height: 71.12 cm, sink heights: top 86.36 cm, bottom 77.47 cm, depth 63.5 cm (from front to back), The curve at the front of the sink allows for closer approach for persons with impairment to reach fixtures. Lever handles operate the faucet of the sink. Soap dispenser height: 99.06 cm, trash height: 100.33 cm, paper towel dispenser: 130.81 cm, light switch 135.89 cm.

TIP OF POINT PELEE – Unisex washroom door is 90.17 cm wide with a 2.54 cm threshold. Interior of washroom is 142.24 cm wide and 337.82 cm long. One grab bar is placed on the side of the toilet, which is placed in the corner. Toilet height: 50.8, toilet paper height: 101.6 cm, Sink heights: bottom 67.31 cm, top 86.38 cm, 59.69 cm deep (from front to back). The water faucet is automatic. Soap dispenser height: 104.14 cm, paper towel dispenser height: 106.68 cm. trash height: 83.82 cm. Mirrors are angled for people of various height. There is no interior lighting or light switch.

WHITE PINE – This picnic area is not reported accessible in the park brochure. However, modifications have been made to upgrade the washrooms to provide access. The route to the washrooms requires passage through the main picnic shelter that has a 10% slope up to the floor level

from the surrounding terrain. Transition from brick to concrete, at the shelter and the front of the men's washroom, has deteriorated leaving gaps that could be hazards. Gaps have a range from 0 cm to 8.89 cm.

Men's washroom – Exterior door pull strength 10 lbs. Threshold height of washroom entrance: 2.54 cm. Motion sensors manage the interior lighting. Accessible stall door width: 88.9 cm, stall width: 154.94 cm, length: 142.24 cm. Grab bars are placed behind and beside the toilet. Toilet height: 45.72 cm, toilet paper: 91.44 cm, sink heights: top 80.01 cm, bottom 73.66 cm, depth 59.69 cm (from front to back), soap dispenser 99.06 cm (placement of soap dispenser is on the back wall and out of reach for a person in the seated position.), paper towel dispenser height: 129.54 cm), trash height 104.14 cm. Gaps between concrete and brick at the front of the men's washroom door measure 2.54 - 7.62 cm. Brickwork at right side of entrance is broken or out of place.

Women's washroom – Exterior door pull strength 10 lbs. Threshold height of washroom entrance: 2.54 cm. Motion sensors manage the interior lighting. Accessible stall door width: 86.36 cm, stall width: 149.86 cm, length: 172.72 cm. Grab bars are placed behind and beside the toilet. Toilet height: 40.64 cm, toilet paper: 93.98 cm, sink heights: top 78.74 cm, bottom 63.5 cm, depth 60.96 cm (from front to back), soap dispenser height: 104.14 cm (placement of soap dispenser is on the back wall and out of reach for a person in the seated position.), paper towel dispenser height: 139.7 cm, trash height: 106.68 cm. Mirrors are angled for people of various height.

YOUTH CAMP/GROUP CAMP – Access to the washrooms is gained by crossing a large grass area over a small hill. There is no groomed path, trail, or paved access to get to the washrooms. The men's washroom was locked at time of observation. However, measurements of the women's washroom have a high probability of similarity, as the exterior design is homogenous. The men and women's washrooms are a small rectangular room. While specific accessibility is not provided in the washrooms people with varying degrees of impairment may find the facilities usable.

Women's washroom – Exterior door width is 88.9 cm with no threshold. The door pull strength is estimated at 18 pounds (The door pressure gauge was not used to measure pull strength—described as “hard to pull.”), toilet height: 38.1 cm, toilet paper height: 93.98 cm, stall is 226.06 cm long 208.28 cm wide, The men's and women's washroom sinks are placed along the outside of the structure. Sink heights: top 86.36 cm, bottom 71.12 cm, depth 45.72 cm (from front to back). No lever handles. A single knob handle operates the faucet of the sink (knob handle has to have continuous torsion for water flow).

Accessible unisex washroom – this washroom was not measured. Observations revealed that the washroom elements are similar to other accessible washrooms in the park. Toilet, toilet paper, grab bars, and angled mirror appear similar to other washrooms. The stainless steel sink is unique to this washroom. Clearance under the sink may differ compared to sinks elsewhere. As stated earlier this washroom is provided for groups and camps that reserve the area for use – it is not intended for the majority of visitors.

