Project ONE

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a practicum submitted to the Faculty of Graduate Studies
in partial fulfilment of the requirements for the degree of
Master of Landscape Architecture

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I dedicate this work to my parents

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Abstract

Project ONE is a journey about discovery and the explanation of a design process that was used to disclose the idea of beauty, and how this process was then applied in a project to fulfil a desire, as a designer, to create a 'beautiful' landscape. This process was utilized to design a proposal for an existing site, which is located on the grounds of the Riverbank Discovery Centre in the City of Brandon, Manitoba, Canada. The end result is a final plan for a landscape design that illustrates how the existing grounds and spaces of the Riverbank Discovery Centre (RBDC) were reinterpreted in this endeavour.

There are a number of key goals in this practicum. The primary goal of this project is to explore the notion of beauty primarily through the understanding of wabi-sabi. These ideas were then used in an explicit interpretation of the design process known as 10 to 3 to 1. This new understanding was applied to the design of a landscape. The secondary goal is to explicitly express this process and to convey the spirit and the beauty of the site to the reader.

Ultimately, the text, images, illustrations and designs contained within this document are an expression of the goals of this project - the desire to design spaces that further enhance the existing natural beauty found in the RBDC site, while meeting the needs and wishes of current users, and also attracting new users from Brandon and the surrounding region.

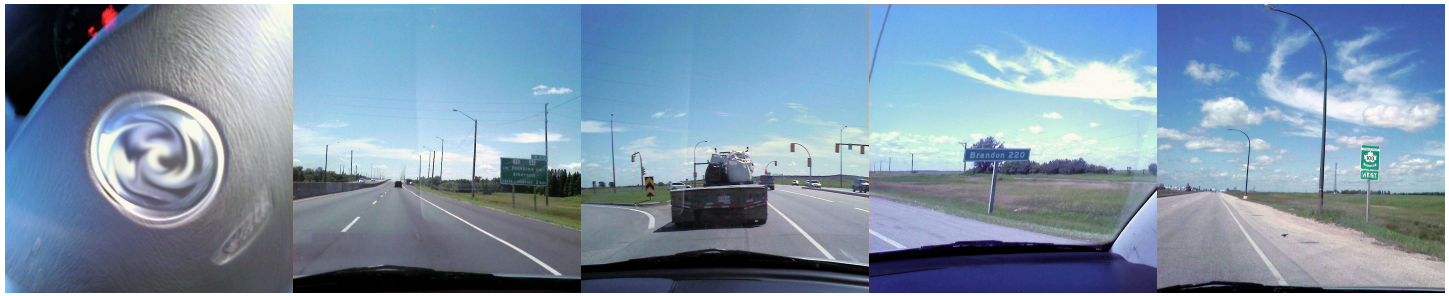
A Conversation

…I visualize a layout of the walkway that has a combination of trees and mass plantings of shrubs on one side. In this case, when you are walking west towards 18th Street from the Discovery Centre, the trees and shrubs would extend on your right-hand side. This would leave an open view to the river, 18th Street, and Kirkcaldy Drive. Combined with the trees and shrubs would be a small plaza that would have a couple of benches plus, maybe, an information board. As we discussed I would think the shrubs would include mass groupings between each tree.

Client; September 2006

Journey

June 2008



42 B
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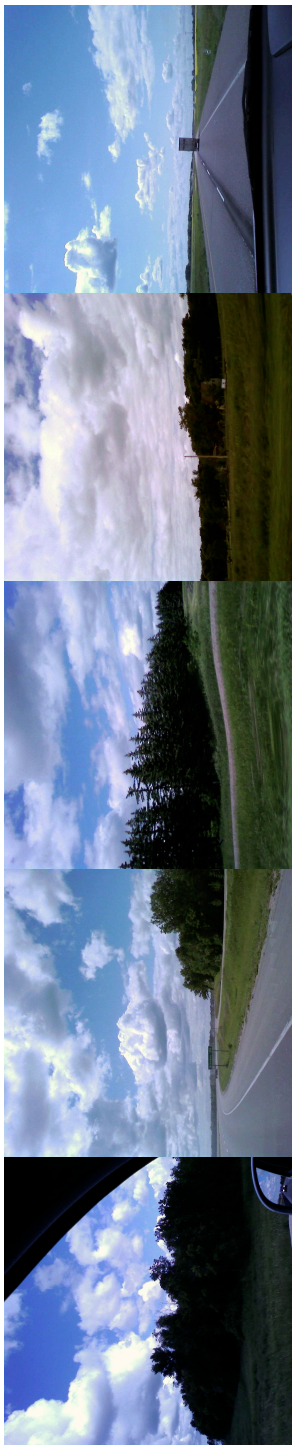

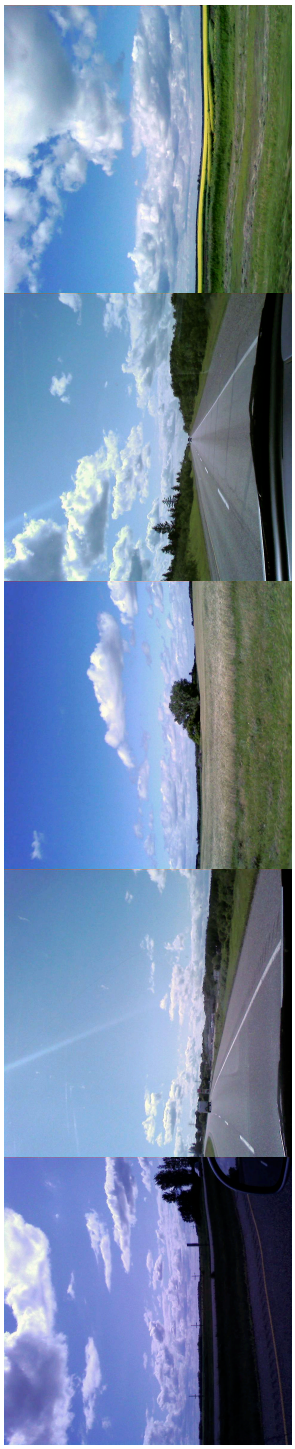

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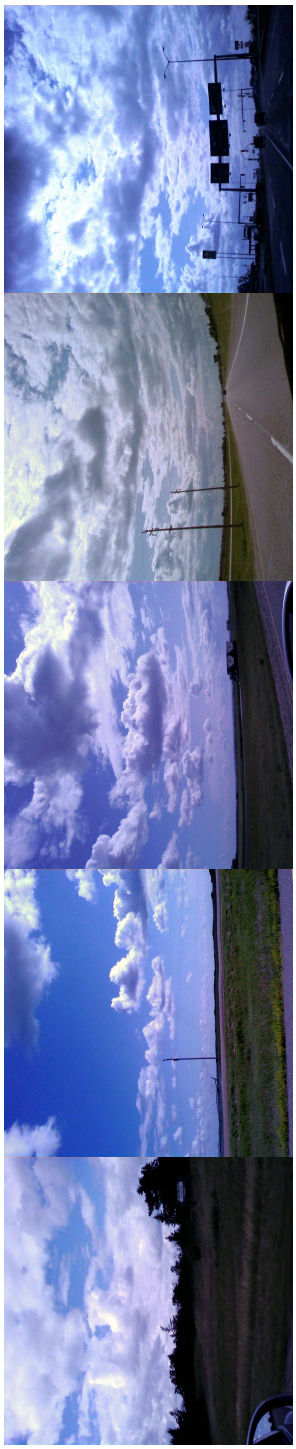


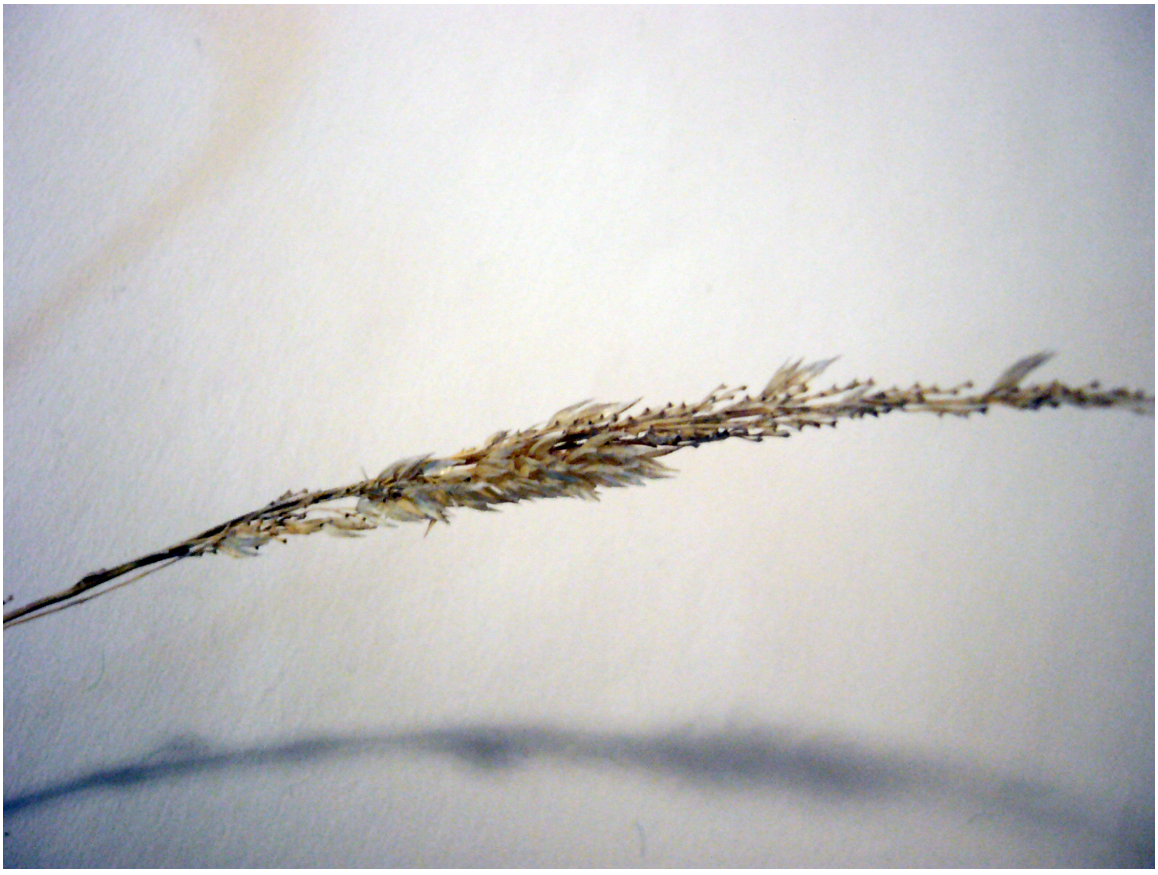
I. Introduction

a small
better-designed boat dock
plaza
a new pathway
new plantings and seating areas

This practicum, which is really a journey of design process, started from an opportunity to design a new walkway, with plantings and seating areas that would link to an existing trail system, and a small plaza space located on the grounds of the Riverbank Discovery Centre (RBDC) in Brandon, Manitoba. There was also a need for the redesign of an existing boat dock to better accommodate a water taxi service next to the Assiniboine River.

The initial goals of this Practicum were as follows:

- Design a project that will document the personal design philosophies and methodologies used to create 'beautiful' outdoor spaces
- Enhance the experience of 'nature' for the users of the site, and create a destination point for local peoples and visitors from this region



During the later part of 2006 and early part of 2007, the existing vegetation at key areas in the site and along the riverbank were identified and documented in an vegetation study. Initially, the site seemed featureless and not very interesting. However, it was through the course of conducting this study that an appreciation was gained for the site's natural vegetation, especially for those plants that were found adjacent to the Assiniboine River, and the wildlife habitat area, which Ducks Unlimited Canada (DUC) developed in the late 1990's.

In the spring of 2007, a preliminary site inventory and analysis was conducted in the part of the site where the future plaza space was to be located, adjacent to an existing water-taxi dock. The findings of this study revealed that the Riverbank Discovery Centre site and its spaces were functional, and had a distinctive character; a rustic beauty. Believing that there is a distinctive character, or essence, to be found in the grounds of the RBDC, the idea of Genius Loci was examined.

The design program (Spring 2007):

1. New walkway that would link to existing walkways and to the Assiniboine Trail
2. Small Plaza designed to accommodate small gatherings, and with seating and plantings
3. A new water-taxi dock with a waiting area, located near the plaza
4. Additional parking area to handle larger scale events such as Canada Day
5. New pathways that transverse the grounds, meandering through earthen berms to give the user an interesting experience

During this time, there was a desire expressed by a client, on behalf of the City of Brandon, to further address the needs of the current users, and to accommodate future users of the site by adding parking areas for large events such as Canada Day, and adding more pathways that would transverse the site.

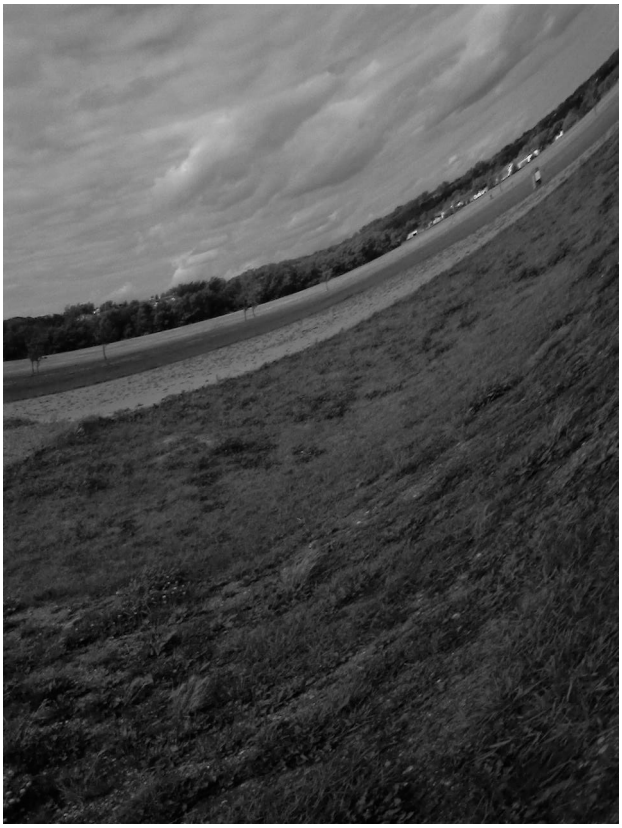
Very early on in this project, realizing that the idea of beauty was an important aspect of this work, the notions of beauty were explored and incorporated into the design of the spaces in the site. A choice was made to examine and explore the notions of a particular kind of philosophy, with a particularly appealing philosophy of beauty known as wabi-sabi. The landscape plan that was being developed for the site incorporated notions from this philosophy - it expressed the distinctive character of the site.

Following the preliminary site inventory and analysis, the first conceptual design phase began. A very important part of the first conceptual design phase was to develop ideas for the spaces and the site based on an adapted existing design process. A decision was made to make use of Apple Computer Inc.'s industrial design process, referred to as 10 to 3 to 1, because of a personal admiration for the design of their products; Apple's design philosophy is one that is based on the notion that less is more. This idea is related to one of the fundamental notions of wabi-sabi that is based on the idea of discarding all that is unnecessary (Koren 1994).

After working on the plaza space design for the client, this project evolved to an entirely academic pursuit and this practicum, titled Project ONE, began in March 2008. A comprehensive site inventory and analysis was then conducted by the summer of 2008, and the findings from that study formed the foundation for the second phase of design. This consisted of continuing the design process of 10 to 3 to 1 by choosing three plans from ten landscape plans that were developed, and also by examining suitable precedents, and conducting a literature review.

It was through the course of conducting various studies of the existing landscape that a greater appreciation was gained for the existing beauty of the natural vegetation and the built elements found within it. This appreciation of the existing landscape's inherent beauty, and the awareness of the spirit of the place led to a shift in thinking; designing spaces for the site that would meet the functional needs for current and future users to designing the spaces that better resonate the distinctive character of its location, and complement the existing natural beauty of the site. These formed the objectives of this practicum.

Finally, a concept plan, which was based on these objectives, was designed by early February 2009. It was further developed into the final proposal. The proposal consists of a final landscape plan for the RBDC grounds including a number of proposed outdoor spaces. This document contains the final proposal shown in the sequence of its development. It illustrates how a design process was used to develop a concept into a final proposal for a landscape, and the journey that was taken to disclose an idea of beauty.



II. Genius Loci

Ge nius lo ci
1: a tutelary deity of a place
2: the pervading spirit of a place

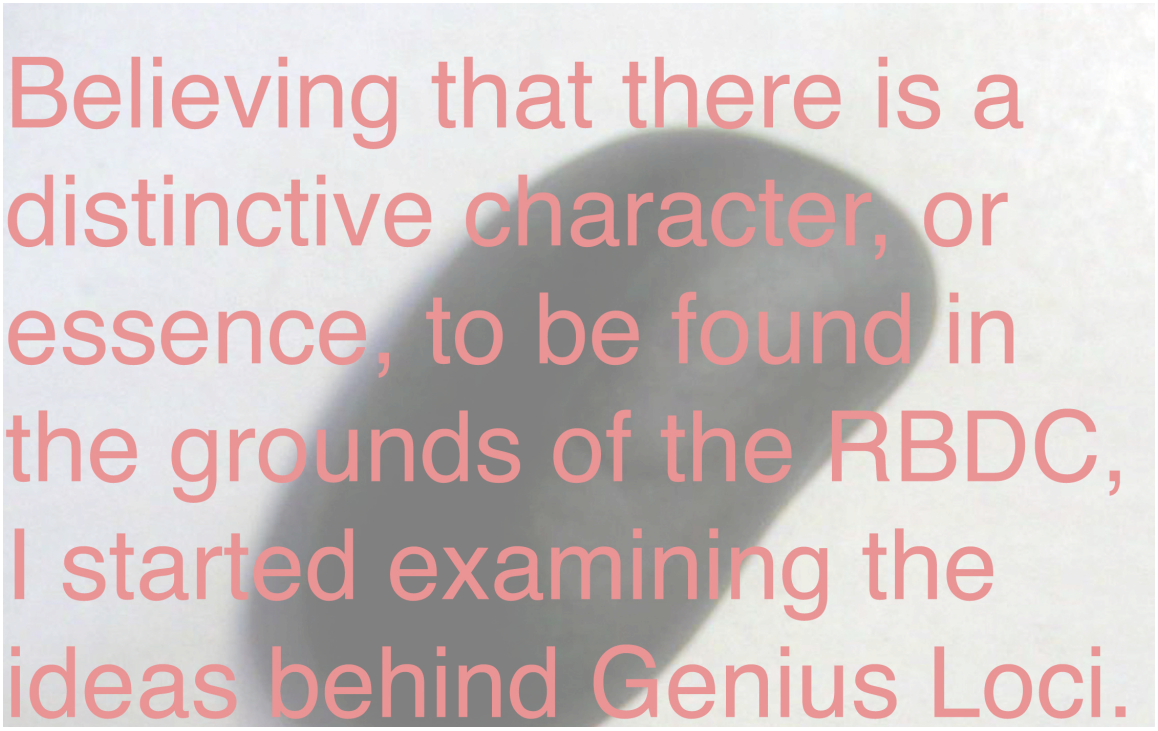
Webster's Seventh New Collegiate Dictionary, 1970

At Delphi, in ancient Greece, the pervading wisdom stated that a shrine be built in a location where the spirit of that place made it most suitable for honouring the earth Goddess Gaia (Swan 1991, 1). According to anthropologist Dr. James A. Swan (1991,1), the site for this shrine had an abundance of energy called “plenum”, which favoured Gaia and the work of Pithia, a priestess oracle. Delphi eventually became a “touchstone place” where planners and designers visited in pilgrimage to seek out the origin of this energy.

An ancient method of determining the sacredness of a place is “geomancy”, a term coined by the Greek naturalist Pliny the Elder (23-79 C.E.). Geomancy refers to a method of divination where a Persian Magi tossed stones on the ground and then studied their configuration in order to determine the best function for the place (Swan 1991, 1). Geomancy may not seem like an appropriate approach to site planning now. However, it is rooted in a compelling idea, which is about how each place has its own unique qualities. Understanding this is an important first step in designing a space. Moreover, Swan (1991, 1-3) even suggests that geomancy is the parent of the modern environmental design process and knowing the “spirit” of a place is essential to planning, designing and building sustainable places.

Arguably, one of the most important things to research, prior to proposing a design, is the site. Sitting in a valley, adjacent to the Assiniboine River, the site on the grounds of the Riverbank Discovery Centre. The existing vegetation includes remnants of a riverbottom forest and an introduced mixed-grass prairie, and turf grass.

A preliminary study of the site was conducted in 2006 while there was still snow on the ground, by taking photographs and notes of the characteristics of the site, and the surrounding area. Then, in the summer of 2008, a more comprehensive site inventory and analysis was conducted. During this study, additional photographs and an audio survey of the site were completed to provide more information about the character and the quality of the site. By conducting these two studies, an understanding of the distinctive character of the site, and from this the Genius Loci, which is the “spirit of place” as Swan (1991) suggests, became evident.



Assiniboine River, a River Deity of Western Manitoba

The first impression of the site was both the proximity and prominence of the frozen Assiniboine River. Then, in the warmer months, the river's beauty and character is especially evident as the sun hits the water. The form of the river is also very apparent. It winds its way around the grounds of the Riverbank Discovery Centre - bordering it along its southern edge. The river meanders from the Province of Saskatchewan running 1070 km southeast through the City of Brandon in Manitoba, until it joins the Red River at "The Forks" in the City of Winnipeg.

The Assiniboine River is a very important feature of this region. It drains a broad fertile plain that is used for growing wheat in one of Canada's prime wheat-growing areas. Winding its way past the Hills of Brandon in the distance through the City, the Assiniboine River might be imagined as a vein that carries the spirit of this region (Figure 1). It physically divides the grounds of the Riverbank Discovery Centre from Eleanor Kidd Park, which is located adjacent to the site on the west side of the river; however, it seems to seamlessly connect them, creating a visual extension of the site. The vastness of the space becomes evident when there is snow on the ground. The snow makes the landscape look larger by covering the river and visually connecting it to the site. The river is significant for Brandon, because it is used for recreational boating and also for fishing; it is an important element to the project because it connects the site to the rest of the city.

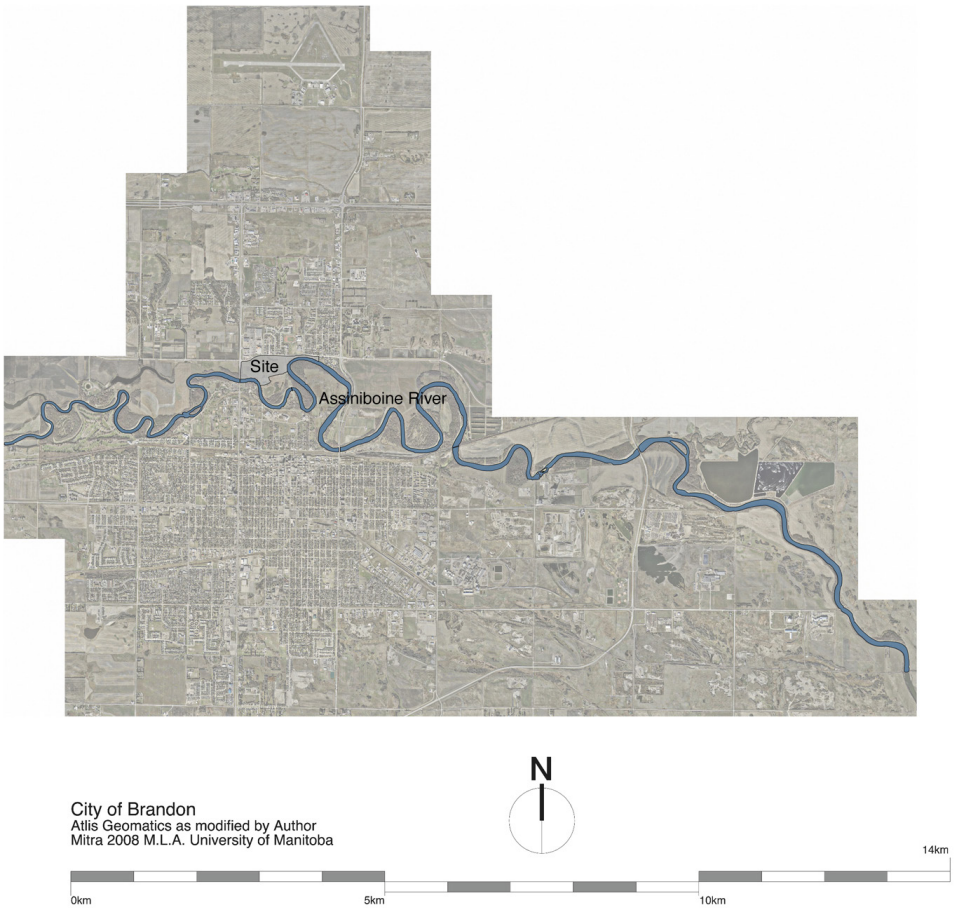


Figure 1. Site in relation to Brandon and the Assiniboine River

An additional significant impression from the site is the variety of vibrant colours of the vegetation located along its riverbank and surrounding landscape, and the functionality of the site. The richness in the colours found in some of the vegetation along the riverbank is especially notable during the winter, in contrast to the white snow (Figure 2).

In the warmer months, especially during the summer, the impression the site gives is of a warm and inviting natural space, which is used by people as a strolling park. The introduced Mixed Grass Prairie vegetation, located adjacent to the site in the habitat areas built by Ducks Unlimited Canada, give the landscape a sense of ‘nature’. Finally, the multiuse pathways that run along the perimeter and through the site makes this space useful year around, as a place for people to stroll and enjoy nature (bottom 2 images Figure 2).

For a panoramic view of the landscape, see Figure 3.

Figure 2. Grounds of the Riverbank Discovery Centre (2006), Brandon, Manitoba

Architect and theorist Christian Norberg-Schulz suggests that (1980, Preface): “Architecture means to visualize the genius loci, and the task of the architect [designer] is to create meaningful places.” Taking this idea into account, the proposed designs in this project are intended to convey the spirit of this place and increase the usefulness of the spaces. The designed spaces in the project reflect the winding Assiniboine River by having elements like pathways, roads and vegetation that cut through them or join them to the site. They are also designed to connect people to the existing landscape, offering new places to view the existing vegetation, nature, Eleanor Kidd Park, and wheat, which is an iconic crop for this region.

Figure 3. Panoramic view of the western grounds of the Riverbank Discovery Centre (2006), Brandon, Manitoba

Assiniboine River with its winding form, the Valley and Hills of Brandon, the iconic and major crop of the region- Wheat, and the vegetation from the riverbottom forest and the mixed grass prairie.

Beauty

The idea of beauty is an important aspect of this project, and the notions of beauty needed to be explored and somehow incorporated into the design of the spaces in the site. The exploration of beauty in and of itself can be an enormous endeavour that is fashioned by individual and personalized thinking. Therefore, a choice was made to examine and explore the notions one particular kind of philosophy with a particularly appealing notion beauty, which is of great personal research interest, known as wabi-sabi.

III. Wabi-sabi

Introduction

The sky, air and existing vegetation on the grounds of the site have a special quality about them. The winding river, the stand of trees located next to it with groups of Fraxinus pennsylvanica (Green Ash), the vegetation along its banks and the grasses in this landscape have an inherent beauty. The existing developed areas of the site, including the walking pathways, and the water-taxi dock, boat launch, the small hard surface stage and the Labyrinth of Peace convey a simple type of beauty. This type of beauty, which has been romanticized within Japanese culture, is referred to as wabi-sabi.

Wabi-sabi is essentially a nature-based aesthetic paradigm that is central to Japanese culture (Koren 1994, 9). At its core, wabi-sabi is a notion of beauty that is linked with the traditional Japanese tea ceremony, and it is also associated with Zen Buddhism (Koren 1994, 15). It has been suggested that it is the most distinctive feature and the very essence of what people think of as being traditional Japanese beauty, which can be understood, at least on a conceptual level, as coming from a sensory experience rather than being inherent in an object (Koren 1994, 21; Crowley and Crowley 2001, 2).

According to Crowley et al. (2001, 3), traditional Japanese beauty is composed of various experiences or states of beauty that range from 'lower levels' with elaborate ornamentation and vivid colour usage, to the 'higher levels' of a simple and subdued elegance that is known in Japanese as shibumi. Shibui (adjective of shibumi) is a beauty that is represented by the notion of "less is more". This is a beauty that, simply put, is characterized by the greatly reserved, astringent, sober and quiet (Tierney 1999, 19). As well, it is a beauty that is in harmony with nature and it has a calming effect on the viewer (De Mente 2006, 36). When the highest state of this beauty is achieved, it becomes wabi-sabi (Crowley et al. 2001, 3).

Wabi-sabi is composed of the two words (De Mente 2006): wabi (pronounced wah-bee)- and sabi (pronounced sah-bee). While researching the origin of the two words, a depth of meanings with nuances became evident. According to architect and author Leonard Koren (1994, 21), "wabi" originally meant the misery of living alone in nature and "sabi" originally meant chill. In the 14th century, the meaning of these two words evolved into a more positive meaning. They began to represent an enlightened way of life that was based on simplicity, rather than isolation and a cheerless state, to one that was based on the appreciation of the minor details of everyday life, and of the ordinary and sometimes unnoticed aspects of nature (Koren 1994, 22).

Wabi

De Mente (2006, 33) has characterized wabi to mean “desolate beauty.” It tends to be more philosophical in its usage, and it is generally used to refer to a way of life that may be thought of as reclusive and associated with poverty (Omusubi, The Japan Foundation of Sydney). Wabi is derived from the Japanese verb wabu and the adjective wabishii (De Mente 2006, 33; Omusubi, The Japan Foundation of Sydney). Wabu, “to languish”, according to De Mente (2006, 33), represents a feeling of loneliness and in its adjectival form - wabishii, represents being lonely and comfortless (Omusubi, The Japan Foundation of Sydney). In addition, there is another term - zumai, which, when added to wabi creates the compound term wabizumai, representing a way of life that is lived in seclusion in a humble dwelling (De Mente 2006, 33).

Buddhist monks and sometimes laypeople led the wabizumai lifestyle, from around 700 C.E. to current times (De Mente 2006, 33). This simple and quiet way of living was especially characteristic for the monks, who during that time, took a vow of poverty. Some of them were even inclined to live in isolated huts to avoid the distractions of materialism and pleasures (De Mente 2006, 33-34). Within this lifestyle, the idea of the nonattachment to material things, which is found in Japanese aesthetics is important. The nonattachment essence of wabi - “the beauty inherent in fresh newness”, as suggested by Tierney (1999, 11), comes from the Zen principle that teaches detachment from all material things and the capacity to experience the essence of things (De Mente 2006, 34-35). According to De Mente (2006, 34), this way of living, also known as wabi-lifestyle, became a way to achieve spiritual enlightenment and contentment, and it gradually influenced the mindset of the Japanese; the majority of whom were living in basic houses, which were a bit larger than huts.

Over time, wabi has come to represent the experience of something simple and quiet - key elements of rustic beauty, both natural and human made (De Mente 2006, 33). Wabi beauty, with regards to art and design, is characterized by modesty in choice (simplicity) and an unpretentious naturalness that is the embodiment of humility and natural elegance (Crowley et al. 2001, 3). Perhaps, a good example of wabi beauty, offered by Tierney (1999, 12), could be found in the Korakuen garden in Okayama, Japan, where there is a solitary bonsai pine that is growing in a small island of pure white sand. Seeing an image of this scene or, better yet, experiencing it in person, can convey the spirit and clean-cut beauty of wabi and simplicity, denoted by the Japanese word kanso (simplicity), which is a significant aspect of it, as suggested by Tierney (1999, 12).

Sabi

The notion of sabi is found related to aspects of the Japanese philosophy of Shinto pertaining to the reverence of nature, with its seasonal changes, and especially within the weathering and aging process (De Mente 2006, 31). Sabi, in comparison to wabi is more objective and it generally refers to material things. Sabi objects are admired for their beauty because of the effects of aging and weathering (Omusubi, The Japan Foundation of Sydney; Tierney 1999, 10-11). It is characterized by De Mente (2006, 31) as “savouring the ‘rust’ of age”. It is associated, for example, with natural materials like straw and weathered stones used in the construction of something like a walking path. According to De Mente (2006, 31), sabi essentially means rust. It is associated with Japanese words such as sabiru, which means to become rusty, and sabireru, which means to become desolate and dreary (De Mente 2006, 31). Sabi can be thought of in terms of the quality of things when they show their age from weathering or from use. Perhaps, examples of things that exhibit the quality of sabi may come from personal items like a favourite pair of worn in denim jeans and from things like leaves falling from trees in the fall. However, sabi is related to more than things and events.

Tierney (1999, 15) suggests that sabi is related to people and occasions. He describes how he was invited to join a group of rural families who were enjoying an afternoon drinking warm sake while sitting under the branches of a cherry tree that was shedding its petals due to a gusty breeze, during one of his visits to Japan. He suggests that sabi was in the fleeting moments of beauty. The temporal aspect of nature occurred when the cherry petals were falling from the tree, and also perhaps from the group of people that invited him - a gaijin, as he describes - who was there alone to join them. It would seem that there is often an aspect of sadness associated with sabi. A sadness that comes from the realization that these moments of beauty are finite, as are people and our interactions with them. Sabi moments are intrinsic in the ‘now’ or the very moment at which they are happening.

Wabi-sabi

A very simple way of thinking about wabi-sabi is to consider it a romanticised notion of beauty. It is similar to the way that “rustic beauty” is used in the West when describing the quality of something that appears to lack excessive refinement or elegance (Encarta 2004). While thinking of wabi-sabi, images of the countryside in Wales come to mind, and the riverbottom vegetation that is found adjacent to the river in Brandon (Figure 4). Elements that show the effects of weathering over a length of time, like the rusting bollards near a beach in South France, and the wooden deck at my parents’ house that has paint peeling from it, also come to mind.

Figure 4. Vegetation found adjacent to the Assiniboine River in Brandon (2006), Manitoba

Another similar Western concept that is found in the philosophy of wabi-sabi is that of the notion of “natural beauty”, which is found in nature - in simple and sometimes small things that are often temporal in nature, like dewdrops that form on a blade of grass. The dewdrops can be appreciated for a finite amount of time, until the sun’s rays evaporate them and only the memory of them remains (Figure 5).

These images represent the ideas of degradation and regeneration. Rusting bollards and paint peeling off a deck are representative of things breaking down. While a dewdrop on a blade of grass is representative of regeneration that is found in the processes of the hydrological cycle. The processes of regeneration can be associated with wabi, while the processes of degradation can be associated with sabi. Together, these two processes found in wabi-sabi are representative of life and the natural world. It can be argued that the beauty of wabi-sabi can be found in the appreciation of nature and life. Crowley et al. (2001, 4) suggest that it is more than an aesthetic in that wabi-sabi is a way of thinking about things and appreciating the beauty that is inherent in everything. Especially in the moment it is occurring. Perhaps, by appreciating the beauty found in nature, wabi-sabi can enable a sense of peace, and remind people that they are a part of nature (Crowley et al. 2001, 4).

Figure 5. Blades of grass, Riverbank Discovery Centre grounds (2006), Brandon, Manitoba

History

The first people involved with the development of the philosophy of wabi-sabi were Japanese tea masters, priests and monks who were practising Zen (Koren 1994, 16-31). Zen practitioners incorporated a sense of appreciation of these concepts and experiences into their life, and, for some, into their work and teachings (Omusubi, The Japan Foundation of Sydney). It was their solitary way of life and search for spiritual enlightenment that was appreciated by people and began to be expressed in artistic forms during the Kamakura Period (1185-1333 C.E.) in Japan. It was this art that inspired the appreciation of wabi-sabi as an aesthetic (Omusubi, The Japan Foundation of Sydney).

The initial inspirations for wabi-sabi's metaphysical, spiritual, and moral principles came from ideas about simplicity, naturalness, harmony with nature and the acceptance of reality found within Zen, which is a philosophy that developed from Mahāyāna Buddhism (Koren 1994, 31; Suzuki 1970). The notion of simplicity is achieved in Zen by the elimination of the unnecessary. Goto (2003, 118) suggests that elimination is a creative idea in Zen, rather than a negative idea, and that it teaches people to empty their mind of existing ideas and notions of themselves, in order to find their true self and thus gain a new perspective on life. The essence of Zen is gaining control over the mind, discerning reality from illusion, and developing the skills to effectively deal with reality (De Mente 2006, 140). He suggests that this can be achieved by ridding the mind of "baggage"- the programmed ideas that were developed from a person's own culture and environment, thus readying the mind to easily accept "the idea of austerity, simplicity and compactness in design" (De Mente, 141).

Zen advocates harmony, because the idea of conquest is abhorrent in Zen, nature is considered a friend and it is not conceived as an opposing power to be conquered (Suzuki 1970, 334). For example: Suzuki (1970, 334) suggests the following: "If we succeed in climbing a high mountain, why not say, "We have made a good friend of it?" This way of thinking is in contrast to thinking about conquering something.

Suzuki (1970, 351) also suggests that in Zen, very simply, nature lives in us and we in nature. By considering that everything comes from a single root, and to appreciate this singularity and oneness with things, is key to understanding Zen and beauty. Suzuki (1970, 355) states that: "Beauty is not in form but in the meaning it expresses, and this meaning is felt when the observing subject throws his [their] whole being into the bearer of the meaning and moves along with it." While observing a flower, for example, if the observer was to realize that within this flower is the meaning to the universe and the ultimate reason for all things, is to appreciate the true beauty of the flower and realizing its significance (Suzuki 354-359). Seemingly, the notion of reality is abstract within Zen, and to understand reality is really to understand and accept the notion that we are all one and indivisible from all things (Suzuki 1970, 359).

Within Zen, reality can be grasped intuitively through observation, but it cannot be conceptually grasped. This intuitive mode of understanding consists in experiencing things. Suzuki (1970, 218) suggests that conceptual knowledge cannot reveal reality. Although it is good for defining things, it does not allow one to become personally acquainted with it (Suzuki 1970, 218). According to Suzuki (1970, 218), to understand reality, or better stated, "the truth of things", a thing must be experienced and at the moment of reaching an understanding of it, one achieves satori, defined by Tierney (1999, 47) as instant enlightenment.

In Zen, essential knowledge must be transmitted from mind to mind, and not spoken or written, because by doing this, its meaning would be both diminished and possibly be misunderstood (Koren 1994, 16). Also, Suzuki (1970, 358-359) suggests that to appreciate something or an event, it must be done directly, without a third party or medium; the observer of something or the person experiencing the event must be directly in relation to the object being observed or to the

event taking place. Finally, Suzuki (1970, 360) suggests that in order to understand Zen, it must be understood right away without getting caught up in concepts, and without deliberation.

Ultimately, according to Koren (1994, 31), Zen principles of simplicity, naturalness, harmony with nature and the acceptance of Zen's notion of reality, all found within the philosophy of wabi-sabi, were synthesized by the Japanese and fully realized with the context of the tea ceremony. The development of the tea ceremony marks another key step in the development of the philosophy of wabi-sabi. By the end of the 16th century, the ideas and notions of wabi-sabi were concretely realized with the development of the Japanese tea ceremony, which was an important milestone in the philosophy's evolution (Omusubi, The Japan Foundation of Sydney).

Tea ceremony (Cha-no-yo)

Tea was introduced into Japan from China, and the Chinese used tea from early times as a medicine. It was used to relieve fatigue, strengthen the soul, and to repair eyesight, as well as being used to relieve rheumatic pains, when it was applied externally as a paste (Goto 2003, 117). Tea was even considered as an important elixir of immortality to the Daoists. Buddhists used it to maintain alertness, during long sessions of meditation (Goto 2003, 117). Furthermore, Sadler (2001) suggests that it was used within Zen practice to produce a culture that aimed at a life of calm and simplicity.

The method by which tea was prepared and consumed by Zen practitioners and students became a practiced art known as the cha-no-yu (hot water for tea). It was further refined by Zen monks from "a kind of communion of aesthetics", which resulted in a satori for the attendees, as eloquently suggested by Tierney (1999, 47-48), to become a very significant aspect of Japanese culture (Goto 2003, 117).

The pervading philosophy within this ceremony came from Zen Buddhism (Goto 2003, 118). The distinctive spirit of the tea aesthetic is wabi, which represents a simple and rustic kind of beauty, as opposed to "gorgeous and ostentatious beauty" (Goto 2003, 117-118). For Goto (2003, 118) the tea ceremony is an "aesthetic of primitive simplicity achieved by elimination of the unnecessary."

The aesthetic of the tea ceremony is based on simplicity, harmony and respect. It strives to eliminate the unnecessary, and convey the feeling of harmony with people and nature (Goto 2003, 119). The goal of the ceremony is to purposefully enlighten attendees through a carefully controlled ritual of tea orchestrated by a practiced and knowledgeable tea master within an aesthetic environment, which is designed to allow them to realize their spiritual freedom (Goto 2003, 119; Tierney (1999, 49). Moreover, Koren (1994, 32) states that: "at its artistic Zenith, realizing the wabi-sabi universe in its fullness was the underlying goal of tea."

Five Precepts of wabi-sabi

Koren (1994) proposes that wabi-sabi contains five major precepts, which are comprised of individual notions that together constitute an integrated approach to applying wabi-sabi to the rituals of every day life. The five precepts of wabi-sabi are (Koren 1994, 40-41):

1. Metaphysical Basis
   - •Things are either devolving toward, or evolving toward nothingness

2. Spiritual Values
   - •Truth comes from the observation of nature
   - •"Greatness" exists in the inconspicuous and overlooked details
   - •Beauty can be coaxed out of ugliness

3. State of Mind
   - •Acceptance of the inevitable
   - •Appreciation of the cosmic order

4. Moral Precepts
   - •Get rid of all that is unnecessary
   - •Focus on the intrinsic and ignore material hierarchy

5. Material Qualities
   - •The suggestion of natural process
   - •Irregular
   - •Intimate
   - •Unpretentious
   - •Earthy
   - •Murky
   - •Simple

1. Metaphysical basis of wabi-sabi (Koren 1994, 46):

In metaphysical terms, wabi-sabi suggests that the universe is in constant motion toward or away from potential.

Flowing lines and spirals were drawn in various designs from the conceptual design phases of this project to evoke the notion of devolution and evolution found in the first precept.

2. Spiritual Values of wabi-sabi:
The spiritual values of wabi-sabi were derived from the Japanese who have learnt lessons from nature. These lessons, intertwined with Taoist thought, are related to this precept states "Truth comes from the observation of nature" (Koren 1994, 46):

A. All things are impermanent

The inclination toward nothingness is unrelenting and universal. Even things that have all the earmarks of substance- things that are hard, inert, solid present nothing more than the illusion of permanence.

B. All things are imperfect

Nothing that exists is without imperfections. When we look really closely at things we see the flaws. And as things begin to break down and approach the primordial state, they become even less perfect, more irregular.

C. All things are incomplete

> All things, including the universe itself, are in a constant, never-ending state of becoming or dissolving. Often we arbitrarily designate moments, points along the way, as “finished” or “complete.” The notion of completeness has no basis in wabi-sabi.

The next notion contained within the spiritual basis of wabi-sabi states that “Greatness” exists in the inconspicuous and overlooked details. Koren (1994) contends: “Wabi-sabi represents the exact opposite of the Western ideal of great beauty as something monumental, spectacular, and enduring.” Furthermore, according to him, wabi-sabi is about the minor and hidden things that can be subtle and evanescent, as they are invisible to vulgar eyes (Koren, 1994, 50).

The final notion contained within the spiritual basis of wabi-sabi is that beauty can be coaxed out of ugliness. Koren (1994, 51) feels that the beauty of wabi-sabi is, in a respect coming to terms with what you consider as ugly; beauty can spontaneously occur at any moment given the proper circumstances, context, or point of view.

The notions from the second precept were incorporated into the project by designing spaces in the landscape from which people could view nature and ponder its impermanence, imperfections and incompleteness. Also, in order to express the wabi-sabi idea that “Greatness” exists in the overlooked details, meandering pathways, which move people through different parts of the landscape, are in the final design to give people opportunities to find any overlooked and hidden details. Finally, the notion of coaxing beauty about of ugliness was expressed in the final design by introducing habitat zones with new plantings that are intended to improve the beauty in of the existing landscape.

