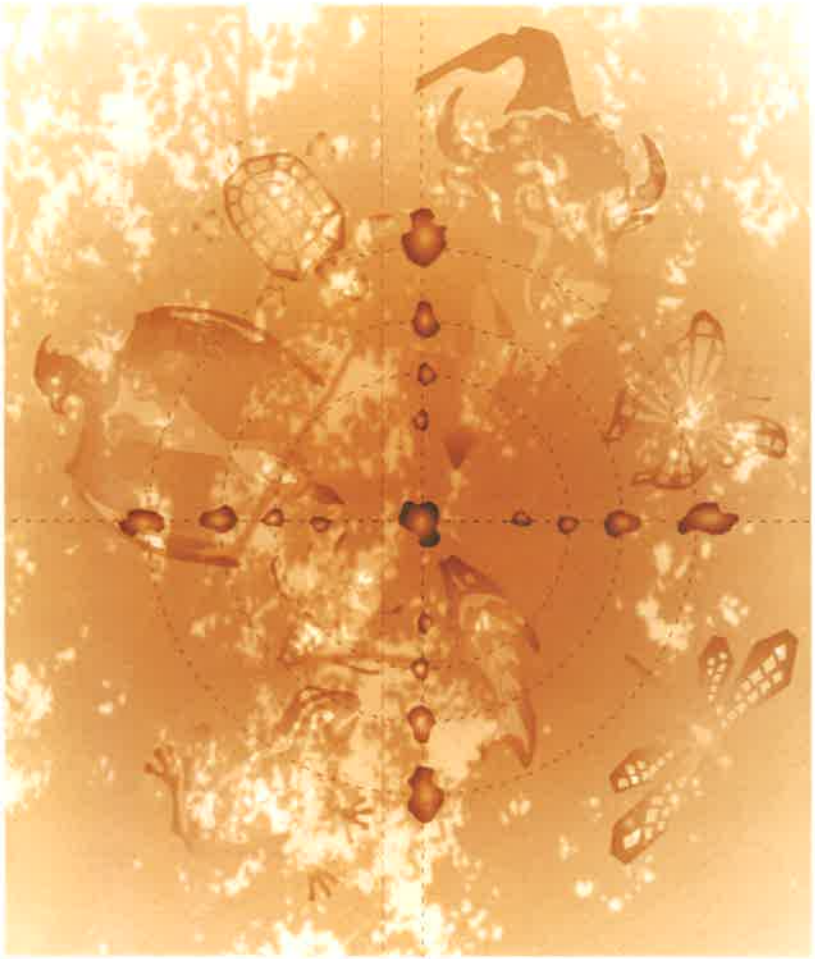

The Bridges of Hope Courtyard
An Exploration of a User Driven Therapeutic Landscape

By:
Monica Macra

This Thesis/Practicum is submitted to
The Faculty of Graduate Studies, University of Manitoba
in partial fulfillment of the requirements for the degree of:

Masters Of Landscape Architecture

THE UNIVERSITY OF MANITOBA

FACULTY OF GRADUATE STUDIES

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AN EXPLORATION OF A USER DRIVEN THERAPEUTIC LANDSCAPE

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A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University of Manitoba in partial fulfillment of the requirement of the degree

of

MASTER OF LANDSCAPE ARCHITECTURE

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Seed:

• The fertilized ripened ovule of a flowering plant containing an embryo and capable of germination to produce a new plant.

• The Source of development or growth. - Progeny.

Oxford English Reference Dictionary.

1.1 Acknowledgements

There have been many great experiences during this journey. I would like to thank all the people in my life who share my passion for making the world a better place through their actions.

To All The Women and Families of Hope
Your love, your willingness to share and your strength are the greatest inspiration of all.

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To My Family
Anyu, thank you for showing me how to be 90 years young.
Mom and dad, thank you for teaching me about real courage.
Gabi thank you for showing me what determination means.
Terry, thank you for taking care of me through it all.

Bridges of Hope Courtyard
Planting Day 2000

1.2 Introduction

-The Plant As Metaphor

This document is organized around the metaphor of a plant, because plants are a unique symbol of cycles, life and death. Plants have evolved specialized and interconnected components such as roots, stems, leaves, flowers, fruits and seeds that play chronologically orchestrated roles in their growth. In the same fashion, each chapter of this study is separate yet intrinsic to the creation of a complex healing landscape.

The physiology of the plant creates a framework for the ordered presentation of ideas in this document. The chapters are arranged in the chronological order of a plant's life cycle. This allows the document to flow logically while emphasizing the process and interaction between components.

The visual qualities of the document are designed to transmit the importance of nature and landscapes to human health and healing. The purpose of this layout is to emphasize the power of process in the field of therapeutic landscape design.

"Nature is but another name for health.."

Henry David Thoreau
Healing Gardens, page 1

1.3 Seeds
- The Germination of an Idea

A seed holds all the genetic base material required for the birth and growth of a new plant. A seed can be many shapes and sizes depending on the environmental conditions that have shaped its evolution. Each seed is unique in its possibilities.

Like the seeds of a plant, the idea of therapeutic landscapes is both old and young. On one hand, healing landscapes are an age old tradition in many human cultures. On the other hand, North American culture is just reawakening to the possibilities of healing environments amidst life's frantic pace. Given unprecedented access to information and exposure to multiple ideas and cultures, as well as unique users and sites, therapeutic landscapes now have the opportunity to become positive healing places unique to the needs of contemporary North Americans.

This chapter traces the initial questions, assumptions and objectives that formed the genesis of this study.

Dandelion Seeds
Photograph by Hugh Martel
Benjamin Moore 2000 Calendar

1.4 Can Landscapes Heal ?

This study has grown from a conviction based on personal observations and experiences of the healing power of nature. The hypothesis presented below is composed of initial assumptions that drove this study to prove that landscape architects can design positive places for healing.

Most people believe human beings need to be connected to Nature and her cycles especially when they are processing the physical and mental experiences of health and illness encapsulated within their own bodies and minds. Outdoor landscapes of particular compositions and qualities stimulate the senses evoking a range of human experiences and emotions essential to physical, psychological and social well being. Through a synthesis of natural and cultural elements, therapeutic landscapes can help those suffering from many types of illnesses to fight, adjust to, or accept the point at which they find themselves in life's journey. If designed with care and integrated into modern health care infrastructure, healing gardens can provide a vital and complementary resource to high-tech modern medical practice.

The ability of landscape architecture to organize ideas and spaces around layers of function and meaning, while transforming pure research findings from diverse fields into physical form, places a great responsibility on designers to address this type of design with dedication and vigour.

Hypothesis:

• A tentative assumption made in order to draw out and test its logical or imperical consequences.

Meriam Webster's Deluxe Dictionary Tenth Collegiate Addition

1.5 Research Goals

• Objectives

The most important element for creating successful outdoor healing environments is communication with the users. The designer's role as intermediary between the user and the envisioned landscape is a crucial link in the transformation and application of landscape theory into a healing place.

This practicum explores the opportunities of user driven healing gardens, with the expectation that a user driven and user built outdoor environment can provide a therapeutic process as well as a therapeutic place.

• This project has three main objectives:

• To understand the multi-disciplinary research findings and precedents that inform modern therapeutic landscapes;

• To develop a therapeutic design process focused on interaction and feedback between users and designers;

• To apply theory and process ideas in the design and implementation of a user driven therapeutic landscape.

Goal:

• The end towards which effort is directed.

Meriam Webster's Deluxe Dictionary Tenth Collegiate Addition

Chapter II
Roots - History

Root:

• A part of the plant normally below the ground, attached to the earth and conveying nourishment to it from the soil.

• The part of a thing attaching it to a greater and more fundamental whole. The basic cause source or origin.

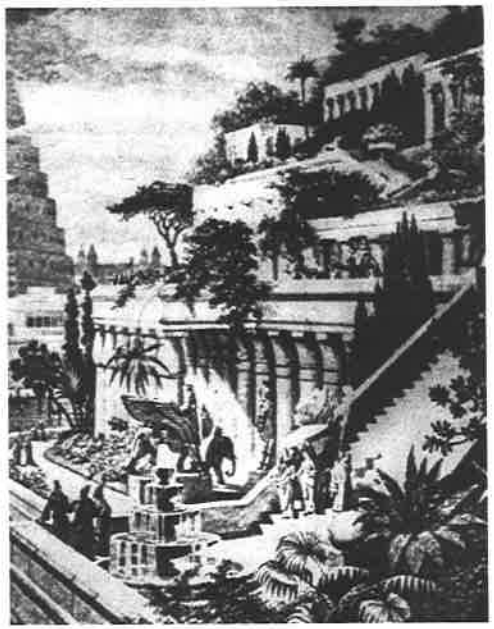
Oxford English Reference Dictionary.

2.1 Introduction - Roots

The root forms a base from which a plant grows and matures. Often located underground, the root forms a network that is the structural foundation and the processor of key nutrients for growth above. Even when the body of a plant is destroyed, if the roots remain intact the cycle of growth may begin again.

Like the roots of a plant, the evolution of the healing landscape forms the basis from which all modern designs have grown. The human response to the need for sheltered, safe and comforting outdoor spaces can be found in the spatial patterns and elements repeated throughout the history of the healing arts and health care. Contemporary therapeutic landscape design is both a return to the basics that have worked for thousands of years and an exploration of the integration of cutting edge cultural and technological attitudes and tools that are available today.

This chapter begins by defining therapeutic landscapes. It continues by surveying different historical approaches to outdoor healthcare environments, and concludes with a review of the modern types of healing landscapes predominant in North American healthcare settings.



The Hanging Gardens of Babylon
A History of Nursing, page 14

2.2 Defining Therapeutic Landscape

Before discussing the history and development of modern therapeutic landscapes a definition of 'Therapeutic Landscape' as it pertains to this study must be developed.

2.2.1 Therapeutic

The word therapeutic evolved from the Greek 'therapeutikos' meaning to attend to or treat. In North American culture 'therapeutic' has grown to mean the healing of diseases and disorders through non invasive processes rather than invasive diagnostic procedures.

In design terminology, to say that something is therapeutic is to recognize the combination of physical, social and spiritual qualities that support human health and well being within a space, activity or time.

2.2.2 Landscape

The term landscape is a highly individual concept influenced by personal, cultural, and environmental context. Even if the term 'landscape' is defined as a specific exterior environment or locale, the said landscape will be perceived differently by each individual.

Therapeutic:

• of or relating to the treatment of disease or disorders by remedial agents or methods. Therapeutic rather than diagnostic or invasive.

Meriam Webster's Deluxe Dictionary Tenth Collegiate Addition

In *Ten Versions of the Ordinary Landscape,* Paul Groth and Todd Bressi explore the proliferation of the word landscape in the Western world. They have discovered that as a complex modern society, North Americans classify the physical and mental world around them into compartmentalized ideologies for the purpose of processing a multitude of interconnected ideas and places. At any given time a person can view the environment from a combination of outlooks. Individuals can view the world around them as an economic, political, cultural, or a virtual landscape depending on the situation at hand.