The following three washrooms are seasonal and are reported as accessible in park literature. The washrooms at Black Willow Beach and West Beach have duplicate characteristics in structural style and amenities.

NORTHWEST BEACH – Ramp at the front of the facilities has a 5% slope. There is no access to feet rinsing area. The exterior concrete basin has a 10.16 cm perimeter, which limits access.

Men's washroom – Exterior door has no threshold. Accessible stall door width: 81.28 cm, stall width: 182.88 cm, length: 170.18 cm. Grab bars are placed behind and beside the toilet. Toilet height: 40.64, toilet paper height: 83.82 cm, sink heights: top 88.9 cm, bottom 71.12 cm, depth 55.88 cm (from front to back), soap dispenser height: 63.5 cm, hand dryer height: 105.41 cm, trash height: 60.96 cm. The men's changing area is open concept with benches along the walls. While ample room to move is provided within, privacy is limited.

Women's washroom – Exterior door pull strength: 4 lbs. The door closing mechanism was missing. Exterior door has no threshold. Accessible stall door width: 81.28 cm, stall width: 185.42 cm, length: 182.88 cm. Grab bars are placed behind and beside the toilet. Toilet height: 39.37 cm, toilet paper height: 83.82 cm, sink heights: top 86.36 cm, bottom 68.58 cm, depth: 58.42 cm (from front to back), soap dispenser height: 96.52 cm (soap dispenser at the accessible sink is not connected – the nearest dispenser is placed beyond two other sinks - mounted 22.86 cm from edge of the counter.), hand dryer height: 106.68 cm, trash height: 60.96 cm.

Changing area on the women's side is divided into individual stalls. There is one accessible stall with an entrance width of 81.28 cm. There is no door on the accessible stall.

BLACK WILLOW BEACH – Men's washroom – Exterior door pull strength is 22 lbs., with no threshold. Accessible stall door width: 80.01 cm, stall length: 144.78 cm, width: 137.16 cm. Grab bars are placed behind and beside the toilet. Toilet height: 40.64 cm, toilet paper height: 81.28 cm sink heights: top 76.2 cm, bottom 73.66 cm, depth 45.72 cm (from front to back), no lever handles

(knob handle has to have continuous torsion for water flow), soap dispenser height: 86.36 cm, hand dryer height: 76.2 cm, trash height: 66.04 cm. Interior stall handles are absent. Ease of closing and locking stall doors is reduced. Placement of the trash beneath the hand dryer reduces access. No angled mirror to accommodate people of various height. Shape of the accessible stall is nearly a cube. The square configuration of the stall and placement of the toilet limit the room to pull in a wheelchair and close the door. Entrance into men's changing area is 77.47 cm wide with no threshold. The changing area is open concept with benches along the walls. While ample room to move is provided within, privacy is limited.

Women's washroom – Exterior door pull strength 19 lbs., with no threshold. Accessible stall door width: 80.01 cm, stall width: 137.16 cm, length: 144.78 cm, toilet height: 40.64 cm, toilet paper height: 81.28 cm, sink heights: top 100.33 cm, bottom 73.66 cm, depth 45.72 cm (from front to back), no lever handles (knob handle has to have continuous torsion for water flow), soap dispenser height: 99.06 cm, hand dryer height: 96.52 cm, trash height: 66.04 cm. No angled mirror to accommodate people of various height. Shape of the accessible stall is nearly a cube. The square configuration of the stall and placement of the toilet limit the room to pull in a wheelchair and close the door. The entrance to the women's changing area is 76.2 cm wide with no threshold. Space within the changing area is divided into individual stalls. There is not enough room for a person with impairment, specifically in a wheelchair, to use the stalls for changing.

WEST BEACH – Men's washroom–Exterior door pull strength is 0 lbs. as the closing mechanism is missing. There is no threshold at the entrance. Accessible stall door width: 80.01 cm, stall width: 139.7 cm, length: 137.16 cm. Grab bars are placed behind and beside the toilet. Toilet height: 44.45 cm, toilet paper height: 104.14 cm, sink heights: top 73.66 cm, bottom 66.04 cm, depth 43.18 cm (from front to back), no lever handles (knob handle has to have continuous torsion for water flow), soap dispenser height: 88.9 cm, paper towel dispenser height: 121.92 cm, hand dryer height: 99.06 cm, trash height: 114.3 cm, light switch height: 134.62 cm, Changing room door 73.66 cm.