3. State of Mind of wabi-sabi:

The state of mind of wabi-sabi, according to Koren (1994), can be thought of as an aesthetic appreciation of the evanescence of life, and the acceptance of the inevitable. Koren contends that this state of mind is often communicated through poetry, because poetry can lend itself to emotional expression and strong images that can evoke the larger universe (Koren, 1994, 54). Also, Koren (1994) suggests that within wabi-sabi there is an appreciation of the cosmic order. These two notions were expressed in the final design through elevated points in the landscape, which present people with views to the entire site and the sky.

4. Moral Precepts of wabi-sabi:

One of the fundamental notions of the moral precepts of wabi-sabi is getting rid of all that is unnecessary (Koren 1994, 58): “wabi-sabi means treading lightly on the planet and knowing how to appreciate whatever is encountered, no matter how trifling, whenever it is encountered.” Another fundamental notion, found in the moral precepts of wabi-sabi is to focus on the intrinsic, and ignore material hierarchy. A good example of this notion can be found in the behaviour prescribed for the Wabi-sabi tearoom (Koren 1994, 58):

> First, as a symbolic act of humility, everyone either bends or crawls to enter the tearoom through an entrance purposely designed low and small. Once inside, the atmosphere is egalitarian. Hierarchical thinking - “this is higher/better, that is lower/worse” - is not acceptable. (And) The normal hierarchy of material value related to cost is also pushed aside. Mud, paper, and bamboo, in fact, have more intrinsic wabi-sabi qualities/values that do gold, silver, and diamonds. In wabi-sabi there is no “valuable,” since that word would imply “not valuable.”

Therefore, in the tearoom, Koren (1994) contends that things come into existence only when they express their wabi-sabi qualities, and outside the tearoom they return to their regular reality, the wabi-sabi existence fades away (Koren 1994, 61).

The notions from the fourth wabi-sabi precept were expressed in the final design by metaphorically thinking of the landscape as a tearoom, which was designed as one space with various areas where people could come and experience wabi-sabi. Finally, in order to avoid material hierarchy, all of the proposed built spaces in the landscape used a similar palette of materials.

5. Material Qualities of wabi-sabi:
According to Koren (1994), one of the fundamental notions within this precept of wabi-sabi is the suggestion of natural process. Things that are wabi-sabi are exhibiting expressions of time frozen, because they are made of materials that are visibly vulnerable to the effects of weathering and human treatment (Koren 1994, 62).

As well, things that express wabi-sabi are usually unpretentious- meaning that they are understated and unassuming. Wabi-sabi things also appear to be earthy, often appearing course and unrefined (Koren 1994, 68). These wabi-sabi things also may appear to be murky appearing sometimes in the following fashion (Koren 1994, 71):

> Once-bright saturated colours fade into muddy earth tones or the smoky hues of dawn and dusk. Wabi-sabi comes in an infinite spectrum of greys: grey-blue brown, silver-red greyish black, indigo yellowish- green and browns: blackish deep brown-tinged blue, muted greens and blacks: red black, blue black, brown black and green black.

At last, things that are wabi-sabi are simple, and nothingness is the ultimate simplicity (Koren, 1994, 71). This is one of the most significant ideas that were found within Koren's explanation of the philosophy of wabi-sabi.

From the five precepts, the notions from the wabi-sabi precept of material qualities were primarily used to inform the final design. Steel, for example, proposed in circular inlays, sculptural elements, and in bands that lined meandering pathways, is intended to express the notion of natural processes by allowing it to rust over time, it would capture the effects of weathering and show irregularity in the patterns of oxidation, which exists in nature. Also, a limited palette of materials, which included concrete, compacted earth, and interlocking paving in earth tones was proposed to be used in the final design of the built spaces to express unpretentiousness, and earthy the murky qualities of wabi-sabi. Finally, to literally convey the notion of nothingness being the ultimate simplicity, steel (untreated) was used in prominent parts of proposed space in the final design showing people its deterioration overtime.

Conclusion

Perhaps, the two most significant ideas that I have come to appreciate from a wabi-sabi universe, suggested by Koren (1994) is that "Truth comes from the observation of nature", and the suggestions of natural process. It was by observing the existing landscape of the site that I understood the special quality of this place, and the inherent beauty of the vegetation on its grounds, and along the banks of the meandering Assiniboine River. As I truly felt the beauty of this site and the landscape, I was connected to it on a deeper level. This state of appreciation and oneness for place is a profoundly important aspect of process in design and this project. It requires that the designer is open to the world and to process as an integral understanding of design.

So what is wabi-sabi? Simply put, it is a way of being; a way of thinking and living. It is a state of being which needs to be felt, to be evoked rather than to be explained.

IV. Conceptual Design Phase 1

In the first Conceptual Design Phase, I looked at the themes of Motion and Movement -to express the winding and flowing Assiniboine River.

Figure 6. Conceptual drawing expressing motion and movement

Conceptual Design Phase 1

The first conceptual design phase was based primarily on the wabi-sabi notion of “Things are either devolving toward, or evolving from, nothingness” (Koren 1994, 44). This idea was expressed in the conceptual design as motion and movement in lines (see Figure 6). The idea of Genius Loci, especially the movement of the Assiniboine River was also apart of this first phase of the design.

Design Process

A very important part of the conceptual design process was to develop ideas for the spaces and the site. Rather than develop a new process to create design concepts, a decision was made to make use of Apple Computer’s industrial design process - a design philosophy based on the notion that less is more. This idea relates to one of the fundamental notions of wabi-sabi, that is the idea of getting rid of all that is unnecessary (Koren 1994).

10. 3. 1

The Apple design process is referred to as 10 to 3 to 1. According to information posted to the ‘Sundog Blog’ on March 10, 2008, Greg Ness quoted Helen Walters, who blogs for ‘Business Week’s Tech Beat’, as describing Apple Computers Senior engineering manager Michael Lopp’s presentation of their internal design methodology in the following way:

> “Apple designers come up with 10 entirely different mock ups of any new feature. Not, Lopp said, ‘seven in order to make three look good’, which seems to be a fairly standard practice elsewhere. They’ll take ten, and give themselves room to design without restriction. Later they whittle that number to three, spend more months on those three and then finally end up with one strong decision.”

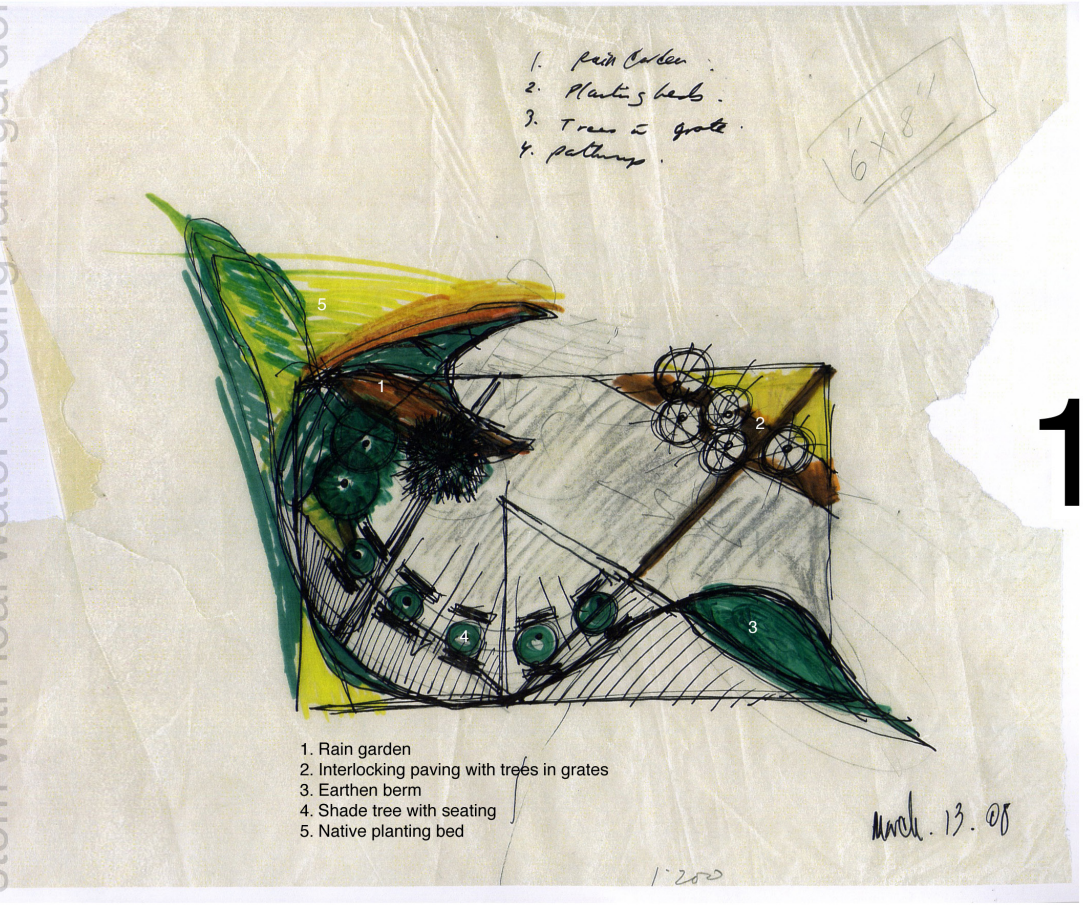
This process was adapted and used to develop conceptual designs for a plaza space.

10 3 1 Plaza Concepts

I began by designing 10 unrestricted conceptual designs for a plaza space (Figures 7-16), from which 3 of the most interesting designs were singled out (Figure 17), then 1 design was chosen to develop further into the final proposal for the plaza space (Figure 18).

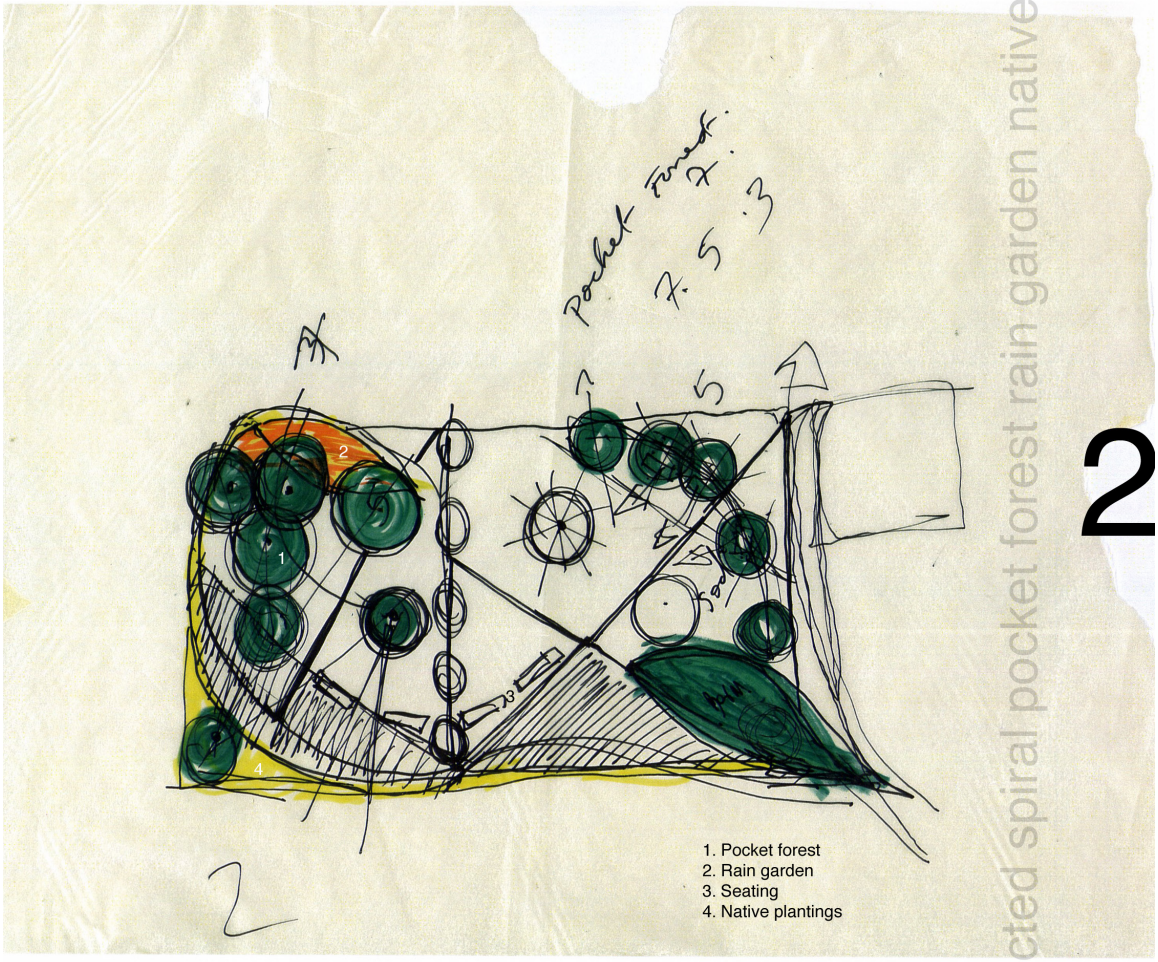
TEN

gently curved stem with leaf water feeding rain garden native plants



1

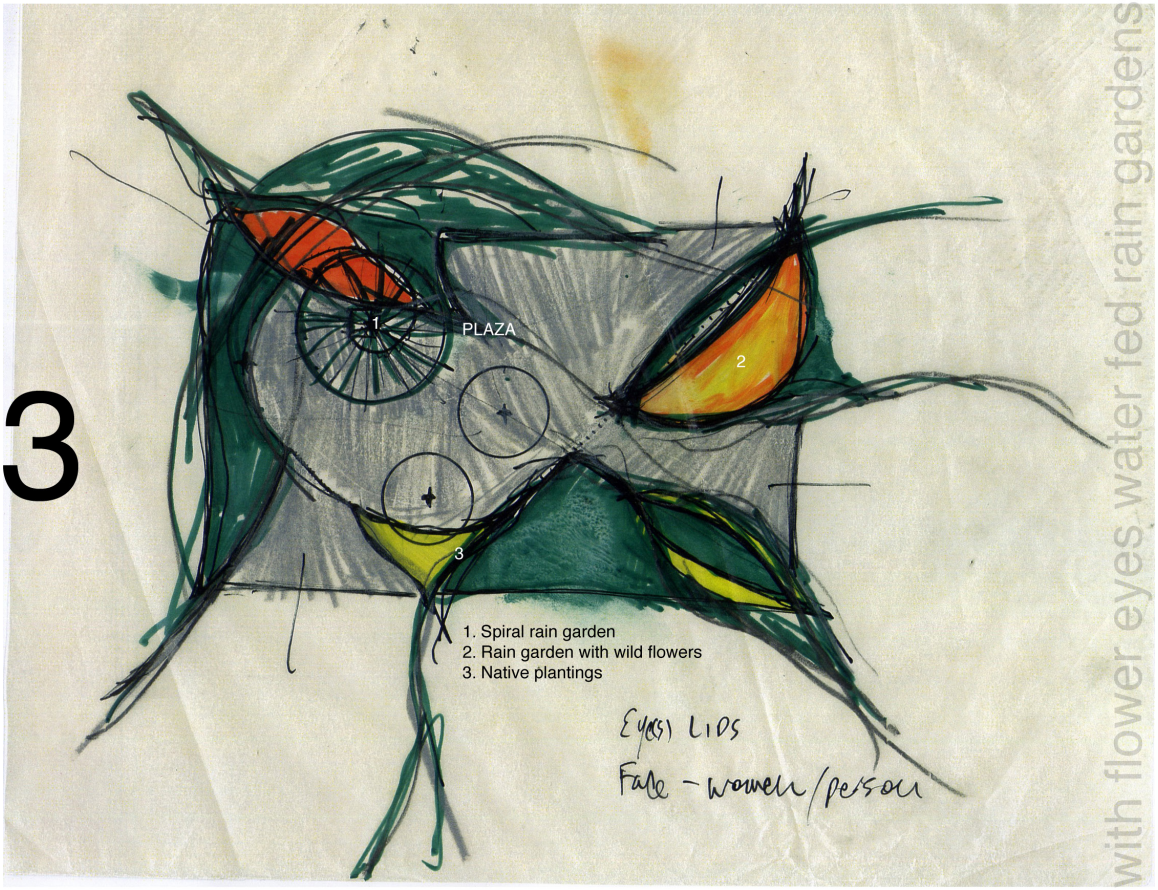
Figure 7. Plaza concept plan 1



deconstructed spiral pocket forest rain garden native plantings

2

Figure 8. Plaza concept plan 2



spirit with flower eyes water fed rain gardens

Figure 9. Plaza concept plan 3

energy spiralling through an organic shell rain garden row of trees

Figure 10. Plaza concept plan 4

Figure 11. Plaza concept plan 5

organic plaza tree circled wildflowers mounds flowing paths

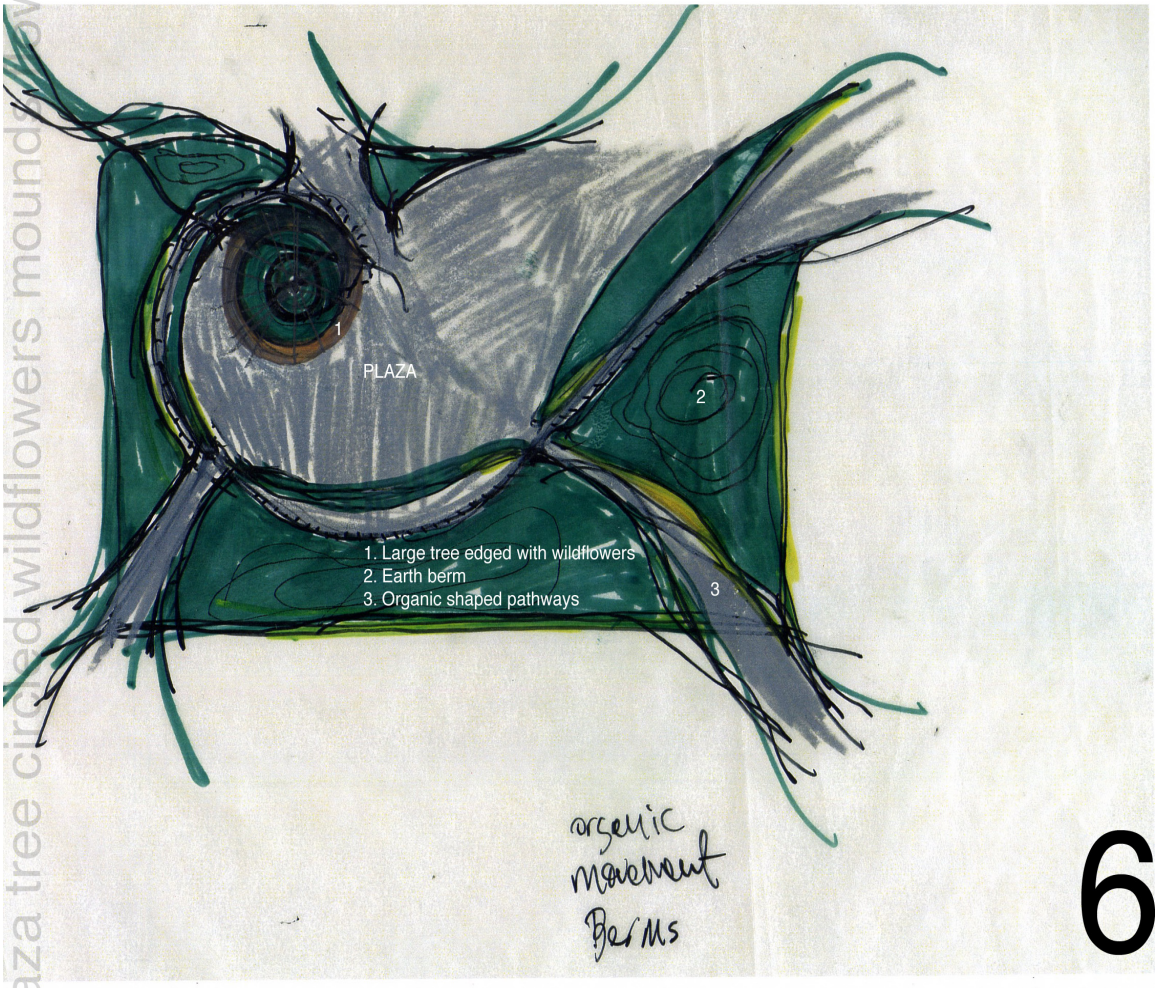


Figure 12. Plaza concept plan 6

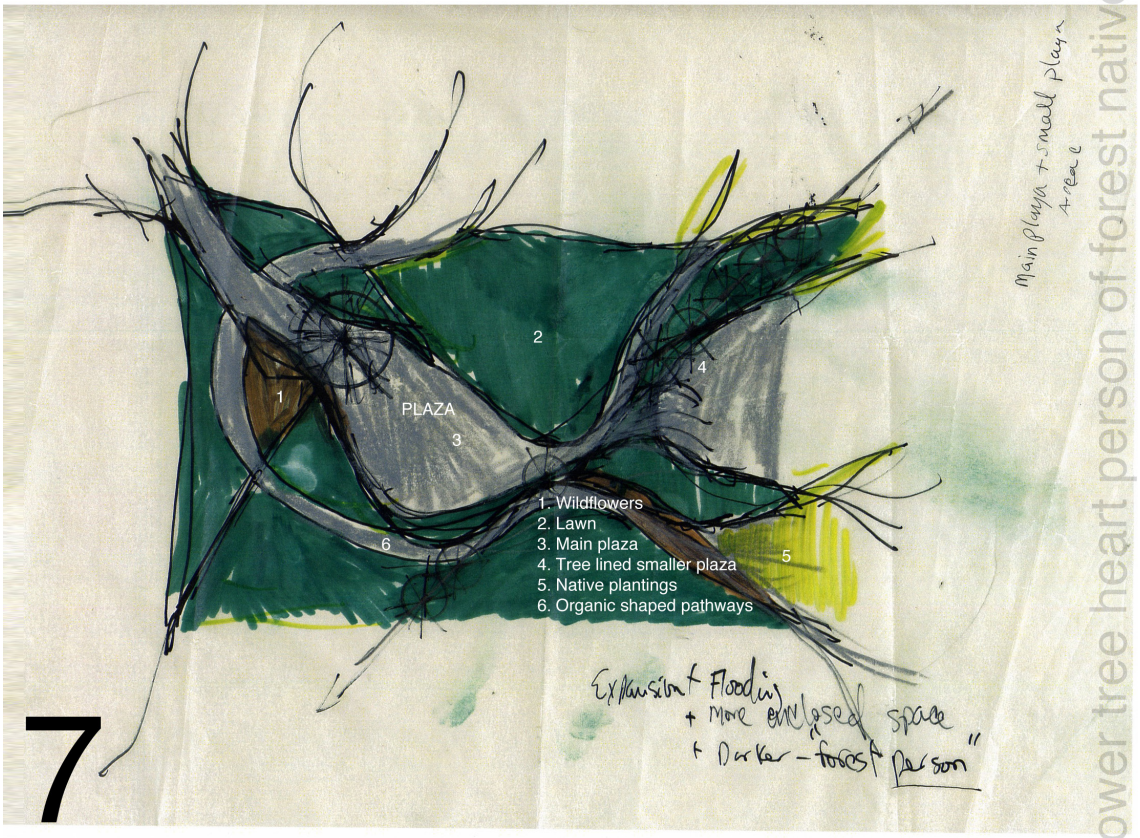
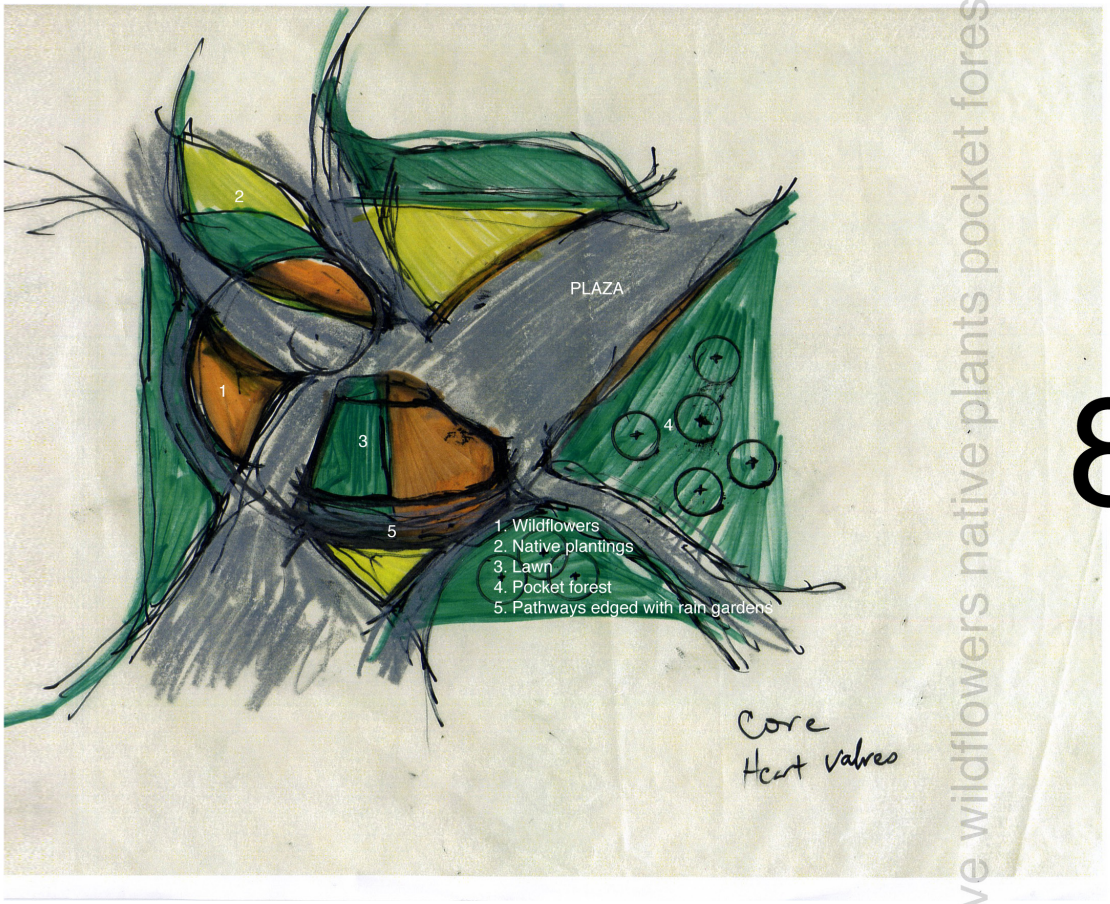


Figure 13. Plaza concept plan 7

organic wildflower tree heart person of forest native planting feet



core heart valve wildflowers native plants pocket forest rain gardens

8

Figure 14. Plaza concept plan 8

core rain garden native plantings pocket forests steel line

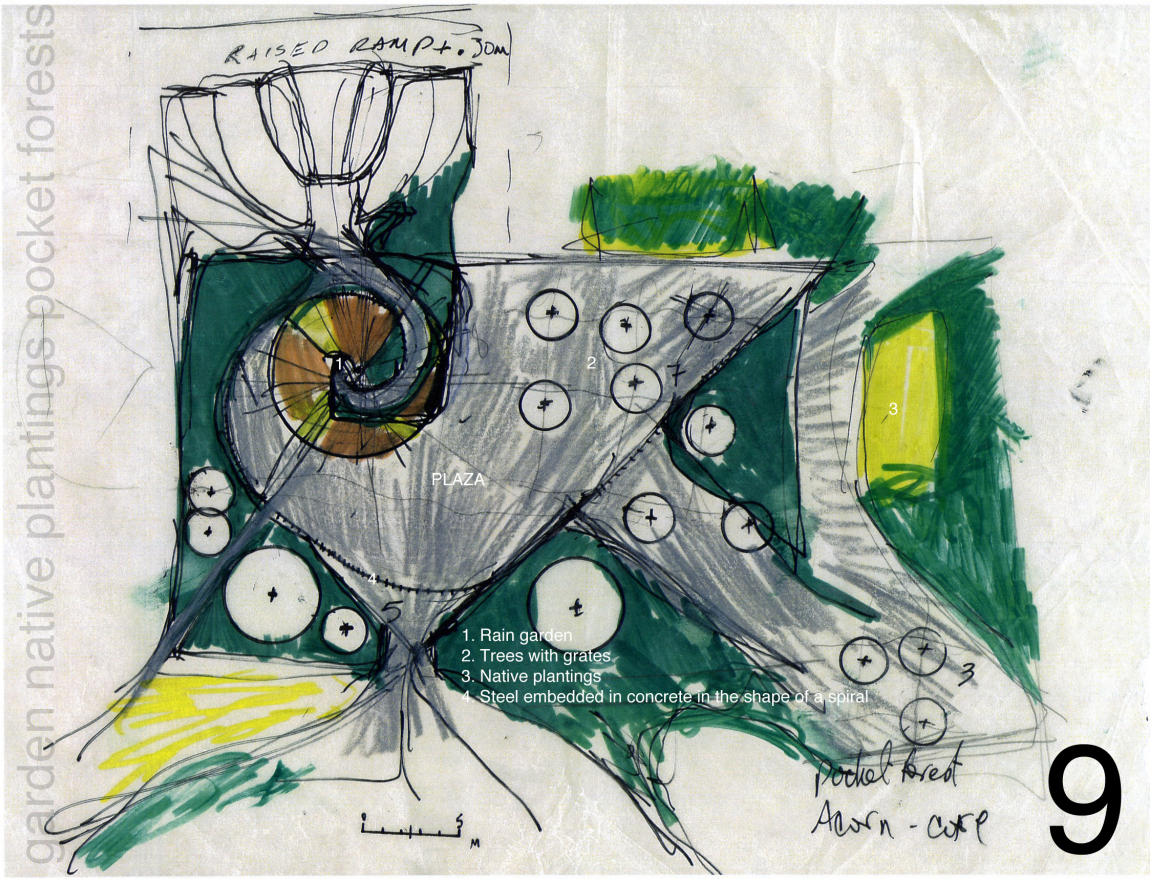


Figure 15. Plaza concept plan 9

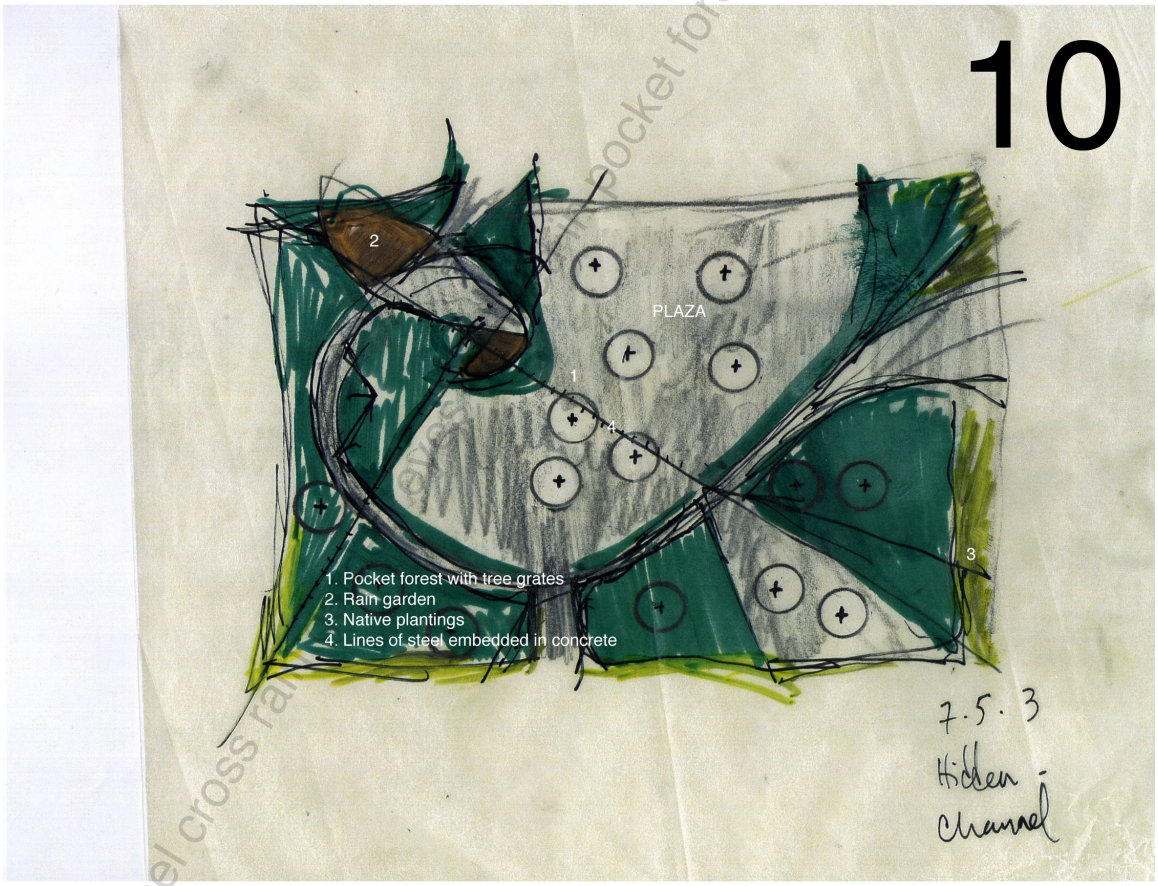


Figure 16. Plaza concept plan 10

Figure 17. “THREE” - Plazas

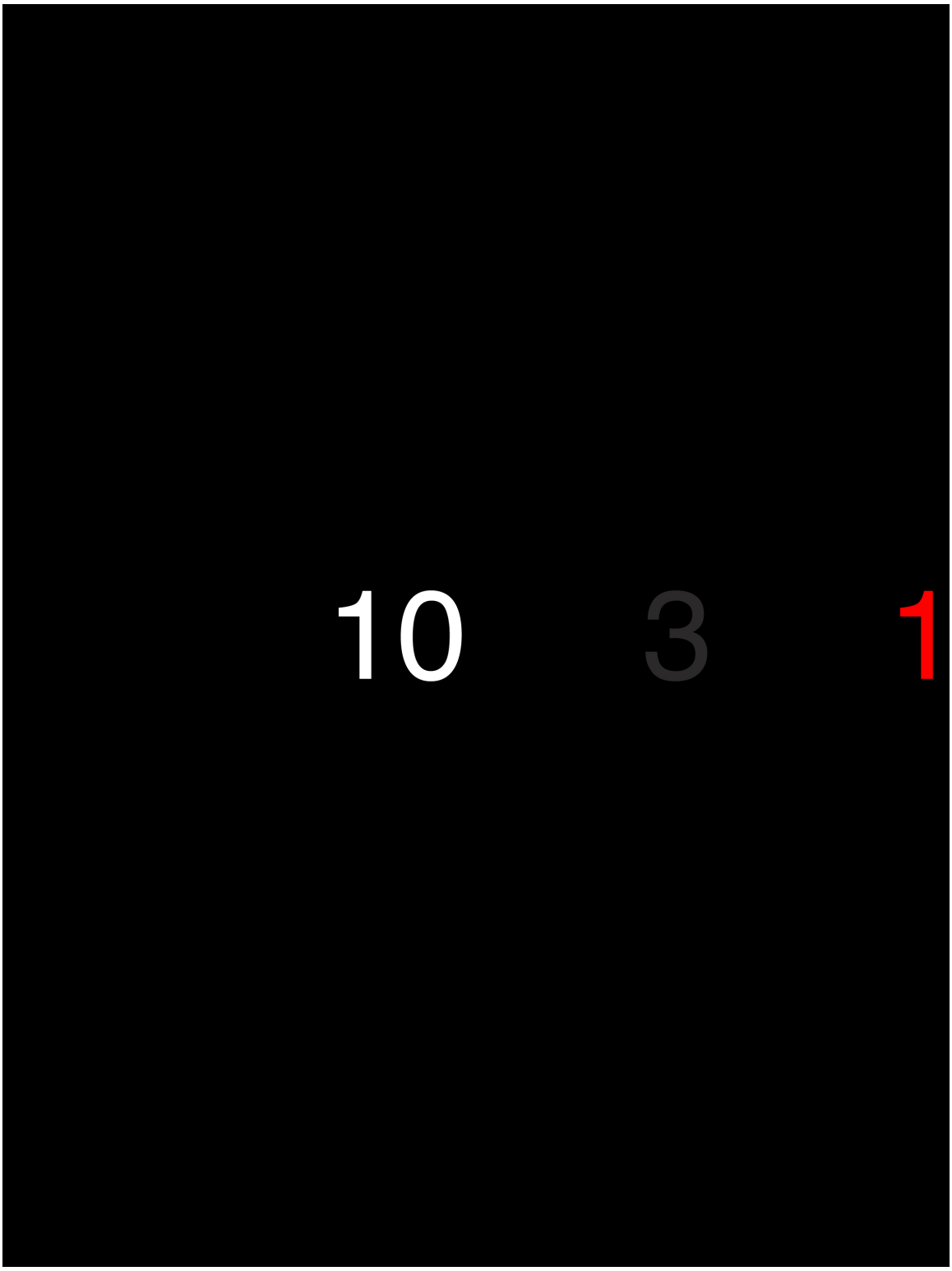
Then 1: Concept Plan 9 was selected to develop into the final plaza proposal.

Figure 18. “ONE” - Plaza

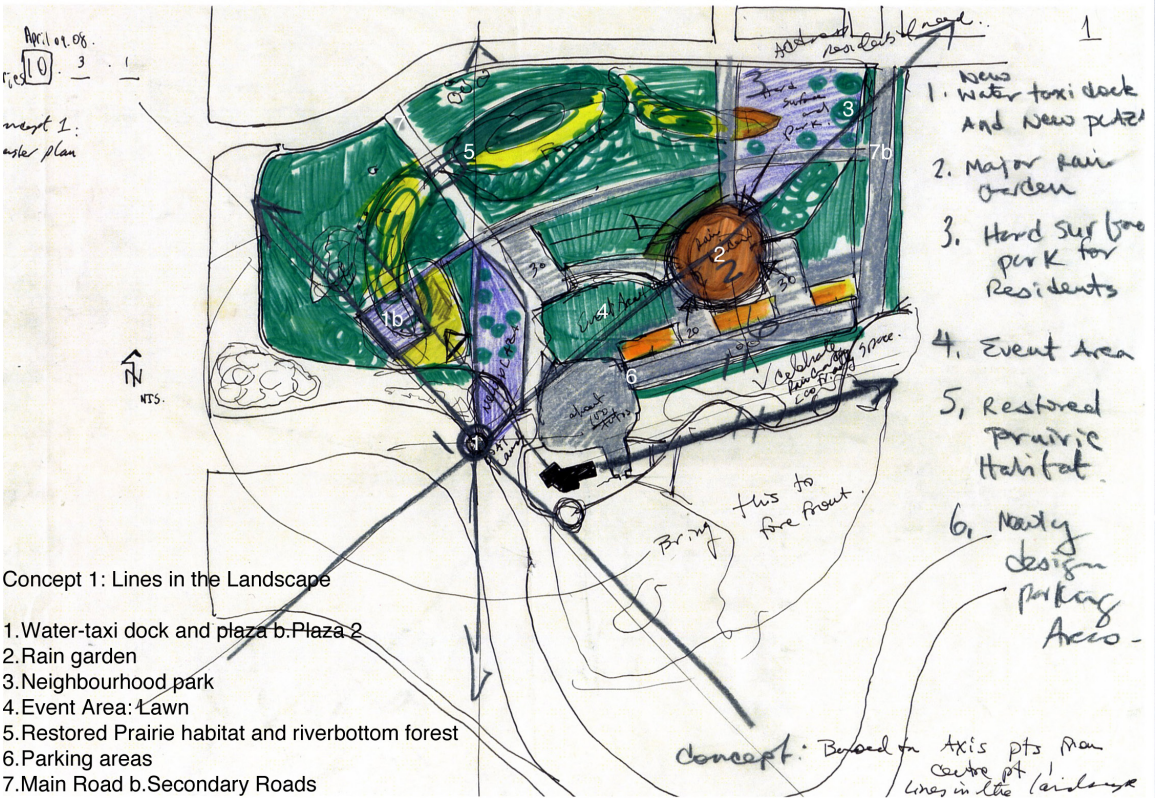
Objectives *Shift*

Through the course of developing a design for a plaza, a greater appreciation was gained of the existing beauty of the natural vegetation and the people-made elements found within it. This appreciation of the existing landscape's inherent beauty, and an awareness of the spirit of the place led to a shift in thinking, which was from designing a beautiful landscape that would meet the functional needs for the current and future users, to designing a landscape that would also better reflect the distinctive character of the site, while complementing its natural beauty.

After working on the plaza space design, this project evolved in to an entirely academic pursuit.


10
3
1

The Design Process was applied to create the following Ten Landscape Concepts (Figures 19-28), from which three plans were chosen to further develop (Figure 29). The text that is adjacent to the following concept plans summarizes the main ideas that were developed for each plan.