Landscape architects are in the business of modifying the physical landscapes that form the context for all human experiences. In design, the term landscape is an amalgamation of all the qualities and attitudes pertaining to it, from the physical to the spiritual. A designed landscape is infused with a multitude of functions and meanings ready for individual, time specific interpretation.

2.2.3 Healthy Landscapes

A 'healthy landscape' can also have many locales and compositions depending on the outlook of the observer. What is a healthy, invigorating environment to some may not be so for others. In the context of this inquiry, a healthy landscape is a result of a balance between all the components within it.

Come slowly, Eden!
Lips unused to thee,
Bashful, sip, thy jasmines,
As the fainting bee,
Reaching late his flower,
Round her chamber hums,
Counts his nectars - enters,
And is lost in balms!

Emily Dickenson
1939

The healthy landscape is all around us. It can be man made or naturally occurring. Users can recognize a healthy landscape through the positive emotions and actions it evokes in people. If accessible, these spaces tend to be well used. If private, a healthy landscape is a treasured oasis. However, regardless of location and use, healthy landscapes always have a deep connection to natural elements and processes.

2.2.4 Therapeutic Landscapes

In the profession of landscape architecture the term 'therapeutic landscape' refers to a growing type of design. This type of design is concerned with the creation of useful outdoor places for health care facilities and their users. Therapeutic landscapes are focused on the development of active and passive outdoor environments for individuals, families and professionals, coping with, experiencing, recovering from or accepting the human cycle of birth, health, illness and death.

The form and purpose of a therapeutic landscape has infinite possibilities. The contemporary ideology and process behind developing a successful therapeutic landscapes is developed in chapters three and four.

My Favourite Therapeutic Landscape
Clear Lake, Manitoba
Watercolour - Monica Macra

2.4 The Development of Western Therapeutic Landscapes

Human history is filled with the search for a balance between safety and adventure, action and observation, life and death. All human innovations are a result of a never ending quest for mental, physical, social and spiritual fulfillment or "Holistic Health". Nowhere is the search for this state more evident than in the development of places dedicated to encouraging and sustaining human health.

This historic overview is a reflection of the ever changing balance between biophilia and biophobia as it was influenced by the parallel growth of medicine and illness in western culture. The positive and negative implications of nearby nature to human health and well being are manifested in the forms of healthcare buildings and their landscapes.

Each section in this overview is divided into three sections:

a) Cultural and Social Context
b) Scientific and Medical Beliefs
c) Building and Landscape Form

" When the wholeness of the world became split into categories, humankind saw the world and its creatures as good (my caribou) and bad (those wolves). The rational mind not only kicked in, it took over. Modern civilization began. Gardens attempted to recreate paradise, becoming ever more elaborate version of the human version of safety and wholeness. A natural garden however, dissolves this spit and validates reality. It includes the wide, wild world as it is, worts and all."

Jeff Cox
The Meaning of Gardens, page 25

2.4.1 The Greeks and Therapeutic Landscapes

a) Cultural and Social Context
Greek culture was based on the freedom and rights of the individual. Introspection, contemplation and philosophy formed a social context where human health consisted of a balance between mind and body.

b) Scientific and Medical Beliefs
Hippocrates, the father of modern medicine, used systematic observation and treatment methods to begin the tradition of person-centered care. Nature and elements such as rock, plant water, air were believed to be both the cause and the cure of social and physical ailments.

c) Building and Landscape Form
The large centers for learning and healing that emerged from this society were the predecessors of many modern institutions such as universities, hospitals and hotels.

The Asklepios is the most famous physical and social retreat of Greek times. Founded for the Greek God of Healing, 'Asklepios', the complex consists of a series of detached buildings organized around a large open space and enclosed by walls or cliffs. The buildings of this centre were open air arcaded structures with direct views and shaded seating. Each building housed a separate function such as meditation,

" The myth of the Asklepios became highly complex. Temples for healing were built on beautiful natural sites st the source of pure spring waters noted for their healing qualities."

The Hospital
A Social and Architectural History
Page 23

massage, etiquette and hydro treatments designed to develop and keep the human mind and body in an ideal form. Most of the functions of the buildings spilled out into the arcades, parks and courtyards composed of gardens, meadows and orchards. The expansive setting was used for exercise, solitary contemplation, group debate and many other activities considered essential to human health.

Asklepios Axonometric, The Hospital, A Social and Architectural History, page 5

2.4.2 The Romans and Therapeutic Landscapes

a) Cultural and Social Context

Ancient Roman culture was based on a genius for organization, assimilation and function rooted in an open society willing to 'borrow' ideas from others. To the Romans health was not an ideal to aspire to but a system for the recreation and treatment of the masses.

b) Scientific and Medical Beliefs

The Romans thrived on engineering and functional principles based on the division of knowledge and tasks. The Roman healthcare system tried to compartmentalize afflictions such as disease, mental illness and homelessness and developed separate treatment processes for each. The development of sanitation technologies such as running water, plumbing, heating and refuse disposal increased the health of the general public while driving innovations in healthcare treatments.

c) Building and Landscape Form

Due to their recognition of multiple ailments and treatments, the Romans were the forefathers of many modern healthcare facilities such as hospitals, hostels, asylums, care homes and spas.

The Roman Baths are the best example of the development of therapeutic landscapes during this time. The baths, located in every major Roman city, acted as social centres for health, hygiene, education and community interaction. Roman bath designs showed a great understanding and sensitivity to the interconnection of interior and exterior spaces. The typical bath complex consisted of auditoriums, gymnasiums, libraries, solariums, green houses, patios, fountains, gardens and a series of large pools. These pools called the trepidarium, calidarium, and frigidarium for their varying temperatures, were arranged in a sequence that moved from interior to exterior spaces. These pools formed the central healing activity of the complex.

In addition to recognizing the therapeutic benefits of water, the Romans also recognized the power of the sun and plants. Heleopathy (sunbathing), herbal massages, masks and body wraps were administered in solariums that doubled as green houses growing medicinal and non-medicinal plants for homeopathic use and sensual pleasure. Although the Roman bath tradition has influenced hotels and spas more deeply than healthcare facilities, it is a great precedent for combining

The Baths of Carcalla
Nursing The Finest Art, page 82

scientific treatment with occupation and interaction within a rich built landscape infused with connections to nature.

2.4.3 The Middle Ages and Therapeutic Landscapes

a) Cultural and Social Context
The Middle Ages were based on feudal society focused on spirituality and survival. Catholic beliefs based on rewards for earthly suffering in the afterlife gave rise to a spirit of charity and support for others in a community. A deterioration and loss of technological knowledge led to a more rigorous lifestyle deeply connected to the cycles and temperments of natural phenomena. During Medieval times religion formed the central social institution that guided daily life and supported community health.

b) Scientific and Medical Beliefs
Although the systematic study of human anatomy and surgery decreased during the Middle Ages, the knowledge and understanding of the medicinal benefits of plants for medical treatments increased greatly. Medieval monks dedicated to the medical welfare of their flock were called herbalists. As the first pharmacists, they developed many potions, lotions, salves and compresses for ingestion as well as surface application based on the observed affects of processed plant and mineral material. Besides an intimate knowledge of plants, Medieval

" Monastic rhythms of prayer, work, and mealtimes can be seen as a regimen statis for the rest and recuperation of the sick."

Restorative Gardens
The Healing Landscape, page 10

medicine had a decidedly spiritual approach. All human conditions ranging from the body to the mind and the soul were treated through gentle intrusive and nonintrusive treatment, occupation and recuperation.

c) Building and Landscape Form

The hospice developed during these times. Based on the latin noun 'hospes' meaning host and the latin verb 'hospitum' meaning good will between host and guest, hospice evolved to mean the place where healing and salvation for the mind and the soul was fostered.

With it's multiple, interconnected spaces and buildings, monasteries formed the first consciously designed therapeutic landscapes of the western world. The monastery was an autonomous landscape dedicated to fostering human health and development during all stages of life. The monastery complex was composed of a central cathedral, surrounded by stables, hostel lodgings, monks cloisters, scriptoria, vegetable plots, medicinal gardens, and orchards, all organized within a stout protective wall. These walls were a double edged sword because while they provided safety and enclosure to users while recovering, they also separated them from the normal cycles of life outside the complex.

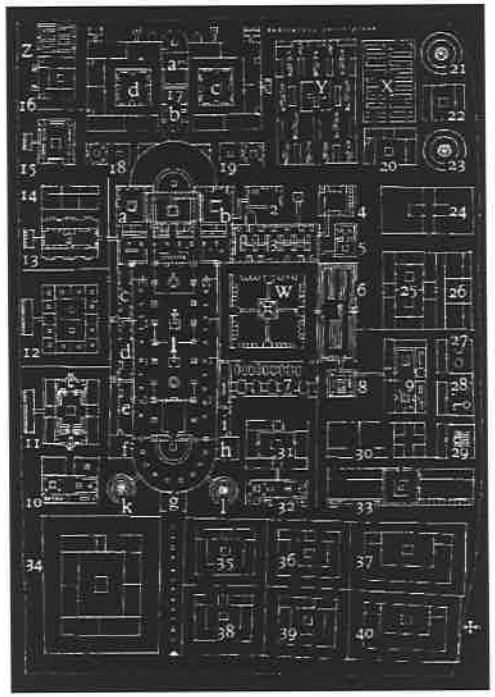
All monastic landscapes were both working and aesthetic compositions, infused with the tempo of the natural and religious cycles. These landscapes required maintenance,

Contemplation
Nursing The Finest Art, page 100

providing monks and patients with regimented occupation and exercise. The landscapes were not only used for production. They served as places for individual contemplation or group ceremonies ranging from prayer to grieving.

The most well documented example of this type of landscape was St. Gall Monastery built circa 1100. All the outdoor environments in the monastery were designed around the principles of microclimate, light , and water but their predominant theme was the multifaceted sensual and healing qualities of cultivated vegetation. The core of the therapeutic landscape at St. Gall was the cloister or medicine garden. The cloister was formed on a square pattern bisected by the four cardinal directions. The bisecting lines were often composed of water channels and pathways. The square was encompassed by building walls on at least three sides and the perimeter transition was formed by shaded arcades. Herbs such as box, dill, lavender, sage, mint and chamomile, to name but a few, were planted in ordered geometric patterns of unbroken celtic knots representing heavenly order and eternal life. Larger shrubs and trees such as birch, hazelnut and rose, also valued for their healing properties, were located at entrances and along edges to form landmarks and create framed views within the garden.

One of the most interesting therapeutic landscapes at St. Gall was the cemetery orchard. Composed of large plots shaded by



Plan of St. Gall
a-b entrance terraces, c-d cloister herb gardens, e-j scriptoria, k-l towers, w hospice garden, x vegetable plots, y cemetery orchard, z compost

The Hospital, A Social and Architectural History, page 9

fruiting trees, this healing landscape was designed to help individuals and families deal with death. The passage of life with its process of growth and decay was integrated into the symbolism of the fruiting tree which annually enacted the cycle of birth, procreation, maturity, and death. As part of the therapy of grieving, users were encouraged to return to the orchard and contemplate these inevitable aspects of life while celebrating the transition of the loved one to a better place.