Women's washroom – Exterior door pull strength: 5 lbs., with no threshold. Accessible stall door width: 80.01 cm, stall width: 137.16 cm length: 134.62 cm wide, Grab bars are placed behind and beside the toilet. Toilet height: 38.1 cm, toilet paper height: 109.22 cm, sink height: top 78.74 cm, bottom 68.58 cm, depth 43.18 cm (from front to back), no lever handles (knob handle has to have continuous torsion for water flow), soap dispenser height: 91.44 cm, paper towel dispenser height:

134.62 cm, hand dryer height: 101.6 cm, trash height: 109.22 cm, light switch height: 134.62 cm.
Changing room door 78.74 cm.

Ramp at the front of the facilities has a 5% slope.

The following picnic area washrooms were not accessible. The structure of the buildings is replicated at each of the four locations. In depth observations and measurements were not conducted on these facilities.

SANCTUARY – Washrooms are seasonal and not accessible. The sidewalk to the washrooms is brick and uneven. There are two steps to enter the washroom.

DUNES – Washrooms are seasonal and not accessible. There are two steps to enter the washroom.

SLEEPY HOLLOW – Washrooms are seasonal and not accessible. There are two steps to enter the washroom.

PIONEER – Washrooms are seasonal and not accessible. There are two steps to enter the washroom.

6.26 MISCELLANEOUS

PICNIC AREAS / TABLES – The following listed areas are briefly described with the type of amenities provided. The areas are not completely described, yet the important features to note are listed.

SANCTUARY – The picnic area is not listed as accessible. There are no accessible picnic tables.

BLUE HERON AREA – The area is listed as an accessible area. There are 4 accessible picnic tables.

DUNES – The picnic area is not listed as accessible. There are 2 accessible picnic tables.

SLEEPY HOLLOW – The area is listed as an accessible area. There are 6 accessible picnic tables.

PIONEER – The area is listed as an accessible area. There are 2 accessible picnic tables.

BLACK WILLOW BEACH – The area is listed as an accessible area. There are 2 accessible picnic tables.

NORTHWEST BEACH – Picnic shelter, there are 2 tables 1 is accessible. Between boardwalks 9 and 10 is a walkway leading to an accessible picnic area. The area appears unmaintained. There is a 10.16 cm transition onto boardwalk and missing boards, which lead to the accessible designated picnic area. The walkway is narrowed by overgrowth and wind-blown sand. The accessible picnic area is without a scenic beach vista and a table, but has reduced access to the grill from deposited sand. Encroaching vegetation may be a fire hazard near the grill. The decking in the area is weathered, deteriorating and missing boards. The nearest table, marked with the universal symbol for accessibility, is placed 4.4 m into the sand.

The area is enclosed by vegetation. Grass, bushes, and trees obstruct views of the water and beach. The accessible area is 18.3 m from other picnic tables on the beach. There is no actual beach access.

Accessible parking is located next to trash and recycling containers. Refuse is a huge attraction for flies. Trash can height: 81.28 cm Pull weight of lid: 6 lbs.

DELAURIER HOMESTEAD – There are 2 accessible picnic tables.

YOUTH CAMP/GROUP CAMP – There are 2 accessible picnic tables. (Use of area is restricted.)

WEST BEACH – The area is listed as accessible. There are 2 platform picnic areas with grills for people with impairment. One picnic table has boardwalk access. However due to the convenience of the picnic table on a decked area, the site was occupied by people without impairment. The second accessible area did not have a table. Of the 3 shelters at West Beach there were 2 accessible tables.

VISITORS CENTER – There are 2 accessible picnic tables.

BEACHES – The “full effect of the beach” is one where a 180° view of the shoreline is unobstructed by vegetation along the shore. There were no points where the boardwalk extended to a place for the full effect of the beach.

TIP SHUTTLE – The slope of the ramp on to the tram is 15%.

Appendix E

Washroom measurements checklist

Below is the checklist used for measuring washrooms at the study sites. The checklist captures many of the common washrooms features. Nuances or unique characteristics of a washroom are noted for specific sites.