Concept 1: Lines in the Landscape

1.Water-taxi dock and plaza b.Plaza 2
2.Rain garden
3.Neighbourhood park
4.Event Area: Lawn
5.Restored Prairie habitat and riverbottom forest
6.Parking areas
7.Main Road b.Secondary Roads

Figure 19. Landscape concept plan 1

Water-taxi and Rain garden as focal points
Bringing Nature closer to the community
Axes in the landscape

1

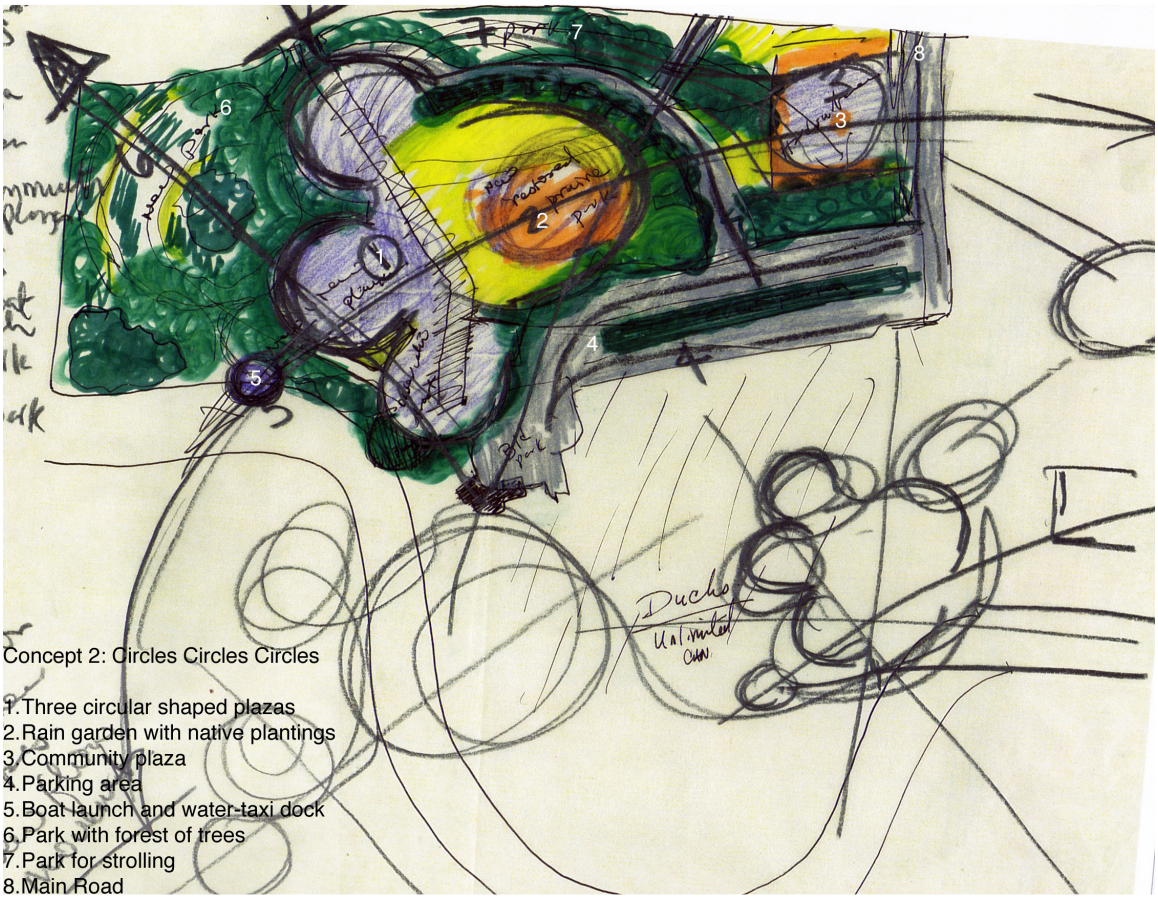
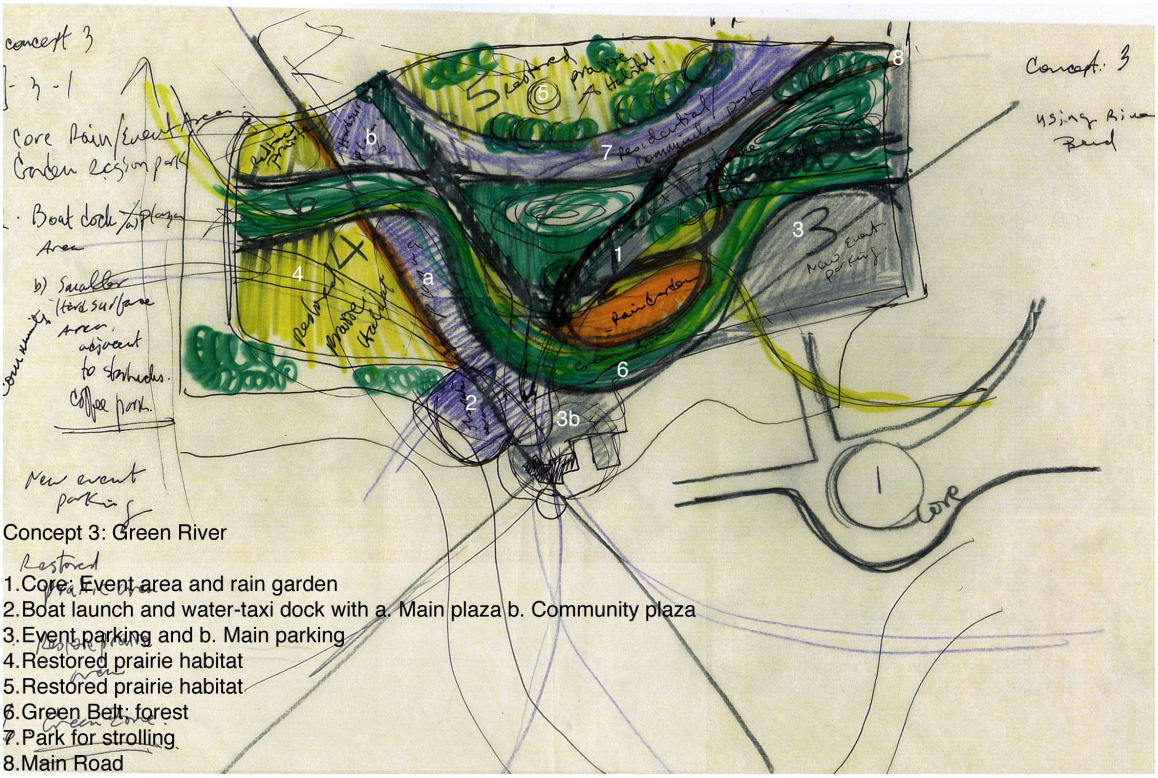


Figure 20. Landscape concept plan 2

Circular shaped spaces
Parks, Forests and Prairie Habitats

2

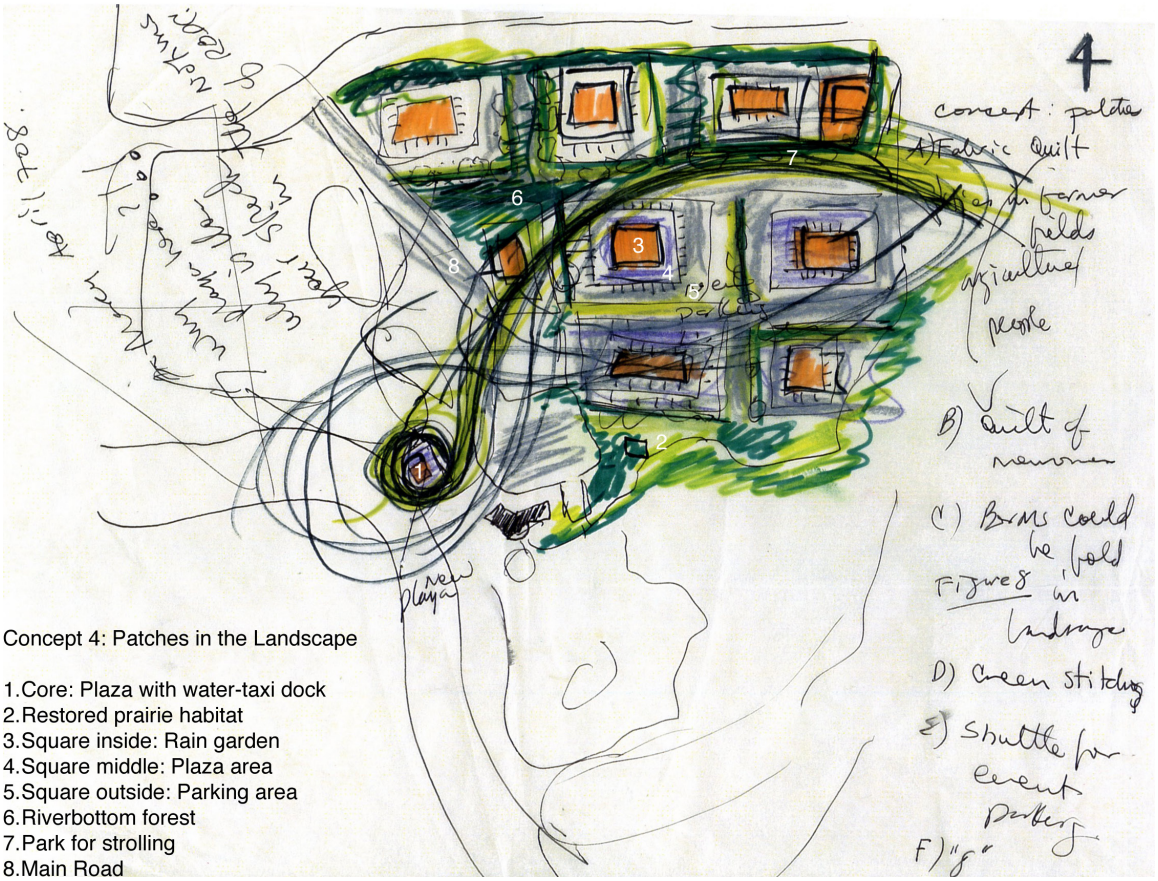


Concept 3: Green River
1.Core: Event area and rain garden
2.Boat launch and water-taxi dock with a. Main plaza b. Community plaza
3.Event parking and b. Main parking
4.Restored prairie habitat
5.Restored prairie habitat
6.Green Belt: forest
7.Park for strolling
8.Main Road

Figure 21. Landscape concept plan 3

Core wrapped with a forest
Restored Prairie Habitats, Plazas, and Strolling Park

3



Concept 4: Patches in the Landscape

1.Core: Plaza with water-taxi dock
2.Restored prairie habitat
3.Square inside: Rain garden
4.Square middle: Plaza area
5.Square outside: Parking area
6.Riverbottom forest
7.Park for strolling
8.Main Road

Figure 22. Landscape concept plan 4

Squares like farm fields seen from the air
Restored prairie habitat, riverbottom forest, strolling park and many plazas with rain garden centres

4

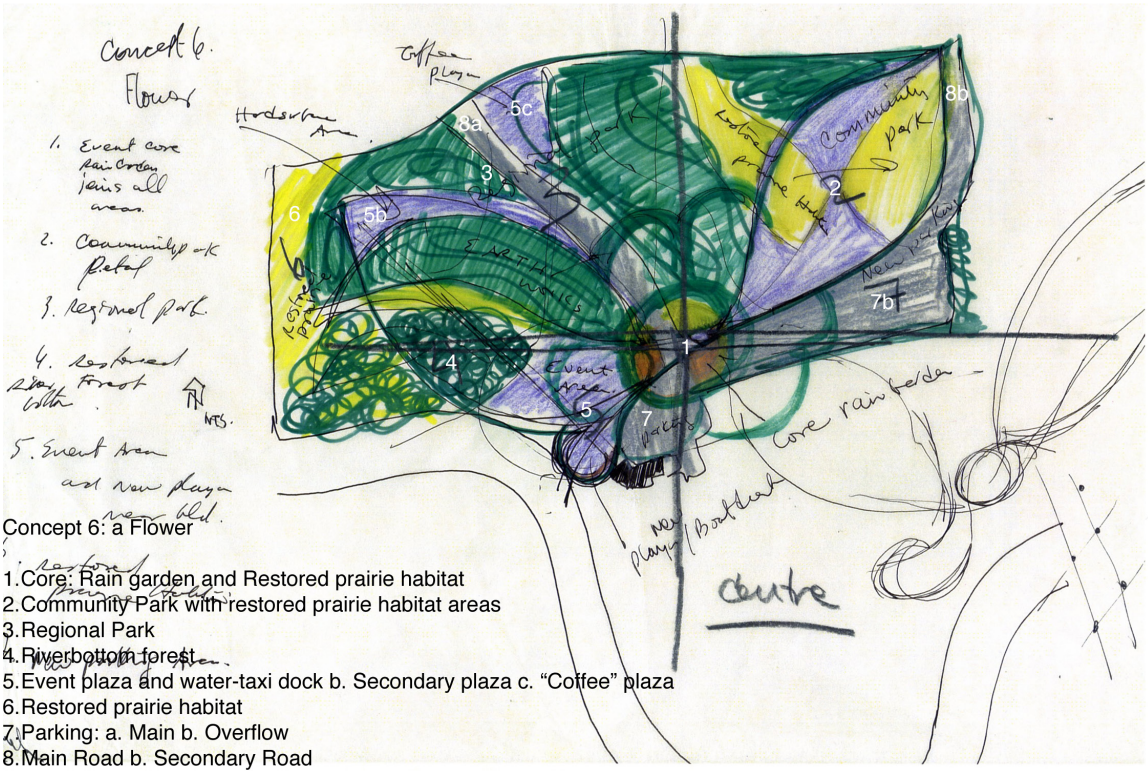
Concept 5: Ribbons in the Landscape

1.Event area with looping pathway
2.Restored prairie habitat
3.Regional Park with earthworks and looping trails
4.Restored prairie habitat
5.Riverbottom forest
6.Plaza
7.Community Park
8.Parking: a. Main b. Overflow
9.Main Road b.Secondary Road (loop)

Figure 23. Landscape concept plan 5

5

Looping Pathways and trails for Special Walks and Events
Regional and Community Parks, Restored prairie habitats and forests



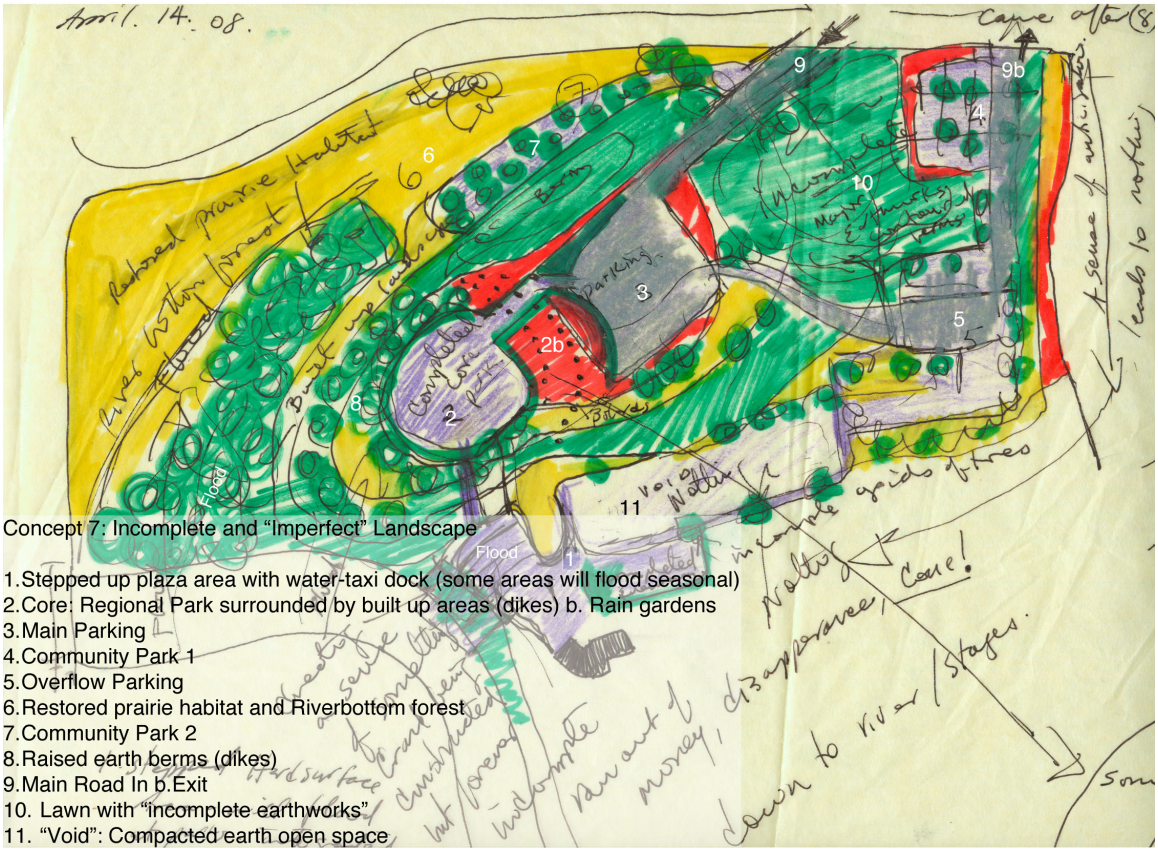
Concept 6: a Flower

1.Core: Rain garden and Restored prairie habitat
2.Community Park with restored prairie habitat areas
3.Regional Park
4.Riverbottom forest
5.Event plaza and water-taxi dock b. Secondary plaza c. “Coffee” plaza
6.Restored prairie habitat
7.Parking: a. Main b. Overflow
8.Main Road b. Secondary Road

Figure 24. Landscape concept plan 6

Spaces designed in the shape of flower petals
Regional and Community Parks with Restored prairie habitats and a forest

6


April. 14. 08.
Restored prairie Habitat
Parking
Flood
Flood
Flood

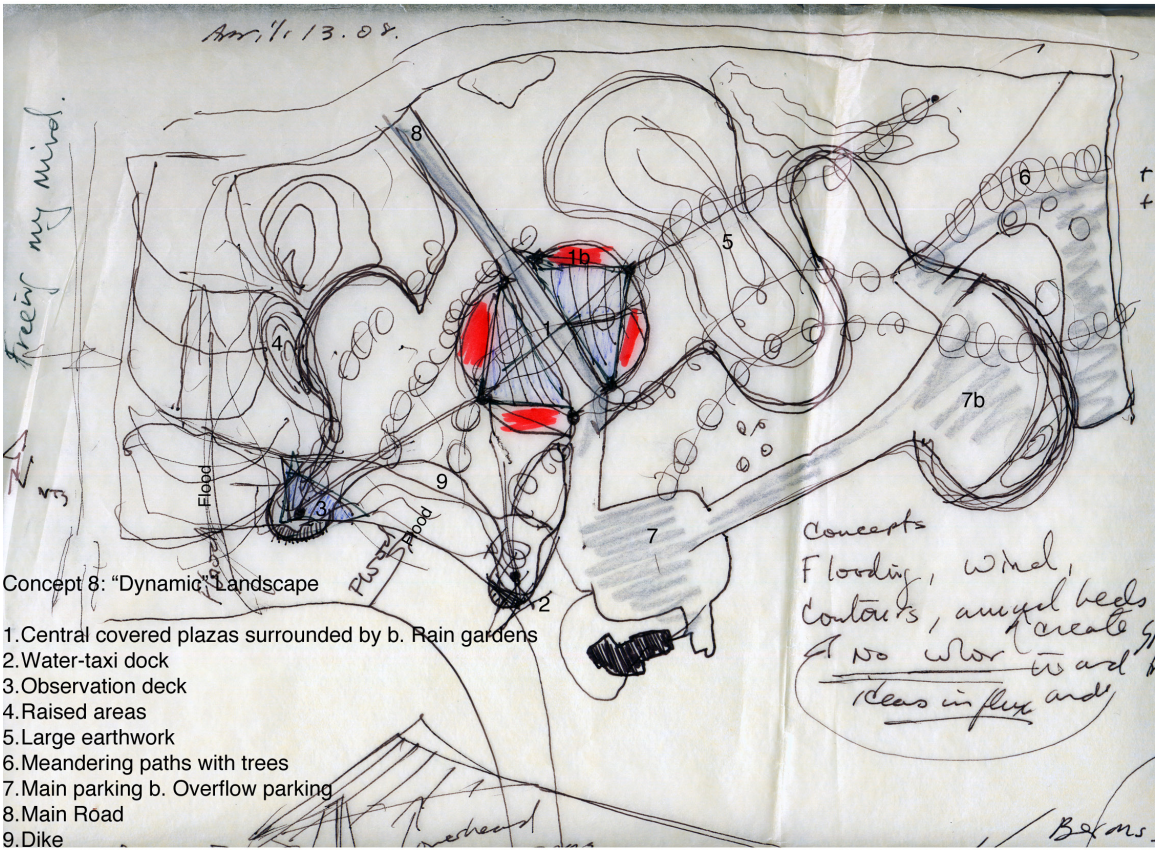
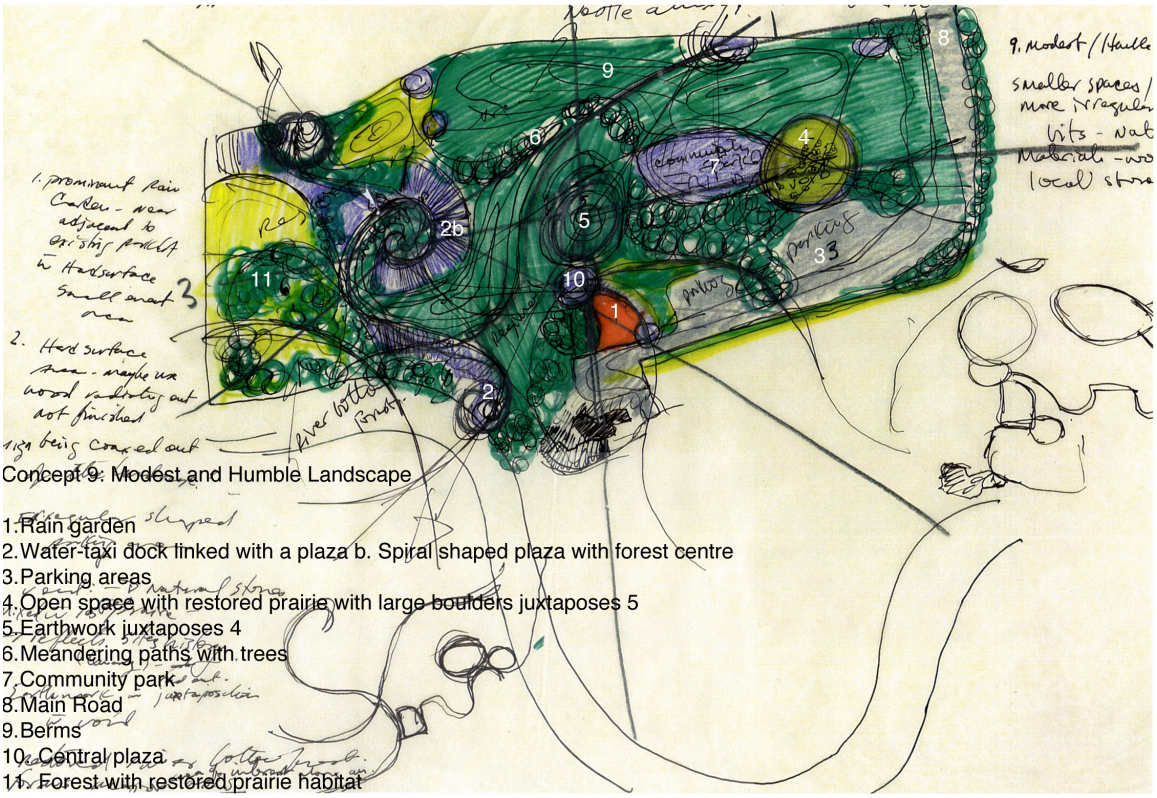


Figure 26. Landscape concept plan 8

8

"Dynamic": flooding and movement
Covered plazas surrounded by rain gardens
Meandering pathways that reference the shape of the river



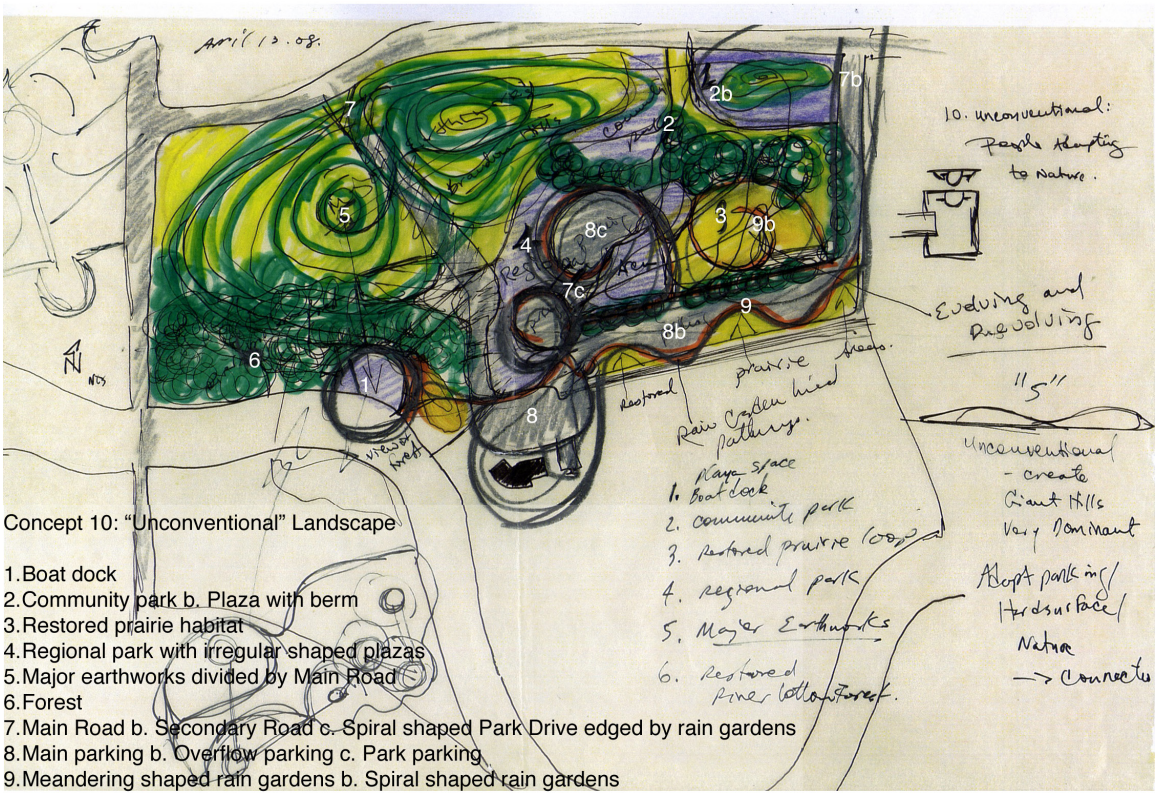
Concept 9: Modest and Humble Landscape

1.Rain garden
2.Water-taxi dock linked with a plaza b. Spiral shaped plaza with forest centre
3.Parking areas
4.Open space with restored prairie with large boulders juxtaposes 5
5.Earthwork juxtaposes 4
6.Meandering paths with trees
7.Community park
8.Main Road
9.Berms
10. Central plaza
11. Forest with restored prairie habitat

Figure 27. Landscape concept plan 9

Smaller spaces
Local materials and wood
Meandering pathways, forests, berms and spiral shaped plaza

9



Concept 10: “Unconventional” Landscape

1.Boat dock
2.Community park b. Plaza with berm
3.Restored prairie habitat
4.Regional park with irregular shaped plazas
5.Major earthworks divided by Main Road
6.Forest
7.Main Road b. Secondary Road c. Spiral shaped Park Drive edged by rain gardens
8.Main parking b. Overflow parking c. Park parking
9.Meandering shaped rain gardens b. Spiral shaped rain gardens

Figure 28. Landscape concept plan 10

“Giant Hills” Major earthworks references Brandon Hills
Evolving and Devolving: Spiral shapes and irregular shapes
Surrounded by Nature

10

Three plans were chosen to further develop for the site.

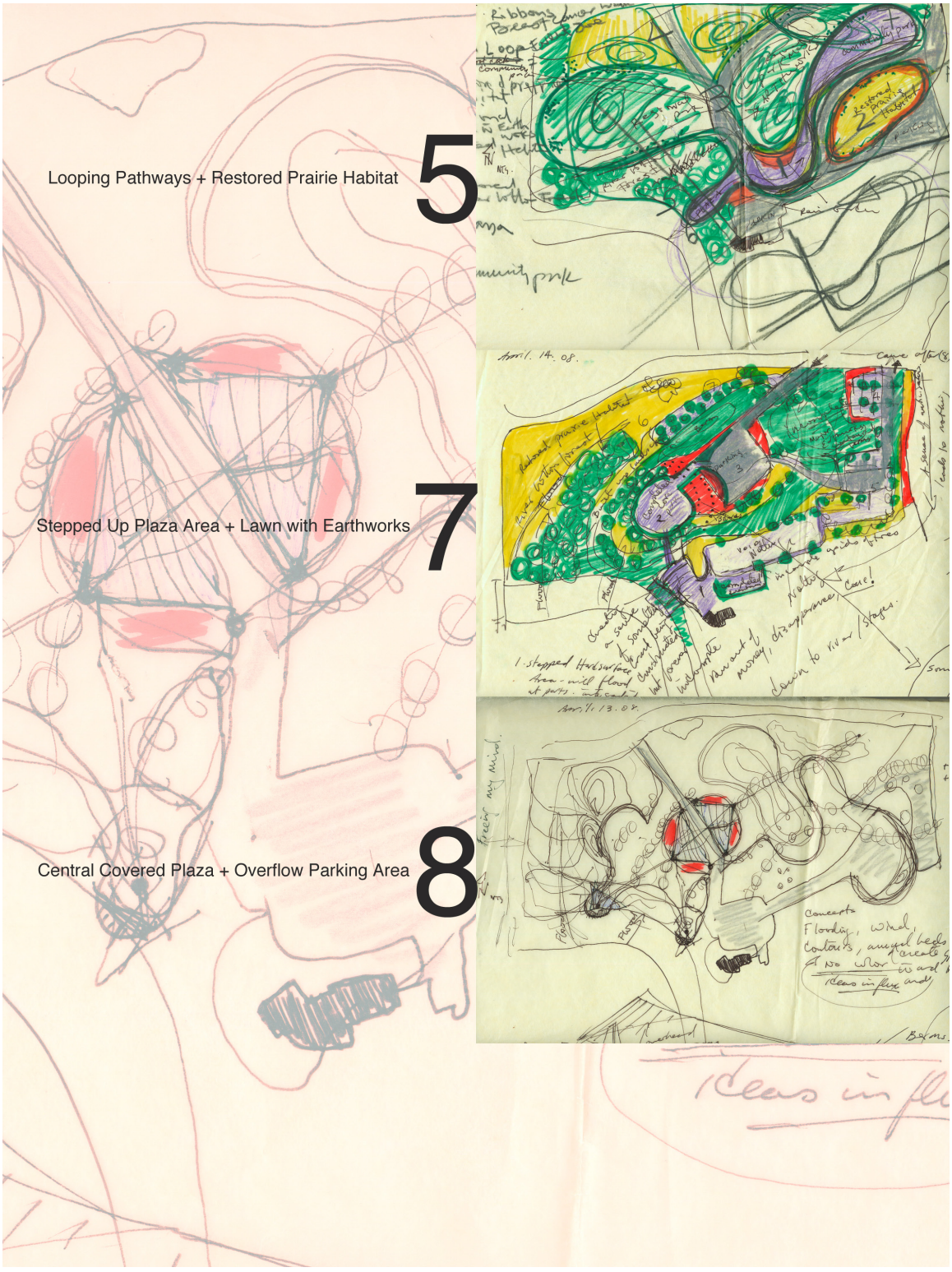
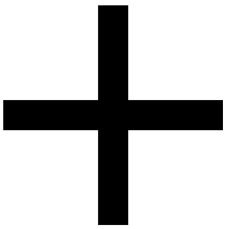
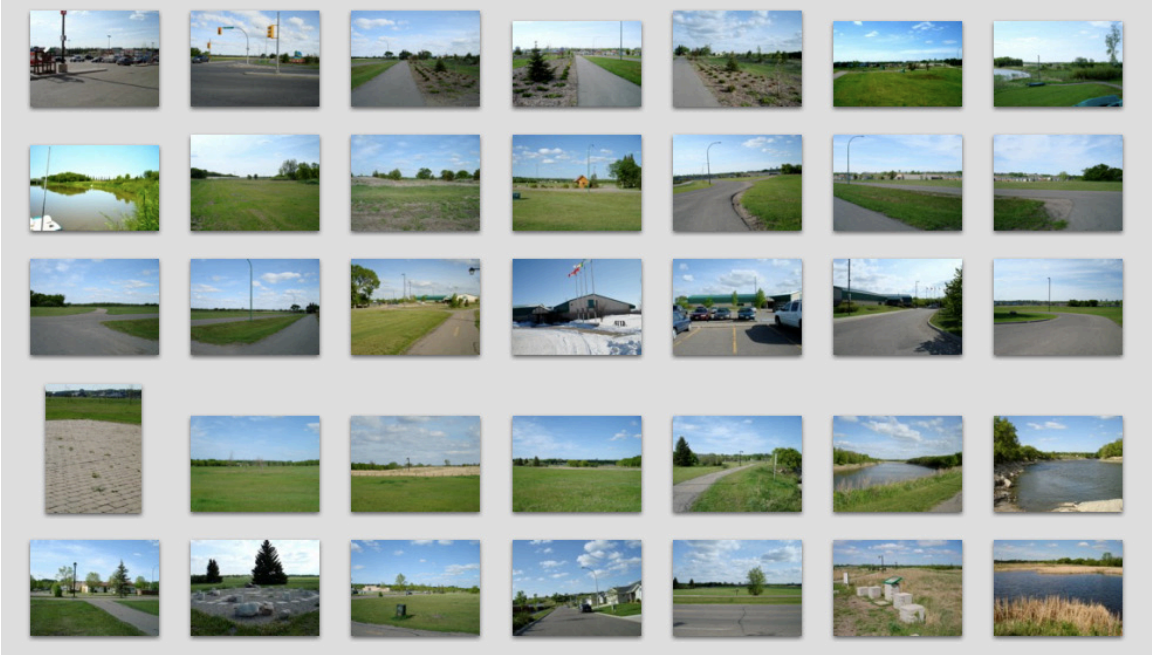


Figure 29. “THREE” - Landscapes

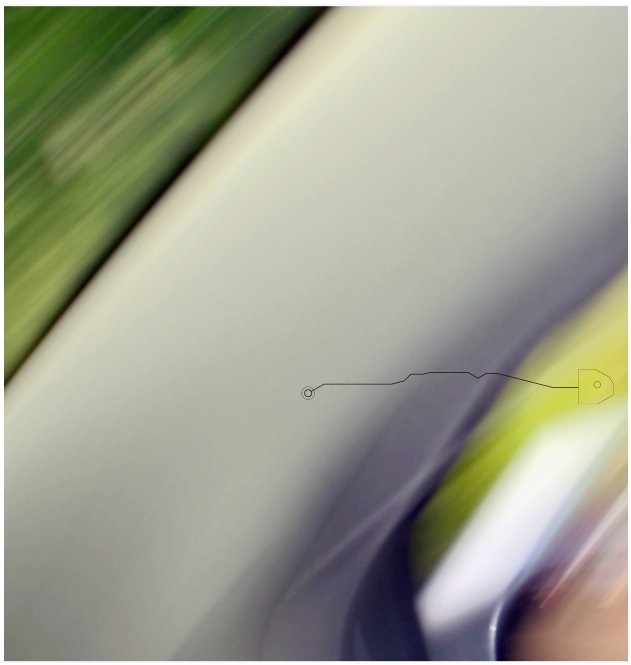


V. Site Inventory and Analysis



Site Inventory and Analysis

Location,
Size and
Zoning,
Natural
Physical
Features,
Built
Features,
Circulation,
Utilities,
Sensory,
Human and
Cultural, and
Climate



Site Inventory and Analysis

1. Location

The location for this project is the City of Brandon, approximately 220 km west of the City of Winnipeg along Highway 1, very close to the geographical centre of North America in the southwest portion of Manitoba. It was founded when a General Rosser located a major division point for the Canadian Pacific Railway there in 1881 (Manitoba Community Profiles). Brandon was named after the Brandon Hills, and it was officially incorporated as a city in the following year on May 30th, 1882 (Manitoba Community Profiles). Brandon has become the second largest city in the Province of Manitoba, with a population of 48,256, and it has a trading population of close to 180,000 people (Canada Census; Manitoba Community Profiles). Also, it is located at the centre of a very important agricultural region, with approximately 66% of Manitoba's farmland located within a 130 km radius of this city (Manitoba Community Profiles); Brandon has become known as the "Wheat City".

Analysis
1. Rail transportation was an important aspect of the creation of City of Brandon.
2. Although the population of Brandon is relatively small compared to that of Winnipeg, it has a trading population of 180,000, making this city an important agricultural centre because 66% of the Province's farmland is located within approximately 130km radius of it (Canada Census; Manitoba Community Profiles).

Design Potential
Creation of a regional park and a more appealing Provincial destination.

Existing Site June 2008

Figure 30. Existing Site

A. Site (Figure 30)
The site for this project is on the land of the Riverbank Discovery Centre (RBDC), located at 545 Conservation Drive in the northern part of Brandon. Located on the grounds of the site is a RV parking and dump site, and multi-use pathways that link to a number of existing trails. There is an existing water-taxi dock with a canoe rental facility located on the west side of the main parking area of the Centre. Ducks Unlimited Canada (DUC) field office is located inside the Centre, and an adjacent wildlife habitat area with 1.2 ha of native prairie grasses and wildflowers. There are also waterfowl nests that are built on two human-made ponds on grounds south of the building (Ducks Unlimited Canada, Riverbank Ponds Fact Sheet). The Centre also has a travel information centre with information about Brandon and the Region, a Brandon souvenirs shop, a summer campground-greeting program, and interpretive information about the riverbank and trail system.

Analysis
1. Large site with ample space to develop the project.
2. Good location in the northern part of the city, all though it is adjacent to a very busy and a noisy intersection 18th St. North and Kirkcaldy Drive and the Corral Centre (18th St. North joins Highway 1).

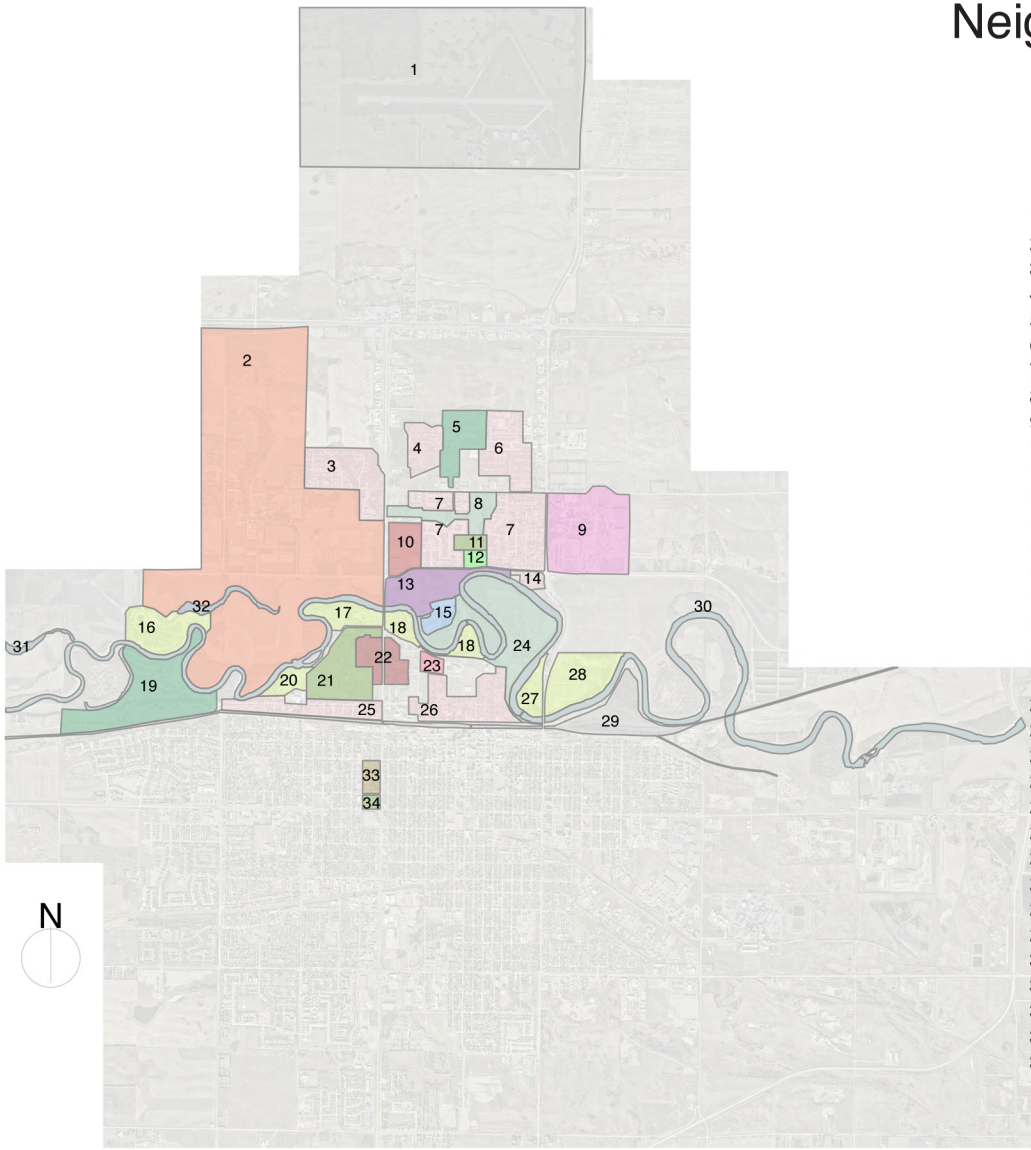
Design Potential
There is room to create spaces for large-scale events such as Canada Day, and gathering spaces on the grounds. Space exists to increase on-site parking for special events and for the addition of native prairie habitat. There should be transit access into the site, and the various areas in the site, like the water-taxi dock, which needs to be designed for universal accessibility.

B. Neighbourhood Context (Figure 31)
The four most significant areas adjacent to the site, starting from the north going clockwise, are the Corral Centre, Kirkcaldy Heights residential neighbourhood, the Canada Games Sportsplex and Kirkcaldy Heights School and existing floodway area to the east, Eleanor Kidd Park to the south and the grounds of the Agriculture Canada research station to the west.

Analysis
1. Large shopping complex located north of the site provides an opportunity to attract more users to the site.
2. Next to residential areas, the Canada Games Sportsplex and neighbourhood school; more potential users.
3. Located next to a very important road, 18th Street North, therefore, great location to draw people to the site.
4. Adjacent to the Assiniboine River, which is a great opportunity to establish connections to the rest of the City through water-taxi.
5. Very close to an Agricultural Canada research station, which provides a great opportunity for collaboration with them to create spaces on the site for test crops.

Design Potential
There is an opportunity to attract a large number of potential users of the Corral Centre to use the site -perhaps by creating a central gathering space designed in the northern part of the site to be used for seasonal fairs that could sell local goods like handicrafts, art, furniture, foods, flowers and books. The Assiniboine River is an important waterway for recreation and transportation, and access to it from the site should be designed to better accommodate all users. Finally, some of the grounds of the site could be used for agricultural research by Agriculture Canada to promote certain crops and plants.

Neighbourhood Context June 2008



1. Airport
2. Agriculture Canada Research Station
3. Hamilton Heights residential neighbourhood
4. Monterey Estates residential neighbourhood
5. Northern Pines Golf Course
6. Residential neighbourhood
7. Kirkcaldy Heights residential neighbourhood
8. Winston Churchill Park
9. Brandon Mental Health Centre
10. Corral Centre Site
11. Canada Games Sportsplex
12. Kirkcaldy Heights School
13. Riverbank Discovery Centre grounds and Site
14. Residential neighbourhood
15. Ducks Unlimited Canada Habitat grounds
16. Curran Park (camping and picnic area)
17. Westbran Park
18. Eleanor Kidd Park
19. City of Brandon Golf Course
20. Queen Elizabeth Park
21. Westbran Ball and Soccer Parks
22. Commercial area
23. Heartland Auction
24. Floodway area
25. Residential neighbourhood
26. Assiniboine Gardens residential neighbourhood
27. Dinsdale Park
28. Optimist Park
29. CP Station and yards
30. Assiniboine River
31. Water body
32. Lake Percy
33. University of Brandon
34. Sports Green (ball park)

City of Brandon

Figure 31. Neigbourhood Context, June 2008

2. Size and Zoning

The perimeter of site is roughly 3250 metres, and there is 27ha of usable area, not including the RBDC building. The site was zoned by the City of Brandon for Parks and Recreation in 2008. The property is owned by the city and the space is under the watchful eye of a non-profit organization known as the Riverbank Inc., which was formed in 1995 by the city to preserve the health and welfare of the Assiniboine River's ecosystem.

Analysis
An e-mail message from a Brandon City Planner in July 2008, stated:

1. "The present zoning for the property is PR Parks and Recreation, OS Open Space, and DR (Development Reserve). The DR parcel however is close to being rezoned to PR. The current Development Plan has this entire area designated as Parks and Recreation so no commercial use will be located in this area other than a farmers market (only commercial establishment allowed under the zoning bylaw)."
2. "In regards to future zoning for the area; the current DR zoning is in the process of being rezoned to PR but probably won't be completed until later in the fall."

Design Potential
Green space development is permitted and a farmers' market would be permitted on the site.

3. Natural Physical Features (Figure 32)

The major natural feature located in the site is the Assiniboine River (A). It borders the site on the east, the south, and the west. The vegetation that is located along the riverbank and tree stands (B), are the remnants of a Riverbottom Forest and are a part of a riparian ecosystem. As well, although it is introduced, the wildlife habitat area (C), which was created by DUC is categorized as a major 'natural' feature located in the site. Figures 36 to 50 document the variety of vegetation found in the site.

Analysis
1. Areas located next to the river are prone to riverbank erosion and annual flooding (Figures 51-52).
2. The vegetation along the river banks and tree stands are the remnants of the Riverbottom Forest.
3. Ducks Unlimited Canada Habitat Area with re-introduced grasslands vegetative area and Ponds attract a lot of different wildlife, which creates a sense of calm and allows for people to get closer to nature.
4. The introduced vegetation in different areas within the site, especially, on the western side of Conservation Drive, although they use native vegetation, the way that they are planted in the area does not necessarily fit into the "natural" theme presented by the DUC habitat are in the site (Figure 50).

Design Potential
The erosion along the riverbank needs to be addressed, and it needs stabilization, which presents an opportunity to practise different techniques of riverbank stabilization. Also, there exists an opportunity to restore the Riverbottom vegetation that exists along the riverbank adjacent to the site on the east, the south, and west. Reintroducing prairie vegetation to the site would increase its natural feel better and provide additional habitat for wildlife. There exists the opportunity to link the site to the rest of the city better by redeveloping the existing boat launch and water-taxi dock.

Figure 32. Natural Physical Features Map 1

Figure 33. Natural Feature A; for location on site, refer to Figure 32.

Figure 34. Natural Feature B; for location on site, refer to Figure 32.

Figure 35. Natural Feature C; for location on site, refer to Figure 32.

The different types of vegetation that were sampled in this site included short-mixed (mowed) grasses 20m in length; Stipa viridula (Green Needle Grass), Fescue scabrella (Rough Fescue), Sorghastrum nutans (Indian Grass), Agropyron smithii (Western Wheat Grass), Poa pratensis, Bromus sp. and two unknown grasses. The other vegetation found within the sampled intervals included Rosa acicularis (Prickly Rose) Artemisia frigida (Prairie Sagewort), Salix exigua (Narrow-Leaved Willow), Phragmites australis (Common Reed Grass), and finally Aster hesperius (Western Willow Aster).