2.4.4 The Renaissance And Therapeutic Landscapes

a) Cultural and Social Context

Renaissance culture was based on the person-centered world view and the belief that human beings had the right to control their own lives and environments. The social atmosphere of the Renaissance was filled with exploration and experimentation. Feudal villages were transformed from introverted fortresses into mercantile city states full of commerce, travel and communication.

b) Scientific and Medical Beliefs

As cities grew, uncontrolled dumping of refuse, increasingly hazardous occupational tools, and increased travel to areas with new diseases, drove existing physical and mental illnesses to epidemic proportions Advances in technology coupled with the diversification of labour gave rise to a new class of

"The Renaissance transformation marked a sharp decline in care giving, even while modern science was being born, because the faith based treatment of the ill was being replaced by a welfare institution for the cheap disposal of the sick and the poor."

Restorative Gardens
The Healing Landscape, page 22

professions such as scientists, artists, inventors and doctors searching for the rational solutions to these problems. This group of rational thinkers transformed the holistic community of the medieval hospice into more specialized and separate entities called hospitals, asylums and hostels. In addition these medical institutions once again served as social welfare institutions housing the destitute and the homeless.

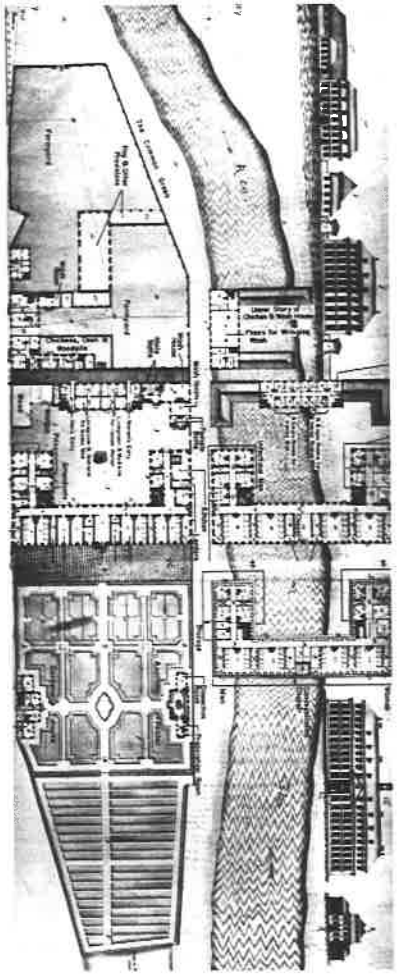
c) Building and Landscape Form

As noted above this attitude gave rise to the hospital. These new hospital buildings converted the insulation of the monastery into the isolation of the citadel. Each hospital contained a square or rectangular plan surrounding four courtyards. There were often no windows looking outward and residents were not allowed to use the courtyard spaces. In effect the therapeutic landscape disappeared as the exterior spaces in the 1500-1600. The courtyards and surrounding grounds were used only for food and fuel production. Although they remained working landscapes in this manner, all the therapeutic knowledge and spiritual respite of the monastic complex was lost.

Despite these general conditions the therapeutic landscape does survive in two forms during the renaissance period. The German hospital complex as exemplified by the Krankespital of Bramburg circa 1649, was a medical facility where patient interaction with others and occupation in the outdoors were

encouraged. The krankespital complex contained operating theatres, communal hospital wards, an asylum, kitchens, and stables. Here, the landscape was used as a connective tissue between structures and people. Farming plots, outdoor baths and fountains, arcades and porches, botanical gardens, vineyards and orchards were interconnected by paths, sitting areas, and work spaces accessible to staff, patients and visitors. Operating theatres were located within the botanical gardens. The gardens not only provided a soothing view but also contained exotic plants from around the world being grown for their direct pharmaceutical powers. In this renaissance hospital the power of nature as a healing agent was recognized and implemented as a companion to the most modern surgical and medical treatments of that time.

The other place where the therapeutic garden resurfaced in the renaissance was not a medical setting. The growing wealth and knowledge of mercantile princes allowed them to build extravagant retreats in the country. The architecture and landscape architecture of these retreats was based on the most modern mathematical, geometric and technological features. At the same time, these millionaires of their times had rediscovered the therapeutic qualities of contemplation and relaxation in a beautiful and sensual setting so cherished by the Greeks. The Villa Lante is a prime example of the therapeutic qualities of the renaissance garden. Man made vistas, alles, terraces and seating areas were married to manicured,



Plan of Krankespital, Bramburg
The Hospital, A Social
and Architectural History, page 116

sculptural plantings that changed with the seasons. Renaissance gardens captured and amplified the essential elements of a therapeutic garden. They organized light, water vegetation, climate, wildlife and human artifacts into magical places for retreat, solitude and socialization. It is the careful consideration of all these elements that has surfaced throughout time in successful therapeutic environments.

2.4.5 The Victorian Age and Therapeutic Landscapes

a) Cultural and Social Context

The Victorian age marked another change in social attitudes towards health and nature. The ideals of an industrial revolution produced new professionals such as economists and statisticians who applied mathematical models to the delivery of healthcare. These analysts drove the belief that starvation, sickness and death, caused by the inadequate treatment of the ill, robbed the state of labour and wealth. Newly formed democracies began to fund the development of improved living, working and healing environments for all classes.

b) Scientific and Medical Beliefs

While the word was changing economically and socially, the medical profession also began to discover that many infectious diseases, predominantly responsible for fatalities at the time,

The Villa Lante - The Fish Rill
Water Made Manifest
The Landscape of Man, page 161

were propagated in unsanitary, dense, industrial, urban areas. Sterilization, pasteurization, and clean 'healthy' environments became the essential tools of healthcare. Many diseases with no known cures at the time, were treated by prescribing daily occupation in an outdoor environment removed and protected from the pollution of the city.

c) Building and Landscape Form

The romantic movement was a rebellion against the exposed mathematical and geometric order of the renaissance. Driven by advances in the study of biology and evolution, victorian society sought to reconnect to 'true nature'. This reconnection took the form of the pastoral landscape. Although set in large expanses of land and filled with streams, lakes meadows and forests, these landscapes were by no means natural. They were a contrived, formalized, abstraction of the ideal country setting as defined by the concepts of biophilia and biophobia discussed in chapter III. Although beautiful and tranquil, these landscapes were designed for pleasure and produced nothing other than a rigorous requirement for maintenance.

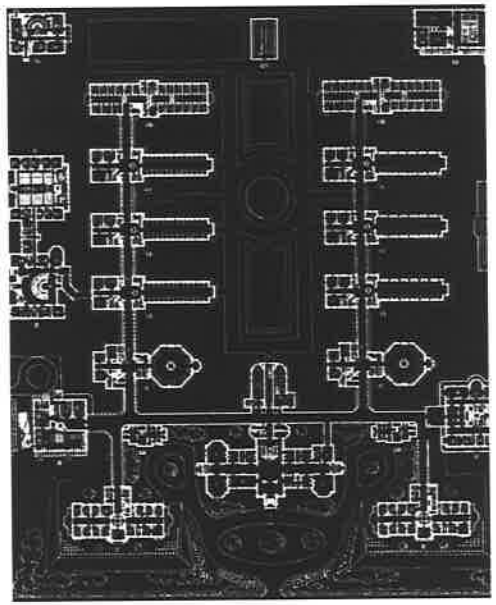
The result of the mass train driven exodus to the country and the expansion of cities into satellite communities, was the transformation of the compact introverted hospital. The hospital evolved into the extroverted pavilion hospital set within expansive landscaped grounds or the sanatorium healing community set high in the mountains.

"Second only to fresh air, I should be inclined to rank light in importance to the sick. Direct sunlight, not only daylight is necessary for a fastidious recovery... I mention from experience that a view out a window is quite important to recovery: the bright colours and scents of the flowers has an immediate effect...

It is generally believed that the effect is on the mind. Perhaps so, but it is no less on the body on that account, for while we can generate warmth, we can not generate sunlight."

Florence Nightingale
Mystic, Visionary, Healer, page 45

The most famous example of the pavilion hospital is John Hopkins Hospital in Baltimore. Built in 1876, the hospital achieved a new level of integration between interior and exterior environments. The hospital wards were organized along a central spine and radiated outward at ninety degrees creating a comb footprint. Each pavilion ward was three storeys high and contained: a south porch facing the pastoral grounds, a north corridor with an open arcade below and a sun deck above, and open communal rooms organized by illness on each floor. Two pavilions faced in on one three sided courtyard. All pavilions had large windows looking into these spaces. Most of these sheltered spaces between the fingers of the building were developed by nurses who saw the benefits of being outdoors rather than just looking outside. Eventually these spaces contained a wide variety of gardens, paths, shade structures, trees, water elements, respite and occupation specific elements designed for the needs of each pavilion's patients. Walking talking, praying and resting in the courtyards was seen as the best process of recovery for patients who had undergone harsh surgical or chemical treatments. The pastoral landscape surrounding the pavilion hospital formed a beautiful view and a secure biological buffer. It also served to isolate patients from their neighbourhoods and homes.



Plan of John Hopkins Hospital
The Hospital, A Social and Architectural History, page 185

Sanatoriums were another preferred form of medical treatment between 1860 and 1940. Designed as small communities dedicated to healing those infected with incurable diseases

such as tuberculosis and cancer, these communities contained a wide range of therapeutic landscapes from personal gardens to public parks. Saranac Lake, set in the Adarondak mountains of New York, is a prime example of this type of community.

Saranac consisted of cottages organized around a lose open plan interwoven with groves, paths and garden yards. Healthcare professionals visited patients in their own cottages and recommended daily exposure to fresh air and sun.

Instead of a town square, Saranac had a central medical clinic surrounded by a park designed for various therapeutic occupational treatments. These activity areas were used to assess a patients condition and to develop a healing regimen. The sanatoriums of the Victorian age are the predecessors of modern personal care homes, retreats and hospices designed for the care and support of the elderly and the dying.

A tuberculosis patient and her family outside a cure cottage at Saranac Lake

American Sanatoriums
Landscape Journal V.17, No 1, page27

2.5 Other Approaches to Therapeutic Landscapes

The tradition of Eastern and Native North American therapeutic landscapes is much more closely integrated into the ideals of life as a symbiotic process where health means balance rather than treatment. In the eastern and native traditions of deeper spiritual connection, most therapeutic landscapes are designed for the healthy and the ill to enjoy gentle interaction layered with multiple meanings. The modern resurgence of alternative forms of healing and the growing belief in the power of psychologically driven health, has its roots in the cultures and places discussed below.