DATE: _____ PARK: _____ LOCATION IN PARK: _____

CHECKLIST FOR ACCESSIBLE WASHROOM — (MEN / WOMEN)

HP SIGNAGE (YES / NO) DOOR THRESHOLD height _____ PUSH BUTTON DOOR (YES / NO)

EXTERIOR DOOR HANDLE HEIGHT _____ DOOR PULL STRENGTH _____ lbs. LIGHT SWITCH height _____

STALL DOOR width _____ HANDLE height _____ STALL width _____ length _____

TOILET PAPER height _____ TOILET height _____ GRAB BARS height _____

SINK height (top) _____ (bottom) _____ (depth) _____ SINK HANDLES Levers (YES / NO)

SOAP height _____ HAND DRYER / TOWELS height _____ TRASH CAN height _____

Items left blank were not found or do not apply

NOTES: |

Appendix F

List of interview questions

The following questions were devised to gain an administrative or management perspective to accessibility at the study sites. Interviews were conducted with key actors on accessibility.

How is accessibility defined in regards to parks?

Is there an outlet for people with disabilities to report issues?

Is there a system of monitoring / auditing for accessibility?

Are there access issues that have received your attention?

Are there current access issues that need to be addressed?

What improvements do you think should be considered for better accessibility within parks?

How were material (stone, dirt, pavement) selected or determined for making accessible trails?

Are there standards used in the construction of boardwalks and platforms?

What “standards” were used to provide accessible services in the park?

What standards are used for upgrading park facilities?

Is the *Time-Saver Standards for Landscape Architecture* used for accessibility improvements?

Is the *Ontario Building Standards for barrier-free design 1992* used for new facilities?

Does Park administration consult with organizations that focus on accessibility or is comprised with members with disabilities?

What organizational restrictions may cause barriers for accessibility upgrades?

What financial restrictions may cause barriers for accessibility upgrades?

Are there concerns of providing access versus natural aesthetics?

Are there areas of interest that I may be missing from my research?

Is there a park “Friends Group”?

Does the Friends group have any authority to make improvements?

Are there restrictions to what the Friends group can do for improving accessibility?

Appendix G

Appendix of Photographic Evidence

The following photographs provide evidence of accessibility within the study sites.

WATERLOO PARK



Some picnic areas within the park have large grass surfaces, which are difficult to traverse. Two accessible picnic tables were found.



Washrooms were not listed accessible. However the eastside site provided access. The hillside location may be limiting.



The rail crossings in Waterloo Park are difficult to cross for a person in a wheelchair. The two photos illustrate how surface material choice may limit accessibility. Through use and weathering the crossings have deteriorated, which act as a barrier to use.

WATERLOO PARK



A variety of park features offer an equal array of accessibility. The Schoolhouse (left photo) is not accessible to people with impairments. The boardwalk (middle photo) around Silver Lake is level and wide. Transitions from the boardwalk are inconsistent and may be limiting. Interpretive panels (right photo) educate visitors of the park's history. Placement of the panel does not provide an equal opportunity to access.



Trail surfaces in the park vary in density and materials. Deterioration of asphalt (left photos) creates hazards for people of any ability. Transitions (middle photos) were substantial onto various surfaces. Trail surfaces (right photos) were found marred with roots and loose density, which created limitations.

LAUREL CREEK CONSERVATION AREA

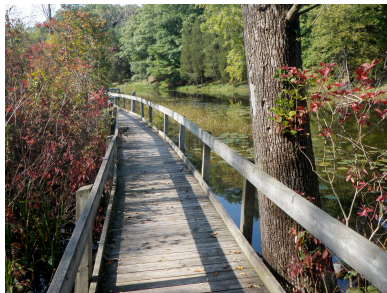


The gatehouse's (top left photo) modernity furnishes an ease of use. Yet, constructed obstacles (bottom left photo) around water taps impede independent use. The one regularly available comfort station (middle photos) is limited by design. The large grass crossing is a barrier to access. Placement of fixtures within the accessible shower prevents independent use. Picnic shelters (right photos) have considerable transitions onto the shelter floor.



Independent outdoor experiences will be determined by the limitations of one's impairment. The inaccessible playground (left photo) is not convenient to any accessible parking. Campsites (middle photo) have a multivariate of ground surfaces. Visitors with impairment need to determine if a specific site will suit their personal needs. The boat launch (right photo) offers the closest access to the water's edge.