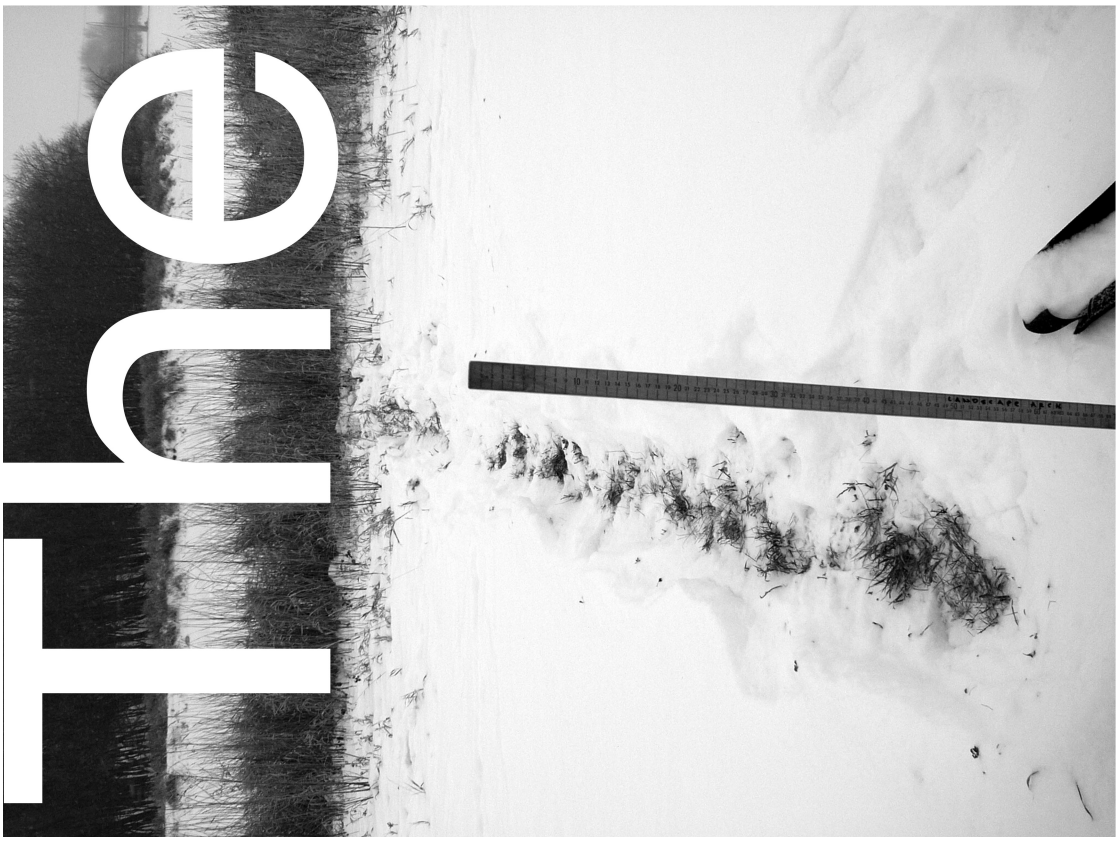


Figure 36. Vegetation Area 1; for location on site, refer to Figure 32.

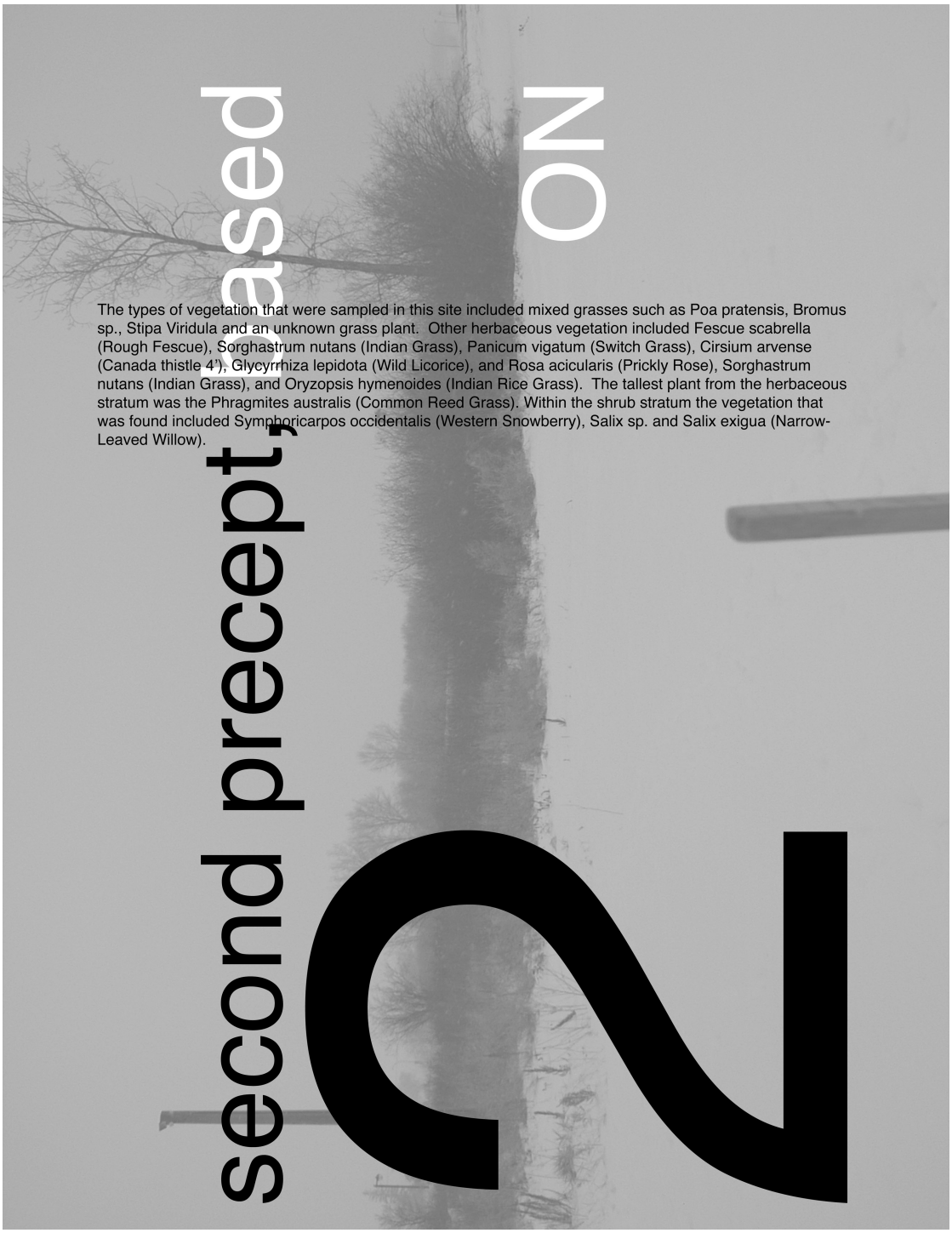


Figure 37. Vegetation Area 2; for location on site, refer to Figure 32.

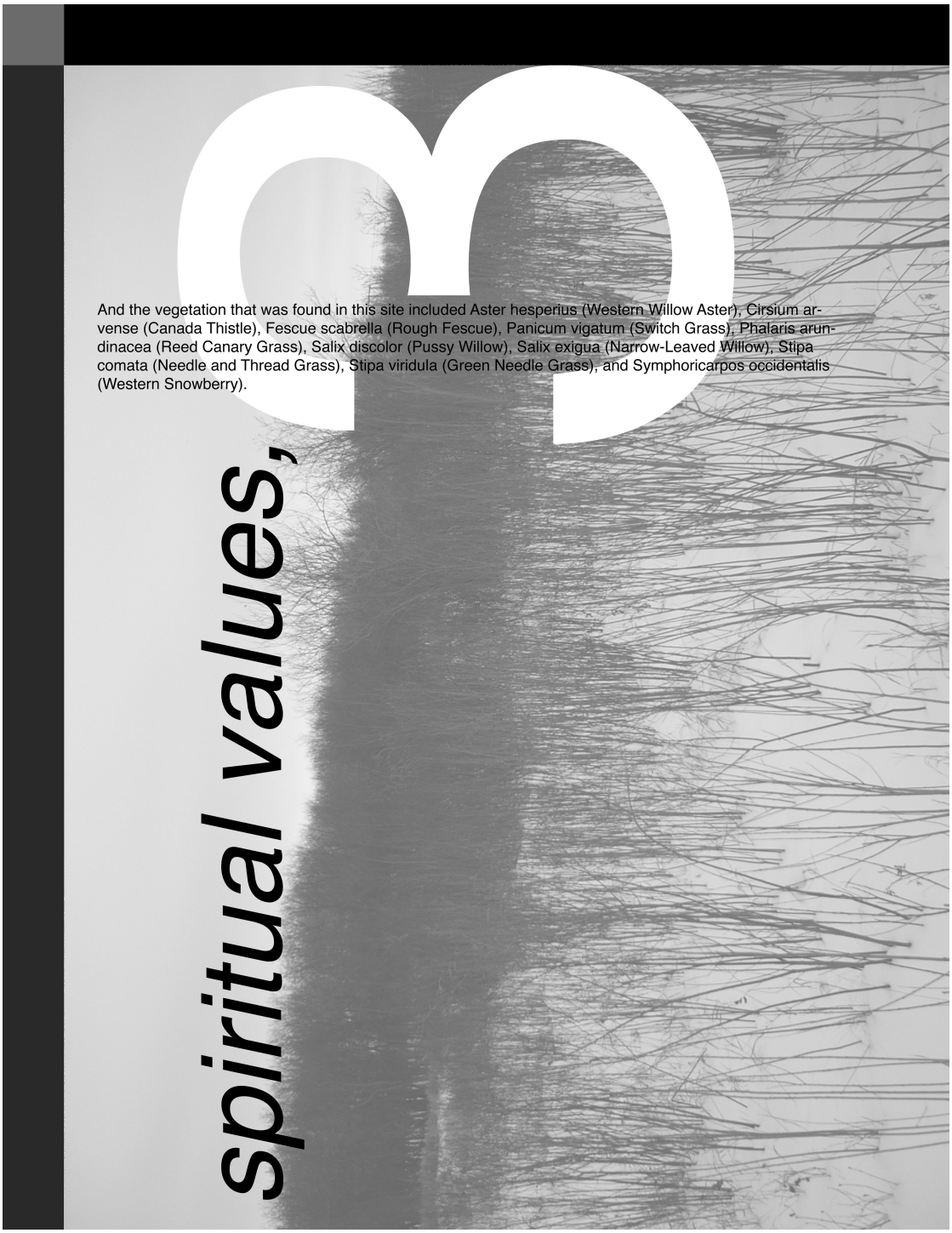


Figure 38. Vegetation Area 3; for location on site, refer to Figure 32.

Figure 39. Vegetation Area 4; for location on site, refer to Figure 32.

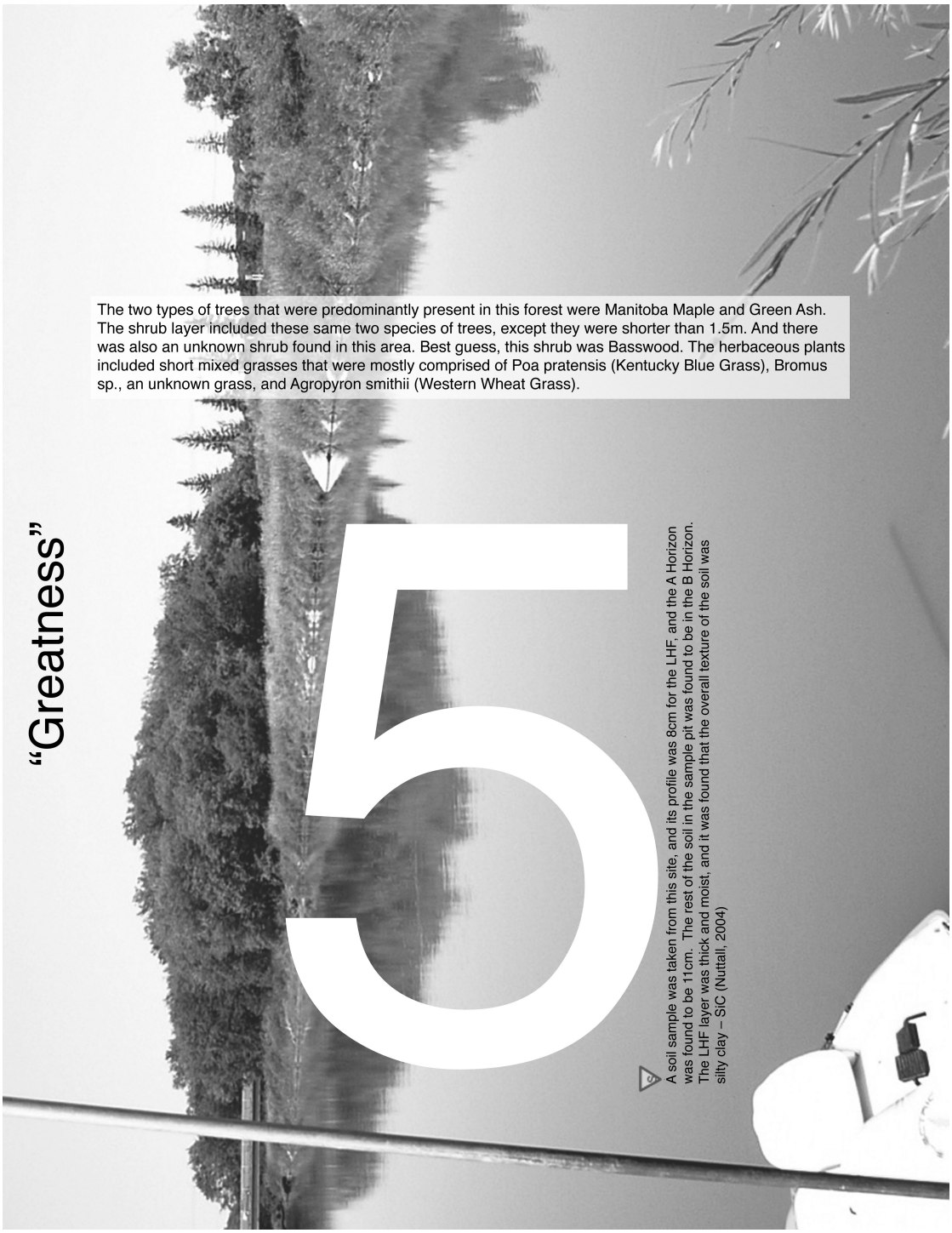


Figure 40. Vegetation Area 5; for location on site, refer to Figure 32.

Figure 41. Vegetation Area 6; for location on site, refer to Figure 32.

Figure 42. Vegetation Area 7; for location on site, refer to Figure 32.

Grass Field Tree Stands (east side of Conservation Drive):
Acer saccharinum (Silver Maple), Fraxinus nigra (Black Ash), Prunus virginiana var. Schubert (Shubert Chokecherry), and Tilia americana (Basswood, Linden).

Figure 43. Vegetation Area 8; for location on site, refer to Figure 32.

Figure 44. Vegetation Area 9; for location on site, refer to Figure 32.

Riverbank Discovery Centre's Adjoining Parking Lots: Acer negundo (Manitoba Maple), Fraxinus nigra (Black Ash), Picea glauca (White Spruce), Picea mariana (Black Spruce), Tilia americana (Basswood, Linden), and Ulmus americana (White Elm).

Figure 45. Vegetation Area 10; for location on site, refer to Figure 32.

Figure 46. Vegetation Area 11; for location on site, refer to Figure 32.

can 12

Riverbank Discovery Centre (Back Lawn): Aster sp., Cirsium arvense (Canada Thistle), Festuca hallii (Plains Rough Fescue), Fraxinus nigra (Black Ash), Petalostemum purpureum (Fabaceae) (Purple Prairie Clover), and Salix sp.

Figure 47. Vegetation Area 12; for location on site, refer to Figure 32.

Motor home service area: Cornus sericea (Red Osier Dogwood), Juniperus communis (Ground Juniper), Heuchera sanguinea (Coral Bells), Physocarpus opulifolius (Ninebark), Primulaceae, and Viburnum trilobum (Highbush Cranberry).

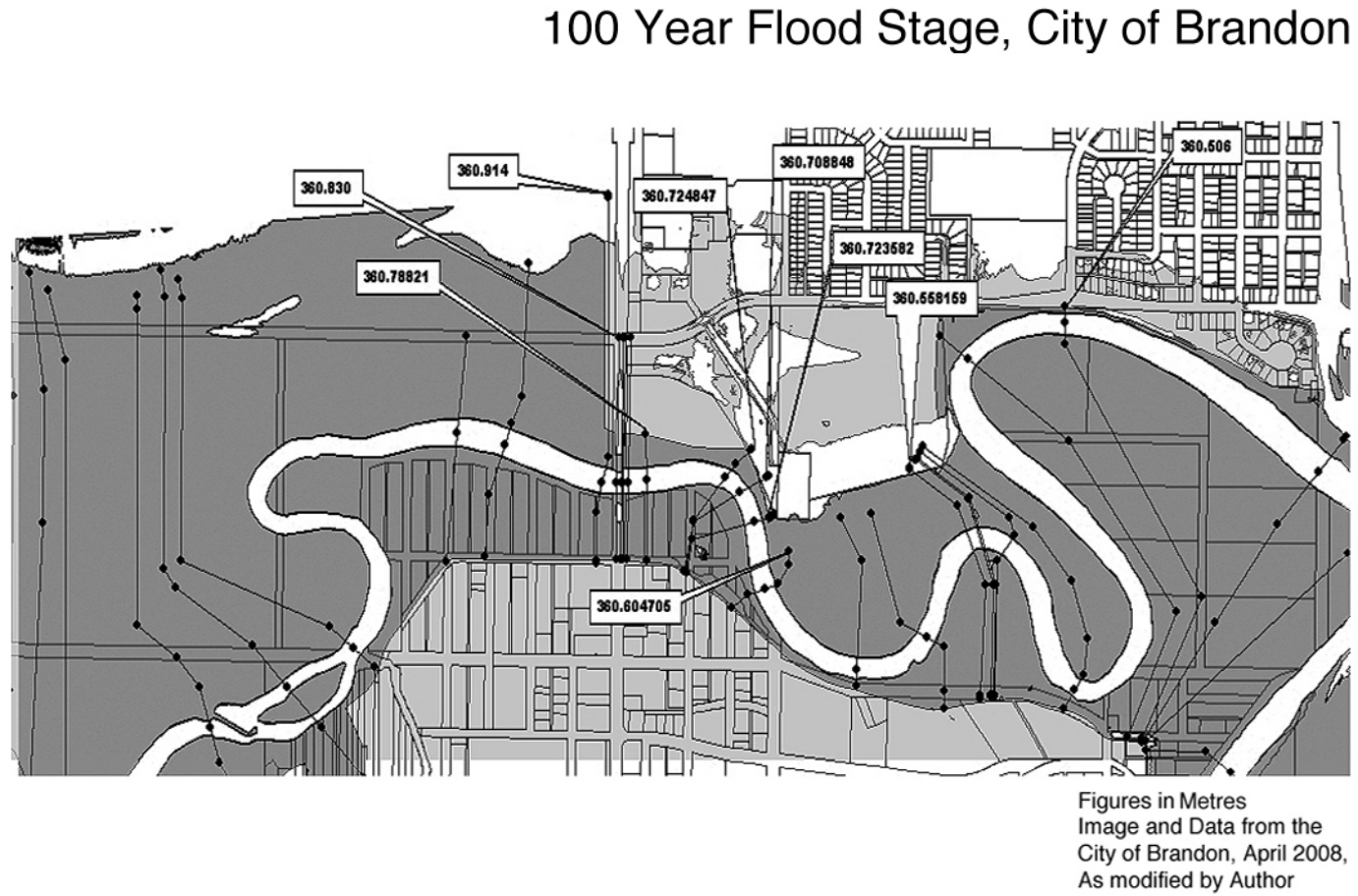
Figure 48. Vegetation Area 13; for location on site, refer to Figure 32.

Figure 49. Vegetation Area 14; for location on site, refer to Figure 32.

Figure 50. Vegetation Area 15; for location on site, refer to Figure 32.

Figure 51. Natural Physical Features Map 2

Figure 52. 100 Year Flood Data



4. Built Features (Figure 53)

The major on-site built features in the site are the RBDC building, the DUC ponds and habitat area with 1.2 ha of native prairie grasses and wildflowers, the parking areas, the water-taxi dock and boat launch and the parking areas, the roads and the multi-use pathways. The RV service area and picnic and trash collection area are also important built features. The Labyrinth of Peace project, which is located in the northeast part of the site.

The major off-site built features include the Red Willow Pedestrian Bridge that connects the site with Eleanor Kidd Park and Gardens, across the river. Other significant off-site built features adjacent to the site include the Corral Centre, the David Thompson Bridge and the neighbouring residential development and school.

Analysis
1. The RBDC is an attractive building, however, the surrounding planting could better reflect the 'natural' feel of the DUC habitat area by using native prairie vegetation.
2. Most of the pathways are not accessible in the winter because of snow build up.
3. The "picnic and play" area is adjacent to the garbage collection area and it is out by a busy intersection and parking lot.
4. Introduced vegetation along the multi-use pathway on the west side of Conservation Drive does not tie in well with the DUC habitat area.
5. The existing pathway and water taxi dock are not universally accessible.
6. The existing pathway to the boat launch is not very well developed and is not universally accessible.
7. The east side of Conservation Drive is where Canada Day celebrations take place and it is where extra cars are parked. It is a very large open field that is underdeveloped compared to the west side of Conservation Drive.
8. The existing pathways through the site tie in well with the neighbourhood and also with the existing trails.
9. The Labyrinth of Peace project seems out of place at its current location in the site.

Design Potential
The RBDC is an attractive building that fits well with the environment; however, the planting around the building, and some of the seating could be changed to better convey the feeling of a more natural environment and the region. Native prairie vegetation should be used, and local artists or contractors could design seating with regional materials.

The existing picnic and play area and garbage collection area are adjacent to a busy parking lot and it should be moved to another part of the site.

The existing pathways throughout the site are multi-use and tie in well with all the different areas. However, the potential exists to change the ground plane materials to offer different walking experiences and also to ensure that they are all universally accessible. The existing pathways to both the water-taxi dock and the boat launch area should be universally accessible.

The areas and grounds on the east side of Conservation Drive are undeveloped and an opportunity exists to develop the area to better accommodate large scale events such as Canada Day celebrations and outdoor concerts. Also, a secondary parking area could be developed in this area. The location and layout of the main parking area could be rethought to separate it from the picnic and play area. The hard surfaced parking areas could be drained into rain gardens and or bio-swales.

Finally, the area where the Labyrinth of Peace is located should be better tied into the site and or incorporated into a new strolling park, which could be designed adjacent to it.

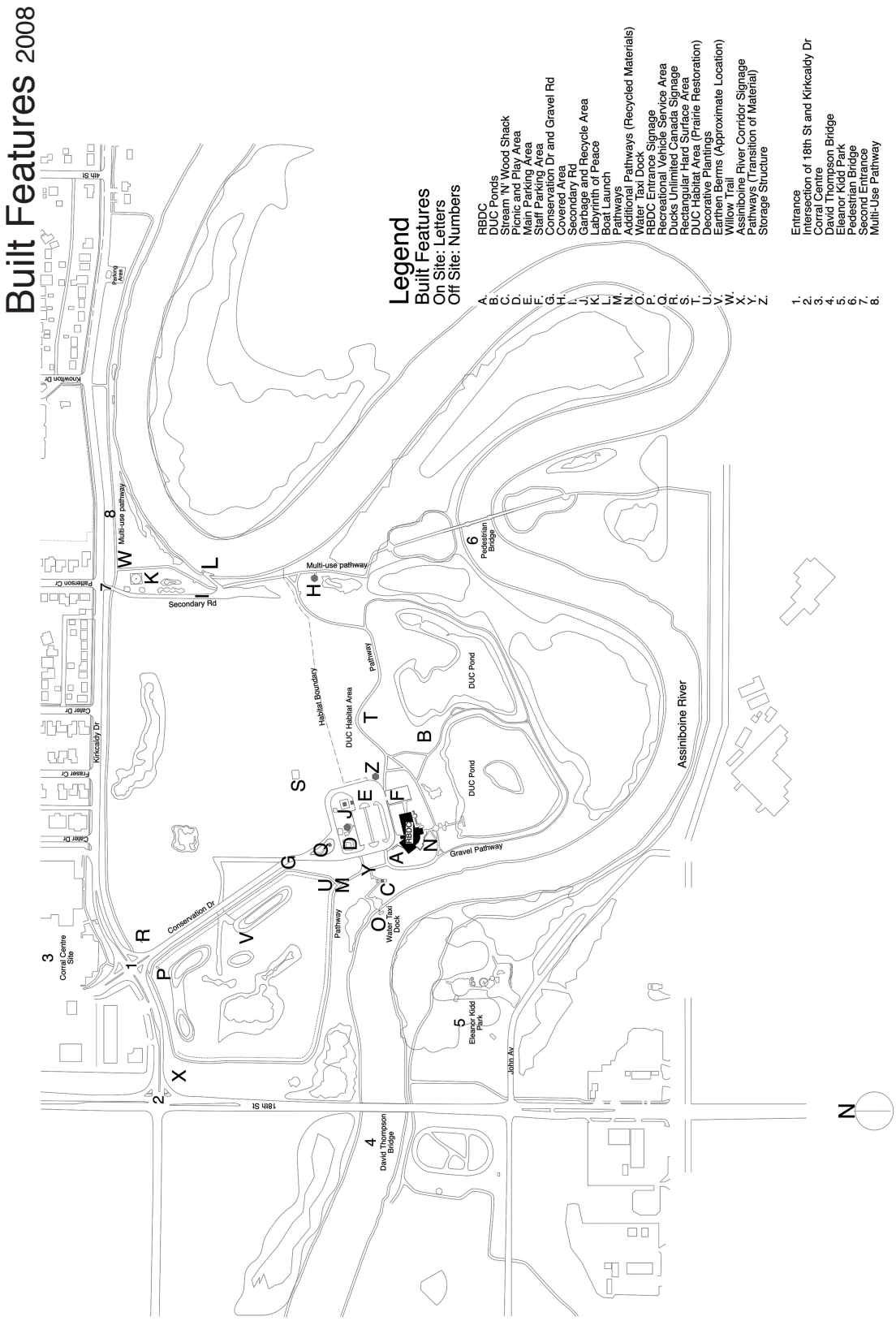


Figure 53. Built Features plan; for images on site, refer to Figure 54.

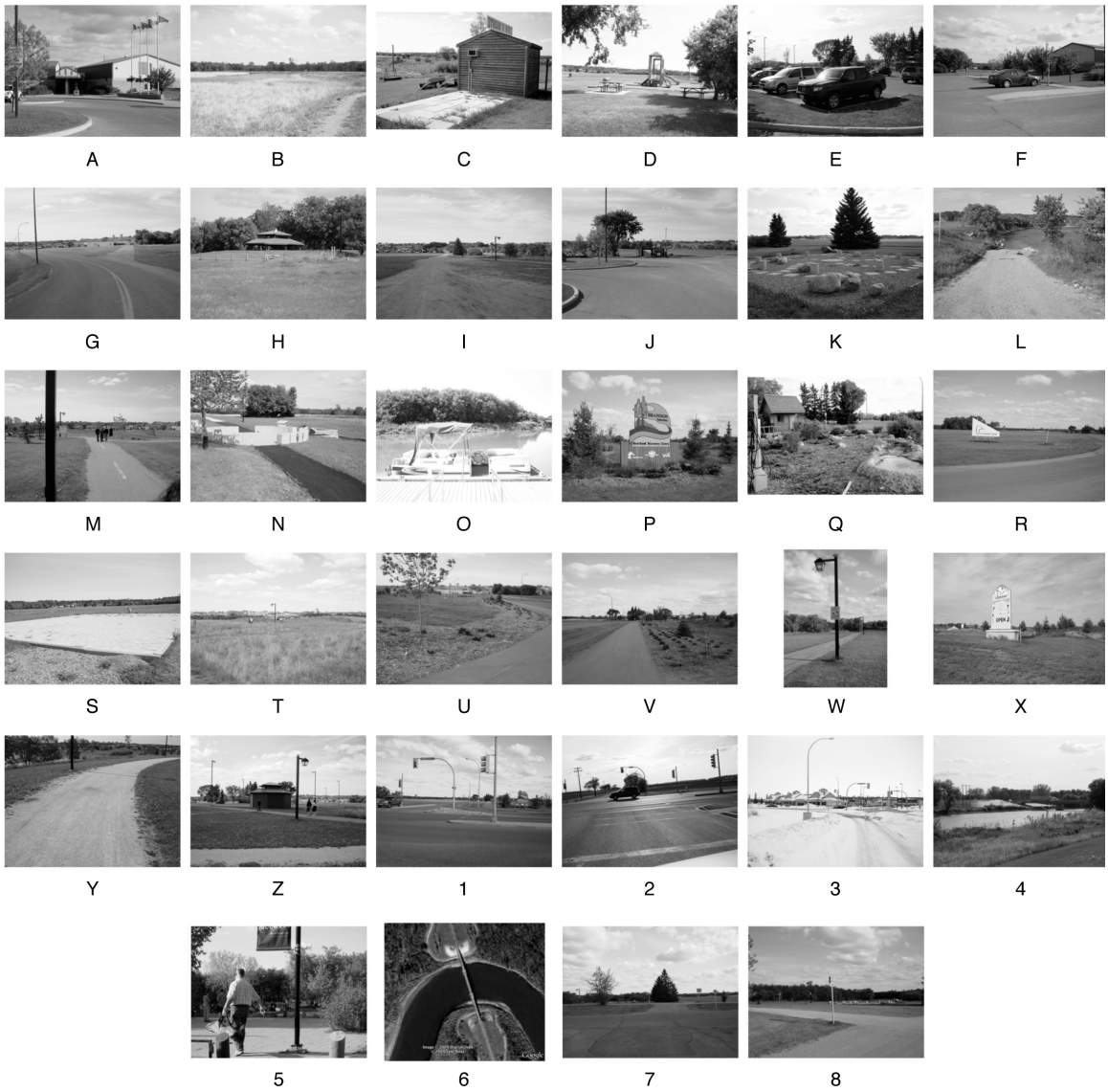


Figure 54. Built Features images; for plan, refer to Figure 53.

5. Circulation

A. Vehicular Circulation (Figure 55)
There is a very important arterial vehicular route that runs adjacent to the site on the west side, it is 18th Street North, and it joins the Trans Canada Highway #1 to the north. Another important collector road, Kirkcaldy Drive, runs perpendicular to 18th Street North and parallel to the site on the north. At the intersection of these two significant vehicular routes there is about 47,000 cars per day, according to information from the 2005 Manitoba Transportation and Government Services (Shin). The main vehicular entrance to the site is located to the north of the site at the intersection of Kirkcaldy and Conservation Drive. Conservation Drive separates the grounds of the site into two halves, and it also serves as an access route for RVs that come into the site to use the RV service area, which is located north of the main parking area. The main parking area can currently accommodate approximately 80 vehicles and 4-8 RVs or 4 Buses. There is also a staff parking lot that is located adjacent to the Riverbank Discovery Centre on the east side of the building, which can accommodate approximately 20 vehicles. A secondary entrance and service road that is located at the northeast part of the site off Kirkcaldy Drive. There are a number of transit stops that are located along Kirkcaldy; however, there are no transit stops inside the site.

Analysis
1. The existing vehicular roads in the site are not designed for heavier traffic flow.
2. Vehicular circulation through the site runs through one major road, Conservation Drive, and it is not designed well enough to handle larger traffic flow.

Design Potential
The vehicular circulation into and through the site could be redesigned to reduce the amount of vehicular traffic that uses Conversation Drive, by allowing vehicles to enter along Conservation Drive to a newly designed vehicular route that currently exists at the secondary entrance to the site. Additional parking areas could be designed to tie into this new route. There could also be a transit loop designed near the Riverbank Discovery Centre to accommodate people without their own transportation or those that prefer to use transit.

Vehicular Circulation

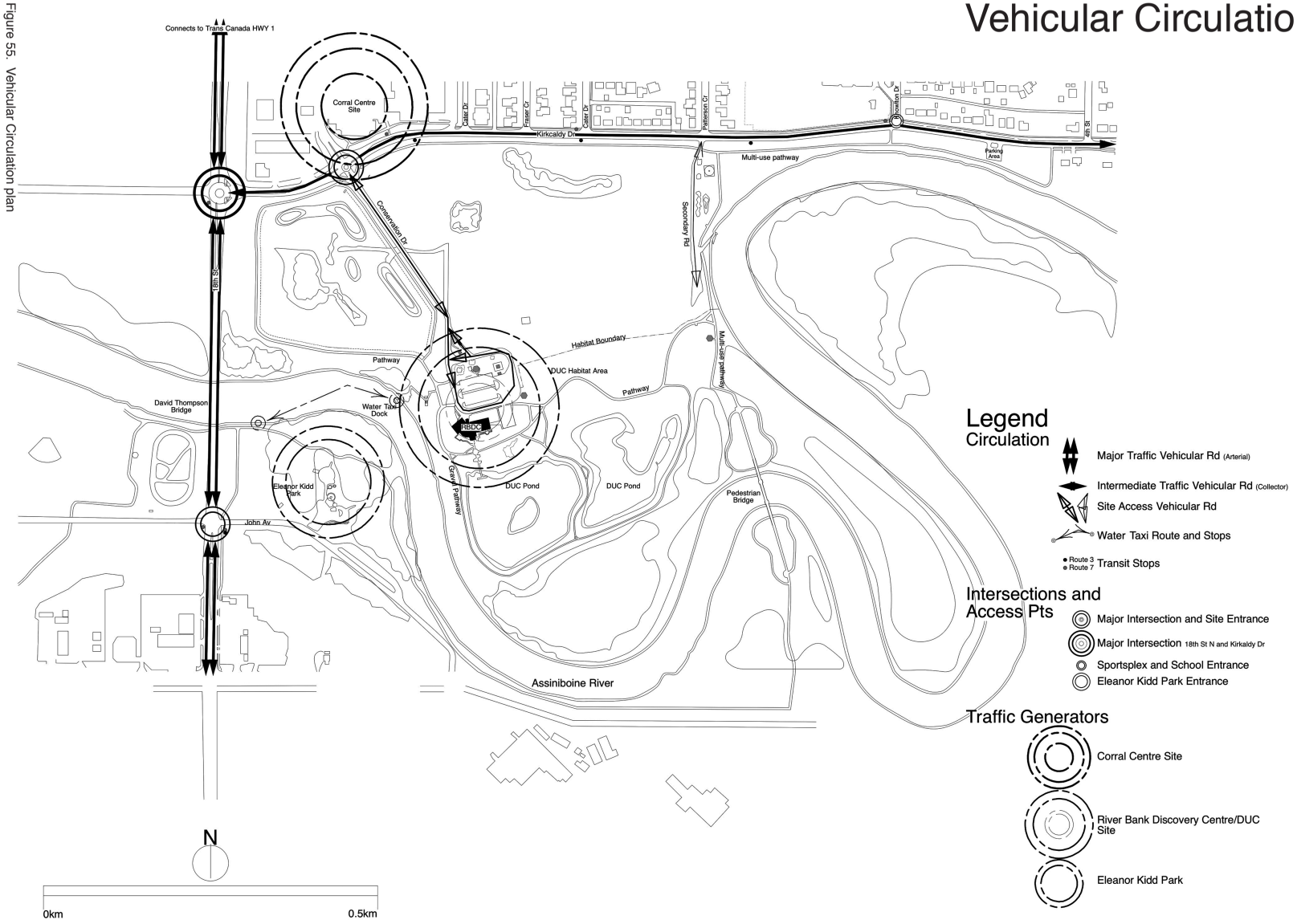


Figure 55. Vehicular Circulation plan

B. Pedestrian Circulation (Figure 56)
There is a significant number of pedestrians who use the pathways that exist throughout the site, especially those pathways that run through the DUC wildlife habitat area and link to the Red Willow Trail. The pathways are multi-use and accommodate cycling traffic, as well as pedestrian traffic. There are different materials used along the various pathways that run throughout the site. Part of a pathway that is located in the south side of the Riverbank Discovery Centre adjacent to the built ponds uses recycled tire rubber, while some of the pathways use gravel through the DUC area. The majority of the pathways are paved with asphalt, or concrete.

Analysis
1. There is significant pedestrian traffic along both paved and unpaved pathways, therefore, paving material has no bearing on observed usage. However, different paving materials can provide different tactile experiences that could potentially enhance user experiences.
2. There is a lack of safe pedestrian connection to the “picnic and play” area adjacent to the main parking areas.

Design Potential
The opportunity exists to consider using different types of materials along the pathways, perhaps more recycled tire rubber could be used. As well, all of the pedestrian and multi-use pathways should be designed to be universally accessible and be designed to be safer by separating them from busy vehicular areas. Thought should be given to shelter users from winds and sun along the pathways, and also to providing seating for pedestrians along junctions of pathways and also at key viewpoints in the site.

Pedestrian Circulation

Figure 56. Pedestrian Circulation plan

6. Utilities

The major above ground utilities in the site are two hydro boxes located on the grounds of the Riverbank Discovery Centre near the main parking area on the west side of Conservation Drive, and the hydro poles (Figure 57), which run adjacent to 18th Street North on the western edge of the site.

Analysis
1. The existing power poles that are running adjacent to 18th Street North along the western edge of the site are not visually appealing.

Design Potential
Perhaps, the power poles could be converted to underground transmission lines to reduce the amount of space they currently occupy and also to negate their appearance on the western edge of the site.

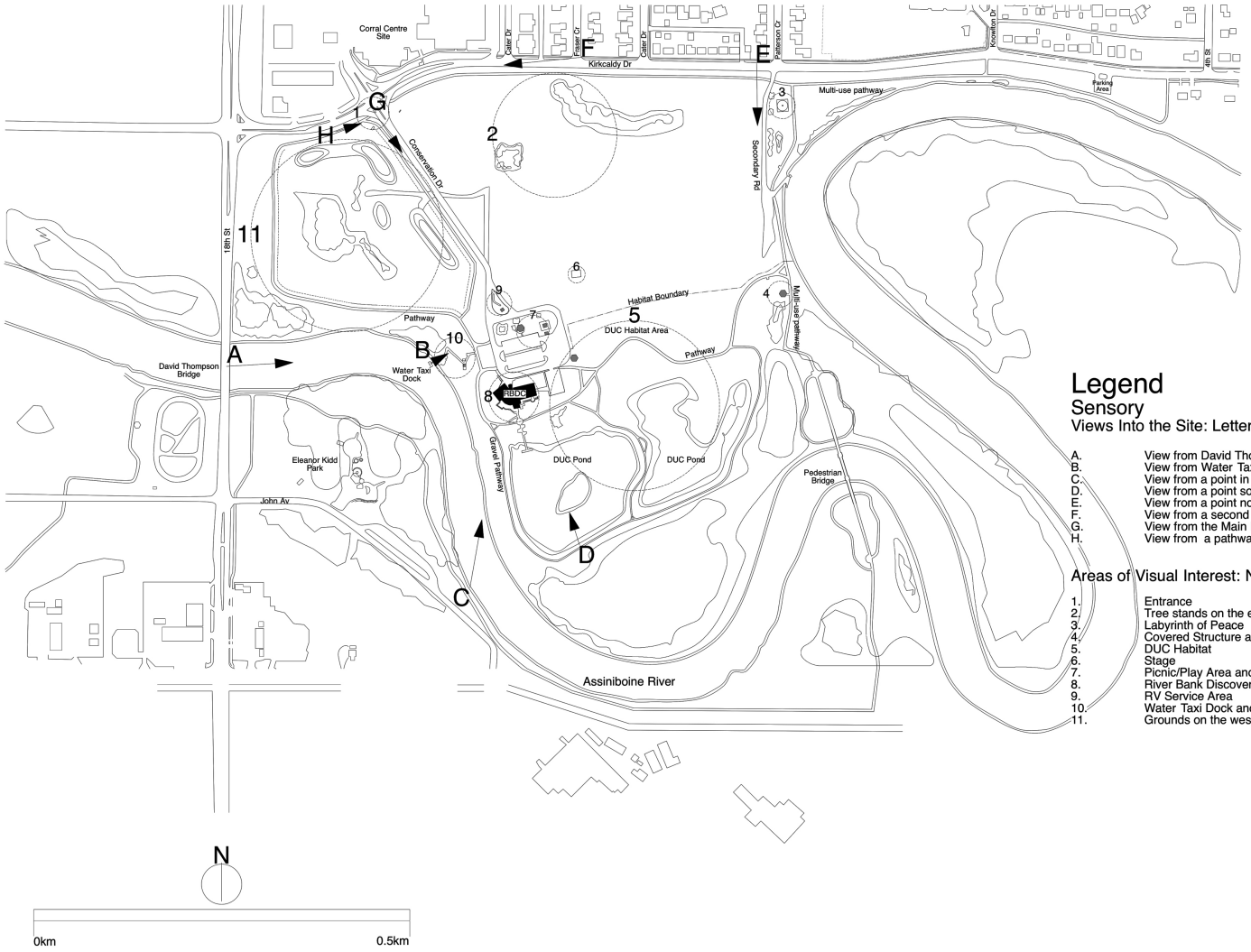
Figure 57. Hydro Poles

7. Sensory (Figures 58, 60 and 62)

A. Views

There are a number of areas of visual interest in the site. The most significant of these include the main entrance and the Riverbank Discovery Centre, the water-taxi dock and adjacent riverbank, and the Ducks Unlimited wildlife habitat area - including the ponds. The most significant views into the site are from the David Thompson Bridge, the views into the site from Eleanor Kidd Park, and the views south towards the Riverbank Discovery Centre along Conservation Drive from the main entrance (Figure 59). Another significant view into the site is from a point across Kirkcaldy Drive looking south through the site towards the boundary of the grounds of the Riverbank Discovery Centre and Ducks Unlimited habitat area. The most significant views through the site occur from the midpoint of Conservation Drive, which looks out at various parts of the site (#7, Figure 61). Another significant view through the site is looking northwest from the main parking area through the grounds on the western side of Conservation Drive. The view out from the Stream 'N' Wood Shack (canoe rental) looking west along the back of the river (#9, Figure 63), as well as the view from the site from the water-taxi dock to Eleanor Kidd Park are significant (#10, Figure 63).

Views Into



Legend

Sensory

Views Into the Site: Letters

A.	View from David Thompson Bridge
B.	View from Water Taxi Dock
C.	View from a point in Eleanor Kidd Park
D.	View from a point south of a DUC Pond
E.	View from a point north of the Site
F.	View from a second point north of the Site
G.	View from the Main Entrance
H.	View from a pathway to the Entrance Signage

Areas of Visual Interest: Numbers

1.	Entrance
2.	Tree stands on the eastern side of Conservation Dr
3.	Labyrinth of Peace
4.	Covered Structure adjacent to Red Willow Trail
5.	DUC Habitat
6.	Stage
7.	Picnic/Play Area and Garbage/Recycle Area
8.	River Bank Discover Centre
9.	RV Service Area
10.	Water Taxi Dock and adjacent area
11.	Grounds on the western side of conservation Dr

Figure 58. Views into the site; for images refer to Figure 59.