2.5.1 Indian Spiritualism and The Paradise Garden

Indian culture is complex in its traditions and beliefs. Born from from the fertility of nature in the area and the conception of abstract ideals such as the heavens and the gods, Hinduism focuses on the achievement of a changeless, timeless state of perfect existence called Nirvana. Buddhism another influential belief system in this culture, has amalgamated these beliefs into the mandala or magic diagram of the cosmos. The mandala is a representation of the perfect state and the perfect place. Set within the pure geometric form of the circle and the square, the mandala is composed of a central buddha

surrounded by four other buddhas at the cardinal points. The arrangement of five is sacred and balanced, representing the five elements or the five senses. From this frame the mandala then depicts all aspects of the cycle of life connecting certain events to cardinal directions and seasons. All these intricate designs spiral around the central core.

The therapeutic and spiritual landscapes resulting from this ideology were called paradise gardens because they try to achieve this sense of timelessness and peace on earth. The paradise gardens are a resource for modern designers not only because of their purity of form and use of all the sensual elements, but also because their purpose was always stimulation, relaxation, and pleasure.

Shalmar Bagh was the most famous example of the paradise garden. Flowing down a hillside and spilling into Lake Dal, the landscape was a study in bi-axial symmetry, light and shade, process and form. A succession of terraces accented by canals, pools, waterfalls, orchards and gardens amplified the multiple sensual qualities of nature. Water was made to splash, gurgle or lay calm. Trees and shrubs were transformed into live walls, tunnels and avenues. Plantings were chosen for colour scent, texture, and religious symbolism. Hard surfaces such as earth and stone were sculpted and exposed. The garden of Shalmar Bagh was originally designed for royalty, however it has served the Indian population as an oasis for the healthy and the ill for centuries.

A Buddhist Mandala
Magic Diagram of the Cosmos
The Landscape of Man, page 60

2.5.2 Chinese Tradition and Domestic Gardens

Chinese culture is of increasing interest to many western designers because of the purity and simplicity with which the Chinese people build and live their lives. The Chinese culture reserves a deep respect for nature and all her processes. Chinese spirituality teaches that all of the earth's elements from rock to animal contain an essential spirit that must be recognized and celebrated in order to achieve a healthy balanced lifestyle.

Chinese built form is based on harmonies. Harmony requires the recognition of the relationships between people, nature and the built environment. Yin-Yang is essential to design and lifestyle in China. Yin meaning rock, hill or mountain and representing the male force must always be balanced with yang meaning still water or biological growth and representing the female force.

All traditional Chinese homes are based on the central courtyard garden surrounded by low buildings, walls and framed openings into other green spaces. Each of these private therapeutic spaces is based on the ideal of Feng-Shui an ordering system that dictates the composition of various design elements for the purpose of maintaining positive energies and dispelling negative energies from the space.

The Feng-Shui of a place is interpreted through the precise placement of the Pa Kua symbol.

Healing Gardens, page 43

The traditional garden in Sachow is composed of perimeter walkways protected by deep overhangs, meandering paths and low bridges, island and mainland gardens, pools and streams. Walls and mass plantings are designed to frame views, while lanterns allow light to transform the spaces at night. The courtyard garden is filled with fish, birds and insects. It provides a variety of microclimates and moods for many therapeutic activities ranging from morning exercises to evening meditation. The Chinese therapeutic gardens are a resource for modern therapeutic design not only because of their intricate composition but also because of their domestic scale and attention to details.

Sachow Garden, Peking
The Landscape of Man, page 74

2.5.3 Japanese Zen and Contemplation Gardens

Japanese culture is based on the assimilation and modification of Eastern mainland traditions. Many of the organizing principles of Indian and Chinese landscapes can be found in Japanese public parks and sacred spaces. In Japan, Buddhism, Taoism and Shintoism combined to make the contemplation of life and landscape processes a conscious and organized religion. Zen Buddhism took these beliefs to an extreme by striving to understand the meaning of existence through meditation and contemplation of the pure landscape.

One of the most sought after therapeutic events in modern Western culture is quiet time for contemplation and

introspection. Japanese meditation gardens are a resource for modern therapeutic design not only because of their profound simplicity but also because of the heightened sense of personal well being and serenity they produce in their users.

Ryoan-Ji at the Daiju Monastery in Kyoto was patterned around the ideology that the human mind is a void upon which thoughts and experiences float and are contemplated. At Ryoan-Ji a small courtyard enclosed a field of ritually raked quartz crystals pierced by five groups of mathematically and spiritually composed boulders. The abstract and pure landscape, allowed for individual contemplation and understanding. The composition could be viewed from many angles and positions and thus created a new landscape for contemplation on each visit. Although this therapeutic landscape was more meaningful in its cultural context, the encouragement of multiple interpretations and the evolution of perceptions are important considerations for any therapeutic landscape.

Ryoan-Ji, Kyoto
The Landscape of Man, page 96

2.5.4 Aboriginal Traditions and The Medicine Wheel

Native North American culture has not contributed a physical landscape to this inquiry, because traditional native lifestyles incorporated a respectful and gentle footprint on the land. North American Tribes, depended upon, and were deeply connected to, nature as an ever changing life force.

The lessons for therapeutic landscapes found in native cultures are based on their holistic lifestyle and approach to healing. Native North Americans were keenly attuned to their bodies and to nature's cycles. They understood the multiple healing dimensions of a combination of homeopathic medicine, community support and spiritual guidance.

Native wise women spent a lifetime expanding and passing on an extensive knowledge of the healing properties of indigenous plants and animals. Every part of a plant or animal was revered and used without waste in Native culture. Through this connection to nature, native healers had discovered pain killers, anti depressants, hallucinogenics, salves, poultices, lotions, digestives and many other medicines well in advance of western medicine. Religious, community rituals, using symbolic markers and the rhythms of music, were designed to deal with every aspect of life from birth to death as a wholesome and natural experience.

The medicine wheel, a composition of 37 elements organized in a loose circle and oriented by the cardinal directions, was one of the most predominant ceremonial and healing traditions of Native North American Tribes. Prior to European immigration to North America, over 20,000 medicine wheels existed throughout the Americas. Medicine wheels served many purposes.

Big Horn Medicine Wheel, Medicine Mountain, Wyoming
The Spirit of The Land, page 18
Photo by Courtney Milne

The medicine wheel was often composed of boulders or rocks much like Stone Henge in the Western world. Medicine Wheel sites were ceremonial centers for culture, astronomical laboratories, healing retreats and places where society connected with the forces and cycles of life on earth. Medicine wheels could be used in many rituals and ceremonies ranging from cleansing, meditation, and psychological rejuvenation to physical healing, burial and grieving.

The tradition of the medicine wheel has resurfaced as a healing alternative in contemporary society. It can serve as a strong spiritual and mental companion to high tech medical treatments. Flexibility and personal interpretation are the strengths of the medicine wheel as a therapeutic process in current healthcare practices. This ritualized, highly concentrated mental and physical exertion involves sound, taste, movement, smell, sight, and imagination in galvanizing the human senses and emotions towards a healthy balanced outcome.

The Medicine Wheel—by Thunderbird Woman

The Medicine Wheel Diagram
Dancing With the Wheel, Page 1

2.6 The Twentieth Century and Therapeutic Landscapes

In the last century North American culture, science and medicine have changed and diversified dramatically and rapidly. Initially the changes brought on by capitalism and the technological revolution served to suppress or eliminate therapeutic landscapes around medical institutions. As the century progressed the transportation and information revolutions caused a rapid diversification of medical care facilities and eventually therapeutic landscapes were rediscovered as crucial and complementary environments for modern medical practices.

The increased pace of change in the last century has been divided into the following sections:

- The Techno Revolution & The Highrise Hospital
- The Mobile Revolution & The Medical Campus
- The Information Revolution & Diversification

2.6.1 The Techno Revolution & The Highrise Hospital

a) Cultural and Social Context
The beginning of the twentieth century in North America was

"Not long ago, operating rooms had windows. It was a boon and a blessing in spite of the occasional fly that managed to strain through the screens and threaten our very sterility ... there was the benediction of the sky, the applause and reproach of thunder, ... the longevity of stars to deflate a surgeon's ego. It did not do the patient disservice to have heaven looking over his doctor's shoulder. I very much fear that, having bricked up our windows, we have lost more than the breeze: we have severed a celestial connection."

Richard Selzer
Healing Gardens, page 15

dominated by a social belief in endless prosperity and development based on the economics of capitalism and the opportunities of immigration. Capitalism transformed all of life's events into products or services. The hospital became an organization fueled by efficiency and profit while healthcare became an increasingly centralized and bureaucratic service. In this atmosphere, the concept of 'health' changed from an overall sense of personal health and consciousness of natural cycles, to a focus on the specific mental and physical conditions of an individual at a specific point in time.

b) Scientific and Medical Beliefs

Capitalism was fueled by the technological revolution. As machines began to replace human labour people became even more removed from the processes that created their everyday utensils, nutrition and mobility. This revolution produced extreme changes in building technology, introducing steel framing and elevators to the function and aesthetics of built forms. Medicine was also developing from a focus on the treatment of contagious diseases which were now handled by vaccines, to a concentration on chemical pharmaceutical and invasive surgeries. The country doctor, a combination of therapist, pharmacist and veterinarian, receded from society as the professional physician and surgeon took centre stage. This began the depersonalization of healthcare, the specialization of healthcare, and the dissection of the person in medical practice.

"A city hospital must be adapted to the requirements of city life, and must be constructed on the same principles as the city itself. Light, air and space are essential to life and a certain amount of each is absolutely necessary ... but the necessity of concentrating action ... compels residents to sacrifice the suburb in order to encourage business. So must the sick and wounded of such a population submit to similar concentration in order to secure advantages such as surgical and nursing skills which can not occur efficiently and expediently without compaction."

Dr. Casper Morris
The Hospital, A Social and Architectural History, page 190

c) Building and Landscape Form

The most striking change to built form and therapeutic landscapes created by these attitudes and innovations was the transformation of the low rise hospital into the high rise healthcare facility. These facilities were the first to isolate the patient in two aspects. First, the personal room incubated the patient from outside contact. Second, increased elevation removed the patient from direct access to exterior environments.

Fueled by increased urban densities and the elevator, the first highrises were load bearing structures that were often terraced creating balconies and rooftop spaces. Unfortunately these spaces were only created for structural purposes and never became rooftop gardens or balcony rooms for hospital users.

The Boujeau General Hospital built in the heart of Paris around 1935, was an example of this ideology. The building footprint filled over 90% of the city block, isolated patients in locked wards and rooms, and provided no vegetation anywhere on the grounds, effectively eliminating the therapeutic landscape from the facility. Many urban, highrise hospitals built after the introduction of steel were even more contained and isolated as straight glass towers replaced terraces and rooftops. Recently some of these existing buildings have undergone transformations that take full advantage of their outdoor spaces. Courtyards, atriums and rooftop landscapes have been

The Beaujon Hospital, Paris
The Hospital, A Social and Architectural History, page 197

developed as places for respite and therapy alike.