PINERY PROVINCIAL PARK



Sections of the Riverside Trail (left photos) alternate between accessible and inaccessible. Beach access (middle photos) is severely restricted. There is no independent beach access for a person in a wheelchair. Yurts (right photos), in the Riverside campground, provide access. However, there are limitations by design. Ramps were noted to have transition differences. Yurt entrance configurations may limit ingress.



Washroom structures within the park are picture here. Modern washrooms (left photo) have the greatest access. Updated campground washrooms may have very few limitations. Vault toilets (middle photo) are being renovated at various locations in the park. Access may be slightly reduced by the type of fixtures (sinks and faucets) and their location. Beach comfort stations (right photo) were not accessible by design and location. Burley Beach comfort station is reportedly updated – due to seasonality the location was not observed.

PINERY PROVINCIAL PARK



There are points of access along the Old Ausable Channel. The canoe launch (left photo) has the closest access to the waterline. Fishing is not permitted at this location. The canoe rental dock (middle photo) has an extensive ramp with smooth transitions. However, there is no equipment for people with impairment that may facilitate use of watercraft. Entrance to the fishing platform (right photo) is blocked by a roadside guardrail.



Though accessible campsites are provided (left photo), a regular campsite in the Riverside campground was preferable to the researcher (right photo).



Trails in the park provide an independent experience for visitors with impairment. The accessible trails (left photos) have wide level pathways. Yet, limits to access can be found. Loose trail surface density (middle photo) can impede forward progression along some trails. Dimensions of access infrastructure (right photo) are narrow. Furthermore, vegetation may cause additional narrowing.

POINT PELEE NATIONAL PARK

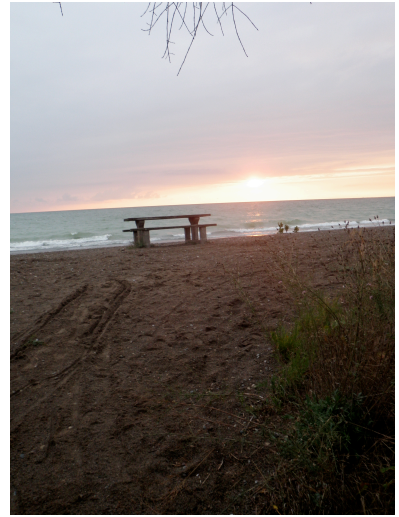


Access to the tip of Point Pelee dashed expectations. Trails leading to the tip (left photo) reached a point where access was stopped (middle photo). It was the researchers' hope to sit on the tip of Canada's southern most point. Due to the constant geomorphic changes at the tip, permanent accessibility infrastructure cannot be placed.



The Marsh Boardwalk (top left photo) is an excellent example of how user feedback yielded access beyond any standard. Sections of boardwalk without handrails (bottom left photo) create unobstructed views and access for nature appreciation. The alternate levels of handrails (middle photo) demonstrate the park's willingness to incorporate input from the disabled community. However, there are issues of access (right photos), the office for securing the all-terrain chair (ATC) is not accessible. The size of the device is limiting and does not grant independent use.

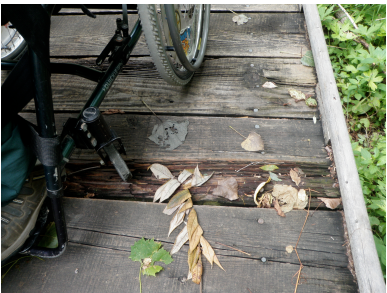
POINT PELEE NATIONAL PARK



Trails in the park provide an independent experience for visitors with impairment. The accessible trail (left photos) has a wide level path with dense surface material. Yet, limits to access can be found. Crushed rock (middle photo) limited access at the trailhead. Independent access onto any of the park's beaches (right photo) is severely limited by loose sand surfaces.



Upgraded accessibility (left photo) is an example the ongoing focus to improve the park experience for visitors. Access improvements are tied to infrastructure replacement. The Marsh Outlook (middle photo) may receive accessibility improvements when the boardwalk and platform has exceeded its lifecycle. The damaging effects of severe weather impeded access in various locations of the park (right photo).



Deteriorated and damaged accessibility (above photos) is an example where increased monitoring may generate improvements.