Figure 59. Views into the site (letters) and areas of visual interest (numbers)

Views Through

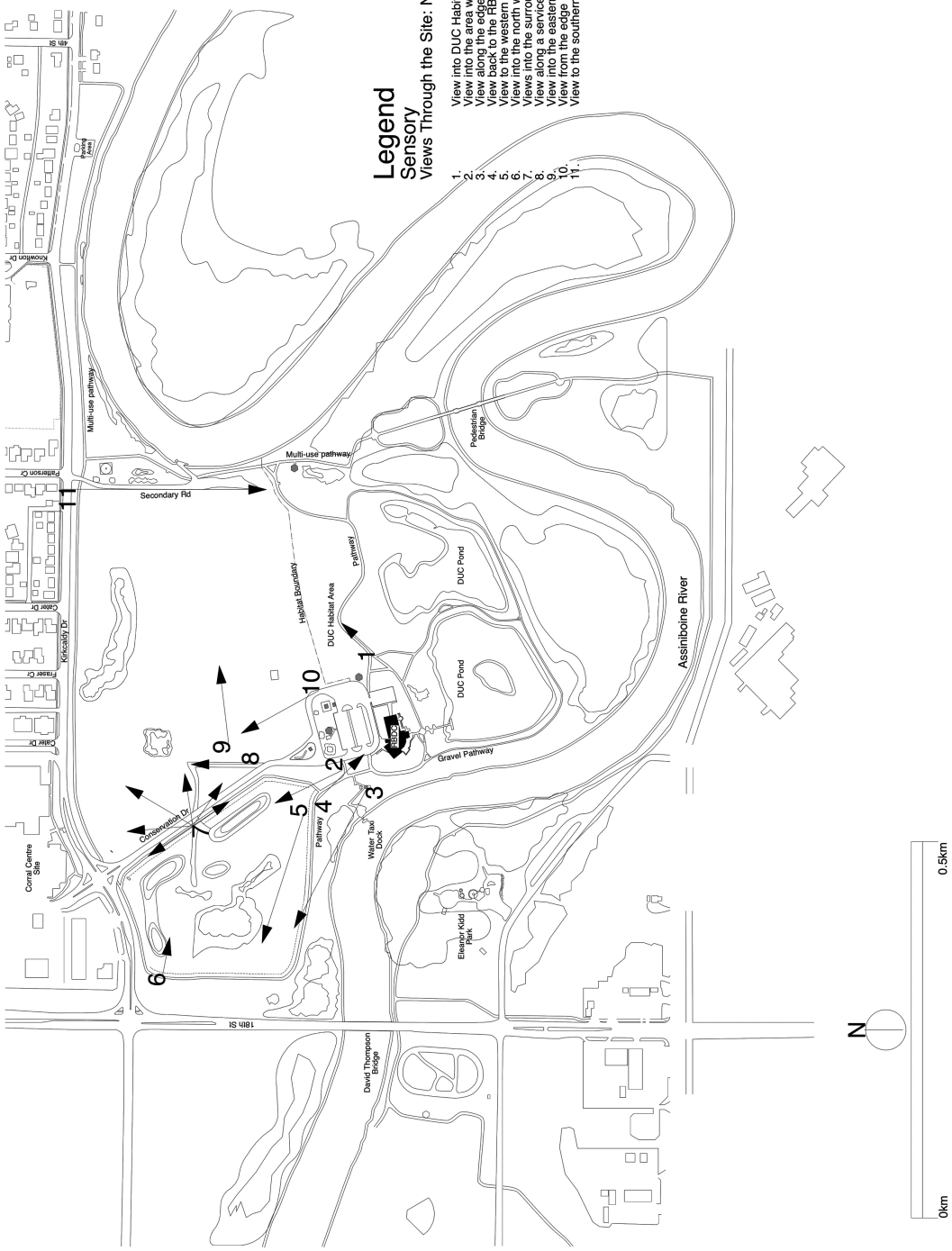
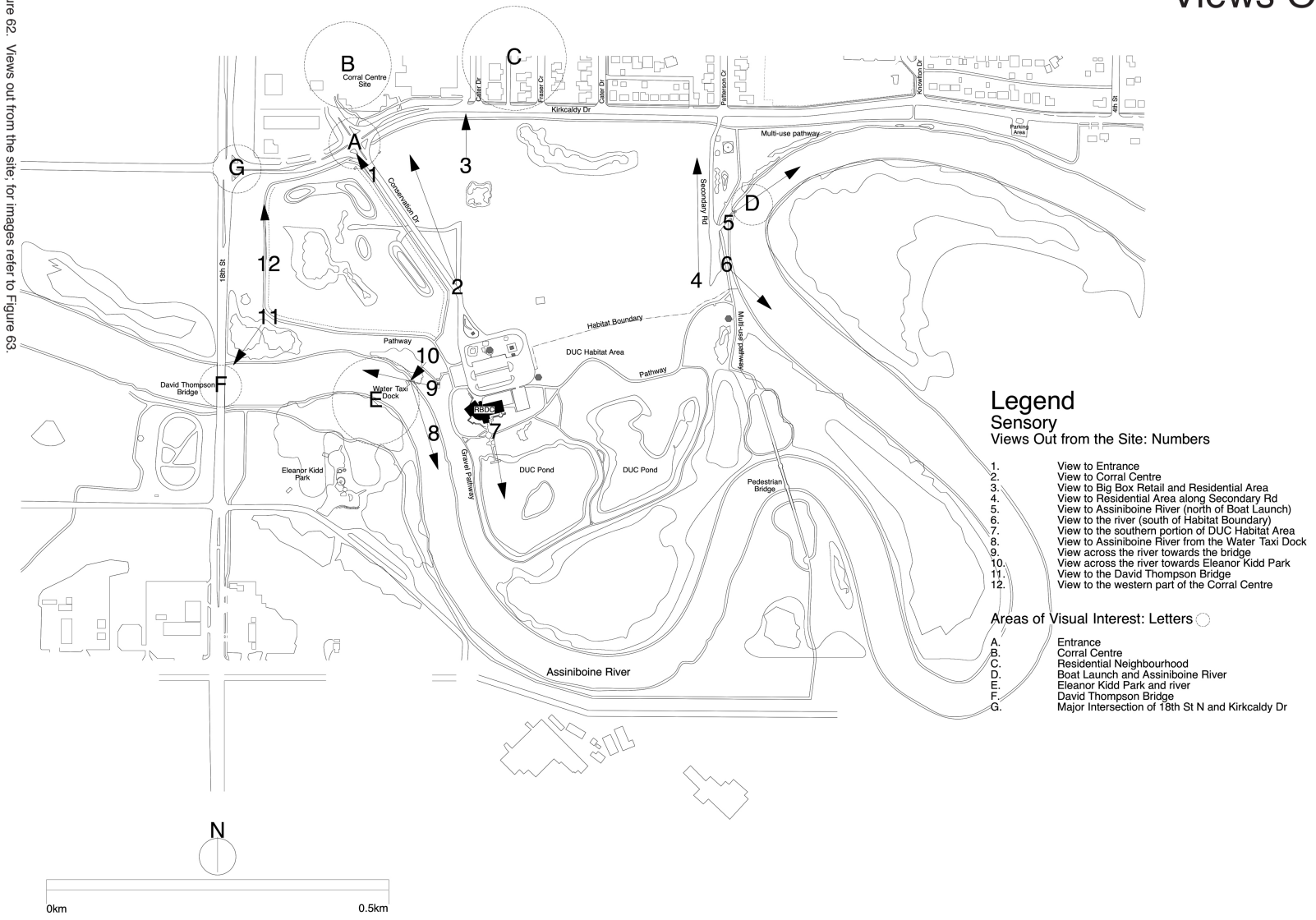


Figure 60. Views through the site; for images refer to Figure 61.

Figure 61. Views through the site

Views Out



Legend

Sensory

Views Out from the Site: Numbers

1. View to Entrance
2. View to Corral Centre
3. View to Big Box Retail and Residential Area
4. View to Residential Area along Secondary Rd
5. View to Assiniboine River (north of Boat Launch)
6. View to the river (south of Habitat Boundary)
7. View to the southern portion of DUC Habitat Area
8. View to Assiniboine River from the Water Taxi Dock
9. View across the river towards the bridge
10. View across the river towards Eleanor Kidd Park
11. View to the David Thompson Bridge
12. View to the western part of the Corral Centre

Areas of Visual Interest: Letters

A. Entrance
B. Corral Centre
C. Residential Neighbourhood
D. Boat Launch and Assiniboine River
E. Eleanor Kidd Park and river
F. David Thompson Bridge
G. Major Intersection of 18th St N and Kirkcaldy Dr

Figure 62. Views out from the site; for images refer to Figure 63.

Analysis

1. Conservation Drive should be kept in place, because it serves as a major visual axis from which users can view the entire site.
2. The earth berms and vegetation that are located on the western side of Conservation Drive are interesting visual elements, however, they restrict the view towards the southern parts of the site and parts of the river.
3. The view from the bridge to the site gives people a sense of anticipation, as does the view along the Conservation Drive looking south towards the Riverbank Discovery Centre.

Design Potential

There exists the opportunity to add a significant area of visual interest on the east side of Conservation Drive (see C). Also, views into the site from Kirkcaldy Drive could be enhanced by developing areas on the east side of Conservation Drive, and opening up the views from along Kirkcaldy Drive into the site on the western side of Conservation Drive.

Figure 63. Views out of the site (numbers) and areas of visual interest (letters)

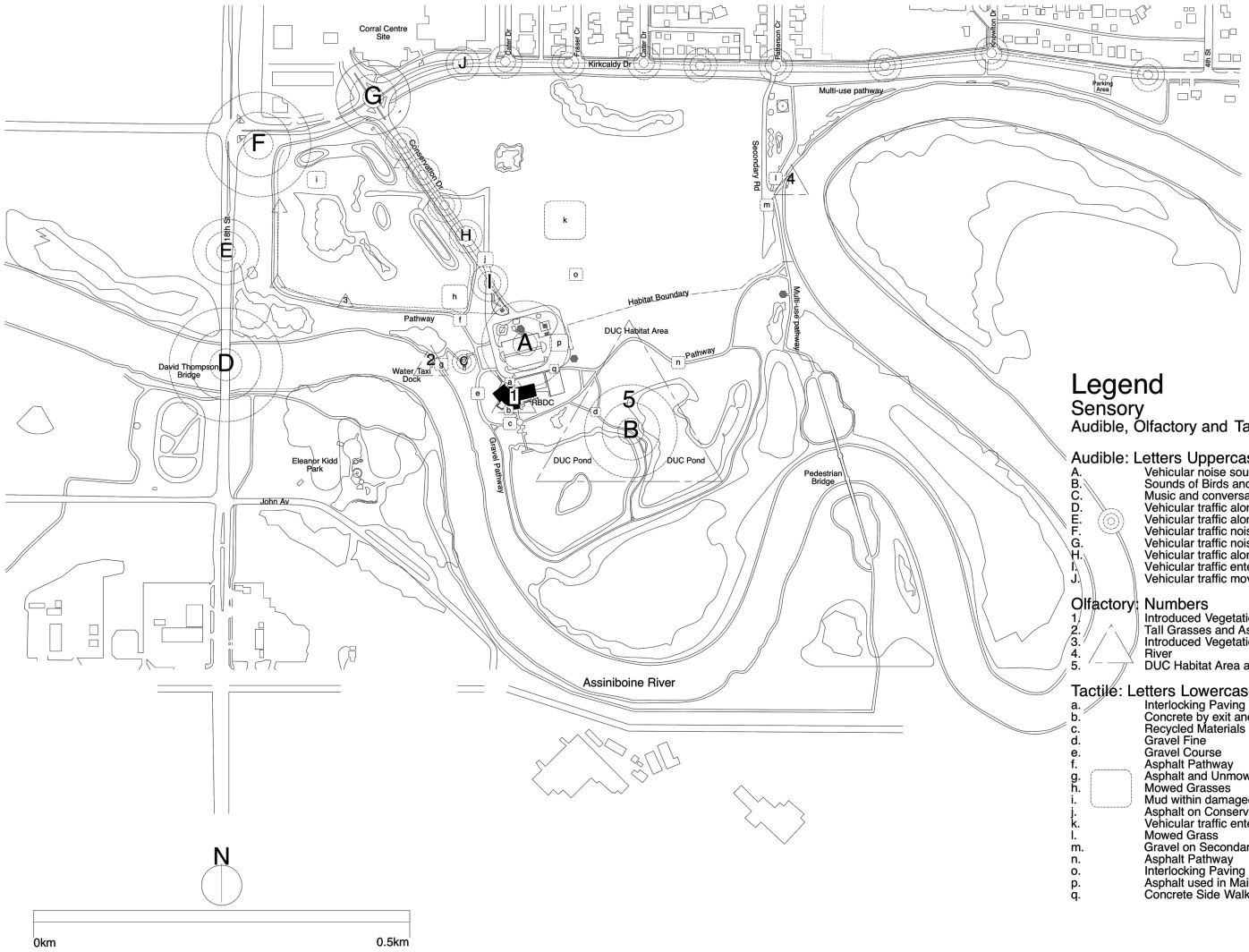
B. Audible, Olfactory and Tactile (Figure 65)
The noise generated by vehicles along the 18th Street North is significant and can be heard within site, particularly in the areas along the existing multi-use pathway that runs parallel to it. The noise generated from vehicles that access and leave the site along Conservation Drive, as well as those that are parking in the main parking area can be an issue on higher traffic/event days. The most significant olfactory experiences in this area can be experienced in the Ducks Unlimited wildlife habitat area, mainly by the built ponds. Some of the annual flowers and small shrubs, which are adjacent to the Riverbank Discovery Centre, also provide some olfactory experiences. The significant tactile experiences occur along the unpaved pathways that run mainly through the DUC wildlife habitat area, and also a small section of the pathway behind the RBDC that is paved with recycled materials (c, Figure 64).

Analysis
1. The most significant noise generator is the vehicular traffic on 18th Street North and also along Conservation Drive, therefore a noise buffer should be created.
2. There are not enough beneficial olfactory experiences in the site.
3. The unpaved paths, which are located within the Ducks Unlimited wildlife habitat area add to the 'natural' feel of this space (e, Figure 64).

Design Potential
Creating a noise buffer for the traffic on the western part of the site would be an important consideration. As well, reducing the amount of vehicular traffic that runs along Conservation Drive could improve the experience of users of the site. Increasing the number of native prairie wildflowers and grasses in the site can add to the olfactory experiences that occur in the habitat area. Also introducing vegetation with beneficial olfactory signatures adjacent to the Centre could add to the experiences for users. Although there exists opportunities to create different tactile experiences in the site by using different ground plane materials, maintaining the universal accessibility of all the pathways throughout the site needs to be a priority. Therefore, materials that will allow the greatest accessibility for all users of the site should be used.

Figure 64. Tactile experiences (letters)

Sensory Aspects



Legend

Sensory

Audible, Olfactory and Tactile Aspects of the Site

Audible: Letters Uppercase

- A. Vehicular noise source in main parking lot
- B. Sounds of Birds and Marsh Critters
- C. Music and conversations from Stream 'N' Wood
- D. Vehicular traffic along Thompson Bridge
- E. Vehicular traffic along 18th St N
- F. Vehicular traffic noise at major intersection
- G. Vehicular traffic noise at entrance and intersection
- H. Vehicular traffic along Conservation Dr
- I. Vehicular traffic entering and leaving parking lot
- J. Vehicular traffic moving along Kirkcaldy Dr

Olfactory: Numbers

- 1. Introduced Vegetation and Flowers
- 2. Tall Grasses and Assiniboine River
- 3. Introduced Vegetation
- 4. River
- 5. DUC Habitat Area and Ponds

Tactile: Letters Lowercase

- a. Interlocking Paving Stone and Concrete
- b. Concrete by exit and Paving Stone by seating
- c. Recycled Materials on parts of the pathway
- d. Gravel Fine
- e. Gravel Course
- f. Asphalt Pathway
- g. Asphalt and Unmowed Grasses along the bank
- h. Mowed Grasses
- i. Mud within damaged area
- j. Asphalt on Conservation Dr & Gravel on Service Rd
- k. Vehicular traffic entering and leaving parking lot
- l. Mowed Grass
- m. Gravel on Secondary Rd
- n. Asphalt Pathway
- o. Interlocking Paving Stone used for Stage
- p. Asphalt used in Main Parking Lot
- q. Concrete Side Walk

Figure 65. Sensory aspects of the site; for images of tactile experiences refer to Figure 64.

8. Human and Cultural

The most significant events that are held annually at the Riverbank Discovery Centre include Canada Day celebrations, which drew around 6000 people in 2008, and the walks for Cancer Research like the Relay for Life and CIBC. Run for the Cure that drew 750 and 500 people respectively in 2008 (Riverbank 2008). Culturally, the City of Brandon is a very important centre for people who practise agriculture in the Southwest portion of Manitoba; Brandon is nicknamed the Wheat City.

Analysis
1. The site needs to have a space or area designed to accommodate large scale events like Canada Day celebrations and also additional multiuse pathways that could accommodate additional walking events and benefit current users.
2. There could be a recognition of the cultural heritage of this city by creating spaces that would reflect the agricultural heritage of the region.

Design Potential
Accommodating the users of the site for big events like Canada is important, as well as for special events like the walks for various causes. Also, improving the multi-use pathways within the site is an important consideration. As well, acknowledging the agricultural significance of Brandon, as well as the Native Peoples' culture should be explored, perhaps by creating spaces within the site to display art and sculptural elements.

Special events that occurred at the Riverbank Discovery Centre in 2008:

Date	Event	# Participants
April 19	**Relay for Life Kick Off**	**200**
May 4	**Kids Help Phone Bell Walk**	**60**
May 10	**Spring Trade Show**	**100**
June 5	**Alzheimer Society of Manitoba Memory Walk**	**50**
June 8	**A walk to Cure Diabetes**	**200**
June 20	**Relay for Life**	**750**
July 1	**Canada Day Celebrations**	**6,000**
July 13	**A Car Show**	**100**
September 7	**Wag-A-Tail Walk-A-Thon**	**150**
September 13	**Super Walk for Parkinson's**	**100**
September 18	**Ducks Unlimited Men's Smoker**	**250**
September 20	**Western Manitoba Science Fair**	**100**
October 5	**CIBC. Run for the Cure**	**500**

9. Climate

In the winter months there is usually a significant amount of snow on the site, and in the summer months there is a significant amount of sunshine. According to information obtained from Tourism Brandon online web site (Brandon 2009), Brandon's summer season ranges from May to September with daytime temperatures from 12°C (54°F) to 26°C (79°F). Through the months of November until February, there is usually a considerable amount of snow and temperatures below freezing. The Brandon area enjoys over 2,000 hour of sunshine per year (Brandon 2009).

Analysis
1. Some of the pathways are not accessible in the winter due to large amounts of snow.
2. There needs to be more shade provided along the pathways to protect users from the sun.

Design Potential
Addressing environmental factors is important because it would draw more potential users of the site and better accommodate the existing users of the site. Creating wind shelters and buffered areas could reduce the amount of snow covering the pathways in the winter months.

Summary Analysis

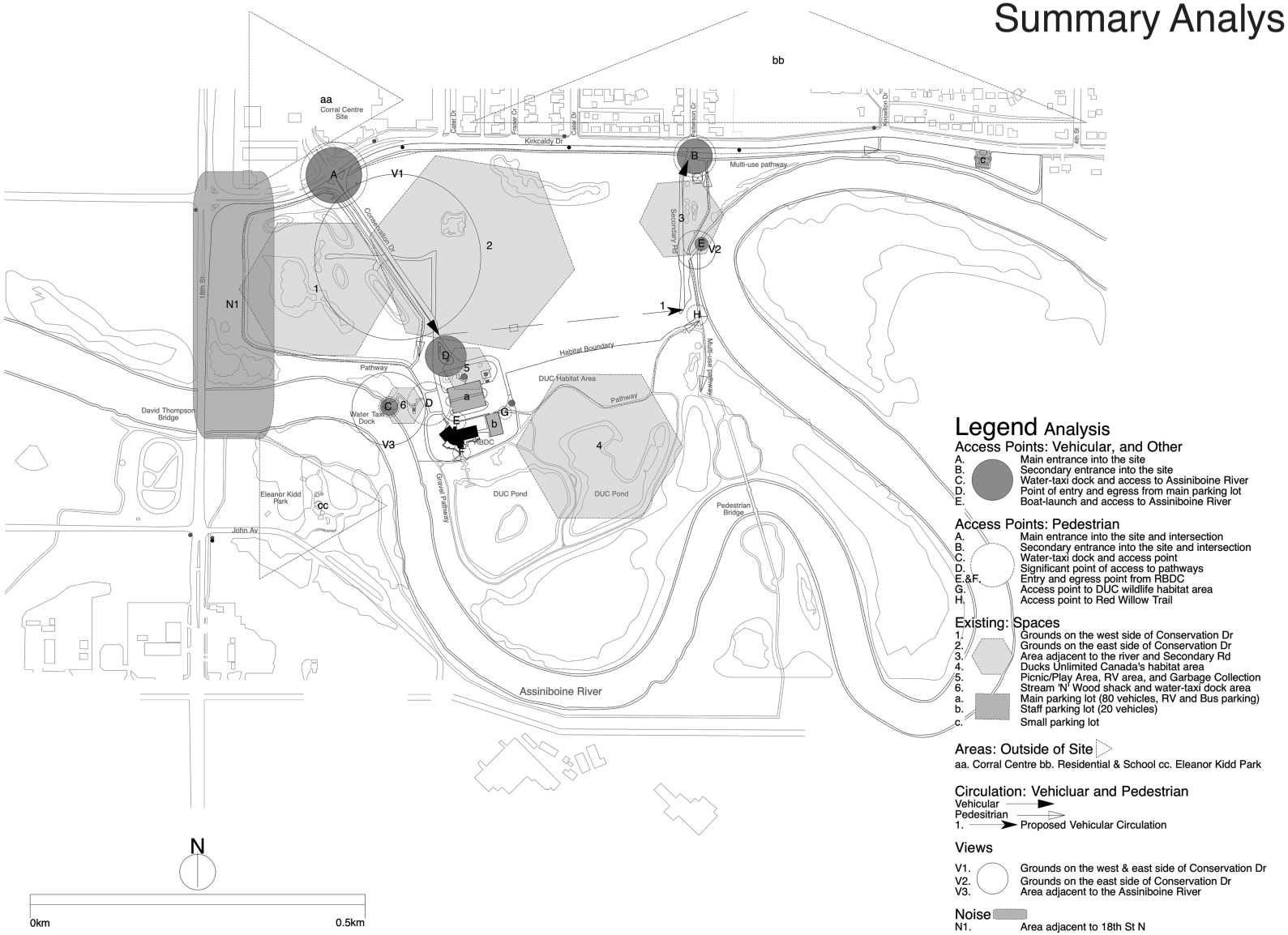


Figure 66. Site Analysis Plan

Legend Analysis

Access Points: Vehicular, and Other

A. Main entrance into the site
B. Secondary entrance into the site
C. Water-taxi dock and access to Assiniboine River
D. Point of entry and egress from main parking lot
E. Boat-launch and access to Assiniboine River

Access Points: Pedestrian

A. Main entrance into the site and intersection
B. Secondary entrance into the site and intersection
C. Water-taxi dock and access point
D. Significant point of access to pathways
E.&F. Entry and egress point from RBDC
G. Access point to DUC wildlife habitat area
H. Access point to Red Willow Trail

Existing: Spaces

1. Grounds on the west side of Conservation Dr
2. Grounds on the east side of Conservation Dr
3. Area adjacent to the river and Secondary Rd
4. Ducks Unlimited Canada's habitat area
5. Picnic/Play Area, RV area, and Garbage Collection
6. Stream 'N' Wood shack and water-taxi dock area

a. Main parking lot (80 vehicles, RV and Bus parking)
b. Staff parking lot (20 vehicles)
c. Small parking lot

Areas: Outside of Site

aa. Corral Centre bb. Residential & School cc. Eleanor Kidd Park

Circulation: Vehicluar and Pedestrian

Vehicular
Pedesitrian
1. Proposed Vehicular Circulation

Views

V1. Grounds on the west & east side of Conservation Dr
V2. Grounds on the east side of Conservation Dr
V3. Area adjacent to the Assiniboine River

Noise

N1. Area adjacent to 18th St N

Summary Analysis and Design Potential

(The points below reference and elaborate the legend notations used in Figure 66.)

Access Points: Vehicular, and Other

A. Very significant access point into the site
   - There is currently no transit service into the site; therefore, there is an opportunity to add transit access into site.
   - Significant intersection point and connection to Corral Centre (aa); therefore, keep Conservation Drive.

B. Secondary access point into the site
   - Improve by redesigning it to handle more traffic.
   - Potential access to new secondary parking area.
   - Significant intersection point and connection to neighbourhood (bb); therefore, keep Secondary Road.

C. Water-Taxi Dock and river access
   - Improve by redesigning it to handle more water-traffic.
   - Significant connection point to Eleanor Kidd Park via water-taxi; therefore, keep Water-taxi dock in this location.

D. Major point of entry and egress to parking area of RBDC
   - Improve by reducing amount of traffic.
   - Separate the Picnic/Play Area from the current parking area.

E. Boat launch and secondary river access
   - Improve this area to better handle boat launching and river access.

Access Points: Pedestrian

A. Very significant access point into the site and significant intersection
   - Improve the accessibility of this area for all users and maintain the current connection to the existing multi-use pathway that runs west/parallel to Kirkcaldy Drive.

B. Secondary access point into the site and significant intersection
   - Improve the accessibility of this area for all users.
   - Maintain current multi-use pathway.

C. Water-Taxi Dock
   - Improve the accessibility of this area for all users and make sure the pathway is universally accessible.

D. Significant access point for pedestrians to western part of site
   - Keep this area and improve the aesthetic qualities of this space by adding interlocking paving and native vegetation.

E. Main entrance to Riverbank Discovery Centre
   - Improve aesthetic qualities of this space by adding native vegetation.
   - Considering increasing the amount of interlocking paving in this area, because it will enhance the positive aesthetic qualities of this area for pedestrians.

F. Significant entrance to the Ducks Unlimited Canada's wildlife area and ponds
   - Maintain the current pathway and keep this space because it functions well.

G. Main entrance to the Ducks Unlimited Canada's wildlife area from RBDC staff parking lot
   - Keep this area because there are a lot of users that access this space from the parking lot.

H. Significant access point to Red Willow Trail
   - Maintain the current pathway because it is an important access point to the existing trail system for pedestrians and users of the site.

Existing: Spaces

1. Grounds on the west side of Conservation Drive
   - Potential space to restore habitat.
   - Keep the existing tree stands and the vegetation because they add a positive aesthetic quality to this area.

2. Grounds on the east side of Conservation Drive
   - Potential space to design area for people to celebrate events like Canada Day.
   - Potential space to create secondary parking for such events.
   - Potential space to increase mixed grass prairie habitat.

3. Area adjacent to the river and Secondary Road
   - Potential to create space for additional parking area.
   - Current boat launch does not function well; therefore, redesign and add a dock for a Water-taxi.
   - Potential to connect site to local neighbourhood and Labyrinth of Peace by adding pathway.
   - A strolling park is needed to be located in this area for the neighbourhood.

4. Ducks Unlimited Habitat Area
   - Great space that should be kept

5. Picnic/Play Area, RV area, and Garbage Collection
   - Need to separate Picnic/Play area from the existing location
   - Potential space to improve RV area and Garbage Collection area by moving it away from the picnic and play area

6. Stream 'N' Wood Shack and water-taxi dock
   - Potential space to restore the riverbank vegetation in this area
   - Improve seating and accessibility
   - Potential space to design a smaller gathering space for people

Parking Areas

a. Main Parking lot
   - Existing parking lot can handle approximately 80 vehicles and small number of RVs and bus parking spots; need to decrease the parking in this area because of traffic congestion and noise issues

- Potential to redesign space to handle transit and school buses
- Need to redesign Picnic/Play Area closer to the RBDC building and away from the main parking area for safety

b. Staff Parking lot
   - Existing parking lot can handle approximately 20 staff vehicles, and it is in a good location close to the RBDC building
   - Potential to increase the parking stalls and decrease the amount of parking spaces needed in the Main Parking lot

c. Small parking lot (neighbourhood)
   - Potential to link this parking area better to the existing site

Areas: Outside of Site

aa. Corral Centre -significant retail site with a large amount of parking
bb. Residential area with School – significant local users of the site
cc. Eleanor Kidd Park – significant green space and park

- Maintain the existing connections to these spaces

Circulation: Vehicular and Pedestrian

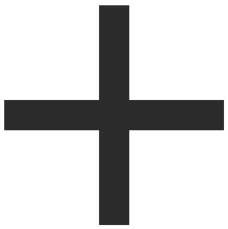
1. Proposed Vehicular Circulation
   - Potential to redesign the vehicular circulation into and through the site with the aim to reduce the amount of vehicular traffic along Conservation Drive
   - Design Conservation Drive as part of a new circulation route to handle traffic entering the site and have it carry through new parking areas, and use the secondary entrance as a exit for traffic
   - Need to link existing parking areas with access point to the new circulation route

Views: V1 V2 V3

1. Major Central Area – views to all parts of the site
   - Potential to create a major event space to enjoy the views from this significant central area, and also be a visual focal point in the site
   - Major visual axis from Corral Centre looking in, and also from the RBDC building looking out from the site; therefore, maintain this visual axis
2. Grounds on the east side of Conservation Drive
   - Excellent space to enjoy the views to all areas of the site
3. Area adjacent to the Assiniboine River on the west side of Conservation Drive
   - Significant views from this area across the river to Eleanor Kidd Park, to the David Thompson Bridge and through vegetation along the riverbank and potential to create an observation deck to enjoy these views

Noise: N1

1. Vehicular noise is significant from vehicles travelling along 18th St N and the bridge
   - Need to create a noise buffer zone in the site that runs parallel to the adjacent road



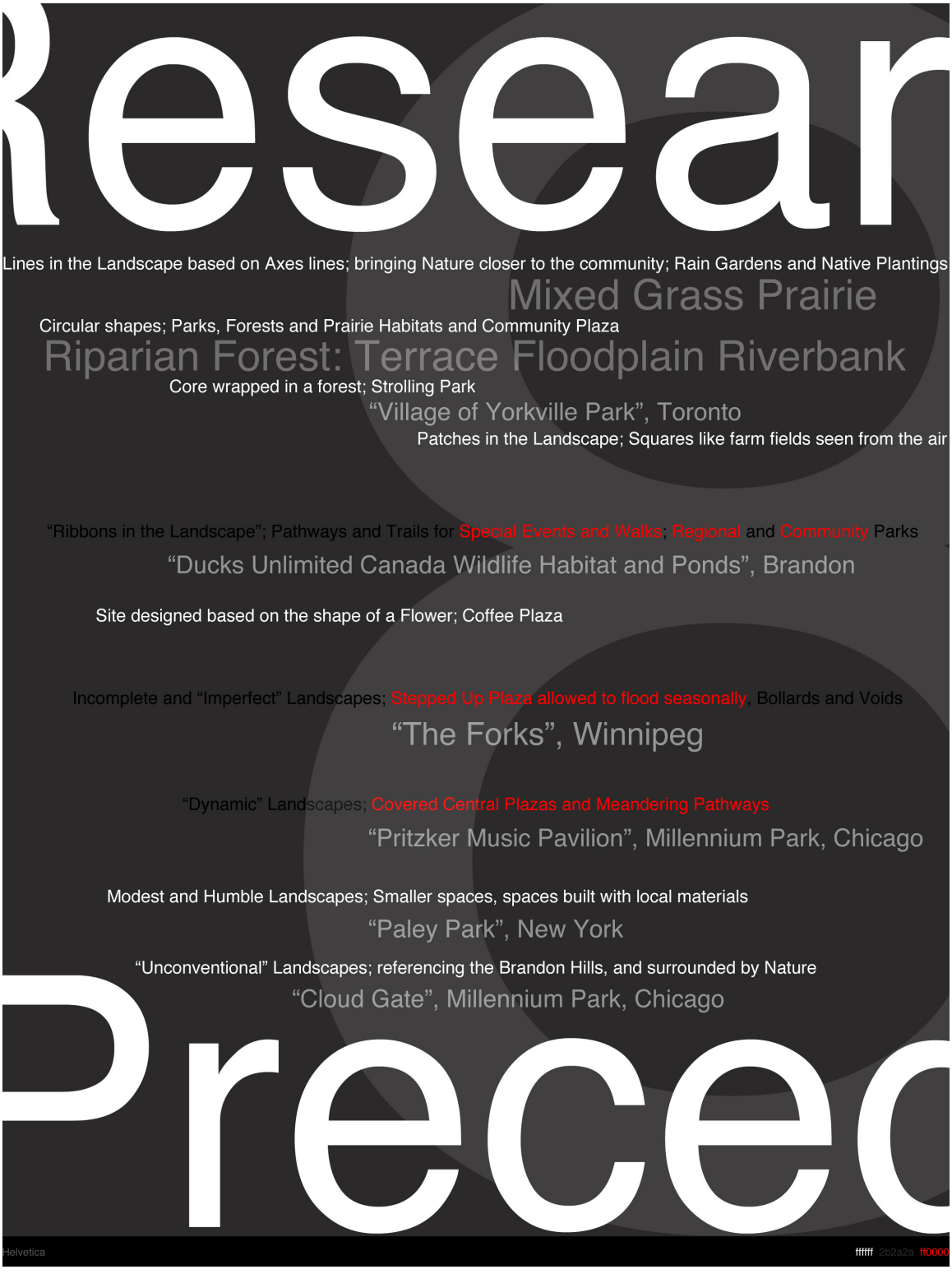
VI. Conceptual Design Phase 2

Conceptual Design Phase 2

The second conceptual design phase consisted of developing a single Final Plan. First, precedents of existing landscape and urban design projects, which best represented the main ideas that were chosen to develop into a single conceptual plan, were looked at. Next, a literature review was conducted that consisted of looking at ecological theory and additional projects. Finally, more research was conducted by looking at comparable examples of existing projects that corresponded best with the proposed spaces in the final conceptual plan.

Design Process
To develop a single Master Plan, the process of 10 to 3 to 1 was continued. Three of the most interesting designs, Plans 5, 7 and 8, were chosen from the Ten Plans. Then the central ideas that shaped those plans were evaluated based on the site inventory and analysis, and the ecology study. A single plan, based on Plan 8, was chosen to develop further, by incorporating the best ideas from the other plans. A final proposed program was then created. Based on this program, the final conceptual Master Plan was developed. It was then divided into four parts, which consisted of the program, landform, circulation, and habitat plans. Finally, members of the Practicum Committee critiqued the Master Plan concept, before development began on the final design proposal.

Project ONE, takes its name from the Final Master Plan, Concept Plan 1, which was proposed for the site based on the 10 to 3 to 1 process.


Resear
Lines in the Landscape based on Axes lines; bringing Nature closer to the community; Rain Gardens and Native Plantings
Mixed Grass Prairie
Circular shapes; Parks, Forests and Prairie Habitats and Community Plaza
Riparian Forest: Terrace Floodplain Riverbank
Core wrapped in a forest; Strolling Park
“Village of Yorkville Park”, Toronto
Patches in the Landscape; Squares like farm fields seen from the air
“Ribbons in the Landscape”; Pathways and Trails for Special Events and Walks; Regional and Community Parks
“Ducks Unlimited Canada Wildlife Habitat and Ponds”, Brandon
Site designed based on the shape of a Flower; Coffee Plaza
Incomplete and “Imperfect” Landscapes; Stepped Up Plaza allowed to flood seasonally, Bollards and Voids
“The Forks”, Winnipeg
“Dynamic” Landscapes; Covered Central Plazas and Meandering Pathways
“Pritzker Music Pavilion”, Millennium Park, Chicago
Modest and Humble Landscapes; Smaller spaces, spaces built with local materials
“Paley Park”, New York
“Unconventional” Landscapes; referencing the Brandon Hills, and surrounded by Nature
“Cloud Gate”, Millennium Park, Chicago
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Plan 1: Lines in the Landscape

The concept for this plan was originally based on creating axis lines that would originate from the proposed water-taxi dock and plaza area. These lines would be placed at 45-degrees to the cardinal axes. The spaces designed for the site would be orientated with these lines. However, the notion of bringing Nature closer to the community became more of an important aspect to this proposal than the alignment of spaces. It was based on the idea of creating areas of restored prairie habitat and replanted riverbottom forest that would be located in the northern portion of the site, adjacent to the Corral Centre and neighbourhood located north of Kirkcaldy Drive. Finally, another important idea in this plan was to use a natural drainage system. By using rain gardens, planted with native vegetation, located in swales and or lower areas of a landscape, which are designed to filter and absorbing the water runoff from impervious areas, the amount of polluted water that enters sewer system directly would be reduced (Mid Vancouver Island Habitat Enhancement Society).

Plan 2: Circles Circles Circles

The concept for this plan was based on designing circular spaces. The idea of creating a plaza space for the community to be located adjacent to the neighbourhood in the northeast part of the site was also introduced. The two big elements of this proposal were a large park with a restored riparian forest and a large park with restored prairie habitat and a large rain garden. The idea of restoring habitat started to become more prevalent in the proposal.

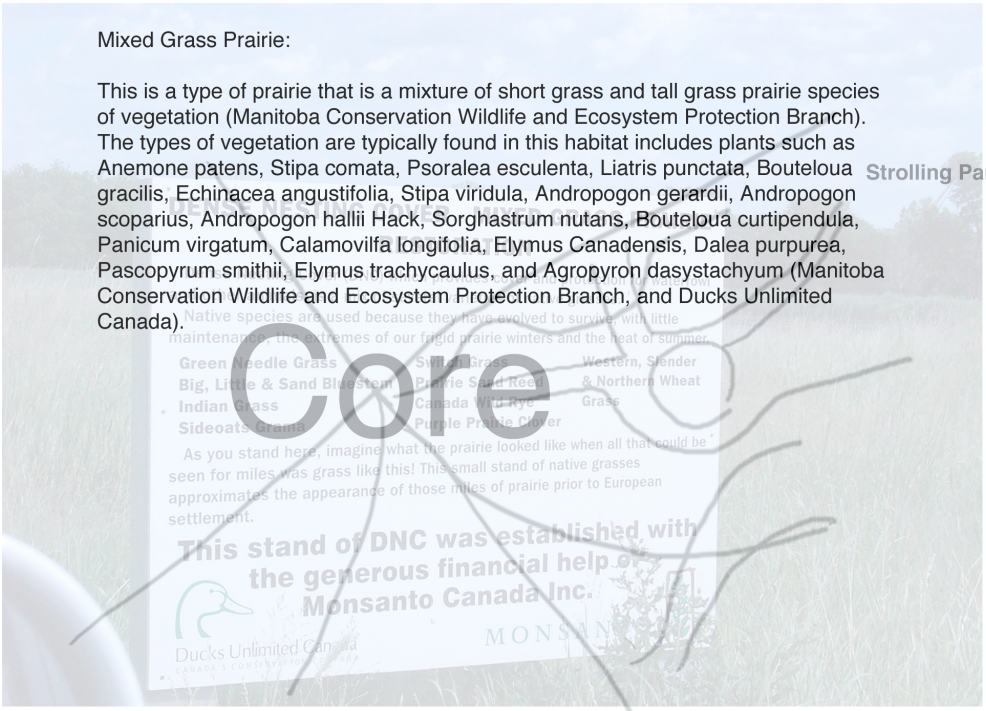
Lines Circular

Plan 3: Green River

The concept for this plan was based on two major ideas. The first idea was to locate the major spaces in the centre, referred to as the “core”. The second idea was to wrap this area with a green zone with native vegetation referring to the meandering river. Finally, the idea of designing a strolling park emerged from in this proposal.

Plan 4: Patches in the Landscape

The concept for this plan was based on the idea of designing spaces that resembled patches in a quilt, which referenced the agricultural fields surrounding Brandon. It was a gesture of support for special events and walks for special causes. The idea of having a strolling park that was connected to the new plaza and water-taxi dock was a significant part of this proposal.



Mixed Grass Prairie:

This is a type of prairie that is a mixture of short grass and tall grass prairie species of vegetation (Manitoba Conservation Wildlife and Ecosystem Protection Branch). The types of vegetation are typically found in this habitat includes plants such as Anemone patens, Stipa comata, Psoralea esculenta, Liatris punctata, Bouteloua gracilis, Echinacea angustifolia, Stipa viridula, Andropogon gerardii, Andropogon scoparius, Andropogon hallii Hack, Sorghastrum nutans, Bouteloua curtipendula, Panicum virgatum, Calamovilfa longifolia, Elymus Canadensis, Dalea purpurea, Pascopyrum smithii, Elymus trachycaulus, and Agropyron dasystachyum (Manitoba Conservation Wildlife and Ecosystem Protection Branch, and Ducks Unlimited Canada).

Core

Patches

Squares like farm fields seen from the air

Riparian Forest:

A riparian forest is basically a forested area that is located adjacent to a flowing body of water like a river, and it also referred to in some literature as a riverbottom forest. The three zones that comprise a riparian forest, which start from the river and move up the landscape, are the riverbank, floodplain and terrace (Fabbri 2003, 6). The three zones are comprised of distinctive vegetation that has adapted to the differing water levels and soil types found in these areas (Fabbri 2003, 6).

The riverbank zone, which is the lowest level of the three zones, is located on the shoreline in the sloping area adjacent to the body of water and is primarily comprised of Salix spp. and Populus deltoides (Fabbri 2003). The next zone is the floodplain that is located in the middle area between the three zones on the relatively flat area above the riverbank, and it is comprised of the following tree species: Ulmus americana, Fraxinus pennsylvanica, Acer negundo and Tilia americana (Zoerb 1993, 3; Fabbri 2003, 7). This area also typically is comprised of shrub and small trees species such as Cornus stolonifera, Prunus virginiana and Ribes americanum (Fabbri 2003, 7). According to Fabbri (2003, 7), the herbaceous layer of this zone includes “perennials such as Parthenocissus quinquefolia, Smilacina stellata, Menispermum canadense, Smilax herbacea and Thalictrum dasycarpum.” Finally, the highest located area is the terrace zone, which is comprised of similar species as the floodplain, with the addition of Quercus macrocarpa that prefers drier locations (Zoerb 1993, 3; Fabbri 2003, 7).

There are many benefits of a riparian forest to an ecosystem that include flood mitigation, erosion control and providing habitat for wildlife. As well, these forests also provide people with education and recreational opportunities that include places to observe wildlife and good walking areas.

+ Precedents

“Village of Yorkville Park”, Toronto

The notion of designing a strolling park, a space designed for people to walk through, was an important part for some of the concepts of the proposed plans.

While doing research into precedents and projects that have a similar type of space, thought was given to the design of the Village of Yorkville Park in Toronto.

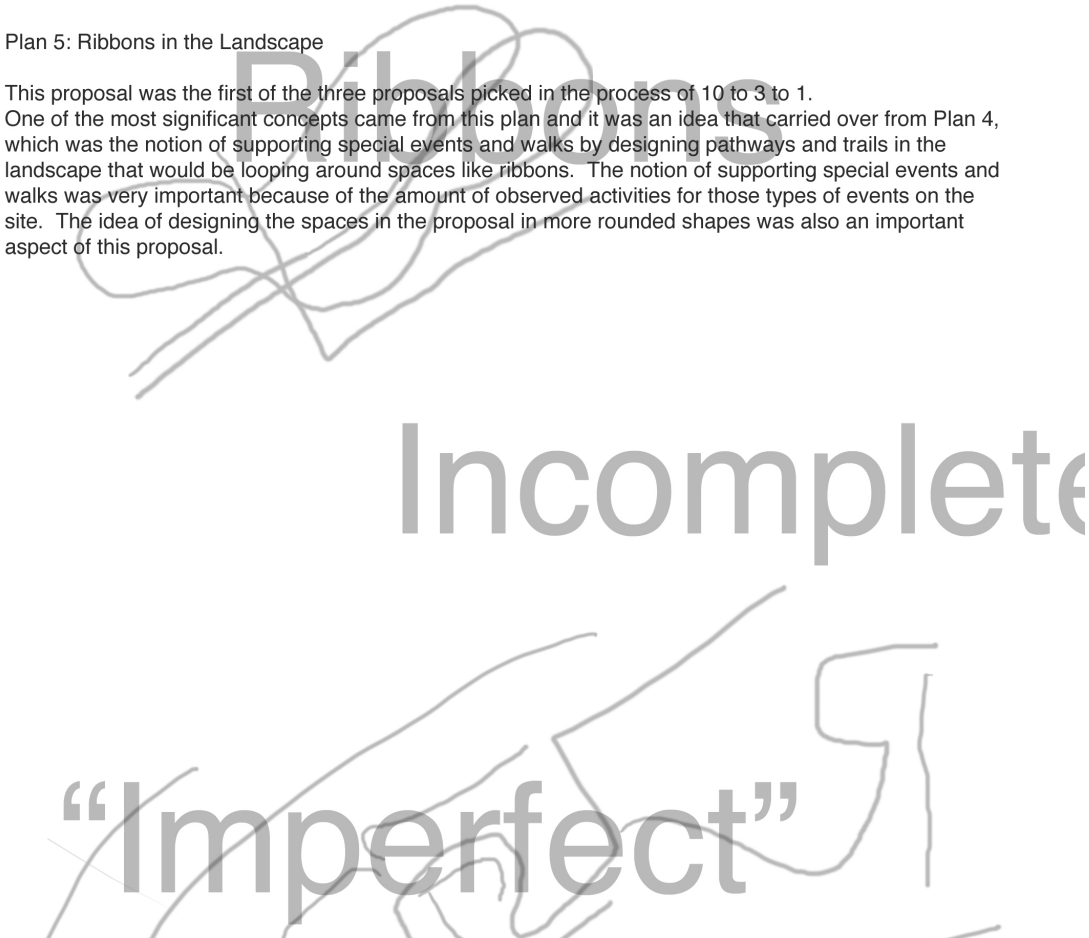
This park is located downtown in a higher end commercial and residential district, and landscape architects Schwartz/Smith/Meyer in collaboration designed it with Oleson Worland prepared the design for this project (Tate 2001, 10). It was designed as ten garden spaces that represent the uniqueness of Canadian landscapes (Tate 2001, 10). The way the park was designed in plan view and how the garden spaces were aligned with the adjacent streets were very inspirational and made it a precedent. Another aspect of this project that was inspiring was one of the objectives of the design of this park was to “provide unique inner-city ecological opportunities for the introduction and display of native plant species and communities” (Tate 2001, 15).