2.6.2 The Mobile Revolution & The Medical Campus

a) Cultural and Social Context

After World War II the expanding horizons of mechanization and mass production once again offered unprecedented possibilities for personal comfort and wealth to average citizens. The principles of mass production were focused on human settlements and North Americans focused on providing every family with a high standard of living including the single family house, the car, the welfare system and the medicare system. Social identity in this period was based on a consumer culture, that believed you were what you owned. Community and family health was judged by outward appearances of wealth and stability. Below the surface Canadians and Americans of the 1950's and 60's became increasingly isolated, overworked and stressed. These effects on culture can be traced to the growing incidence of depression, addiction and mental illness during these times.

b) Scientific and Medical Beliefs

The development of assembly lines, machines and computers changed the production process. Advances in chemistry created synthetic materials such as plastics. Advances in mechanics created motors and cars. These developments were both positive and negative in the field of healthcare. These new products supported advances in mobility, sterility, surgical

"Food together with treatment, are the process of manufacture. The hospital planner must seek to eliminate all lost motion and unnecessary waste in the delivery of health services to the patient body."

Edward F. Stevens - Hospital Architect The Hospital, A Social and Architectural History, page 203

procedures, refuse disposal, and post operative care. At the same time, pollution from the creation and use of these products poisoned the environment and catapulted cancer, heart disease, and respiratory diseases into common and fatal illnesses. In order to deal with the increased complexity of knowledge in the medical profession, medical professionals became specialists focused on sections of human anatomy rather than the whole person. Unable to see the individual beneath the symptoms and diagnosis, professional healthcare providers curtailed personal interaction and emotion in their practice of medicine. On the construction front new technologies and materials for roads and buildings, combined with the car and automation, to allow North Americans unprecedented movement and homogeneity.

c) Building and Landscape Form

Just as the elevator made the highrise possible, the car supported the creation of the Hospital Campus. As people expanded outward into suburbs hospitals moved with them. Released from the constraints of minimal space and driven by the modern architectural movement based on 'form following function', these mega health centers became highly efficient, sterile and isolated environments.

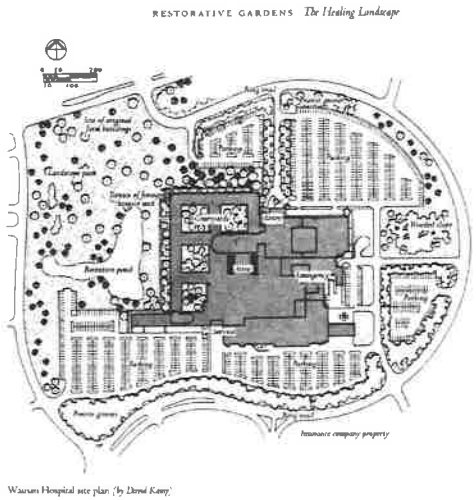
The hospital campus consisted of separate buildings designed for specific functions, connected by tunnels or corridors, and organized for the optimum access of the vehicle on the site.

Wausau Hospital Landscape Grounds, Restorative Gardens, page132

The complex of buildings was seen as a synthetic organism of various mechanically controlled life support systems such as air quality and temperature. Landscape mediation through location and orientation were not considered to be relevant.

The Wausau Medical Centre -Wisconsin, built in the late 1950's was a good example of the continued elimination of therapeutic landscapes during this time. At Wausau, over 80% of the available grounds were used for surface parking. The remainder of the ground floor landscaping was styled after the pastoral landscape with large open areas and clusters of trees. Although beautiful and soothing to look upon, the grounds had no pathways, rest areas or interactive gardens for active participation. In fact these manicured grounds were designed for a corporate image rather than for hospital users.

Many mid century medical campuses that suffered from underutilized outdoor spaces have recently undergone major transformations. Large landscape grounds are being developed into interconnected therapeutic and recreational landscapes for staff, patients and families using these facilities for extended periods of time.



Wausau Hospital Plan, Wisconsin
Restorative Gardens, page128

2.6.3 The Information Revolution & Diversification

a) Cultural and Social Context
The last three decades of the twentieth century in North

America were dominated by a social belief in diversity, personal empowerment and the endless availability of information. The information revolution transformed a regional world into a global society. Increased communication and travel permeated North American ideology with non-western attitudes towards lifestyle, health and spiritual values. This increased ability to seek a personal path through information, prompted the current rediscovery of the connection between mind, body and the environment and created a demand for a diversity of healing practices ranging from acupuncture to homeopathic medicine.

b) Scientific and Medical Beliefs

Medicine and technology have also undergone dramatic changes. Advances in communication, imaging and laser technologies allowed the medical profession to diagnose and treat illness with increased sensitivity and decreased surgical invasion. At the same time advances in genetics and biology increased human understanding of the sources and causes of debilitating illnesses such as Alzhimers and Aids. The most important shift in the medical community was the increased understanding that a diverse range of specialists had to come together in a communal and sympathetic treatment of the human condition. In addition, the idea of preventative medicine and sustainable health practices, stimulated the development of locally driven physical and mental health support programs such as the healthy communities movement.

"The fundamental consequence of all this is simple, and perhaps shocking. Intelligence, which has traditionally been a very precious commodity, has suddenly become so cheap that, for all intents and purposes, we will soon regard it as free.

And it is not just inside heads now: it is everywhere. Your car has VlSI chips in it, your computer can process information at many times human speed, ... even your toaster can be programmed.."

William Mitchell
Digital Design Media, page 4

Scientific attitudes to nature also changed. Instead of being viewed as a uni-dimensional resource or a construction of parts, natural systems and processes became models for sustainable natural and human systems. The recognition of the dynamic balance found in nature, prompted a new approach to politics, economics and especially healthcare.

c) Building and Landscape Form

The diverse attitudes and cross cultural ideas developed during this period prompted a proliferation of built environments designed for health promotion, health care, health recovery, birth and death. These contemporary facilities were all connected through computer based databases and information systems as well as through human care teams composed of family, friends, spiritual guides, psychological and medical professionals. As a result North American healthcare facilities have grown to include:

- **Acute General Hospitals**
- **Psychiatric Communities**
- **Addiction Treatment Centers**
- **Walk-in or Private Clinics**
- **Recovery Centers**
- **Personal Care Homes**
- **Spas and Retreats**
- **Hospices**
- **Pediatric Centers**
- **Home Care Services**

With the growing recognition and study of the health benefits of exterior therapeutic environments (Ch. III), these facilities

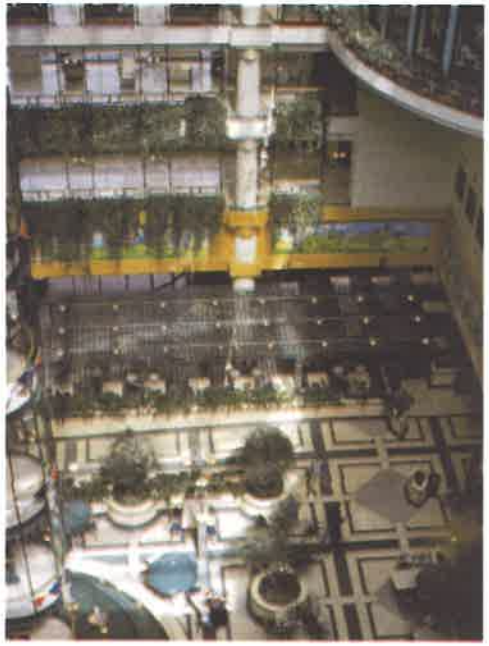
began to be developed with various therapeutic landscapes as integral components of the overall design. The proliferation of healthcare facilities caused a growing variety of building designs and compositions. The diverse range of built forms simultaneously revived many therapeutic landscape typologies developed throughout history. In their book, *Healing Gardens (2000)*, Clare Cooper Marcus and Marni Barnes have classified these outdoor landscapes into the following:

- **Landscaped Grounds**
- **Front Porches**
- **Entry Gardens**
- **Atriums**
- **Terraces**
- **Rooftop Gardens**
- **Courtyards**
- **Plazas**

Therapeutic landscapes have also begun to be designed as safe and therapeutic environments for specific user groups. These landscapes currently include:

- **Alzhimers Gardens**
- **Pediatric Gardens**
- **Occupational Gardens**
- **Staff Retreats**
- **Respite Gardens**
- **Treatment Gardens**
- **Social Gardens**
- **Grieving Gardens**

Although this study focuses on a courtyard landscape designed for women with breast cancer, all these therapeutic landscape typologies inform the therapeutic landscape theory and design process developed in the next two chapters.



Hospital For Sick Children, Toronto
The Atrium Recreation Plaza

An example of the combination of form and use in the creation of therapeutic landscapes.

Healing Gardens, page 148

Chapter III
Stems - Theory

Stem:

• The main trunk of a plant. The primary plant axis that develops buds, and shoots instead of roots.

• a fundamental line from which others have arisen. To occur or develop as a consequence.

Oxford English Reference Dictionary.

3.1 Introduction -Stems

In plant physiology the stems form a skeleton, the framework from which a plant grows. The stems of a plant are a layered system that is growing and changing continuously. The range of information available to designers seeking to develop a theoretical understanding of healing landscape design, forms the framework from which design development and implementation can occur.

This chapter explores three research areas that support and inform therapeutic landscape design. They are:

3.2 Environmental Behaviour Research
3.3 Occupational Therapy
3.4 Landscape Architecture

Each approach is examined in three sections:

a) Definitions and Recent Developments
b) Current Attitudes and Theories
c) Relevant Case Studies and Precedents

Regardless of these resources a designer must develop an individual theory for designing healing places. The conclusion of this chapter focuses on the theory developed for this study and presents Therapeutic Landscape Design Considerations - A Matrix.

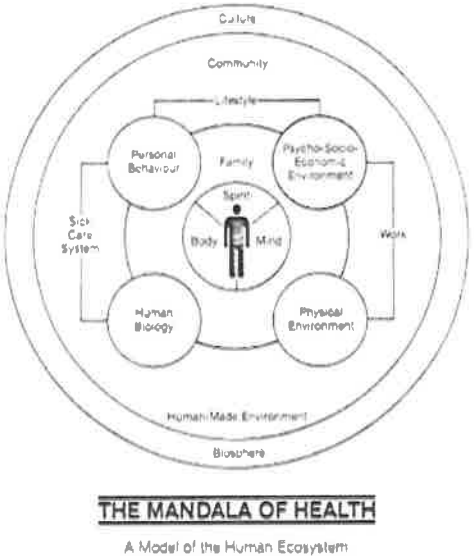
Winter Skeletons
Photograph by Hugh Martel
Benjamin Moore 2000 Calendar

3.2 Environmental Behaviour Research
- The Psychology of Healing Places

3.2.1 Definitions and Recent Developments

Environmental behaviour research or EBR is a field of study in the psychological and social sciences that strives to discern the complex interrelationships between human beings and their environments. Although the human connection to nature is 'felt' by many, EBR researchers want to substantiate this hunch by scientifically measuring the physiological and psychological responses of people to environments.