“Ducks Unlimited Canada Wildlife Habitat and Ponds”, Brandon

The DUC Wildlife and Habitat space with two ponds, located in the southern part of the site, adjacent to the Riverbank Discovery Centre, was very inspirational because it is a great example of how a space was designed to accommodate and attract wildlife habitat and also to include restored prairie habitat. According to the Riverbank Ponds Fact Sheet (2006), this area was also designed with a containment dyke that could be overtopped in flood years. The inclusion of this dyke was an especially important consideration for any project built in this site. Also, the addition of 1.2 ha of native prairie grasses and wildflowers to establish wildlife habitat in this space inspired the addition of such areas to the proposals. Finally, the walking paths and trails that ran through this space were also very inspirational and they served as a great example of how to design places for people to interact with and enjoy nature, and it inspired the idea of creating “Ribbons in the Landscape” in Plan 5.

Plan 5: Ribbons in the Landscape

This proposal was the first of the three proposals picked in the process of 10 to 3 to 1.
One of the most significant concepts came from this plan and it was an idea that carried over from Plan 4, which was the notion of supporting special events and walks by designing pathways and trails in the landscape that would be looping around spaces like ribbons. The notion of supporting special events and walks was very important because of the amount of observed activities for those types of events on the site. The idea of designing the spaces in the proposal in more rounded shapes was also an important aspect of this proposal.



Plan 7: Incomplete and “Imperfect” Landscape

This proposal was the second of the three proposals picked in the process of 10 to 3 to 1.
One of the most significant concepts in this plan was not trying to prevent the seasonal flooding of the plaza. This area was to be designed with the landscape and parts of it stepped up towards a high point that would be beyond the upper range of seasonal flooding. The other significant ideas that came from this plan were the notions of incomplete or abandoned landscapes and “imperfect” landscapes. Proposing that the entry way be designed at an awkward angle to Kirkcaldy Drive conveyed the idea of “imperfect” landscapes in this proposal.

Plan 8: “Dynamic” Landscape

This proposal was the final of the three proposals that were picked in the process of 10 to 3 to 1.
An important concept that was a part of this plan was the idea of designing a central covered event area with a number of smaller plazas that were to be surrounded by rain gardens. Another aspect of this proposal was the creation of meandering pathways that would reference the shape of the river. They would continue the idea of creating pathways through the site for special events and walks from Plan 5. The idea of flooding parts of the landscape was also a part of this proposal and it was an idea that was continued from Plan 7. Finally, there was the idea of designing an observation deck to be located in the site and across the river from the water-taxi docking area in the adjacent park.

“Dynamic”

“The Forks”, Winnipeg

The Forks park area in downtown Winnipeg is a large site that is designed at the junction of two rivers, the Assiniboine and the Red. A number of key spaces that were looked at included the Oodena Celebration Circle, the Riverwalk, the Port, the Forks Market Plaza and Prairie Garden. It was interesting to see how the Riverwalk and Port area were designed to accommodate seasonal flooding. The ground plane material that was used for some of the walking areas was gravel. There were large stones and wood used in the construction of the Port. By using these materials, these spaces seem to be able to handle the seasonal flooding well. Interlocking paving was used as the ground plane material in many of the other spaces. It is very beautiful.

Riverwalk, and the view to the Red River, The Forks, Winnipeg

The Port, and detail of the seating, The Forks, Winnipeg

Forks Market Plaza, and Scotia Bank Stage Paving Detail, The Forks, Winnipeg

The design of Oodena Celebration Circle, a large amphitheatre style area that celebrates Native culture and heritage, was very inspiring. The addition of a prairie garden in the site was something that was important to see first hand, because the proposed final master plan would be including native vegetation and restored prairie habitats.

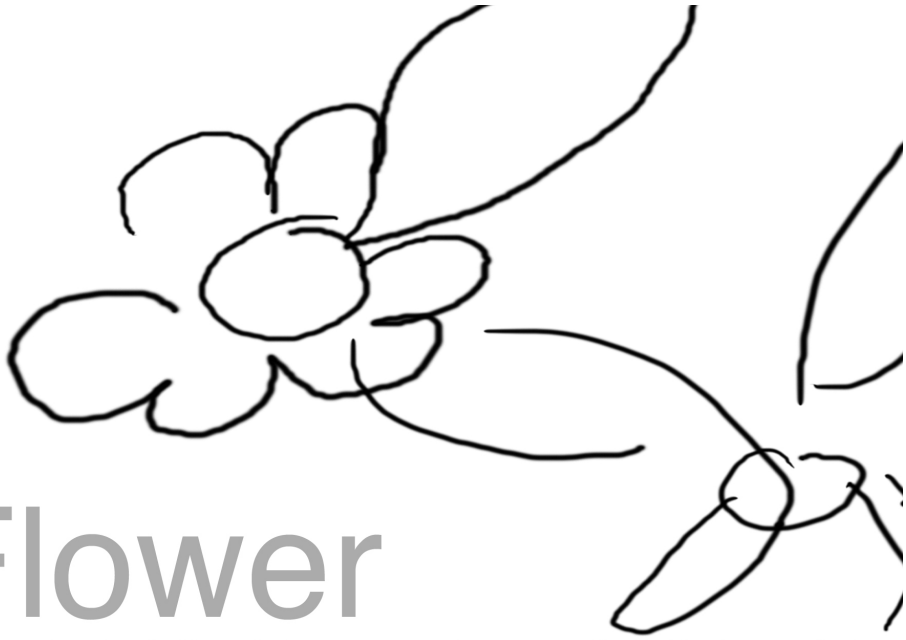
Oodena Celebration Circle, The Forks, Winnipeg

Prairie Garden, The Forks, Winnipeg

“Pritzker Music Pavilion”, Millennium Park, Chicago

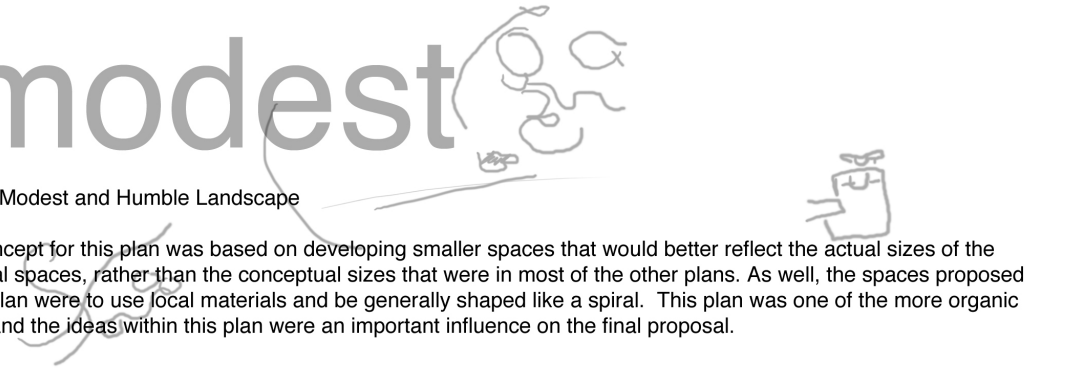
Architect Frank Gehry designed this outdoor pavilion and it is located in Millennium Park in Chicago. The prominence and the beauty of this covered pavilion were very inspirational. “The Pavilion stands 120-feet high, with a billowing headdress of brushed stainless steel ribbons that frame the stage opening and connect to an overhead trellis of crisscrossing steel pipes.” –(Millennium Park). The space was designed with fixed seating for 4000 people and it can accommodate another 7000 people on its lawn (Millennium Park).

The appreciation of the body of Gehry’s body work, together with an appreciation for this particular outdoor event space and the number of people that can be accommodated made this project a good one to look at and very relevant.



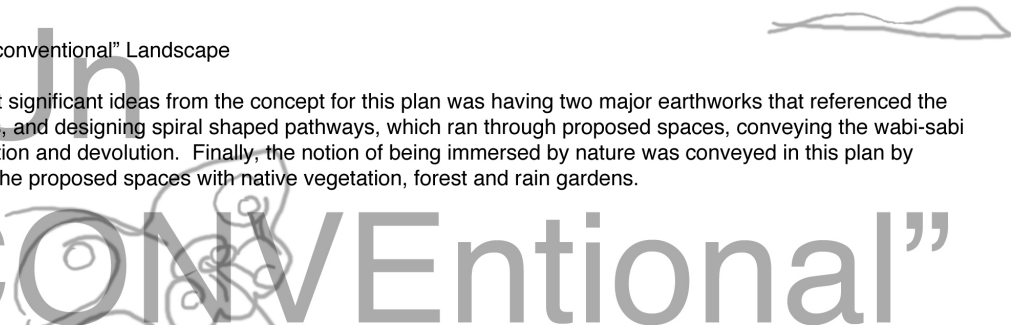
Plan 6: A Flower

The concept for this plan was based on the idea of designing the spaces in the proposal in a fashion that resembled a flower and its petals. The spaces were designed to radiate out from the main core spaces that included the event space, water-taxi dock and main parking area, all located around a circular shaped entry way with rain gardens and native vegetation. Also, in this proposal the size of the community park was significantly increased over the previous proposals. Finally, in this proposal there was the idea of creating a smaller plaza named the “Coffee Plaza” that would be located near the Corral Centre and close to a busy coffee shop.



Plan 9: Modest and Humble Landscape

The concept for this plan was based on developing smaller spaces that would better reflect the actual sizes of the proposal spaces, rather than the conceptual sizes that were in most of the other plans. As well, the spaces proposed in this plan were to use local materials and be generally shaped like a spiral. This plan was one of the more organic plans, and the ideas within this plan were an important influence on the final proposal.



Plan 10: “Unconventional” Landscape

The two most significant ideas from the concept for this plan was having two major earthworks that referenced the Brandon Hills, and designing spiral shaped pathways, which ran through proposed spaces, conveying the wabi-sabi idea of evolution and devolution. Finally, the notion of being immersed by nature was conveyed in this plan by surrounding the proposed spaces with native vegetation, forest and rain gardens.

“Paley Park”, New York

The notion of designing a smaller plaza space and community-orientated space was an important element in the proposed plans. Therefore, examples of more intimate and smaller spaces were sought; Paley Park, which is located in midtown Manhattan in New York, was one project that really stood out as a project that demonstrated how a small urban outdoor space could be both beautiful and memorable.

Although Brandon is not as busy as midtown Manhattan, there is a lot of vehicular noise that permeates site; therefore, Paley Park was looked at because it is an example of how to design a space to counteract traffic noise. This park has been described as being carefully conceived as an adult retreat from the bustle of midtown Manhattan (Tate 2001, 8). It was designed as an outdoor space enclosed on three sides, open to the street and the sky, with a waterfall on the back of the space that creates white noise to lessen street noise, and a Honey locust grove in the middle that helps to create a casual atmosphere in this small pocket park (Tate 2001, 6-8). Paley Park also has removable site furnishings that add to the sense of informality for the users of the space. Overall, this project was an important influence on design of a similar type of space for the community in this project.

“Cloud Gate”, Millennium Park, Chicago

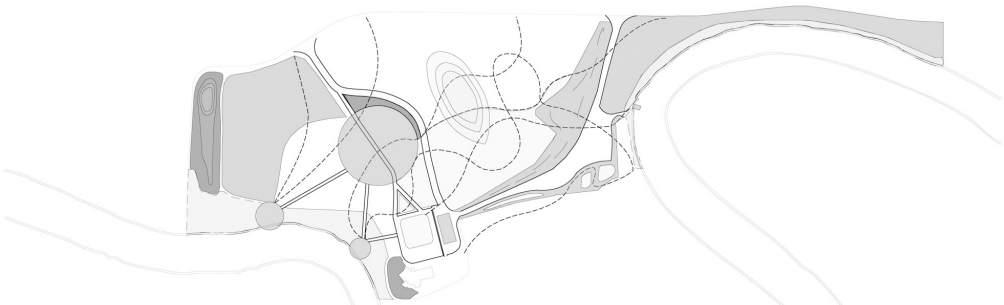
Cloud Gate is an outdoor sculptural work that is located in Millennium Park in Chicago. British artist Anish Kapoor designed this 110-ton piece of elliptical sculpture using a series of polished stainless steel plates, which are intended to reflect the sky and also both onlookers and the surrounding buildings (Millennium Park). This sculpture has a 3.66m high arch in it that serves as a gate to the underside of the piece, inviting people to come up to it and touch it (Millennium Park). This project was inspirational because it is beautiful and it demonstrates how sculpture could be used in a space as an attraction, drawing people, especially visitors, to a site. Attracting people to the site in Brandon was an important consideration in my project.

Concept Plan 1 was developed in February of 2009

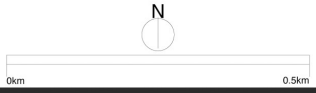
It includes a Final Plan with four plans: a Program, Landform, Circulation and Habitat Plan.

Conceptual Design Plans

02

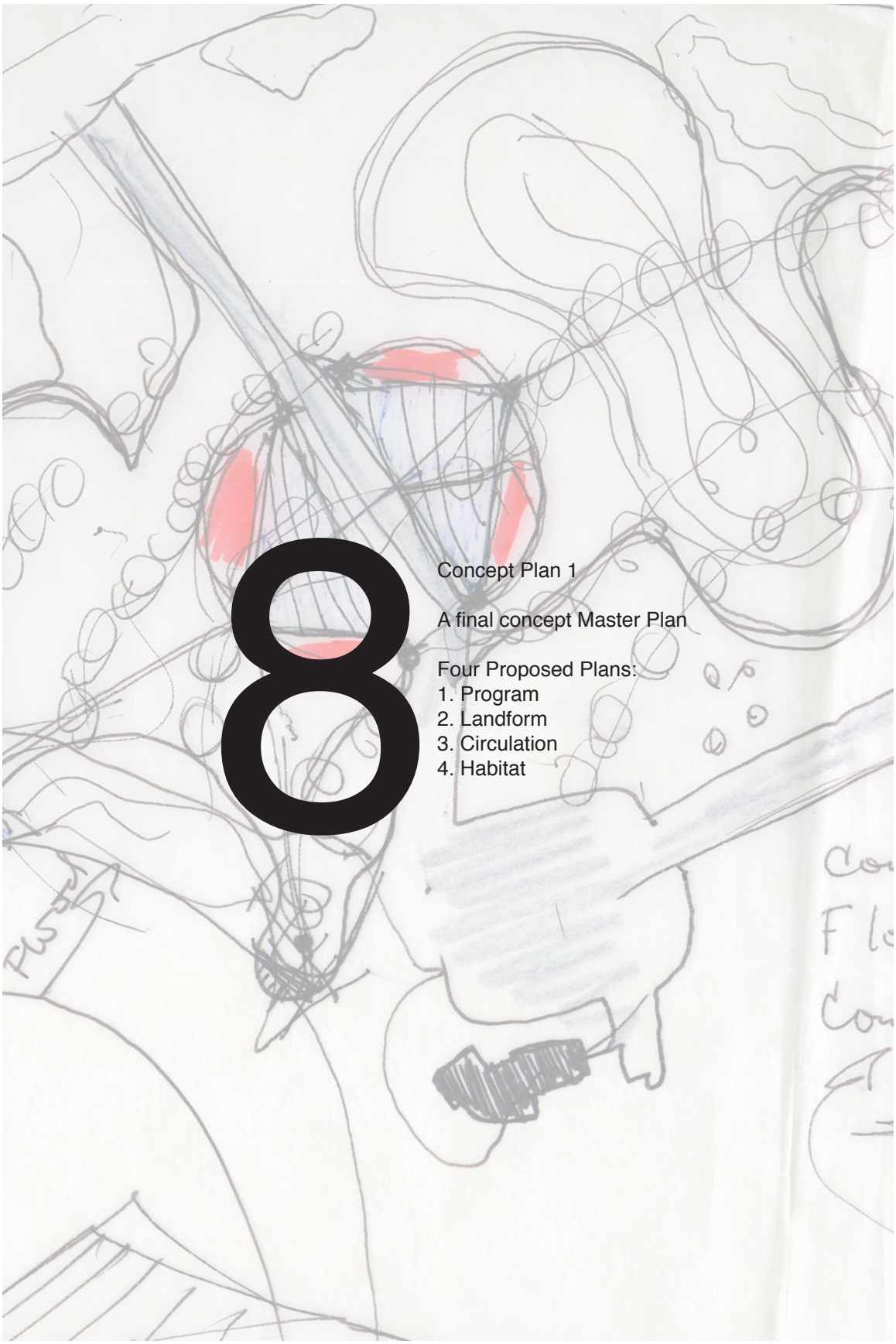


Concept Plan 1



Program Landforms Circulation Habitat

February 2009



8

Concept Plan 1

A final concept Master Plan

Four Proposed Plans:
1. Program
2. Landform
3. Circulation
4. Habitat

Concept Plan 1 with Plan 8

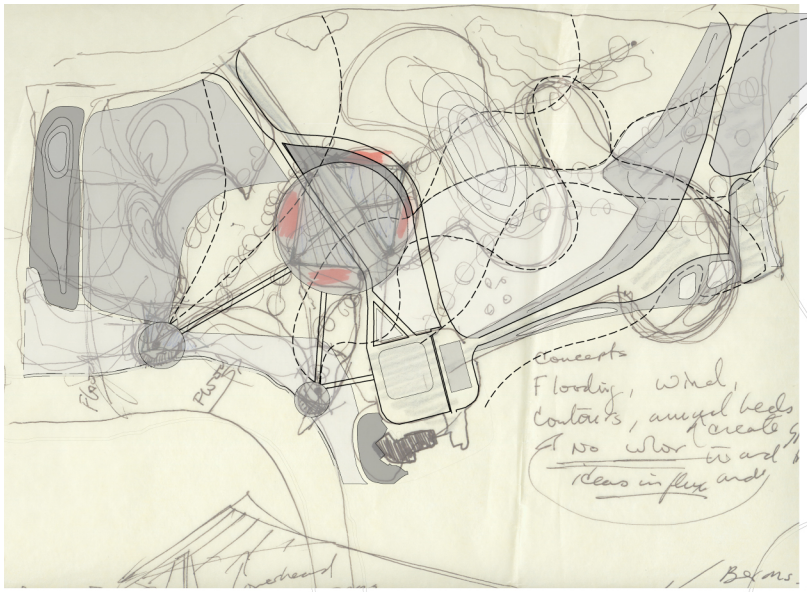


Figure 67. Concept Plan 1

A space for the people of Brandon, Manitoba that is in essence a deconstructed riverbottom forest with an event space, large earthwork and meandering pathways running through a restored mixed grass prairie.

This landscape intervention is designed as an expression of two of the five precepts of the philosophy of wabi-sabi (Koren 1994, 40-41):

1. Moral Precept - Getting rid of all that is unnecessary, and focus on the intrinsic and ignore material hierarchy
2. Material Qualities - The suggestion of natural process; irregular, unpretentious, earthy, murky and simple

Concept Plan 1 is based on Plan 8 from the ten plans that were developed. It explored the notion of dynamism in landscapes by allowing parts of the landscape to covered by floodwaters from the Assiniboine River in the spring, and by designing meandering pathways, which reference the flow and movement of the river.

Figure 68. Program Concept Plan 1

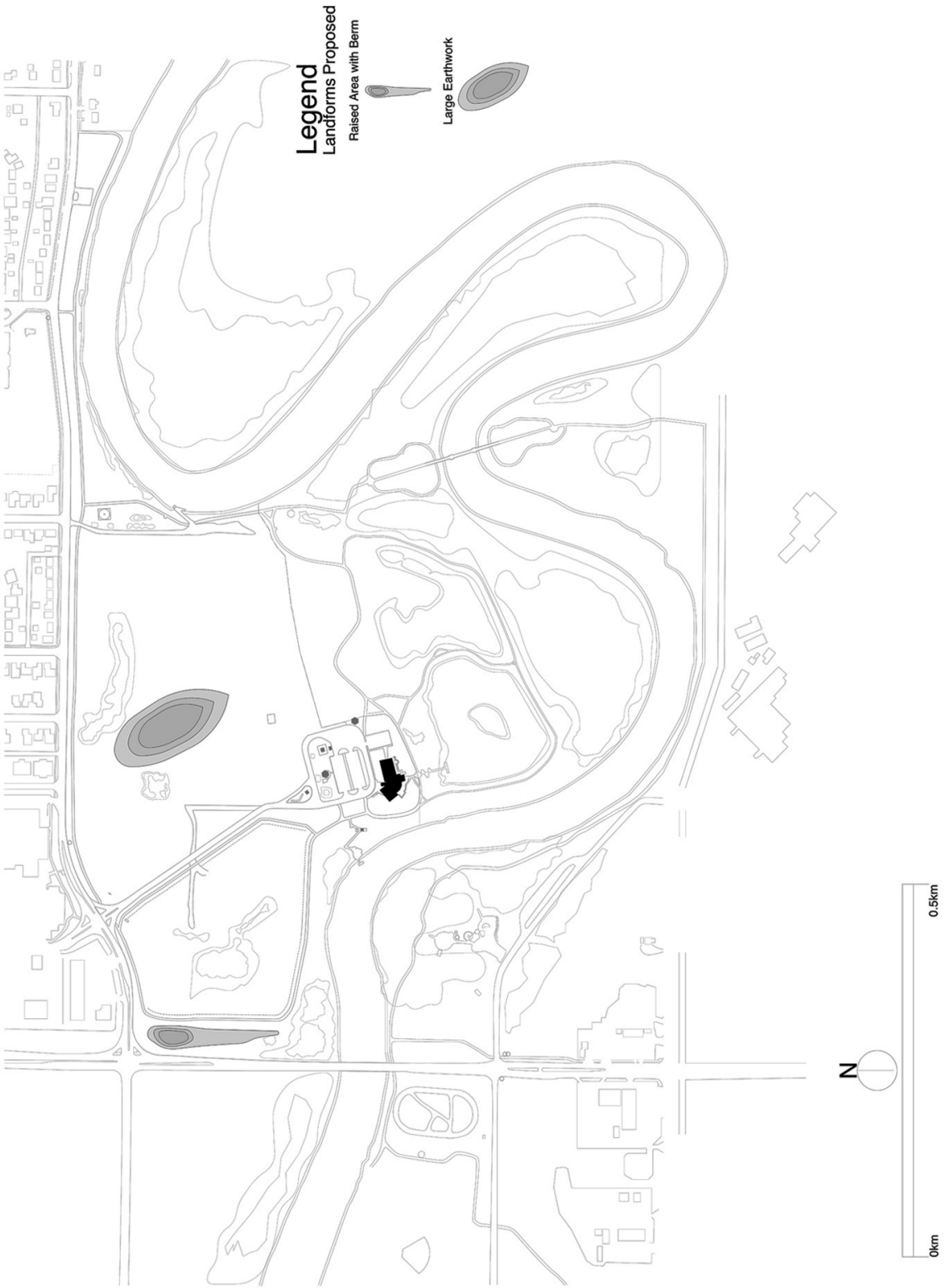


Figure 69. Landforms Concept Plan 1

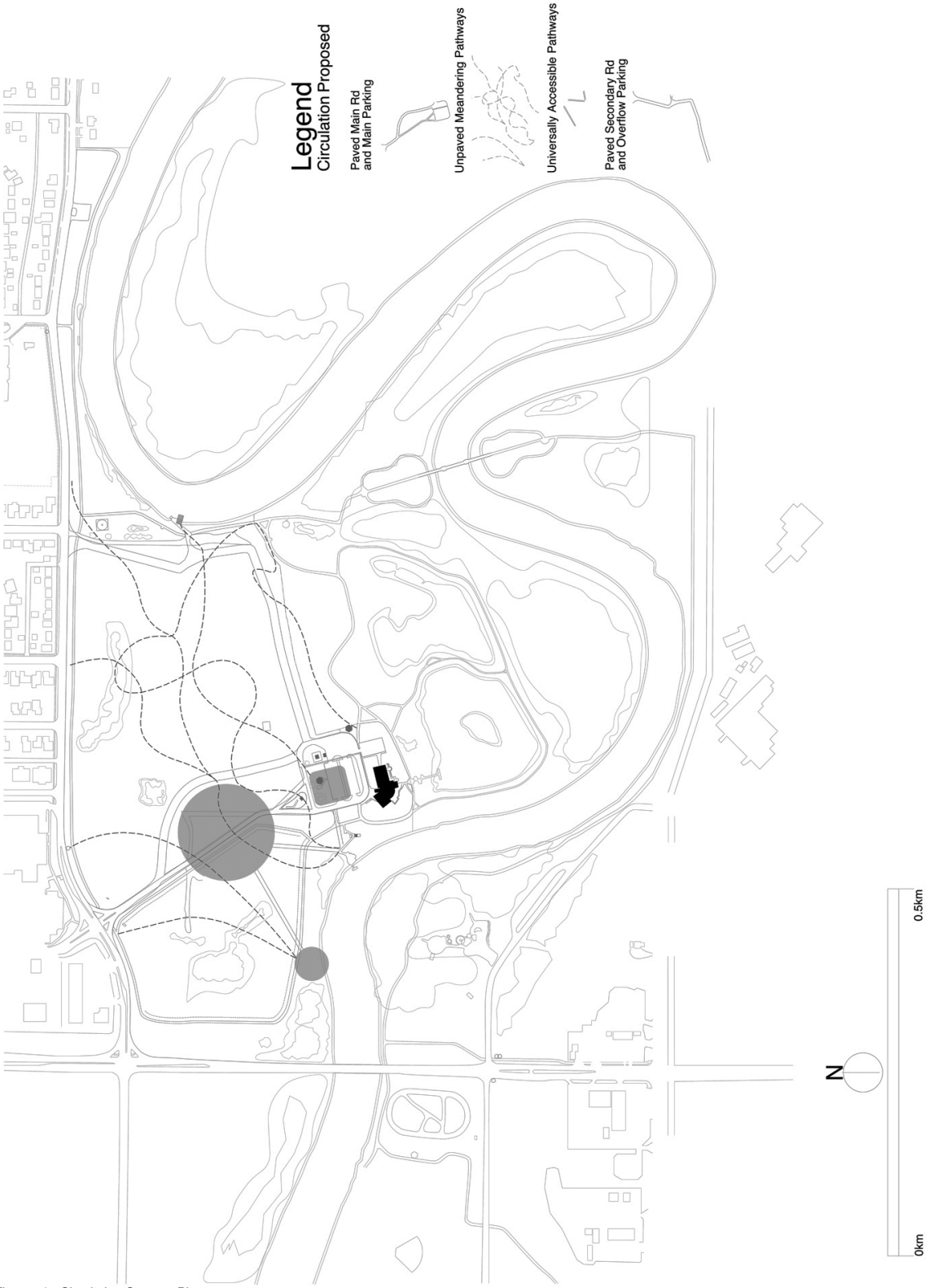


Figure 70. Circulation Concept Plan 1

Figure 71. Habitat Concept Plan 1

Legend

Habitat Areas Proposed

Deconstructed Riparian Forest

1. Naturalized area planted with vegetation representative of the “Flood Plain” Zone

2. Naturalized area planted with vegetation representative of the “Terrace” Zone

3. Naturalized area planted with vegetation representative of the “Terrace” Zone

4. Naturalized area planted with vegetation representative of the “Flood Plain” Zone

5. Naturalized area planted with vegetation representative of the “Riverbank” Zone

6. Naturalized area planted with vegetation representative of the “Riverbank” Zone

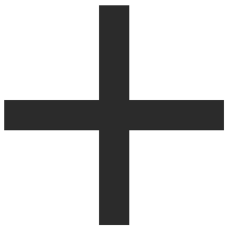
7. Mixed Grass Prairie restoration area similar to DUC Mixed Grass Prairie area

8. Mixed Grass Prairie restoration area similar to DUC Mixed Grass Prairie area

9. Naturalized area planted with vegetation representative of the “Terrace” Zone

10. Naturalized area planted with vegetation representative of the “Riverbank” Zone

11. Naturalized area planted with vegetation representative of the “Riverbank” Zone

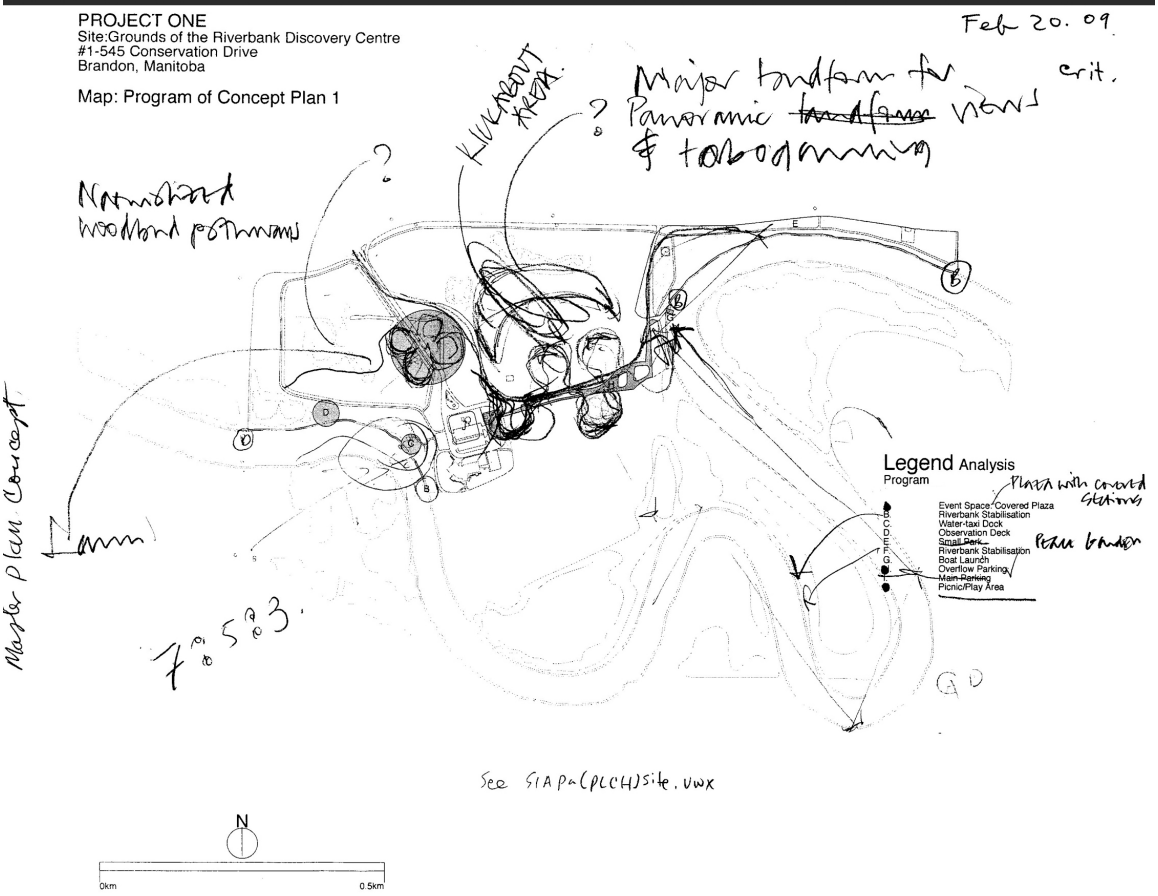


Design Critique

Overflow parking areas designed closer to the areas they serve

7:5:3 groups

Parking Pods

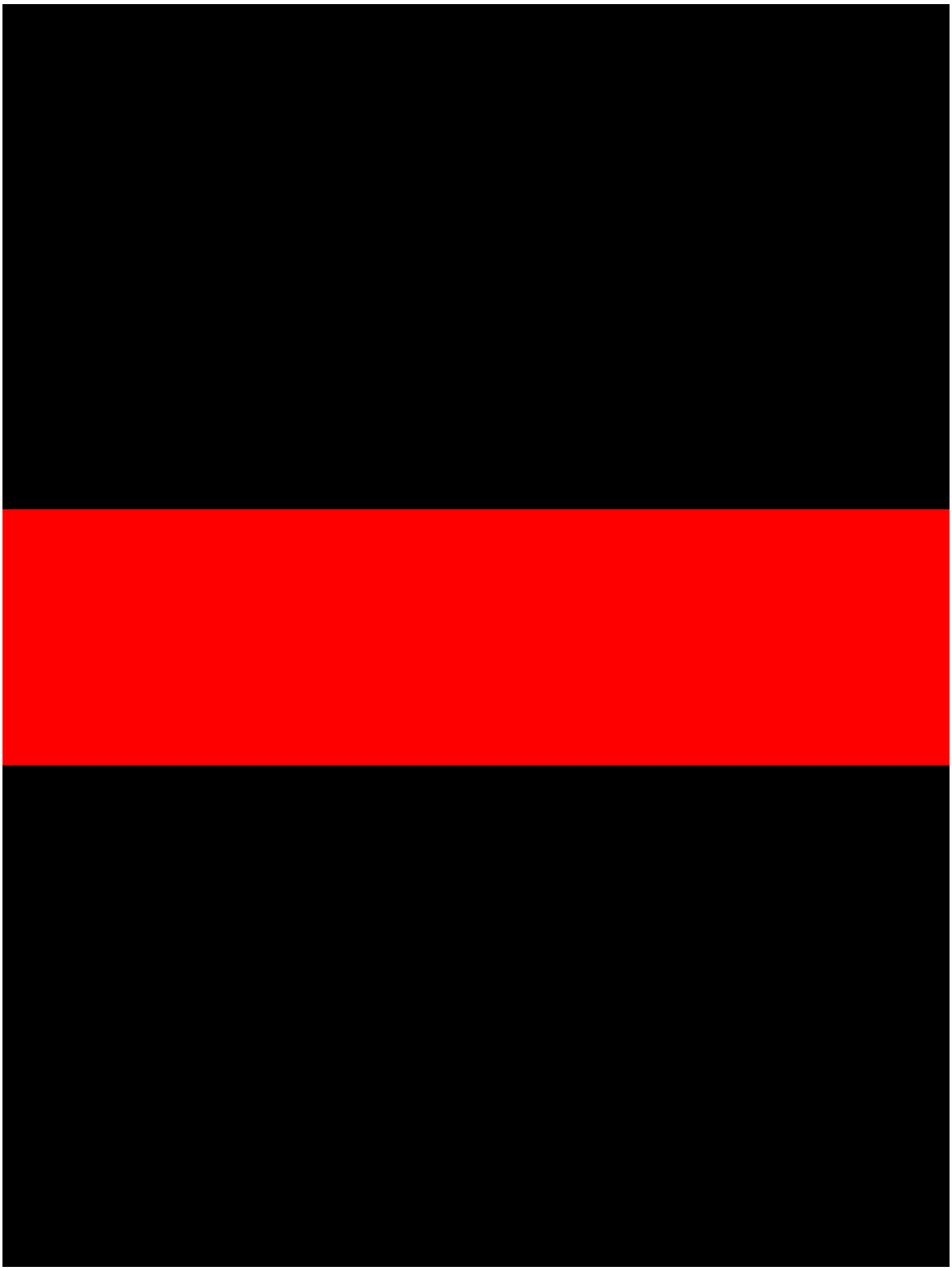


Major Landform for panoramic views and tobogganing"

Four plazas: "Plaza with covered sections"

"Naturalized Woodlands"

Figure 72. Design Critique Concept Plan 1



VII. Design Proposal

The final proposal for Project ONE was developed by the further development of Concept Plan 1 through design critiques. It is based on the concept of designing a deconstructed riparian forest with a central event space, landforms, and meandering pathways that run through distinctive habitat areas that are planted with vegetation found in the three zones of a typical riparian forest. To convey the concept of “de-constructed”, the vegetation found in the three zones of a riparian forest, which are located in homogenous groups throughout the site, are not necessarily located where they would typically be found in nature, with respect to their distance away from the river bank.

As well, this proposal, like Concept Plan 1, expresses two of the five precepts of the philosophy of wabi-sabi as described by Koren (1994). One of the precepts is getting rid of all that is unnecessary, while focusing on the intrinsic and ignoring material hierarchy (Koren, 1994, 40-41). In order to best express the notion from this precept, the design of these spaces was a process of refinement of numerous beautiful forms and designs that were developed with the intent of meeting the required function for the spaces without being too complicated. Furthermore, the design of each of the spaces was given equal priority and attention to detail, and no one space was deemed to be more important than any other during the development process. The other wabi-sabi precept expressed in this proposal is the suggestion of natural processes and keeping the material qualities of the spaces unpretentious, earthy, murky and simple (Koren, 1994, 40-41). To suggest the ideas found in this wabi-sabi notion, the shapes of the spaces were designed to suggest movement and some of the major spaces were designed from abstracted natural elements such as the parts of plants, like leaves and stems. The materials used to create the spaces were kept to a minimal palette that was intended to express the material qualities of wabi-sabi.

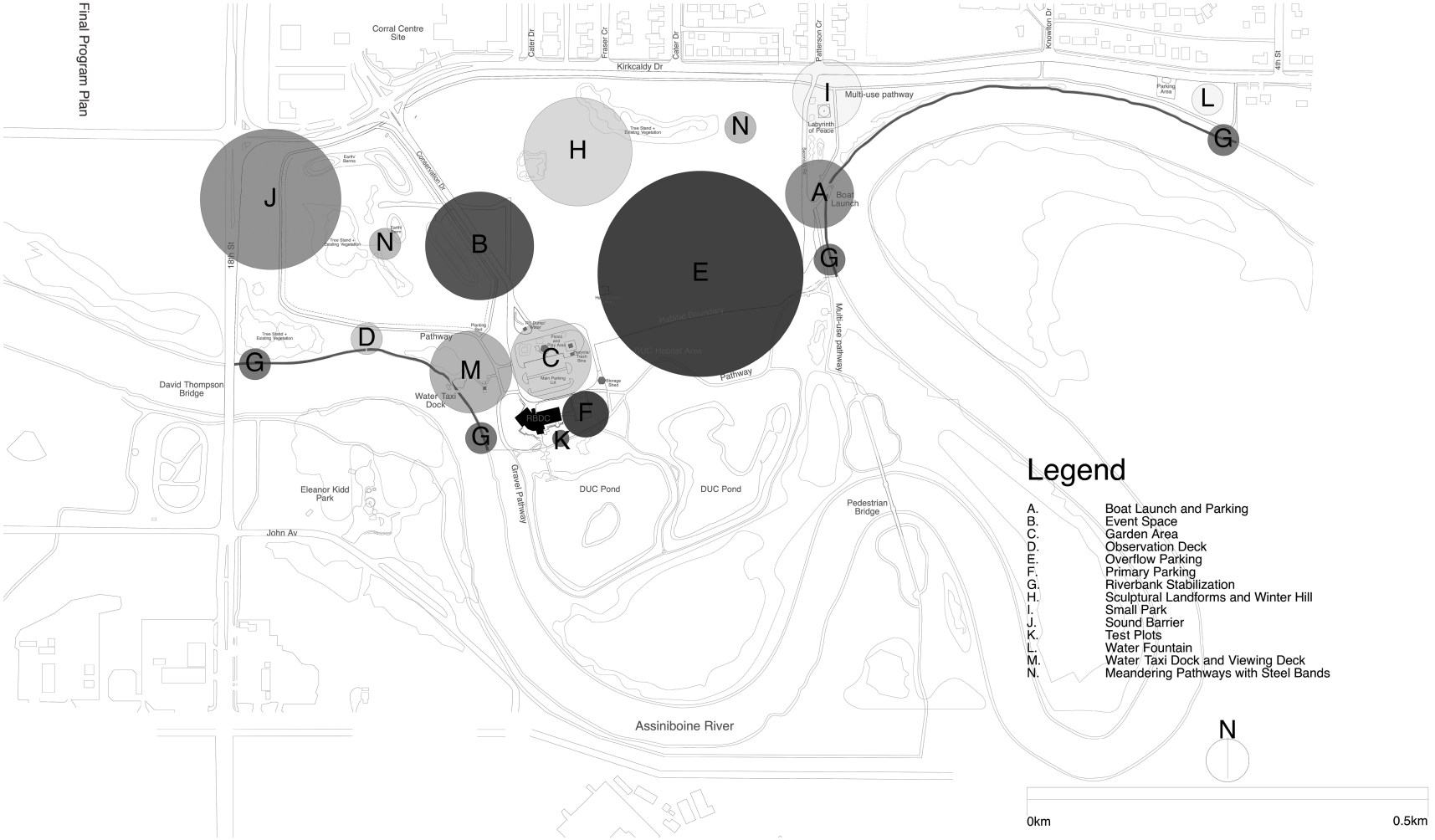
The following plans illustrate the location of the proposed activities, the design and location of the landforms and the circulation through the site, as well as the proposed spaces and habitat areas, which were organized along major axis lines established between these spaces.

The program for this site includes the following primary activities: a plaza space joined to a better designed water-taxi dock, a centrally located event space with covered plazas, sculptural landforms, noise barrier, an overflow parking area, an observation deck, and a small park to be located in the northeast portion of the site, adjacent to a residential neighbourhood and school. The secondary activities that are proposed for the site include: relocating the main parking lot, redesigning the existing boat launch to be universally accessible and to include a second water-taxi dock, and creating a strolling garden with space for the relocated picnic and play structures. Finally, stabilizing the riverbank was also deemed a necessary activity from the site analysis. It is proposed that riprap stones and stone gabions be used to stabilize the portions of the riverbank that are located along the southern portion of the site. The Program plan illustrates the location for the activities proposed for the site (see Figure 73), and the Final Plan shows their design (see Figure 76).

The three landforms proposed for the site, illustrated on the Landform Plan (see Figure 74), are raised earth planes that are designed to reference the rectilinear shape of the agricultural fields that are found in the region, and they also reference the Brandon Hills by being raised areas in a relatively flat landscape. The two landforms, located on the east side of Conservation Drive, are large functional sculptural pieces that are intended to be used year around. In the warmer months these landforms could be climbed and walked on and in the colder months, they could be used as winter hills for tobogganing. The single landform, located on the west side of Conservation Drive and adjacent to 18th Street, is primarily intended to act as a noise barrier to buffer out the sounds from the traffic along this busy road.

The proposed vehicular circulation, illustrated on the Circulation Plan (see Figure 75), was designed to reduce the amount of traffic on Conservation Drive by moving vehicular traffic along a new road to the proposed primary parking area that runs through the proposed overflow parking area and out to Kirkcaldy Drive. This new road is intended to handle principally vehicular traffic, leaving Conservation Drive to be used primarily for transit and school buses to access the site and the proposed drop-off area in front of the Riverbank Discovery Centre. The pedestrian pathways in this proposal were designed to access all of the proposed spaces, and to connect to the existing pathways into areas outside the site.