Environmental Behaviour Research began developing in the late 1960's when designers, psychologists, and doctors, realized that their office buildings, homes and medical facilities were making people sick. 'Sick Building Syndrome', prompted a great number of investigations into human responses to interior building conditions such as air quality, lighting, colour, sound and materials. These studies found that sick buildings often had poor air circulation, irritant lighting, isolated rooms, confusing corridors, and allergenic finishes, that increased the incidence of stress, dementia, fatigue, aggression, depression and phobia in users. The quantification of these negative effects, encouraged designers to work with EBR researchers as they developed buildings that were more responsive to human needs



Mandala of Health
The Role of Architecture in Healthcare
The Year 2000 and Beyond, page 94

As these studies progressed EBR researchers have continuously found that the most cherished built feature is the window, an opening and connection to the landscape. This revelation guided EBR researchers towards studying the relationships between people and nature. These studies have produced a number of ideals and theories discussed below.

3.2.2 Current Attitudes and Theories

There are two approaches to the human relationship to nature in EBR. Following the 'nature vs. nurture' debate, the evolutionary approach and the experiential approach represent two ways of interpreting human preferences for particular natural elements and compositions.

'Nature'
Biology and evolution as triggers for landscape preference.

Beneath the complexity of the term 'landscape' and all the diverse meanings it has attained (see chapter II, 2.2), there lies a basic relationship between people and nature that has driven human development and innovation throughout history. Edward O Wilson and other paleontologists have distilled the human relationship with nature to the basic fact that nature is both our life force and our nemesis. Wilson's studies explore modern attitudes towards landscape archetypes. An archetype

is a mental image and attitude that was once so vital to human survival it has become a subconscious preference.

The two basic attitudes human beings carry into an assessment of any environment are biophilia and biophobia.

Biophilia: The human love of and connection to nature. A basic human reaction to nature as a life giving and sustaining force. Nature and all her elements are seen as the source of human life and survival.

Biophobia: The human fear and disassociation from nature. A basic human reaction to nature as a destructive and dangerous force. Nature and all her elements are seen as the source of human destruction and mortality.

Biophilia and biophobia are the driving forces behind peoples reactions to archetypal spatial compositions, wether they are natural or man made. Wilson (1992) has found that several spatial compositions have always been associated with positive or healthy experience and continue to be key elements of positive landscapes in today's culture. These are:

The Cave: a place of refuge and full shelter, surrounded on all sides and made of strong materials. A domestic semi enclosed landscape of safety - a home base.

The Savannah: a place for safe exploration with groups of vertical elements and an unobstructed panoramic view. A place for nourishment with clear patterns connected by landmarks and shade.

Antelope Canyon, Arizona
The Spirit of The Land, page 110
Photo by Courtney Milne

The Water Source: a place for revitalization, often cherished and secret. A life giving landscape full of magic and transformation.

The Lookout Point: a place for extensive viewing, high and open to all directions where light and air are predominant. A departure point for exploration or defense.

Just as human beings began to associate these places with aspects of biophilia, they also encountered spaces that encourage biophobia. There are:

The Forest: a space with deep dark shadows full of growth and decay with no wayfinding cues or horizon. A landscape of mystery ,danger and uncertainty valued for adventure and precious commodities.

The Desert: a space devoid of biological life, filled with unrelenting sunshine and lacking any landmarks, shelters or destination. A landscape of extremes and infinity associated with exposure and death.

EBR professionals (Appleton & Ulrich 1984), argue that as a remnant of millions of years of evolution, modern humans have a genetic readiness to respond positively to environments once favourable to the well being and survival of pre-modern man. These evolution based landscape preference theories suggest that healing landscapes will be most effective for human health and restoration if their designs consider these subconscious connections and fears between people and nature.

Skita National Historic Park
The Spirit of The Land, page 173
Photo by Courtney Milne

'Nurture'
Experience as conscious trigger for landscape preference.

The term 'landscape' has evolved such a diverse range of meanings (see chapter II, 2.2) because human beings interpret their world through their experiences. Rachel and Stephen Kaplan (1998) have developed a human to nature interaction theory based on the idea that the environment is an educational and informational tool. In this view, the environment is a transmitter whose message is composed not only of individual landscape components but also of the organization of these components in space and time. In the context of this theory, people can, and do, change their attitudes towards nature throughout the course of their lives. This 'learning' theory is founded on two basic perceptual needs: understanding and exploration.

Understanding: a desire to make sense of and comprehend daily environments and events. Understanding provides a necessary sense of belonging and security.

Exploration: a desire to expand horizons and find out what lies ahead. Exploration provides a necessary sense of growth and stimulation.

Understanding and exploration are the force behind complex interpretations of landscape preferences. Kaplan and Kaplan (1998) believe that the way people process landscapes depends on four dynamic and interconnected aspects of any environment.

Coherence: A coherent landscape is organized and orderly: divided into clear areas. Perceiving coherence involves repetition, clarity and unity.

Complexity: A complex landscape is a dynamic organization of a rich and intricate palette of elements. Perceiving complexity involves coherence, multiplicity, and diversity.

Legibility: A legible landscape is distinctive and memorable. Perceiving legibility involves singularity, contrast, pattern and rhythm.

Mystery: A mysterious landscape is partially concealed and tempting. Perceiving mystery involves deduction, inference and fascination.

Perhaps the understanding of the human relationship to nature lies in accepting that it is probably a combination of nature and nurture reactions and perceptions. Kaplan and Kaplan, Ulrich and others, have gone on to suggest that the key indicators for positive and negative experiences are the level of arousal or overload that landscapes elicit in users. Environments exceeding a critical level of activity, complexity and intensity cause sensory overload. Conversely, environments lacking a critical level of activity complexity and intensity create sensor underload. Both deprive the user of therapeutic experiences. Certain combinations of nature and human interaction create a balance for maximum health benefits. A successful healing environment creates flexible, adaptable places, that allow multiple users to achieve the personal level of arousal they require for positive interaction with nature.

Preference Matrix

	Understanding	Exploration
2D	Coherence	Complexity
3D	Legibility	Mystery

Preference Matrix Developed by Rachel and Stephen Kaplan With People In Mind, page 13

Stress Relief and Healing Gardens
A Psychological Approach to Therapeutic Landscapes

The broad definitions of the human relationship with nature explained above are useful but not specifically geared towards therapeutic landscape design for healthcare. As this young field of inquiry develops, there will undoubtedly be multiple theories on the psychology of healing landscapes. To date however, only one such approach has been developed.

Roger Ulrich (2000) has developed a comprehensive EBR theory for restorative gardens. This theory focuses on the passive experience of healing gardens as a source stress reduction and improved medical outcomes. Within this theory, a design must meet user needs and expectations and produce positive experiences to be considered a 'healing landscape'.

A health outcome is an indication or measure of a patient's condition or progress. Health outcomes can be measured subjectively or empirically from self reported experiences and feelings, observation of motor skills and pain medication intake, to biological measurements of brain activity, blood pressure and hormone production. Outcome monitoring brings tangible evidence to the medical and design community of how gardens are therapeutic to users.

"... good garden design employs the mind without fatigue, tranquilizes yet enlivens it and thus gives the effect of refreshing, rest and reinvigoration"

Frederick Law Olmstead
Healing Gardens, page 97

Stress has a broad definition used to encompass the process of responding to events and environmental features that are challenging, demanding or threatening to well being. The stress theory is based on well documented studies (Ulrich 1986, 1992, Parsons 1991, 1994, Taylor & Aspinwall 1993) that indicate almost all people suffering from ill health experience stress, and that many of these individuals with no coping devices experience acute stress.

'Stressors' are episodes or experiences within a particular environment that cause or catalyze stress. Most users consider medical facilities to be stress filled environments. This is disconcerting considering some facilities such as care homes, hospices and resource centers are supposed to function as places for relaxation, normalcy and stress relief. Some stress caused by diagnosis, misinformation, the process of acceptance and highly technical tools and procedures, can not be avoided. However, increased stress due to poorly designed facilities with no outlets such as therapeutic landscapes only contribute to stress when they could be alleviating it.

Stress triggers numerous physiological, psychological, biochemical and behavioral changes in the user causing or exacerbating illness. The psychological effects of stress caused by the cognitive appraisal of a situation can cause fear, aggression sadness etc... The physiological effects of stress caused by the biochemical reactions in the body can cause

'The Friend' -
Reflections: Illness and Healing:
The Art of Robert Pope, page12

high levels of adrenaline, increased blood pressure, and respiratory problems. The behavioral effects of stress are a result of these unseen processes and can be manifested through sleeplessness, outbursts, irritability, passivity and noncompliance. The primary effects of stress can combine to precipitate long term problems such as hypertension, diabetes, clinical depression, social withdrawal or repression of the immune system.

The theory of supportive landscape design outlined below has origins in earlier frameworks developed for architects and interior designers. Ulrich has however tailored this theory to restorative garden design. Therapeutic gardens can reduce stress by fostering the following experiences:

- **A Sense of Control**
- **Physical Activity**
- **Social Interaction**
- **Natural Distraction**

A Sense of Control:
A sense of control refers to a person's real or perceived ability to determine their own actions and experiences. Many studies have shown that providing patients with a sense of control reduces stress levels (Evans & Cohen 1987). Control can be achieved through giving users control over medical information, daily routines, and access to social and outdoor areas. Although no direct studies of therapeutic garden settings have been conducted, similar research on urban parks (Ulrich et al. 1991) suggests that the idea of 'temporary escape' and

Restorative Coping Resources Provided By Gardens

Activity	Social Support
Mild Exertion	Among Patients, Visitors and Staff
Occupation Physical Rehabilitation	Group and One on One Interaction

Control Actual & Perceived	Natural Distractions Fascination
Temporary Escape Access to Privacy	Plants, Flowers Water, Earth Wildlife

↓

Stress Restoration and Buffering (Enhanced Coping)

↓

Improved Health Outcomes

Roger Ulrich - Conceptual Model: Effects of Gardens on Health Outcomes. Healing Gardens, page 37

'choice', greatly encourages stress relief through perceived or actual control.

Design considerations for control can include: visibility of the space, wayfinding to and in the space, variety of spatial experiences, full access, and flexibility or the ability to adjust features for comfort and use.

Social Support:
Social support refers to the ability and opportunity for interaction between patients, staff, friends, peers and family. It is the perceived support, through immaterial and material means, a person receives from individuals or groups of others. Social support ranges from communal activity, one on one interaction to just hanging out. Social interactions and support systems reduce stress and combat illness by 'buffering' the individual from having to cope with a situation or process on their own. Studies in several healthcare contexts have consistently found that higher levels of social support, facilitated by outdoor spaces, improve recovery rates in heart attack patients, survival and recovery rates in cancer patients and quality of life in terminal patients (Spiegel et al. 1989).

Design considerations for social support can include: creating spaces for various group sizes and unstructured activity, programming design for structured activities, creating comfortable places to enjoy others through scale, climate and

A natural distraction can be an activity.
The Healing Landscape, Page 9

ergonomics, and a sensitivity to cultural preferences for dealing with illness and death.