Project ONE Program Proposed



Legend

A.	Boat Launch and Parking
B.	Event Space
C.	Garden Area
D.	Observation Deck
E.	Overflow Parking
F.	Primary Parking
G.	Riverbank Stabilization
H.	Sculptural Landforms and Winter Hill
I.	Small Park
J.	Sound Barrier
K.	Test Plots
L.	Water Fountain
M.	Water Taxi Dock and Viewing Deck
N.	Meandering Pathways with Steel Bands

N

0km 0.5km

Figure 73. Proposed Final Program Plan

Project ONE Landforms Proposed

Figure 74. Proposed Landform Plan

Project ONE Circulation Proposed

Figure 75. Proposed Circulation Plan

Loops that were turned into Circles for parking
The shape of Fishing Jig abstracted into an Observation Deck
The abstracted shape of **leaf** from a *Salix exigua* turned into an event area
Meandering *Pathways* that flow like the **river** through existing vegetation and habitat zones filled with plants from a deconstructed riparian **forest**

Project ONE Final Plan Proposed

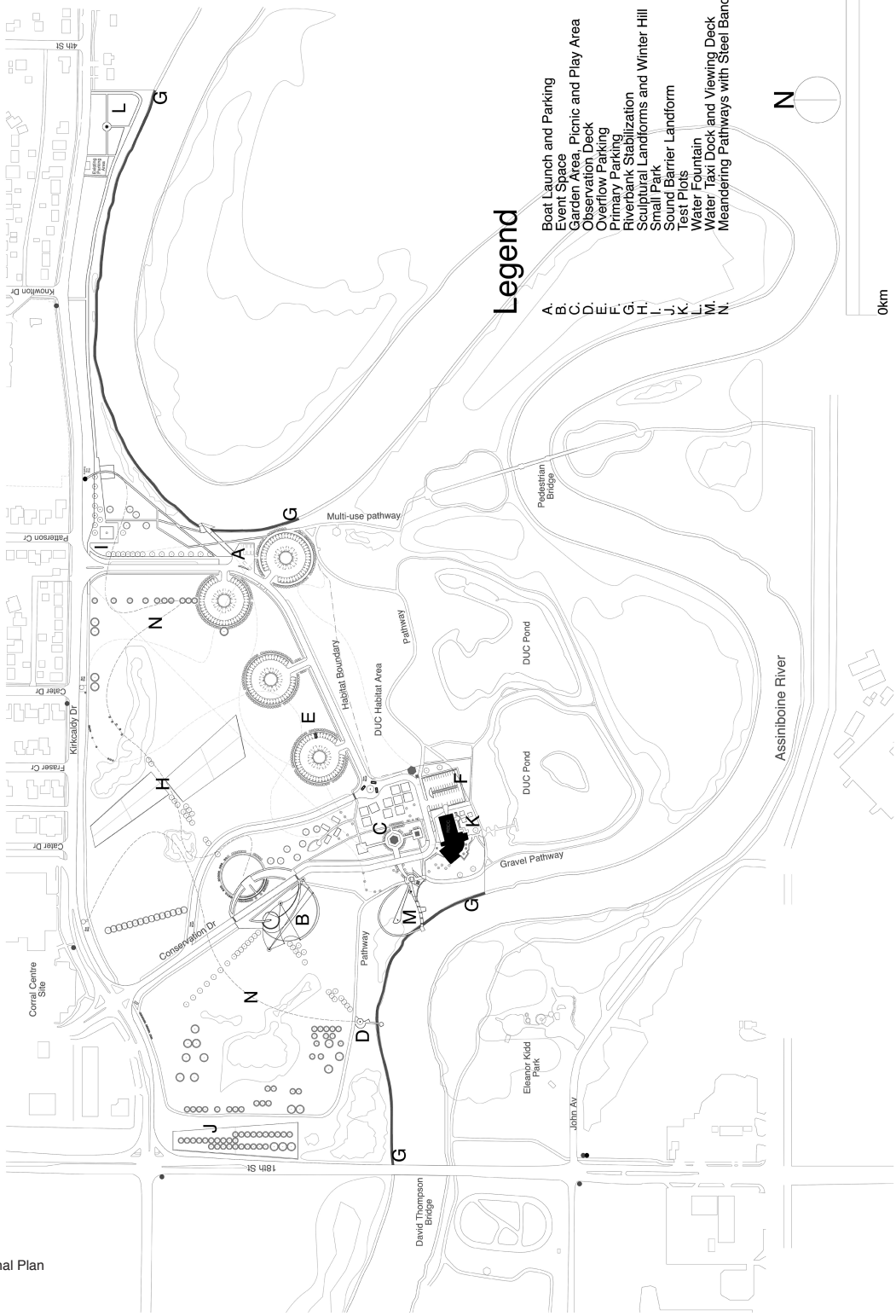


Figure 76. Final Plan

PROJECT ONE
Final Plan
Proposed

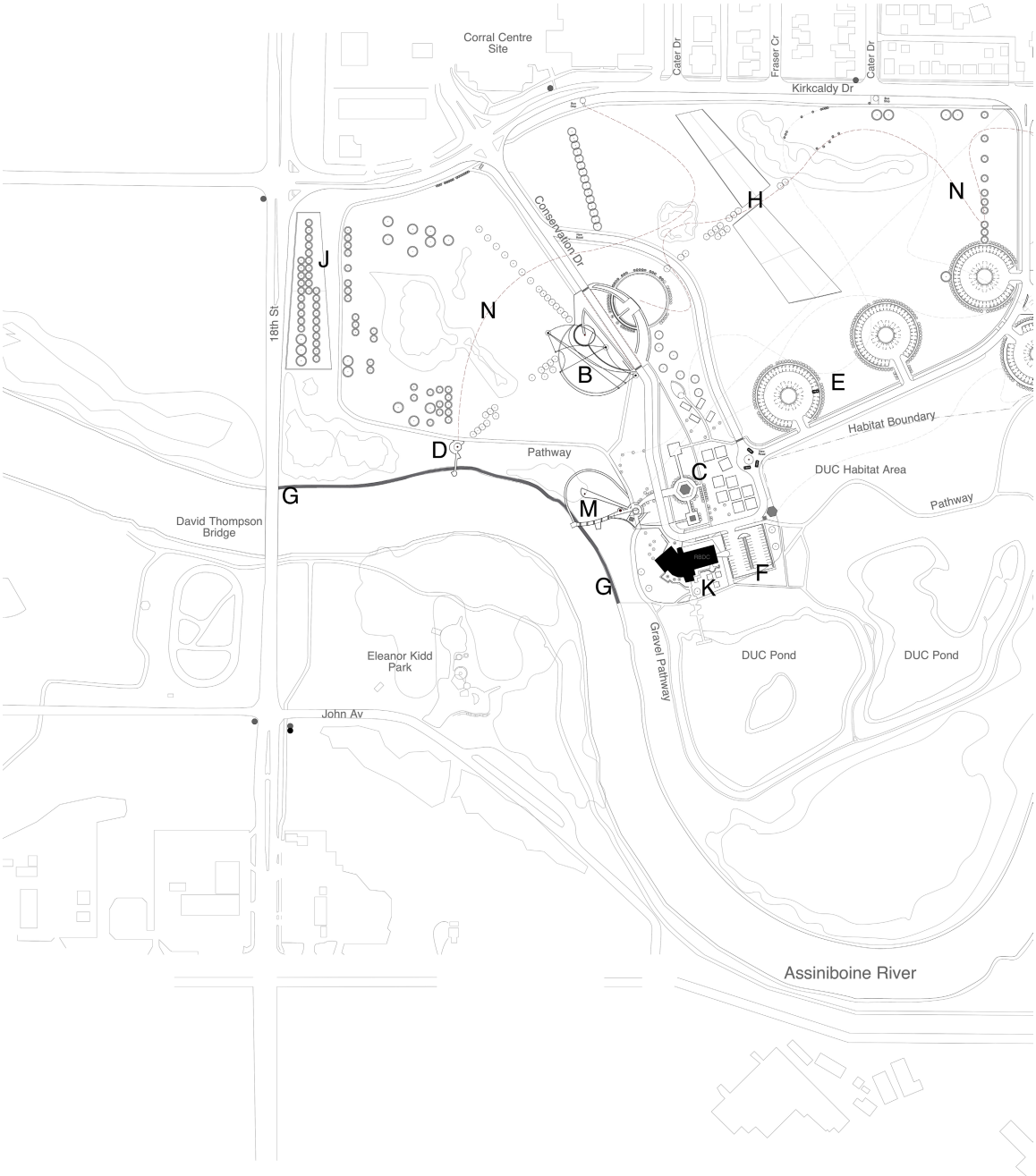


Figure 77. Final Plan part 1 of 2

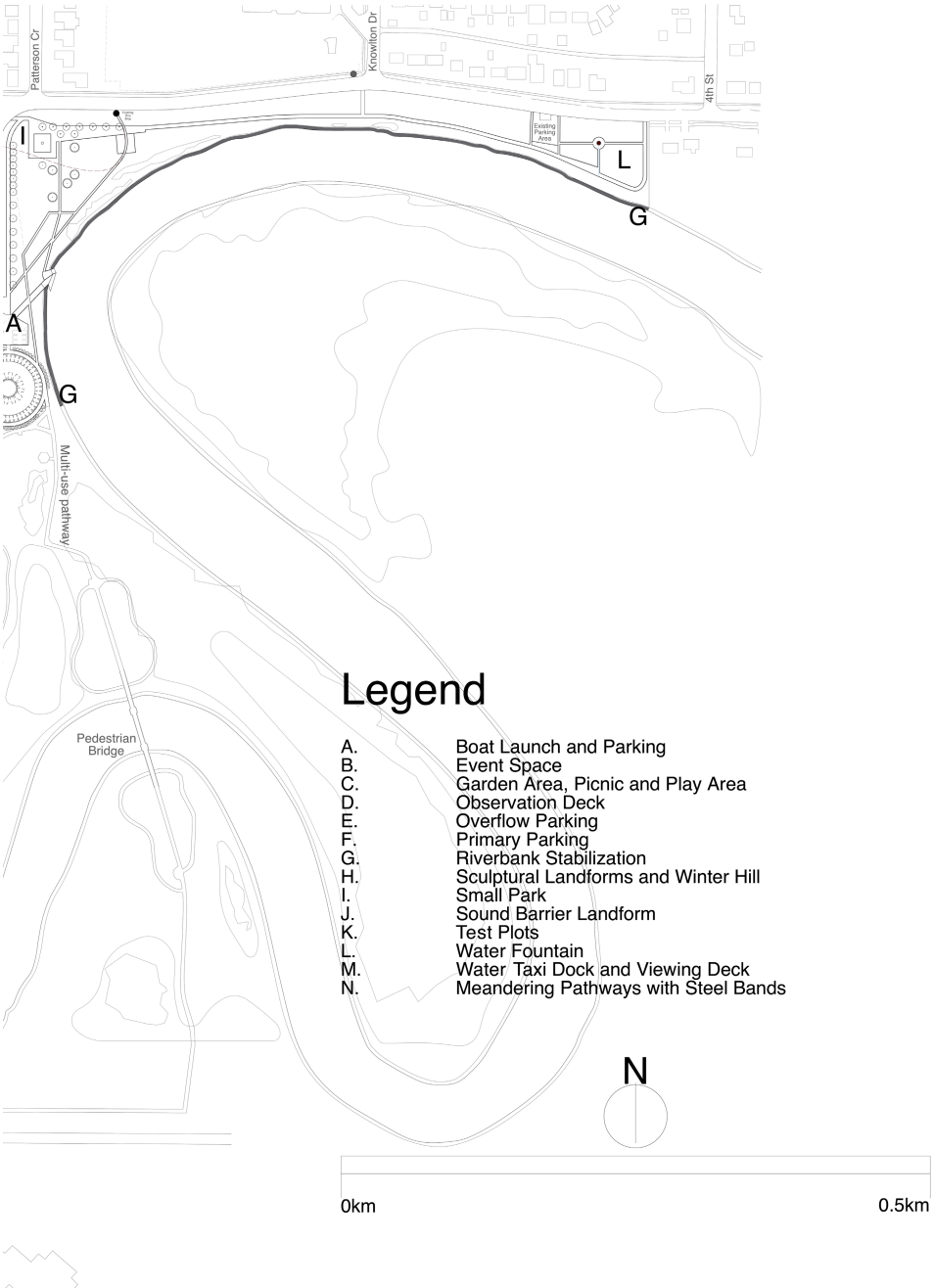


Figure 78. Final Plan part 2 of 2

Project ONE Axes Plan Proposed

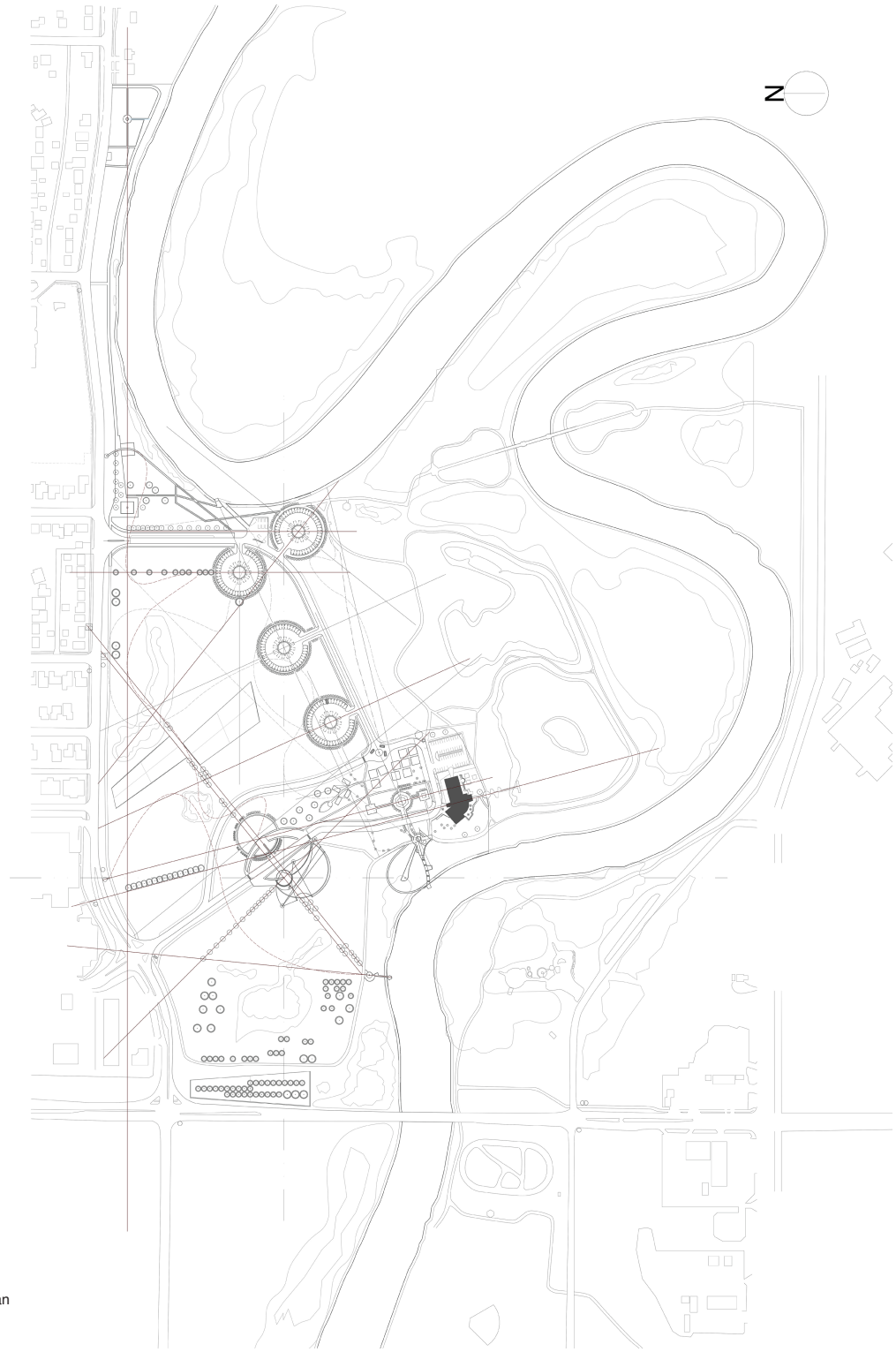


Figure 79. Axes Plan

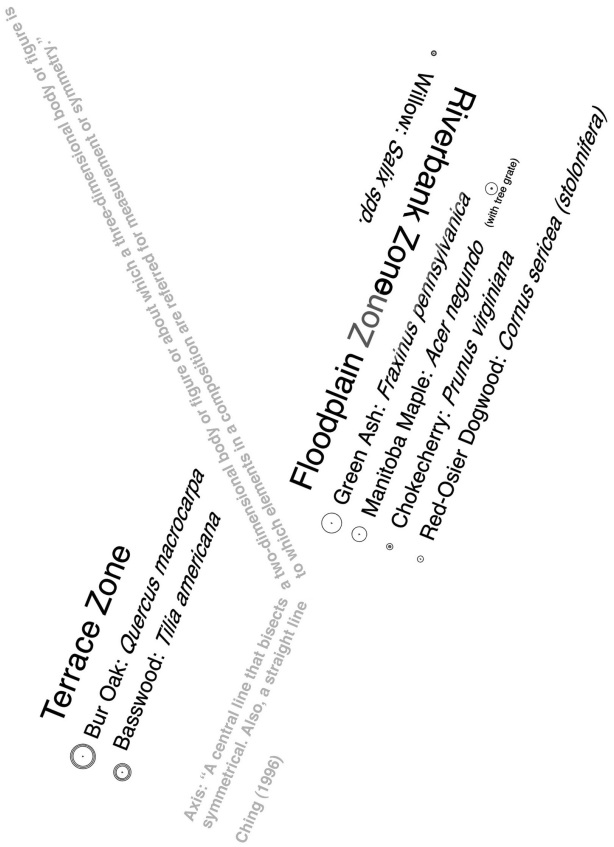


Figure 80 Habitat Zone Vegetation

Lines of axis, illustrated on the Axes Plan (see Figure 79), were created between the various spaces proposed for the site and they were used to establish the areas for the habitat zones that are illustrated on the Habitat Plan (see Figure 81). As well, major lines of axes, such as the line created from the entrance of the Riverbank Discovery Centre running straight out of the site, were used to organize the vegetation to be planted in the site, and also they were used to keep important sight lines open.

The notion of deconstructing the riparian forest into its three constituent zones of vegetation and then locating the zones in various parts of the site, and in a different order than they would be naturally found, is intended to raise the awareness of this type of ecosystem for people. The habitat areas were designed to contrast with the “untouched” or less disturbed riparian forests that are located across the river from the site and also located a few hundred metres, east and west of the site, along the Assiniboine River. The vegetation, typically found in a riparian forest (Zoerb 1993, 3; Fabbri 2003,6-7), are proposed to be planted in the habitat areas (see Figure 80).

In addition to the riparian habitat zones, there are a number of areas in the site that will be planted with wildflowers, and there is a significant area that is to be used for mixed grass prairie restoration. The idea of creating additional habitat spaces and significantly increasing the amount of vegetation in the site, while preserving as much of the existing vegetation as possible, is based on the appreciation that was gained of the beauty of the site's existing vegetation and that of the Ducks Unlimited habitat area.

Ducks Unlimited Habitat, Riverbank Discovery Centre in Brandon, June 2008

Project ONE Habitat and Planting Plan Proposed

Figure 81. Habitat Plan

Part II. Designed Spaces

A number of proposed spaces were designed and the existing spaces were redesigned, in order to meet requirements of the design program. The spaces that were developed in this project were also designed with the intention of expressing the notions from the philosophy of Wabi-sabi and to express the notion of Dynamism in the landscape from Concept Plan 1.

There were a number of spaces that were redesigned in this project. The existing primary parking area, which is located in the front of the existing Riverbank Discovery Centre, was one of these spaces. This area was redesigned with a new garden with space that was created to relocate the existing picnic and play area. The existing staff parking lot was also redesigned to accommodate additional vehicles. Additionally, the front area of the existing Riverbank Discovery Centre was redesigned with a transit and school bus drop-off area, to further reduce vehicular traffic by offering people the alternative of using mass transit to visit the site.

A new road was proposed for the site to lessen traffic flow along Conservation Drive, freeing it up to accommodate transit service into the site. Another new space that was designed is an observation deck, which is proposed to be located across the river from a water-taxi dock located in the adjacent Eleanor Kidd Park, to present the view of the park across the river and to the David Thompson Bridge.

Also in this project, the existing water-taxi dock was completely redesigned to accommodate better an existing water-taxi service. As well, a plaza was designed to accommodate better the users of the water-taxi dock and the existing boat rental facility that is located in this area. It was developed with space for people to gather while waiting to board the water-taxi, and also to relocate the boat rental facility on higher ground to protect it from seasonal flooding. A viewing platform for people to enjoy the views across the river and the surrounding vegetation was also part of the design for this proposed space.

A new event space with covered plazas was designed to handle large-scale events such as Canada Day celebrations, and outdoor concerts. It was created with the intent of functioning as a focal point for the City of Brandon. A small park was also developed for the eastern part of the site, and it was designed for members of the local community to stroll through and to gather. The existing Boat Launch area was redesigned. A number of new parking areas were also designed to accommodate the parking needs of people attending large-scale events, and they were also located closer to the existing trails, the Ducks Unlimited area, and the proposed habitat area, in order to service better the users of those spaces.

Landforms that were designed as sculptural elements, and another landform that was designed to act as a noise barrier for traffic on 18th Street. Also, there were two meandering pathways that were designed for people to explore different parts of the site, and to express the shape of the Assiniboine River and of the natural process of its movement. Unfortunately, a consequence of the natural process of movement of the water along the river is riverbank erosion that can cause the riverbank to destabilize. Thus, an important part of the proposal for this project is to stabilize and protect parts of the riverbank along the site.

“Wheat City Garden” Plan in Figure A.

The new garden area in front of the Riverbank Discovery Centre was named the “Wheat City Garden” in reference to the name often given to Brandon. This would be a very good place to showcase test crops of wheat, which could be managed by the researchers from the Agricultural Canada Research Station.

The green space in front of the RBDC building offers a more visually pleasing element than looking at rows of parked vehicles. By creating this space, the main parking area was removed thus reducing traffic noise and the concentration of traffic in front of the RBDC building. A major aspect of this proposal is the addition of a new road (#9) located adjacent to a new round-about (#17) designed to route traffic efficiently either travelling north and joining Conservation Drive or travelling east through the newly designed overflow parking area and past the newly designed boat launch area.

To minimize the volume of traffic accessing and needing to park in the site, a transit drop-off area (#18) was designed for the front of the RBDC building. This makes access to the building easier, especially in the colder months. It is also designed to facilitate school buses that currently bring children to the site. The area has interlocking paving that helps to distinguish it as an area for bus drop-offs.

The existing staff parking lot, to the east of the RBDC building, was redesigned to accommodate more vehicles and it was turned into the primary parking area (#11). This parking lot has space for 49 vehicles, including 2 accessible parking spaces, located next to an accessible entrance building, meeting Barrier Free Design standards (Access 1989). Also, the first overflow parking area in this proposal is located within a 200m radius, or a 3 minute walking distance, from the primary parking area and front entrance of the RBDC building to meet additional parking needs. The picnic and play area was relocated to this green space to avoid the need for users to cross the parking area (#1, #2). The existing recycling bins and garbage collection area was also relocated to a spot closer to the building (#14).

Finally, located within this proposed green space, are planting beds (#20) for wheat that are clearly visible to visitors entering and leaving the site along both the existing Conservation Drive (#16) and the proposed New Road (#9). This idea originated from finding test plots for growing plants, in the back of RBDC, during the initial site inventory study. There are also a few planting beds (#13) that are proposed to be located in the rear of the RBDC building. These planting beds are smaller and fewer because they are not intended to compete with the Ducks Unlimited habitat area and ponds. These planting beds might also be used to grow herbs and vegetables for a future café in this facility.

Compacted earth is to be used for the majority of the hard surfaced areas (#3) in this space, especially where the play structure is located, this reflects the earthy, murky and simple qualities suggested by the philosophy of wabi-sabi (Koren 1994). Compacted earth, also offers users a textural contrast to interlocking paving, which is used to articulate the base plane in front of the RBDC building (#6) and some of the pathways leading to other designed spaces in the site.

The lawn areas (#21) in this space will be covered by a mixture of habitat vegetation representative of the herbaceous perennials usually found in the Floodplain zone of typical riparian forest, as noted by Fabbri (2003, 7): Thalictrum dasycarpum (tall meadow-rue) and Smilax herbacea (carrion flower), and also with a variety of native grasses. This area would also be planted with trees and shrubs found in a riparian forest, including Fraxinus pennsylvanica (Green Ash), Acer negundo (Manitoba Maple), Prunus virginiana (Chokecherry), and Cornus sericea (Red-Osier Dogwood).

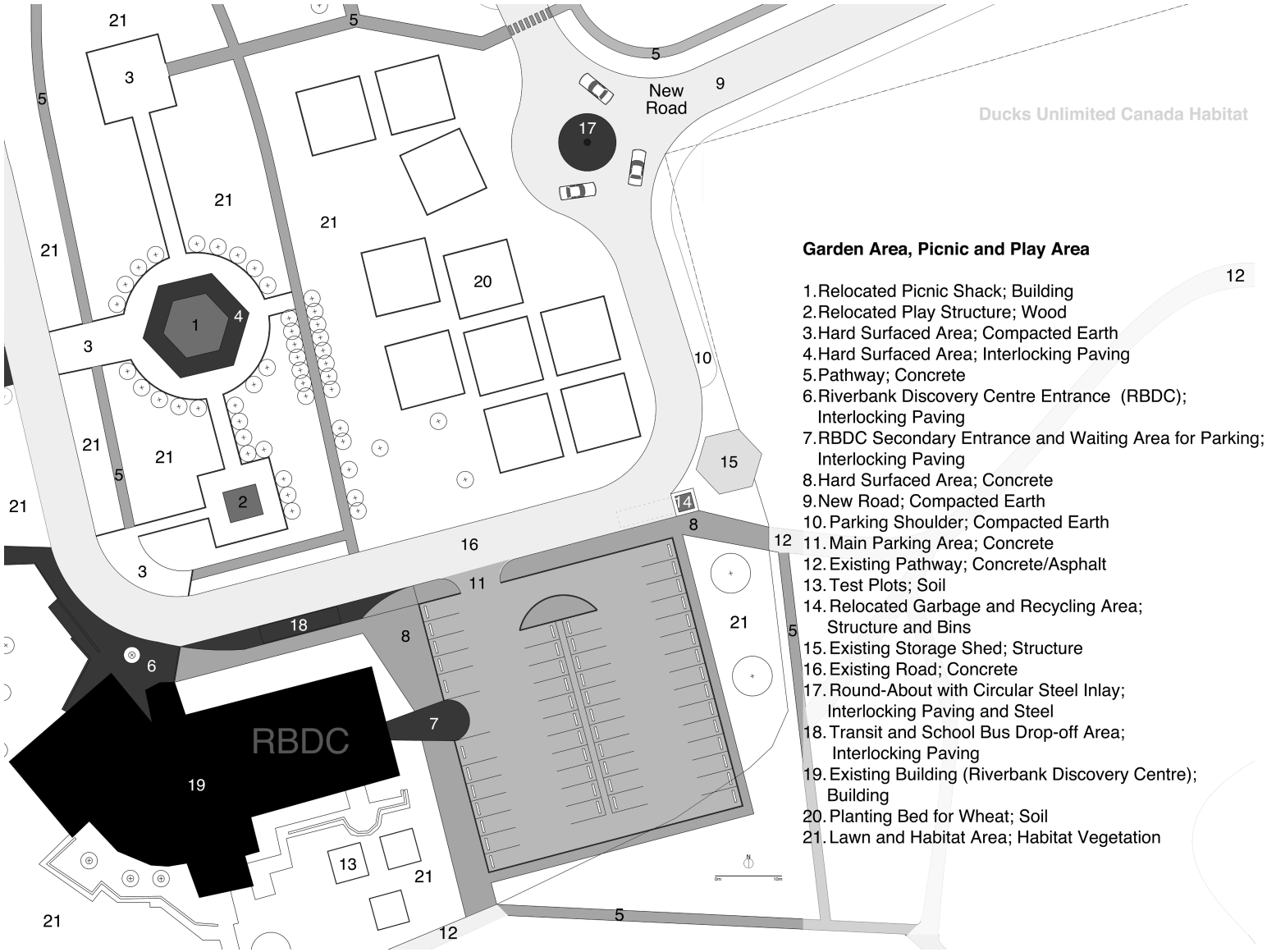


Figure A. "Wheat City Garden" Plan

Project ONE Sections Plan Proposed

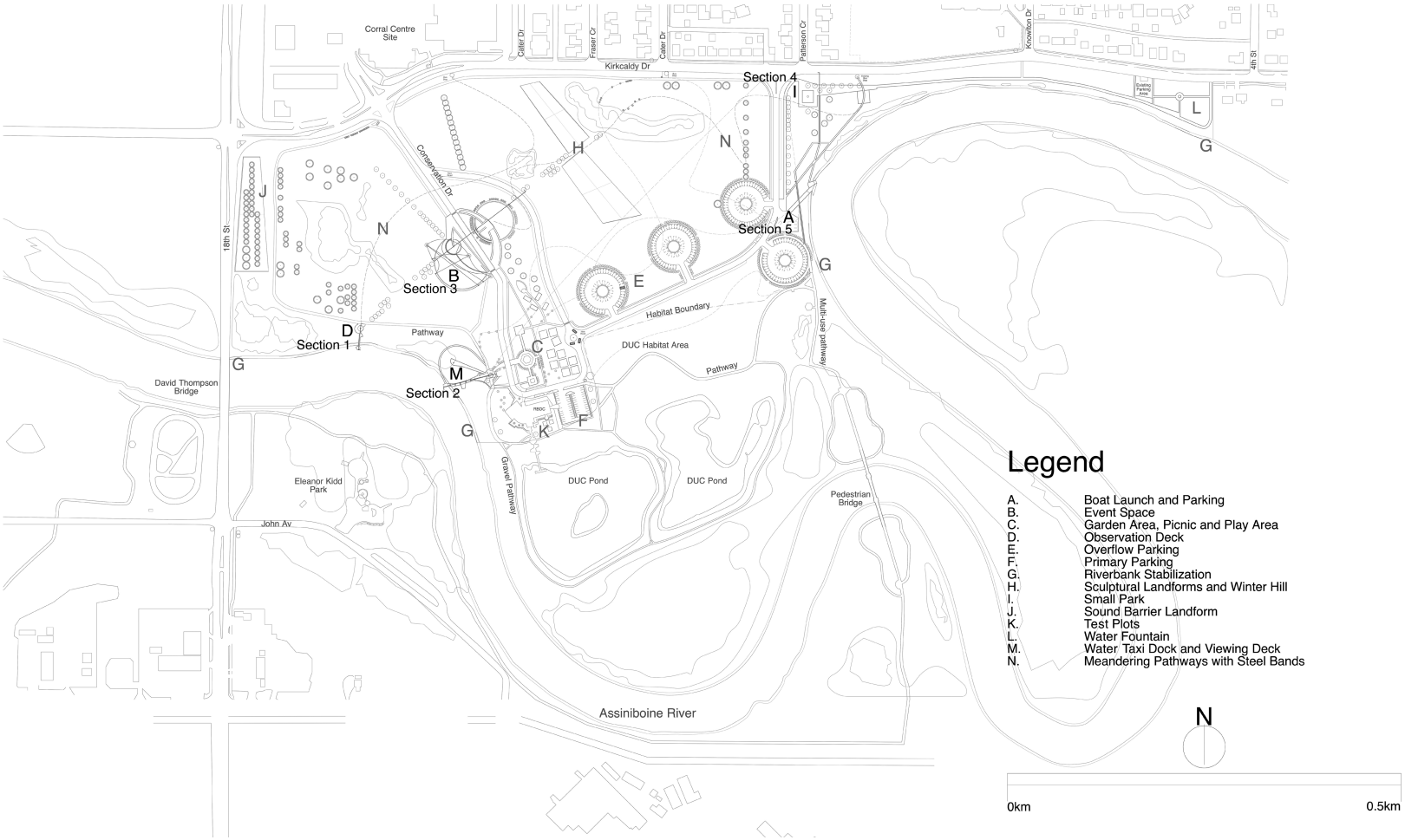
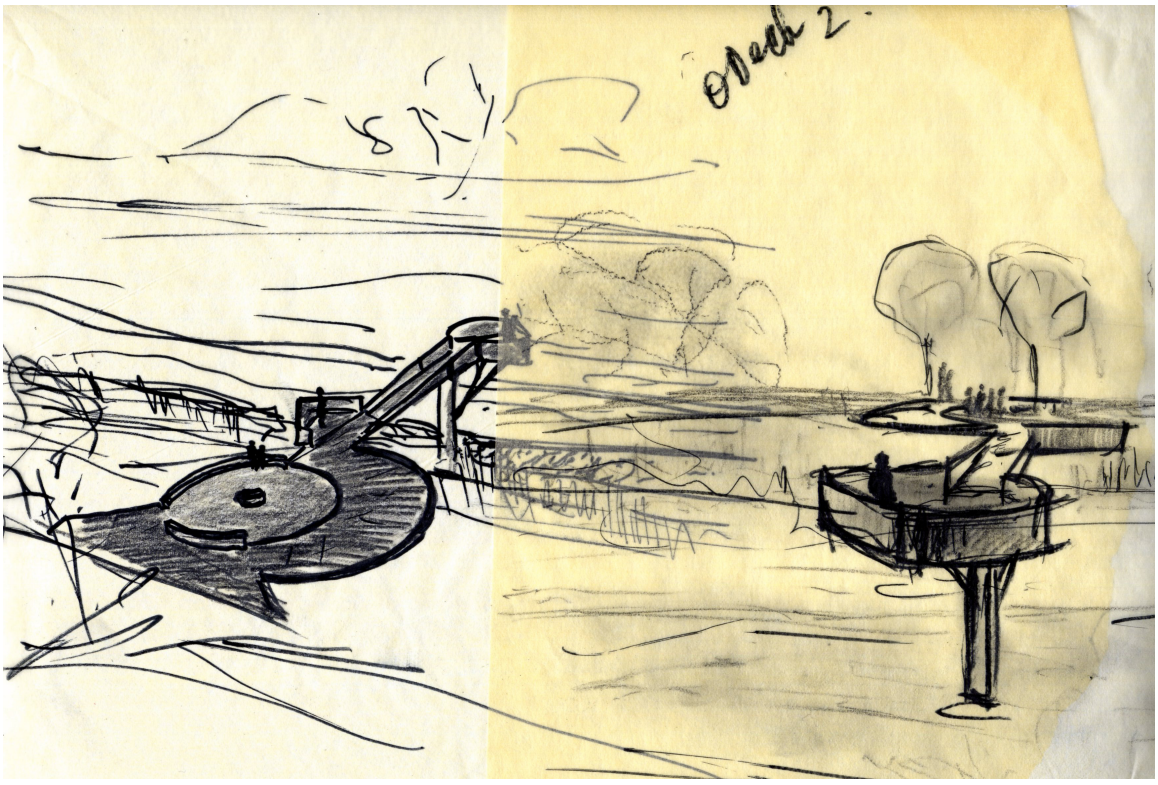
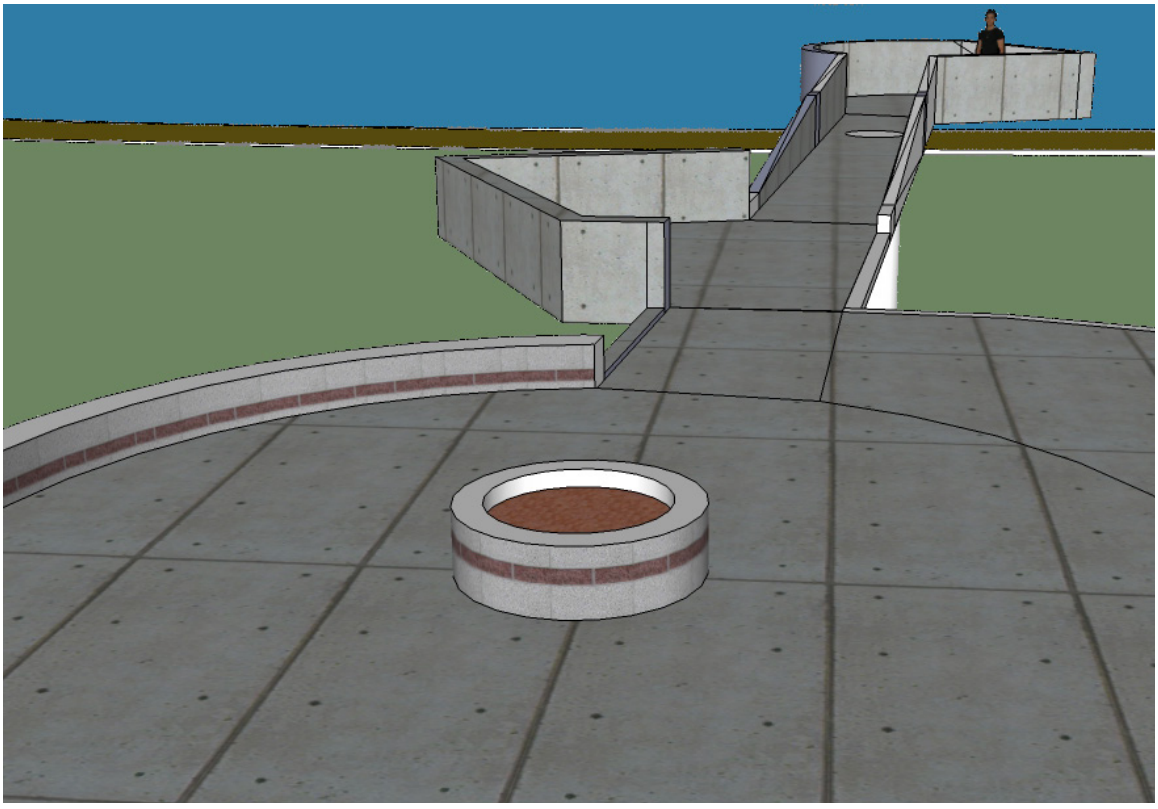


Figure 82. Sections Plan

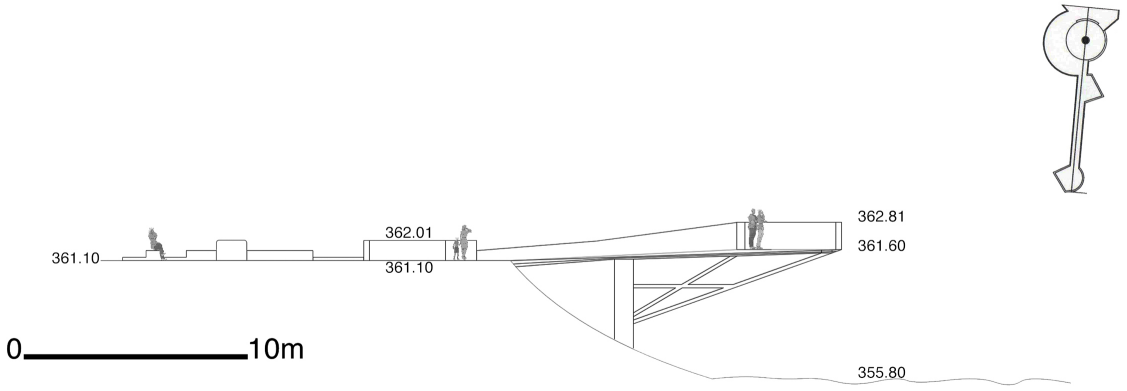


“Assiniboine River Deck” (Figure B)



“Assiniboine River Deck”

Figure B. “Assiniboine River Deck” Plan



Section 1

“Assiniboine River Deck” Plan in Figure B.

The Assiniboine River Deck is to be located on the western part of the site for a number of reasons. First, there is an excellent view across the river to Eleanor Kidd Park and to a water-taxi dock located there; second, there are also great views of the river, and the riparian vegetation found along its banks; third, this is a good place from which to view the David Thompson Bridge.

The observation deck was designed to function primarily as a viewing platform. There are two areas on this deck that were designed for viewing. The first is the primary observation area (#6) , which overhangs 6m above the water, in order to avoid flooding levels from a hundred year flood event. As well, the platform is designed to be sitting out approximately 5m from the bottom edge of the current riverbank over the water. Because this offers a less obstructed view of the river, and the chance to appreciate the motion and meandering form of the flowing river by looking down on the water and along it. By observing the movement of the flowing water it is hoped that the notion of dynamism in the landscape is conveyed to the viewers. The second observation area (#5) is designed to offer views of the proposed new water-taxi dock and plaza area, while looking southeast. Also, it is designed to offer people good views of the proposed event space, while looking northeast towards the central part of the grounds of the RBDC.

The secondary function of this space is as a gathering area (#4) with seating (#2). The focal here is a steel sculptural element that could be designed by a local artist. The reason for specifying steel is because it is a material that shows wabi-sabi qualities of natural process as it erodes.

The materials used to create this space would be from a simple palette, including concrete for the observation structure, with reinforced steel for support, and steel to be used for the sculptural element. There would be no introduced plantings in this area, allowing instead for the existing tree stand located west of the deck and the vegetation along the river to be more prominent.

STREAM 'N' WOOD

Figure C. “Assiniboine Plaza and Water-taxi Dock” Plan

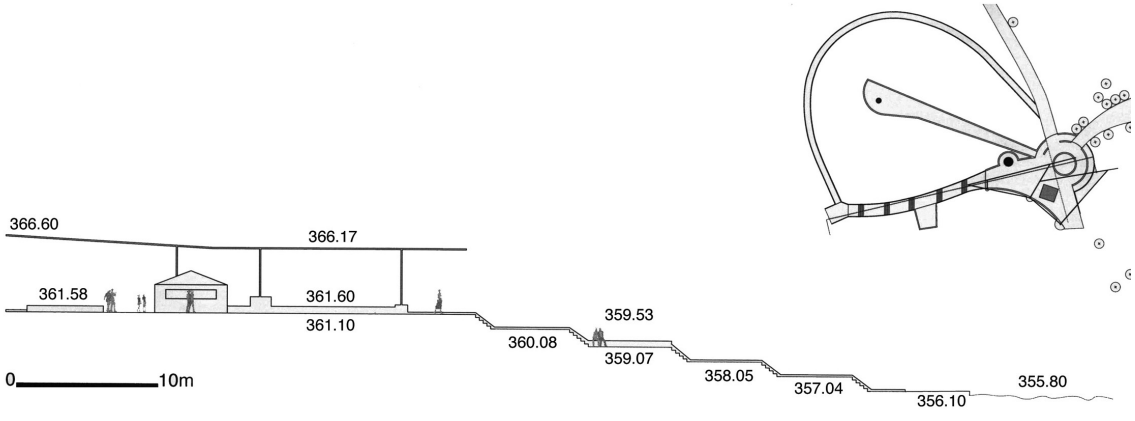
“Assiniboine Plaza and Water-taxi Dock” Plan in Figure C.

This space is also named after the Assiniboine River that bends its way around the southern edge of site. It is proposed here to be close to the water-taxi dock and a boat rental shack, and the Riverbank Discovery Centre. Furthermore, the views across and along the river are wonderful, making this an ideal location and the riverbank vegetation is flourishing around this location.

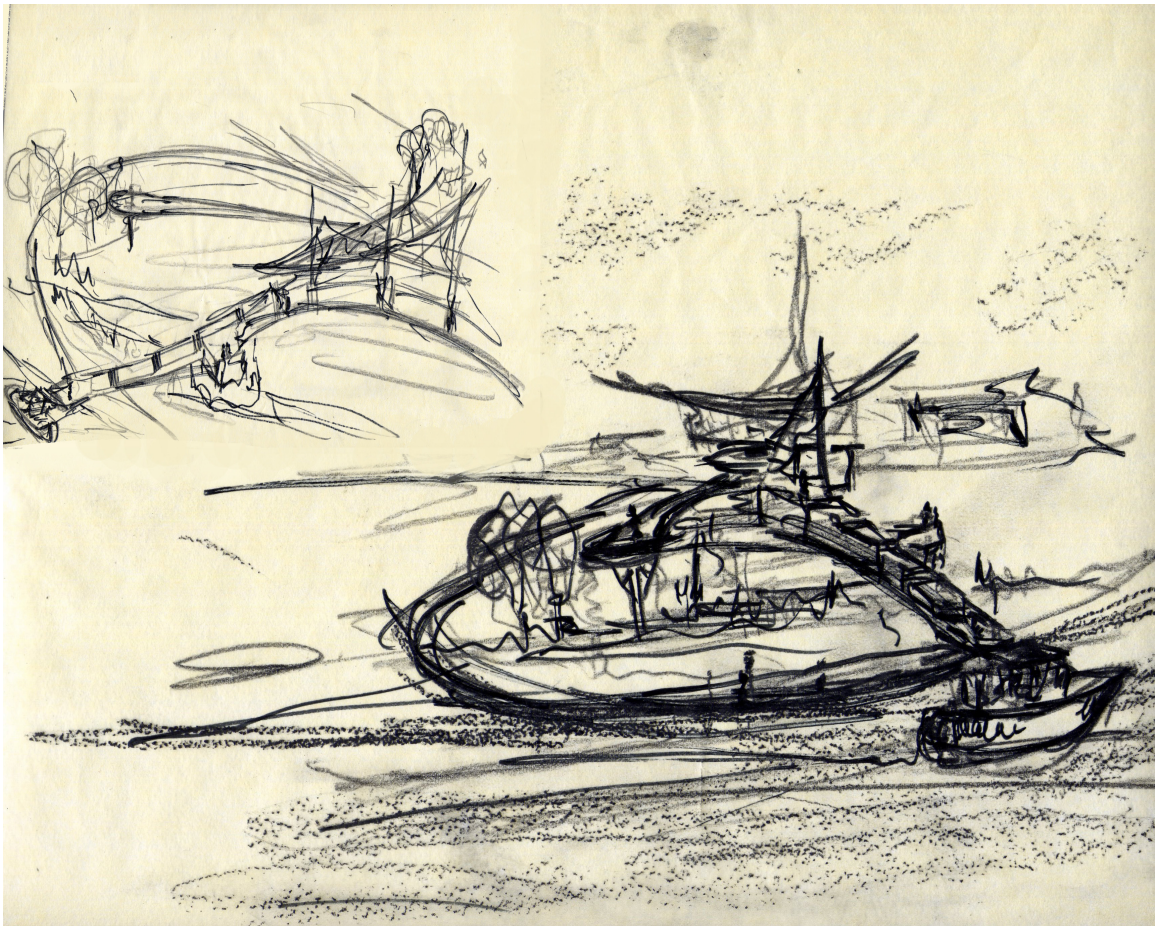
This space is designed first as a universally accessible water-taxi dock (#1) with a space for the existing boat rental and snack shack (#6) and second as a gathering space for people (#4) with a covered plaza (#8) of approximately 315m^2. This space is also designed with a viewing platform (#2) from which to take advantage of the wonderful views and also from which to appreciate the existing riverbank vegetation and riparian forest.