Physical Activity:
Physical activity refers to the psychological benefits of exercise on the reduction of stress. Section 3.3 will discuss the benefits of an occupational approach to therapeutic landscapes. Several studies have linked aerobic and anaerobic exercise ranging from walking to yoga, to a marked decrease in patient depression (especially the clinically depressed Greist 1984). In fact Brannon and Feist (1997) suggest physical activity in the form of regular exercise should be used as a form of psychotherapy for patients suffering mental illness. Studies of the elderly (Ruskanen and Parketta 1994), have shown that even mild exercise and outdoor exposure can reduce stress and improve attitude in users. Exercise likewise moderates depression and unacceptable behaviours in youth (Koviak and Griffin, 1994). Exercise has also been linked to lower anxiety levels on par with current treatments such as meditation and biofeedback.

Design considerations for physical activity can include: making the space the exercise destination, providing space for movement and stationary activity (paths - open spaces), creating semi enclosed spaces for three to four season use, building exercise equipment into the environment through art and ergonomics (ramps, inclines, bridges, steps, sculptures),

and allowing interactive play through responsive play elements (walls, structures, slides, games etc...)

Natural Distraction:
Natural distraction refers to a natural feature or situation that promotes an improved emotional state by reducing worrisome thoughts and fostering beneficial changes in human physiology. Some of the positive distractions already being used in healthcare include comedy, music, art, occupation, animals and interior vegetation. Section 3.3 explores the benefits of human occupation for health.

Many studies have linked natural distraction to an overall sense of peace and health. Schroder (1986,1991) found that the moods most commonly reported by the users of Chicago's arboretum were serenity and tranquility which were associated with features such as the pool, the forest, the flowers and the openness and lightness above. In another study conducted by Cooper Marcus and Barnes (1995), hospital garden users listed their most positive garden qualities as trees, vines, flowers, stone, water, sunshine, animals, and certain sounds and fragrances. The restorative qualities of viewing nature have been extensively researched in all kinds of settings. Studies such as: *View Through a Window may Influence Recovery from Stress, Effects of Exposure to Nature and Abstract Pictures on Patients Recovering from Heart Surgery, Vegetation and Stress: A Comparison Study of Varying Amounts of Vegetation,*

" I was in the antepartum ward for one and a half months trying to hold on to a painful pregnancy that had taken us six years to conceive. I was fearful and anxious.

Looking out my hospital window to the large Douglas fir trees and meadows where wild bunnies hopped out and helped me to focus beyond my immediate pain.

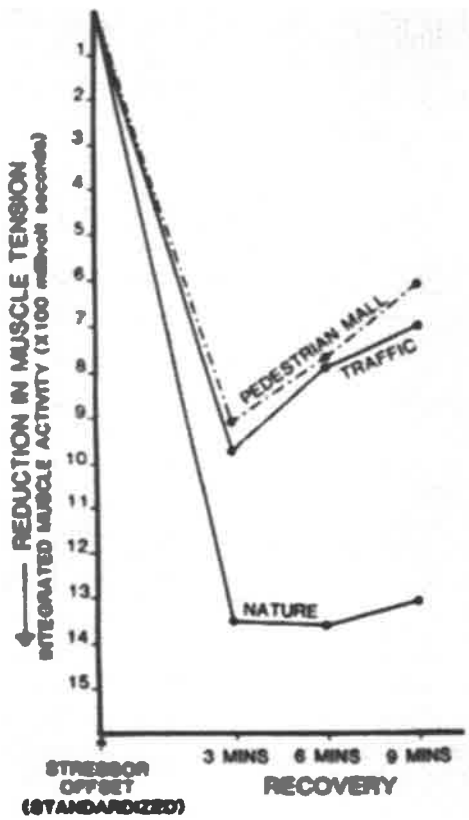
Three months after my daughter's birth I was able to carry her out of the hospital to see the bunnies and trees that had been part of our survival."

Patient Comments
Victoria B.C. Canada
Barnes and Cooper Marcus
Healing Gardens, page 205

and *Restorative Effects of Natural Environment Experiences,* have consistently found deep rooted human preference for outdoor environments and activities over all other environments for health and healing. In the healthcare setting, Nakamura, Fujji and Hartig, use quantifiable indicators such as brain waves (EEG's), heart rate and hormonal changes (body scans, blood tests), to measure preferences for different natural elements and scenes.

A good example of this data is available in Ulrich's study "Stress Recovery During Exposure to Natural and Urban Environments." (1991). The figure from that study reproduced on this page shows the relationship between muscle tension as it relates to subject exposure to three separate environments. Studies such as this one highlight the existence of negative distractors in nature settings. These distractions range from negative human impacts such as urban noise or smoking to unmediated natural conditions such as sunlight and temperature.

Design considerations for natural distraction can include: the composition of multiple species of plants for colour, texture, scent, visual impact, structure, shade, cultivation, and medication; the inclusion of soft water and strong stone or earth features, consideration of seasonal and daily climate, and encouragement of wildlife.



Muscle tension during recovery from stress in subjects exposed to nature settings (figure 2-8), Ulrich et al., 1991

With proper design consideration and execution this psychologically driven therapeutic design theory can produce many positive outcomes. Some of the outcomes anticipated by Ulrich are:

- a reduction of existing stress in patients, staff and visitors
- a positive buffer from future stress events
- a reduction of depression
- a higher quality of life for the chronic or terminally ill
- an increased level of orientation and awareness
- a reduced cost of healing based on shorter recovery rates
- an increased level of satisfaction with healthcare facilities

3.2.3 Case Studies and Precedents

This study focuses on women diagnosed with, undergoing treatment and recovery from breast cancer (see Chapter V). The following EBR case studies have been used as meaningful references for the design.

Case Study 1:
" A Distraction Technique for Control of Burn Pain."
(Miller A, Hickman C and Lemastress G. 1992)

This study tried to gauge the effects of natural scenes and sound stimuli on burn patients undergoing dressing changes.

'The Sparrow' -
Reflections: Illness and Healing:
The Art of Robert Pope, page 35

The view and sound of an outdoor environment transmitted via a TV and soundtrack, increased patients pain tolerance, muscle relaxation, and sense of stress relief before, during and after the procedure by 70-80%. This study is relevant to therapeutic landscape design for breast cancer survivors because they undergo a similar range of painful and draining treatments. This study encourages the design of multi layered gardens with many sensory experiences for patients experiencing mental and physical challenges.

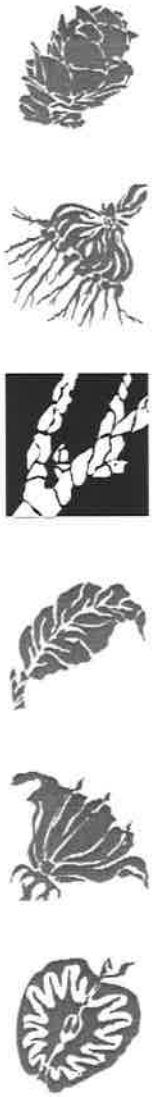
Case Study 2:
" Attentional Fatigue & Restoration in Individuals With Cancer (Cimprich B. Doctoral Dissertation 1990)

This study is based on clinical research that has measured decreased focus and motivation in cancer patients after invasive procedures. Using a battery of tests that measured attention duration and level of concentration, Dr. Cimprich studied a group of breast cancer patients in the first 90 days of recovery from surgery. A control group and an intervention group were randomly selected. The intervention group was given a list of possible restorative experiences ranging from sitting outside to mild exercise, and asked to chose three activities per week which must be maintained for 20-30 minutes. Each subject was tested four times. Initial tests in both groups produced results equivalent to the concentration and attention span of brain damaged patients. The recovery of the

control group was irregular, with many subjects making little or no progress. By comparison, the intervention group not only gradually improved in the empirical tests, but also began returning to their normal lives. Post study interviews indicated that over 70% of the intervention subjects had returned to their jobs, began art projects, travelled, or begun school within the 90 day study period.

The study also gauged which activities were most effective in the recovery period. Overall patients found that a balance between exterior exposure and interior comfort was a key ingredient to increased energy and motivation. All test subjects agreed that choice with regard to personal preference and a sense of safety within a group environment were the most important factors in their recovery regardless of location and activity.

One of the most debilitating effects of cancer is lethargy and isolation (see Chapter V), These results are important to this study because they prove that increased activity and exposure to nature after cancer treatment aids in the recovery of patients and returns them to their friends and family.



3.3 Occupational Therapy
- The Role of Activity

3.3.1 Definitions and Recent Developments

Occupational Therapy is the art and science of directing human participation in selected tasks designed to: restore, reinforce and enhance performance: facilitate learning the skills and functions essential to adaptation and productivity: diminish or correct pathology: and promote or maintain health. OT's fundamental concern is the capacity to perform with satisfaction to self and others, those tasks and roles essential to productive living and the mastery of the self and the environment. (Occupational Therapy, 8th Edition,1993).

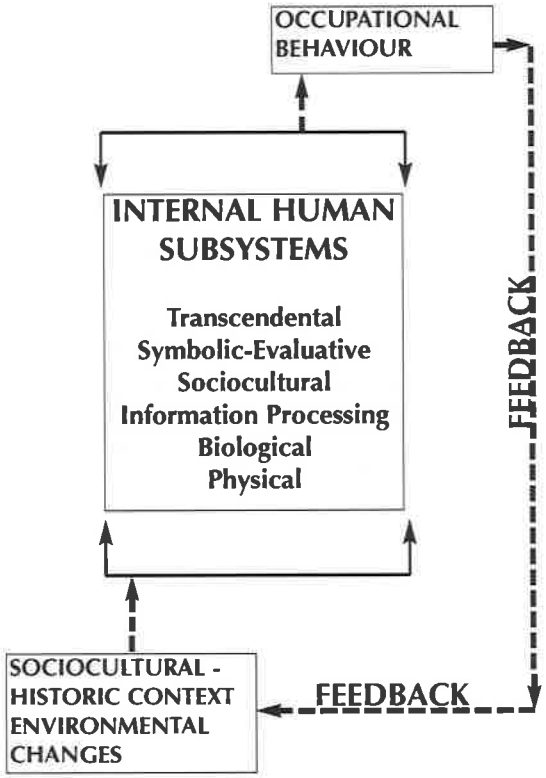
The development of occupational therapy and a process of healing is woven into the events and ideas of the last century. The early development of occupational therapy is closely linked to the philosophy of humanism and the social values of humanitarianism founded in the late 1900's. 'Moral Treatment', the approach to treating mental patients as people capable of developing responsibility for their own actions, founded the humanitarian approach to patient care evident in all forms of OT today. The 'Arts and Crafts Movement', a social ideology promoting a return to the land, self reliance and the ideal of overall health, used the production of quality human environments and artifacts as a means to an end.

"Extensive empirical work is not required to tell us that the very young and the very old differ in their recreational and recovery patterns. Activities that involve natural settings are important throughout the life cycle, but the likely 'uses' or 'forms' of involvement are different."