The water-taxi dock (#1) is designed with a sizeable concrete pad, allowing space for a group people to wait before boarding the water-taxi. This area is connected with an accessible pathway (#3) that is 1.5m wide, and it was designed with a number of level passing areas, allowing for two wheel chairs to pass each other. The water-taxi dock is designed to be accessed from the plaza area (#4) by a stepped walk with an observation area (#5). The proposed observation area and the stepped walk will be built to accommodate seasonal flooding and they will be constructed out of reinforced concrete. The plaza area (#4) is designed to be above a 100-year flood event. It has a trellis structure for a removable fabric cover (#8), which will protect people from the direct sun in the warmer months and from the wind. This plaza space is designed for people to gather and there is seating provided (#11). There is also a circular raised seating area (#7) designed as a focal point for this space. Another focal point (#9) is a steel sculptural element that will be designed by a local artist. The viewing platform (#2) is designed to allow people to enjoy the views across the river and the surrounding site. The main viewing area at the end of the platform is 1.5m higher than the plaza area.

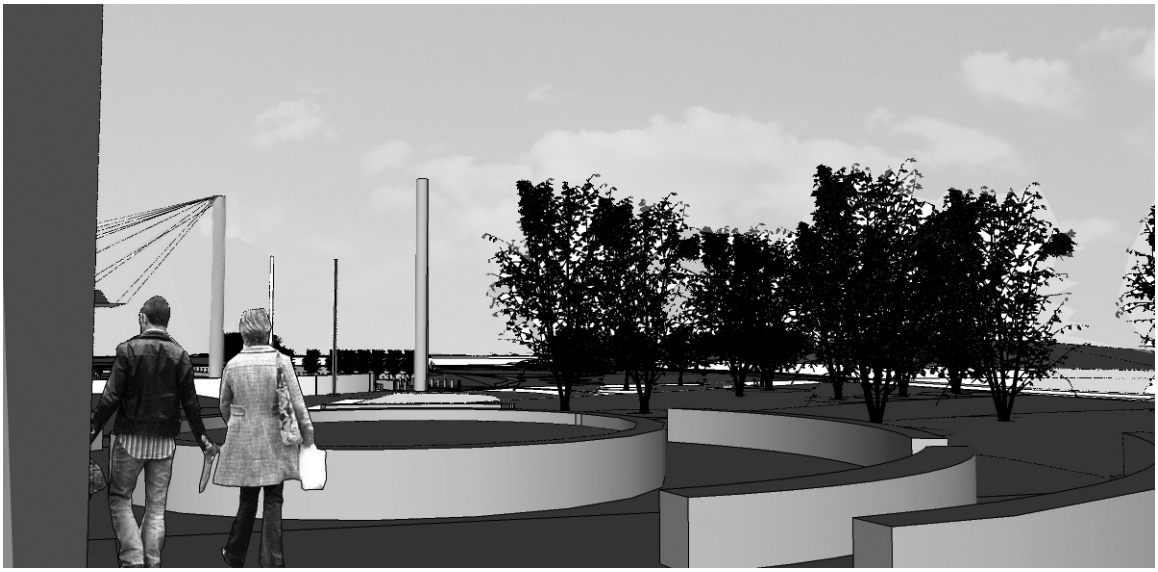
The materials used to create this space would be from a simple palette. Concrete will be used for the water-taxi dock, adjoining pathway, and the plaza area. The viewing platform will also be built with reinforced concrete. Steel will be used for the sculptural element.
The plantings in this area will be from the habitat zone that is designated for this area, illustrated in the Habitat Plan (Figure 81), and will include Cornus sericea (stolonifera) (Red-Osier Dogwood).



Section 2



“Assiniboine Plaza and Water-taxi Dock” (Figure C)



Looking north from the “Assiniboine Plaza” (#4 Figure C)

Figure D. “General Rosser Outdoor Pavilion” Plan

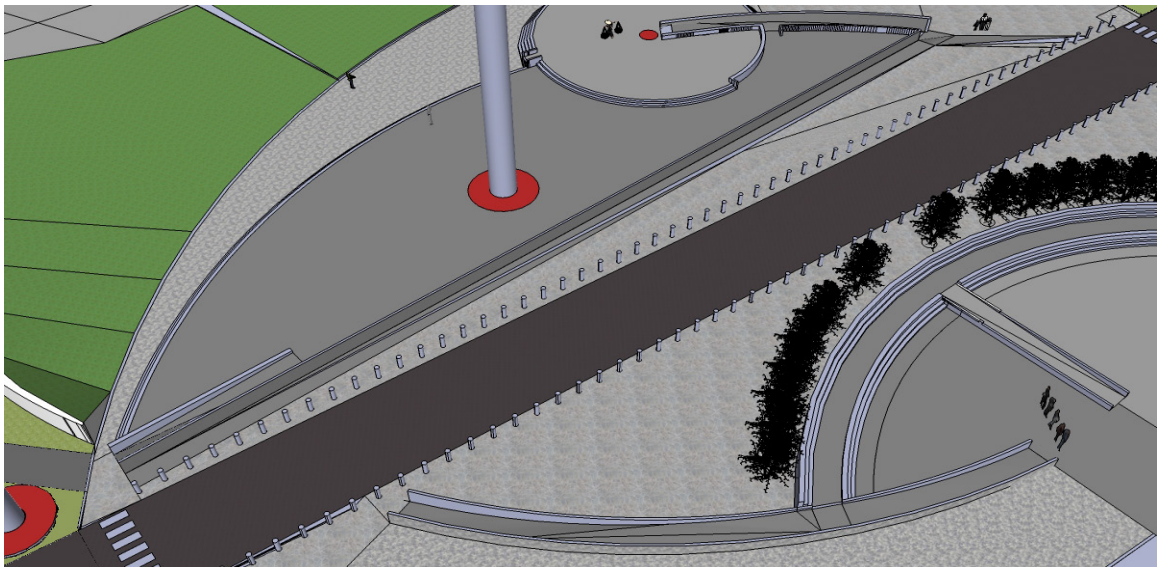
“General Rosser Outdoor Pavilion” Plan in Figure D.

This outdoor event area is named after General Thomas Rosser who is credited with founding Brandon in May 1881 (Wishart 2004). It is located north of the Wheat City Garden, in a central part of the site. Because it is an excellent area to enjoy views to all parts of the site and will be a focal for the site.

This event space is designed with Conservation Drive running through it, splitting it into two areas, with removable bollards (#17). There are a number of stages that are designed in this space, two are located in the primary event area, and one in the secondary event area. The primary event area is located on the west side of Conservation Drive, and the secondary event area is located on the east side of this road. Together, both event areas are designed to handle larger events such as Canada Day celebrations and outdoor concerts, and they are designed as a staging area for the various walks and special events that currently take place in the grounds of the Riverbank Discovery Centre.

The primary event area is designed with a 1500m^2 spectator area (#7), covered by sod. There are two event stages in this event area. The smaller circular stage (#1), designed to be accessed both by steps and an accessible pathway (see #3), has about 250m^2 of performance area, and features a circular steel inlay (#2) intended to have a dedication engraved at its centre (#2). The larger stage (#4), with about 700m^2 of performance space, is designed for larger functions, and designed with two accessible pathways (#3 and #5). Surrounding the stages is a large hard-surfaced plaza area (#6) with interlocking paving. This event area is designed to be able to be covered by a removable fabric roof (#8), which will protect spectators from the wind, rain and direct sunlight when necessary. It will be a distinct architectural element when used.

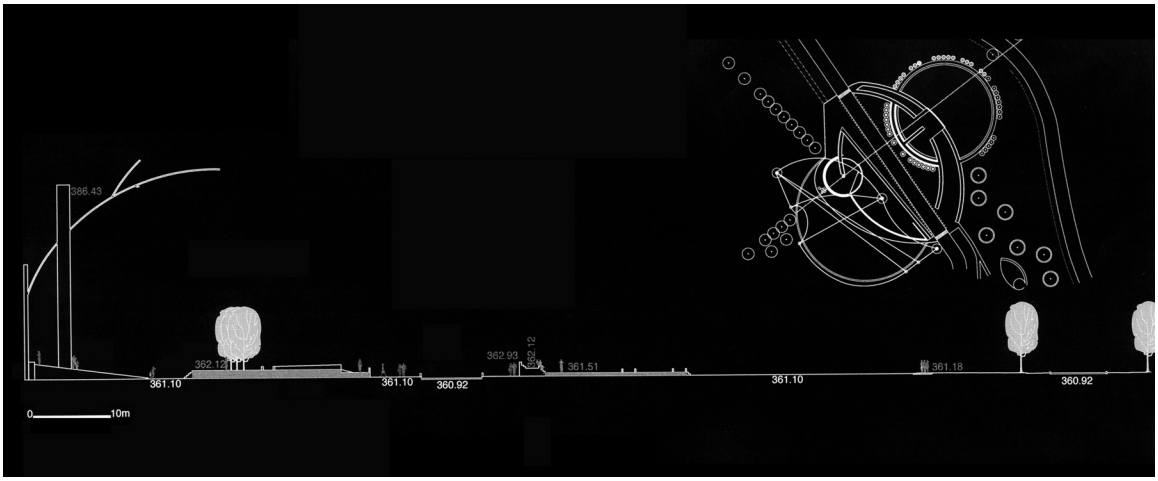
The secondary event area is primarily intended for smaller scale performances, such as plays and smaller scale concerts with a stage area (#14) that offers about 330m^2 of performance space, and permanent seating areas (#12). This space is also designed for larger events, with a large gathering space (#15) that is about 1200m^2 and covered with sod. The stage in this secondary event area has both steps and accessible pathways (see #13), and there is a hard surfaced plaza area with interlocking paving that will also be used for various activities. The sod-covered space (#15) is designed to accommodate other events such as outdoor farmers’ markets and perhaps food festivals. This area can be flooded in the winter to allow for ice-skating.



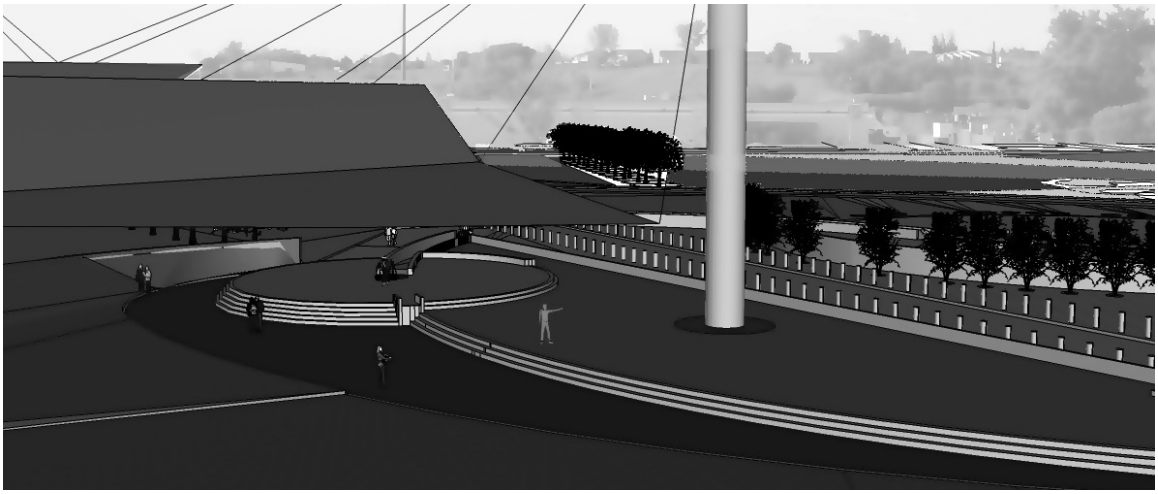
“General Rosser Outdoor Pavilion” (Figure D) A bird’s-eye view

The materials used to create this space would come from a simple palette that includes concrete, interlocking paving, sod and steel for the circular inlay (#2) and for the trellis structure (#8). Concrete will be used for stages, and the plaza areas will be covered with interlocking paving that will be designed with patterns created with the different coloured brick. The removable fabric roof will be created out of a waterproof material that diffuses direct sunlight (Armijos 2008). The plantings in this area will be from two habitat zones, the Floodplain and the Riverbank. They will include plants such as Green Ash (Fraxinus pennsylvanica), Manitoba Maple (Acer negundo), Chokecherry in tree grates (Prunus virginiana), Red-Osier Dogwood (Cornus sericea) (stolonifera) and Willows (Salix spp.). As well, there will be a lot of sod used in this area, refer to the Habitat Plan.

The design of this pavilion space was inspired by the shape of a Narrowleaf Willow (Salix exigua) leaf. The main stage (#4) in the primary event area is also designed in the shape of a leaf from this plant, while the removable roof is intended to be evocative of a leaf blowing in the wind with its curved trellis structure support (#8), and the vertical supports for the roof are intended to remind people of the shaft of a Willow. These supports will also have lights on them to provide lighting for evening events. The Narrowleaf Willow leaf also inspired the design of the secondary event area. When looking at the space, in plan view, Conservation Drive can be imagined as the stem to which these two leafs are attached. Finally, this space is designed to join the surrounding areas by connecting to existing pathways (#10) and a new pathway (#18).



Section 3



"General Rosser Outdoor Pavilion" Looking north from a point above the seating area (#7 Figure D)

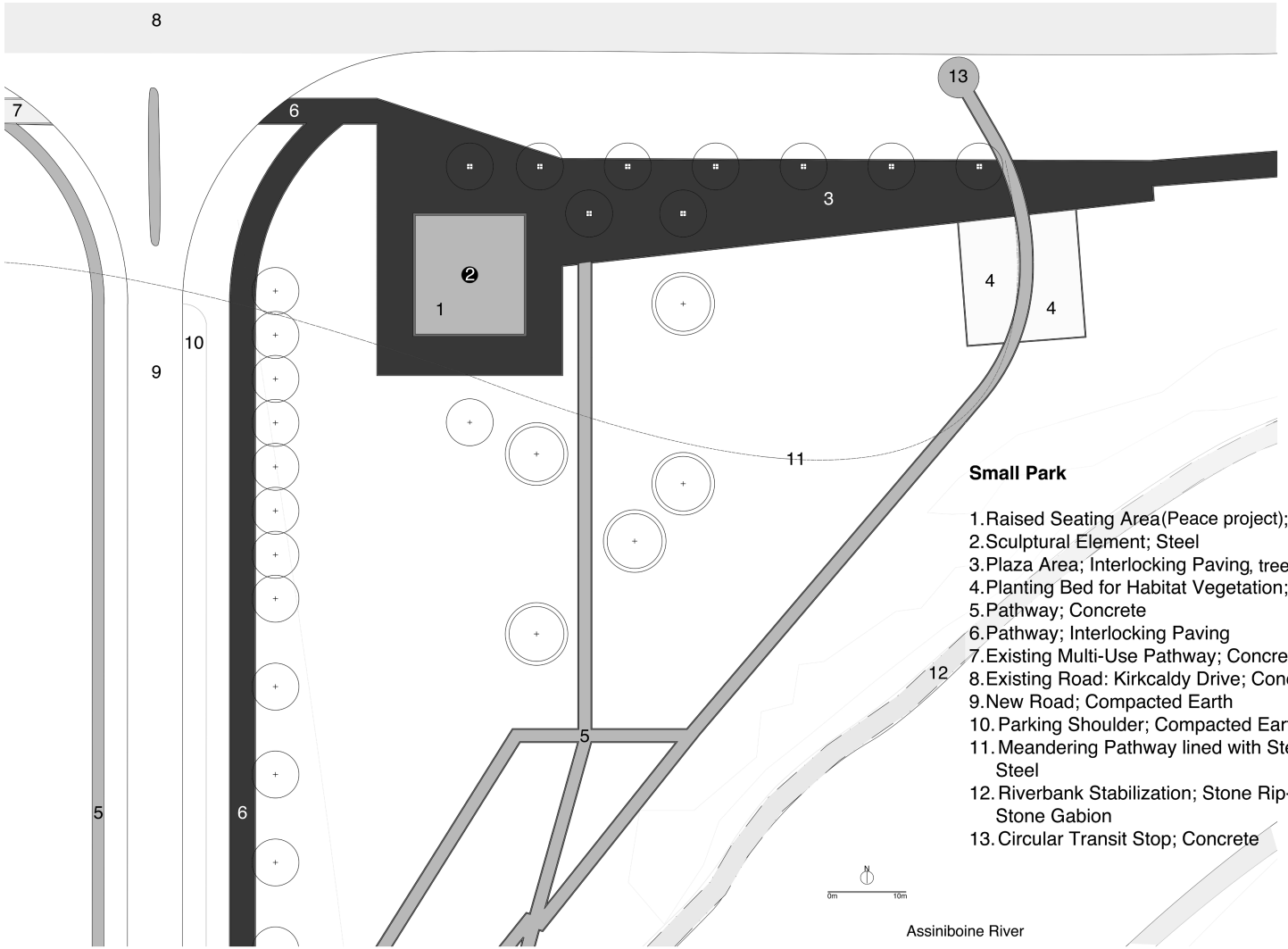


Figure E. "Peace Garden" Plan

“Peace Garden” A view west to the sculptural element from the plaza area (#2, #3 Figure E)

“Peace Garden” Plan in Figures E. + E2.

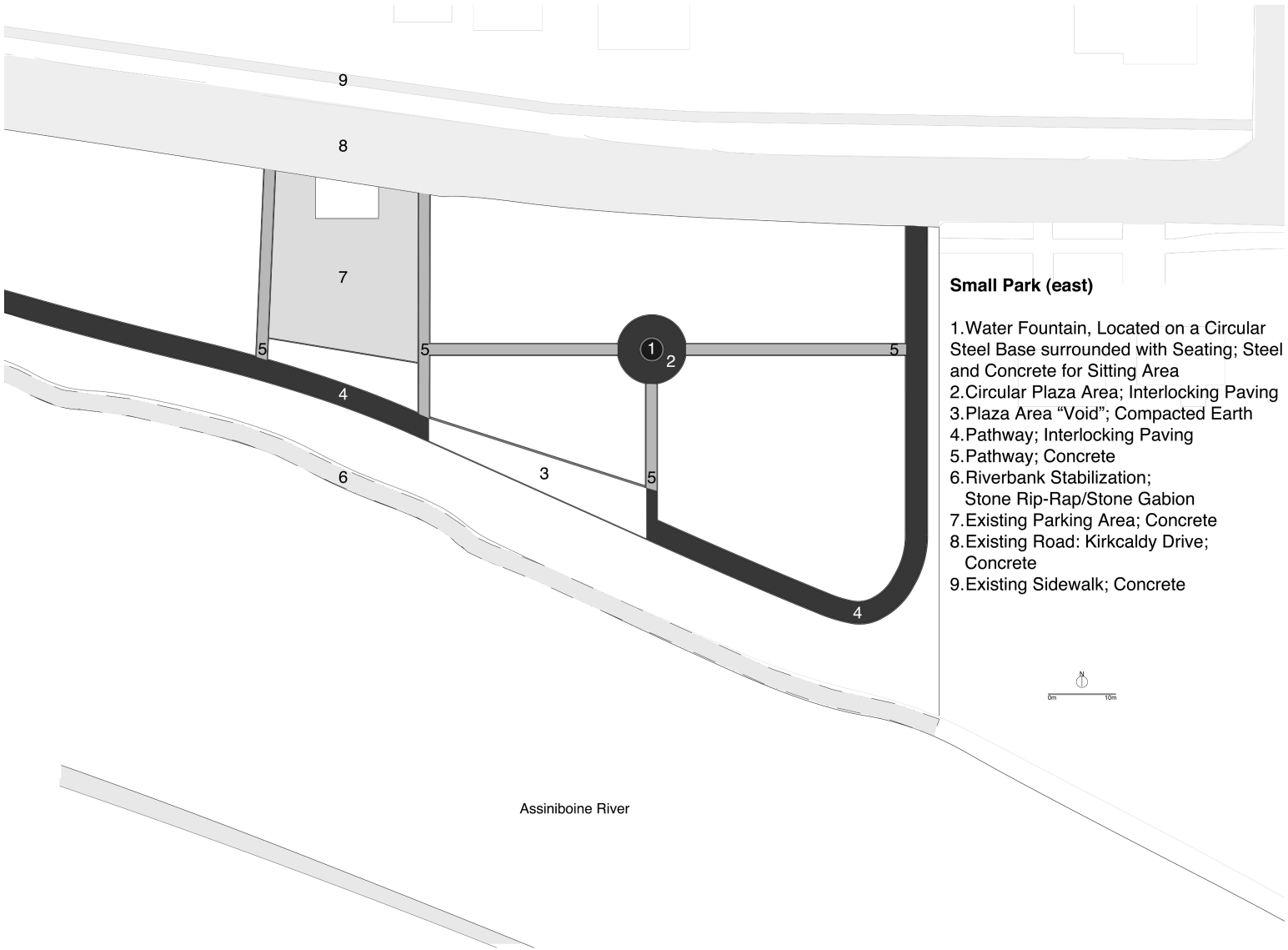
This small park is named after the Labyrinth of Peace project, which is relocated in this proposal to the raised seating area (#1, E). It is proposed to be located in the northeast portion of the site, adjacent to a residential neighbourhood and school. The community park is located here because it is next to a significant residential area and there are a lot of pedestrians using the existing pathway, which runs from west to east through the area. There is an existing parking area (#7, E2) that made this area an ideal location for the development of a small park.

This linear park is designed with focal areas, at either end, along its east-west axis. The focal points are the Labyrinth of Peace (#1, E), and a water fountain, located on a circular steel base to the east (#1, E2). A major plaza area (#3, E), articulated with interlocking paving, is lined with two rows of trees that are intended to reinforce the linear form of this park. This park is connected by a number of pathways (#5, E) that are intended to reference the grid of roads that surround the agricultural fields in this region. This area is also linked by a wider multi-use pathway (#6, E and #4, E2), which is articulated with interlocking paving to give it prominence and link it visually to the plaza space in the park.

The other prominent material used to create one of the spaces (#3, E2) in this park is compacted earth. Being a simple and earthy material as in the philosophy of wabi-sabi. A meandering pathway (#11, E) lined with steel bands, representing the meandering shape of the river, runs through part of this space. The plants in this park will consist of vegetation from the Floodplain zone and trees found in the Riverbank zone in a riparian forest. Finally, there will be wildflowers planted in the northern area of the park – along Kirkcaldy Drive, and plants from a mixed grass prairie planted in one of the planting beds (#4, E).

Section 4

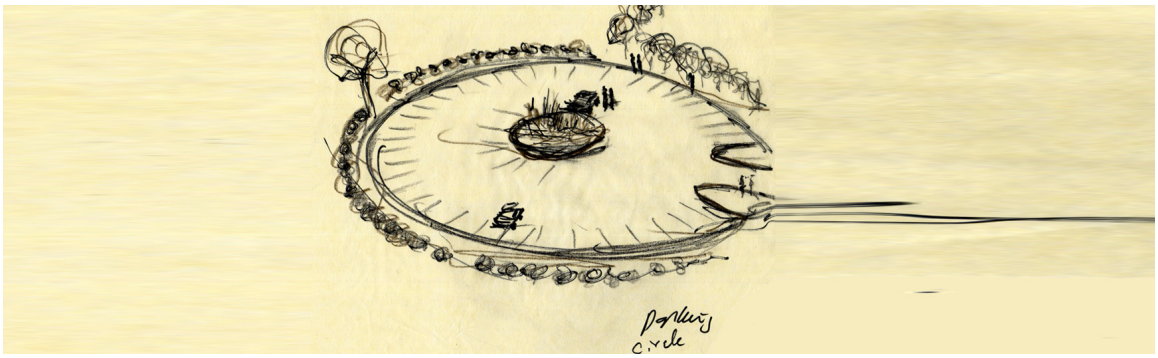
Figure E2. "Peace Garden" Plan 2



Small Park (east)

1. Water Fountain, Located on a Circular Steel Base surrounded with Seating; Steel and Concrete for Sitting Area
2. Circular Plaza Area; Interlocking Paving
3. Plaza Area "Void"; Compacted Earth
4. Pathway; Interlocking Paving
5. Pathway; Concrete
6. Riverbank Stabilization; Stone Rip-Rap/Stone Gabion
7. Existing Parking Area; Concrete
8. Existing Road: Kirkcaldy Drive; Concrete
9. Existing Sidewalk; Concrete

Figure F. "Assiniboine River Boat-Launch and Parking Circle" Plan



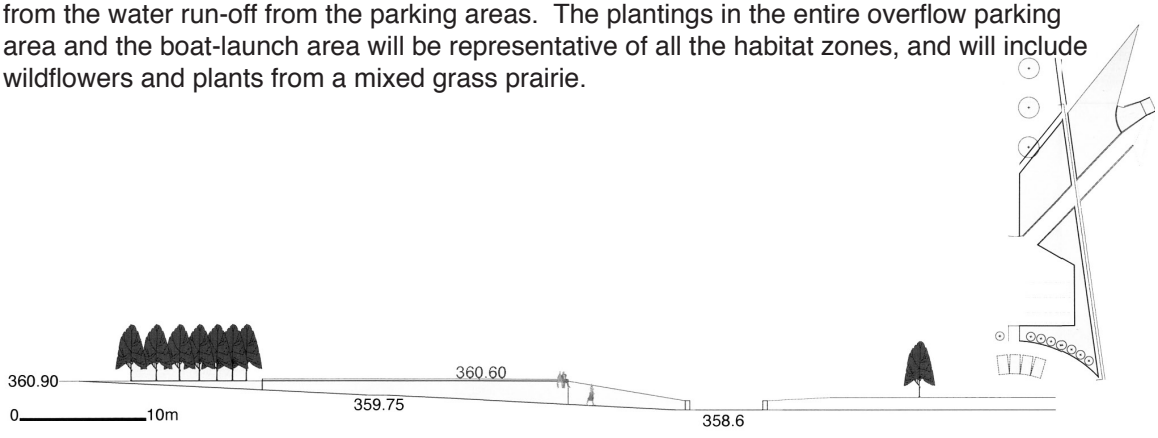
“Parking Circle” (#2, Figure F)

“Assiniboine River Boat-Launch and Parking Circle” Plan in Figures F.

The redesigned boat-launch is also named after the Assiniboine River. It is in the existing location, close to the second entrance and adjacent to the newly designed road and two of the four overflow parking areas (#2). Locating the circular shaped overflow parking areas in this part of the site was necessary, because of the anticipated use of the boat-launch area, and the Peace Garden. A boating parking area (#7) was located here to accommodate vehicles the boats.

The redesigned boat-launch ramp is built in concrete (#5) and covered in one area with interlocking pavers (#5b), and the ramp is designed to be a constant width of 3.1m and includes space for a water-taxi to dock (#6). The boat-launch ramp is designed with an optimal slope of 12%, and can be accessed from a pathway (#3) that links to the water-taxi dock (#6). The boat parking area (#7) is covered by compacted earth. The new road (#9) and the overflow parking area (#2) are also covered with compacted earth, for its wabi-sabi qualities and because it more cost-effective than concrete. Interlocking paving was, however, used to articulate part of the ramp (#5b), and on a pathway (#4) that connects to the Peace Garden. Interlocking paving in these spaces will create a visual link to the major plaza of the Peace Garden.

The four circular overflow parking areas are shaped like loops to serve adjacent areas of activity. At the centre (#1) of each of the parking circles is a rain garden that will be planted with vegetation representing a habitat zone from a typical riparian forest. The rain gardens, which are also bioretention areas, will be designed for native plantings to filter out sediments and pollutants from the water run-off from the parking areas. The plantings in the entire overflow parking area and the boat-launch area will be representative of all the habitat zones, and will include wildflowers and plants from a mixed grass prairie.

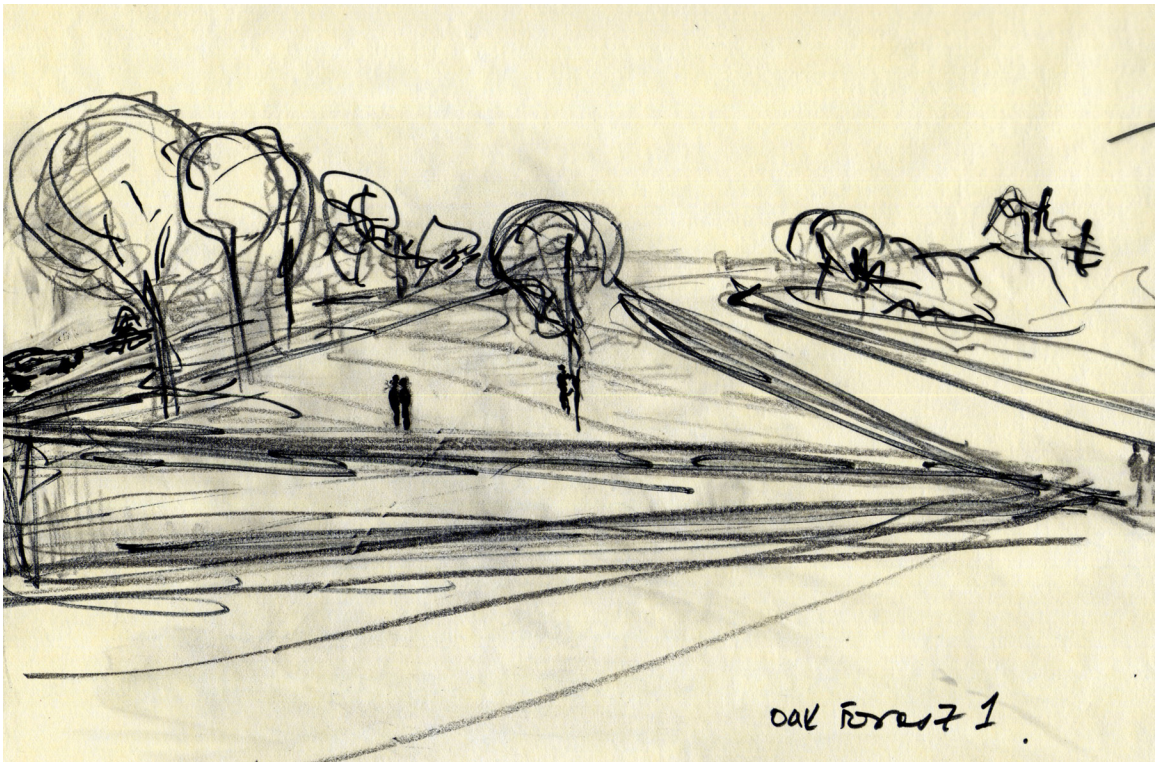


Section 5

“Oak Forest Hill” Plan in Figure G.

Three large landforms are located on the site in this proposal. One of the landforms, “Oak Forest”, is designed as a sound barrier, and it is located adjacent to 18th Street, near the intersection of this street and Kirkcaldy Drive.

The trees, Bur Oak (Quercus macrocarpa) and Basswood (Tilia americana), are planted on top of this landform to increase the noise buffering qualities in this space (#1). This hill has the largest area of the three hills, with an area of 4600m^2, and it has a east-west slope of 14% rising to 4.41m at the centre.



“Oak Forest” (Figure G)

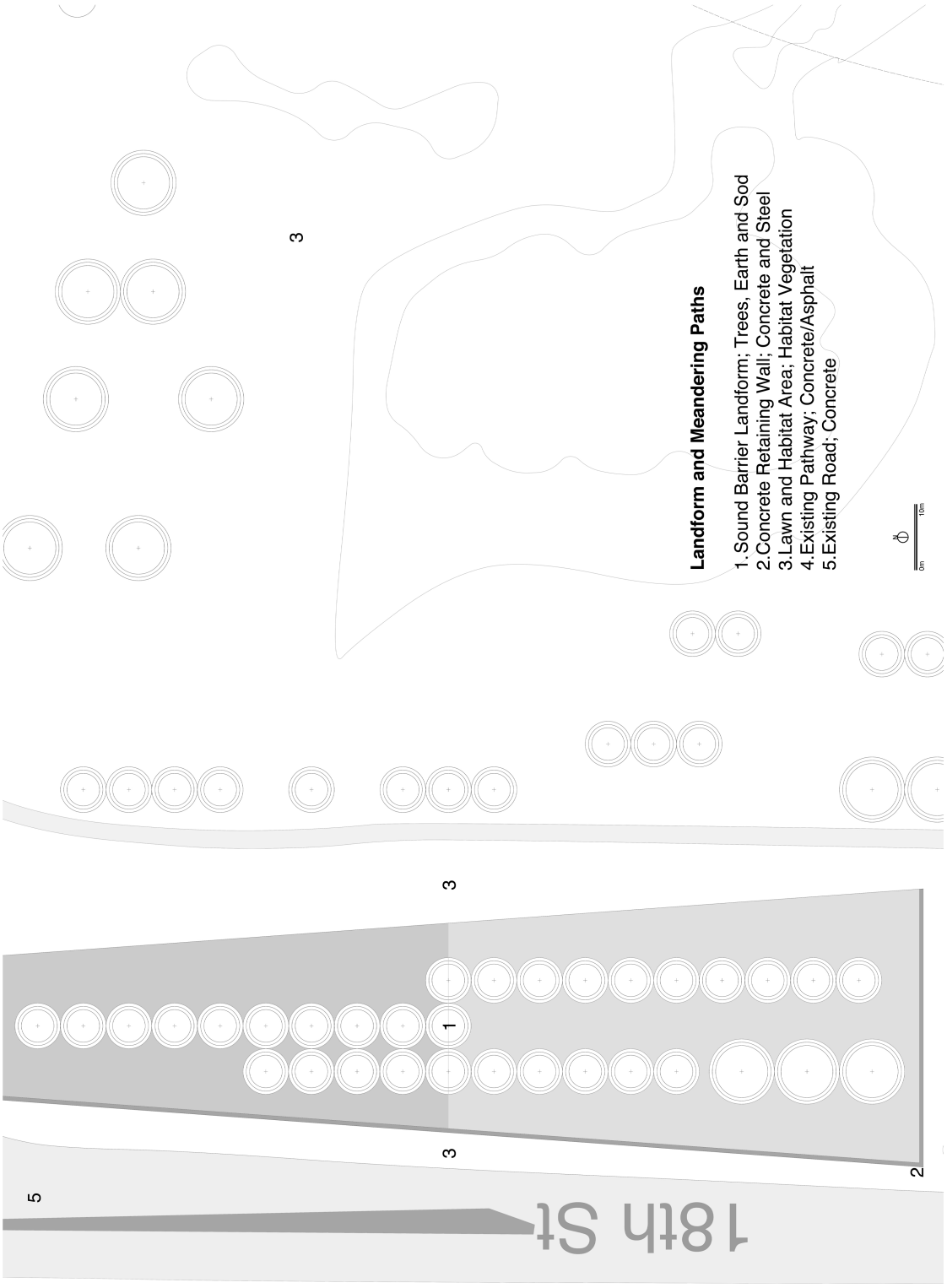
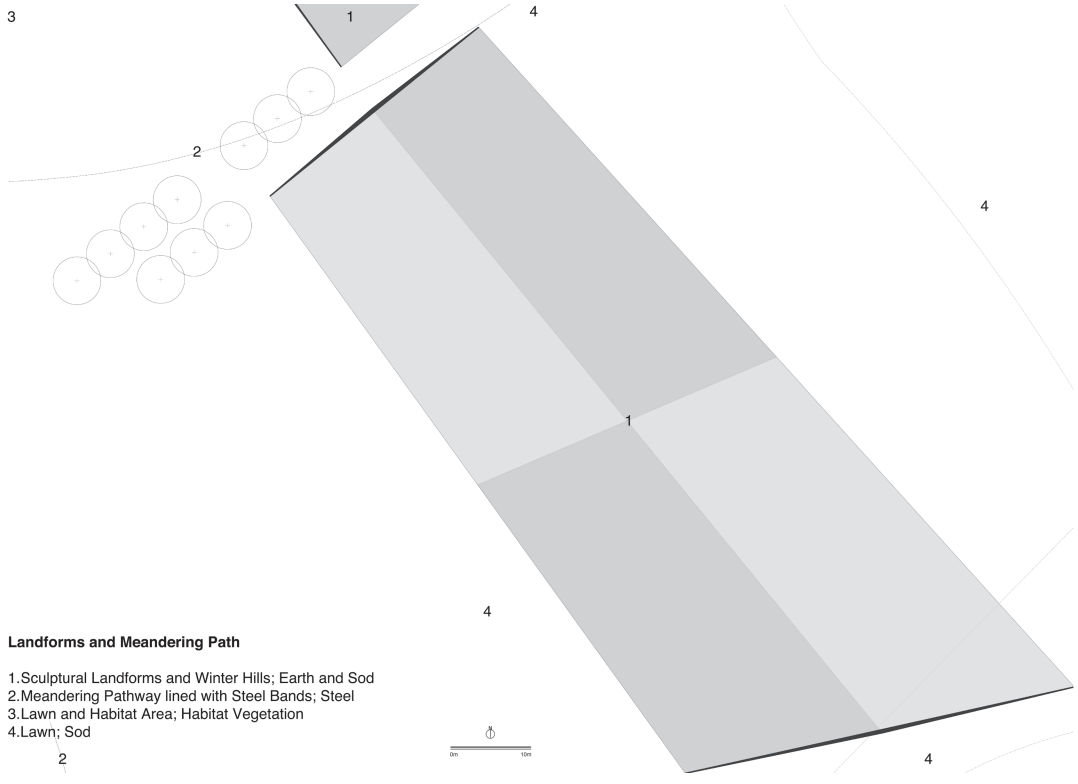


Figure G. “Oak Forest Hill” Plan



Landforms and Meandering Path

1.Sculptural Landforms and Winter Hills; Earth and Sod
2.Meandering Pathway lined with Steel Bands; Steel
3.Lawn and Habitat Area; Habitat Vegetation
4.Lawn; Sod

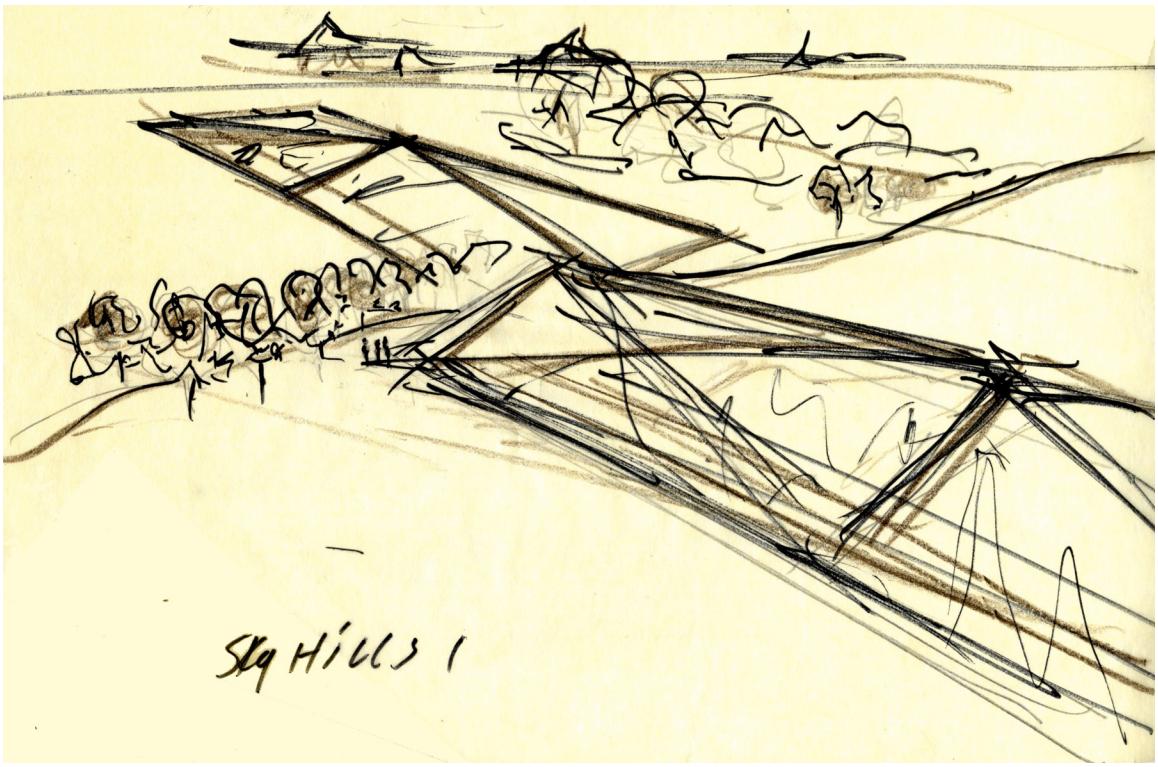
Figure G2. “Sky Hill” Plan

“Sky Hills” Plan in Figure G2.

Sky Hills (#1) are located on the east side of Conservation Drive. These two sculptural hills have sizeable sod covered open areas; the hill located in the north has an area of 2700m^2, and the south hill has an area of 3900m^2. These two hills were designed with a maximum east-west slope of 30%, with the north hill rising to 3.7m at its centre, and the south hill rising to 5.6m at its centre.

The majority of the surrounding area around the Sky Hills is covered by sod (#4). There are some areas (see #3) that are covered by herbaceous plants from the Floodplain zone of a typical riparian forest (Fabbri 2003, 7): Thalictrum dasycarpum (tall meadow-rue) and Smilax herbacea (carrion flower), and a variety of native grasses.

There are two existing tree stands that were kept in this part of the site, and they are complemented with additional trees from two habitat zones. There is a meandering pathway (#2), lined by steel bands, which runs between these two hills and that is intended to suggest the meandering form of the river.



“Sky Hills” (Figure G2) A bird’s-eye view

VIII. Conclusion

Project ONE is about a journey and the development of a process that was used to explore design process in landscape architecture. An understanding of beauty through the philosophy of wabi-sabi was explored with the explicit aim to understand how it can be applied to a design project to fulfil a desire to create beautiful environments.

This practicum document illustrates how the existing grounds and spaces of the Riverbank Discovery Centre were reinterpreted in this endeavour.

A number of key goals, pertaining to both the creation and the application of this process, were to explore the notion of beauty and the development of a design process. The secondary goal was to explicitly express this process and to convey the spirit and the beauty of the site to the reader.

My passion for these ideas started from a conversation with a client to design a new walkway. This evolved into a journey about seeing, feeling, and appreciating the beauty all around us and in things that may typically be overlooked. The site in Brandon is a typical riverbottom landscape. Through my research, it is hoped that the reader can see and appreciate that the beauty of this site was already there, and by finding its spirit, as I did in the moments that I first visited the site, that they may begin to see it as I did.

Throughout my time studying design in the Department of Landscape Architecture, at the University of Manitoba, I have been interested in the notion of beauty and the process of designing beautiful spaces. Through the work on this project, it became apparent that one of the first steps in the process of exploring beauty and to then create beautiful spaces is by opening your eyes and seeing, not just literally, but seeing through your mind and your heart - so you can feel it.

I conclude this work with a short quote from a book produced by a collective of designers, artists and musicians named Tomato, which has greatly influenced this project and the direction of my research, and ultimately my development as a designer (Baker 1996):

> the first few steps: the first few words: the first moment when a line crosses a line and suddenly you can never stop seeing. this changes - seeing more, seeing less, seeing better, seeing worse; but seeing is the first stone in the pond, and as the ripples spread they alter everything they touch, fundamentally. everything takes on meaning - a look, a touch, a motion, a sign, all seeds growing, seeds that never stop growing because you just never can stop them.

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