Rachel Kaplan
The Role of Horticulture in Human Well Being and Social Development, 1990, page 130

Wounded soldiers needing treatment during World War I, catalyzed the profession. 'Reconstruction Aides' joined the war effort in the role of occupational and emotional support for soldiers recovering from various deadly injuries to the mind and the body. After World War II, the rehabilitation of patients became an autonomous profession with independent 'physical medicine' departments in many hospitals across North America. By 1947 The American Occupational Therapy Association was fully organized.

Modern occupational therapy is based on detailed, multifaceted systems of activity, designed to help individual patients recover from and cope with any number of physical and mental conditions. The variety of possible treatment approaches have prompted specialization. Contemporary occupational therapists often develop expert knowledge in areas such as cardiology, physiology, psychology etc and set up practices geared to providing therapeutic programs for clients with corresponding problems.



Model of Human as an Occupational Being, Occupational Therapy, page 51

3.3.2 Current Attitudes and Theories

Occupational Therapy is a rich and diverse field that can not be defined through one paradigm or approach. Instead of trying to understand all the mechanisms and details of occupational programs, designers should try to involve

occupational therapists who have the necessary expertise and are resident to the particular facility in the design of the therapeutic landscape. Having said this, an introduction to activities based healthcare and developing attitudes towards therapeutic landscapes in the profession are necessary for informed design.

Occupational Therapy: Activities as Ends and Means
An Activities Health Based Theory

The 'Activities Health' theory of occupational therapy was developed by Simme Cynkin and Anne Mazur Robinson in 1990. It is used as the organizing theory for occupational therapy in this study because it explains the bonds between action and the environment crucial to therapy and architecture in the clearest and most concise manner.

'Activities Health' is a state of well-being at which the individual is willing and able to carry out activities of every day living with satisfaction and comfort, in patterns and configurations that reflect sociocultural, psychological and physical norms and have an idiosyncratic variation in number variety balance and context (Cynkin and Mazur Robinson,1990, page 51). Occupational Therapy uses everyday activities such as walking, biking, painting, writing, and gardening as the means through which a patient becomes healthy.

Occupation is the best therapy whether undertaken alone or in a group setting.

Howard A Rusk Institute For Medical Rehabilitation. Restorative Gardens, page 57

The unique value of Occupational Therapy rests with activity because:

- everyday activities are characteristic of and define human existence

- culturally specific activity patterns can be detected by studying the manifest activities values and norms of various sociocultural groups.

- acceptable and unacceptable idiosyncratic variations can be found by studying the patterns and configurations of activities in these groups.

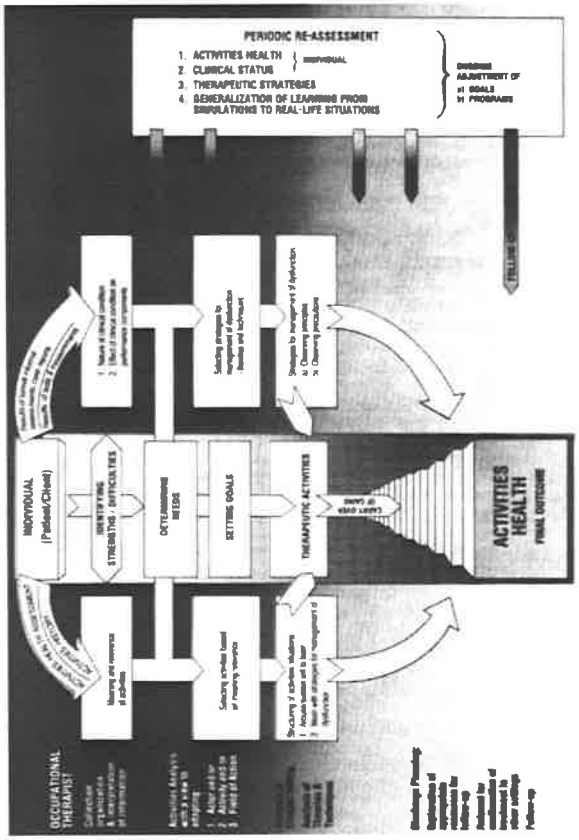
- individuals lead the most 'healthy' or satisfactory lives when their everyday patterns and configurations of occupation are acceptable to the group while fulfilling personal needs.

- these patterns and configurations are a state of health, and can be equated with function.

- activities from this spectrum can be systematically selected and combined by professionals as the therapeutic means for the development or restoration of function.

Activities as Ends:

In order to achieve activities health a client must be assessed. Activities health assessment sets up a baseline of information from which a therapist can develop an appropriate treatment program in collaboration with the client, family and other health providers. The assessment usually consists of physical, mental and sociological information provided by doctors,



Activities Health Approach to Clinical Problem Solving

Occupational Therapy and Activities Health, page137

social workers, family and others combined with interview and questionnaire responses derived from initial one on one meetings. The goal setting that evolves from this assessment solidifies the ends that can be attained and should be pursued by the individual. Landmark events should be set up as mini-ends in themselves along the journey, in order to allow the patient a continuous sense of progress and accomplishment.

Activities as Means:
Each activity is inextricably embedded in its own context and linked to other activities and patterns that are part of living. Therefore, there is no such thing as a 'simple activity'. Each activity comes complete with actors, a field of action, and antecendant/consequent experiences. Activities are the means through which changes in human ability and state of health occur. It is during regular and designed activities that the mind and body adapt to, gain and regain physical, mental and social abilities. In the process of healing all occupations and activities should facilitate the following:

- *Meaning and Relevance:* Some activities have special meaning to individuals based on past experience or cultural upbringing. Therapists should strive to allow the symbolism and meaning of these places and activities into the therapeutic process.

- *The Will and Ability to Learn:* Some activities have inherent qualities that encourage clients to grow. Therapists should strive to foster activities that encourage curiosity, modeling, reciprocity and competence.

" Today my husband and I went out to collect grape vines ... It thrills me to take something from nature that has been part of earth's cycles and to make something from it ... looking back on the process of making these wreaths the effect of the project was relaxation. It allowed me to put my energy into something beautiful and just for me."

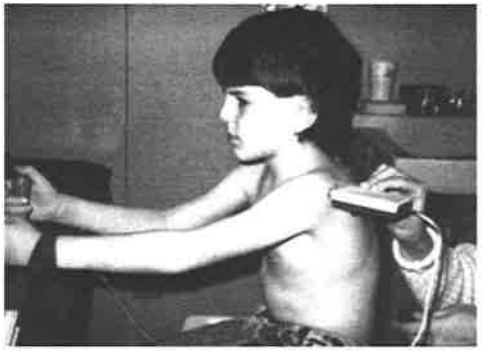
Darlene Halvorsen - Client Journal. Occupational Therapy and Activities Health, page 109

• *The Management of Dysfunction:* Some patients have disabilities that will limit or define the range of activities they can accomplish during therapy. Therapists should strive to find activity combinations that provide maximum enjoyment and development without exacerbating those conditions that can not be modified.

The Therapeutic Environment or Field of Action:
The most relevant portion of this theory to designers is occupational therapy's definition and expectations of their healing partner - the environment. Cynkin and Robinson define 'the field of action' as consisting of the spatial and locational aspects, explicit and implicit rules, and temporal contexts of the environment as selected by the therapist to enhance and support the therapeutic activity and rehabilitation process. There are a wide range of possible therapeutic environments. However, the most frequently used fields of action for contemporary therapeutic practice are:

• *The Clinical Setting:* The clinical setting is usually an indoor environment artificially composed to focus activity and function on target rehabilitation goals. It the most common field of action in occupational therapy, and is often limited in space and configuration. This setting is also highly equipped with the modern tools, materials and technologies used to develop and monitor rehabilitation (especially in the physiotherapy field).

• *The Classroom Setting:* The classroom setting can be an indoor or outdoor environment created by one on one or group activities based on learning within a space. Classroom settings for occupational therapy are predominantly interior



A Clinical Setting for Occupational Therapies is sometimes necessary. Occupational Therapy, page346

environments. The classroom setting is organized in a manner that encourages the sharing of knowledge, the development of relationships and the growth of community, during the healing process. The classroom environment must reflect the domestic or everyday qualities of communal living while allowing for some structured and controlled instruction.

• *The Natural Field of Action:* The natural field of action refers to the actual context within which an activity or occupation would occur. Whenever possible occupational therapists strive to use existing or create spaces that contain these unique contextual qualities. A clients injuries and disabilities determine the degree to which this can occur. The therapist must work towards reintegrating the individual into the normal activity and environment, through a series of graduated occupations and environments undertaken over an extended period of time.

Temporal Processes and Changing Fields of Action:
As mentioned above, the process of healing is a temporal activity. Time and space combined with occupation and interpretation form meaningful experiences. It is very important that the occupational field of action reflect the various aspects and scales of time through which human beings measure and contemplate their lives. Although interior settings can be designed to reflect the passing of time, outdoor environments are uniquely suited to transmitting a sense of the momentary, daily, seasonal and infinite scales and cycles of time. Through the use of time in therapy, the client gains an understanding of progress, balance and the cyclical pattern of their own lives.

A Natural Field of Action for Learning to use a Wheelchair is the Outdoors. Occupational Therapy, page 541

The Therapeutic Landscape
Environments for Various Forms of Occupational Therapy

The growth of many diverse and varied occupation therapies has prompted a diverse group of professionals (Mark Francis, Pat Williams, Jayne Zajiak, Jain Melkin, Michael Samuels, Gary Coates) to consider the potential of landscaped environments for rehabilitation and healing. These advocates began by reconsidering the location of interior therapy environments and their perceptual and actual connection to the outdoors. As a result of evidence from numerous psychological studies (see section 3.2), occupational therapists began to request that their clinics, classrooms, and treatment facilities be located immediately adjacent and accessible to developed exterior landscapes like courtyards, atriums, gardens and parks.

Some disciplines in occupational therapy have embraced the outdoor environment as a tool. Horticultural, art and music therapists have begun to incorporate the use of therapeutic gardens in a balanced interior and exterior approach to healing. Therapists in these fields consider the specifically designed and tailored 'healing landscape' one of the most effective occupational environments because it provides suitable and flexible fields of action for a large and varied range of activities in one of the most 'normal' settings for all members of the population -the outdoors.

" Art, prayer and healing take us into our inner worlds of imagery, emotions, visions and feelings... A journey into the the spirit or the soul of an experience or person is deeply healing."

Michael Samuels M.D.
Strategies for Incorporating Art as Healing Force

Journal of Healthcare Design

Physical Therapy and The Therapeutic Landscape:
Physical Therapy is the most traditional medicine based occupation. It uses explicit knowledge of human physiology, to treat physical injuries and rehabilitate the human body through non invasive actions and activities. Physical therapy is the most hands on form of therapy involving the most powerful human sense- touch. Physical Therapy ranges from kinetic exercise programs and massage to hydro and electrical therapy. Some of these treatments require specifically designed and highly technological equipment.

The patient commencing physical therapy is often immobile or incapacitated in some physical manner. In addition he/she may also have a weakened immune system vulnerable to infection. As a result physiotherapists currently prefer controlled interior settings for most of their work. However, it has been shown (Taylor 1977, Gaynes and Lawlor 1997), that bringing the natural environment indoors or taking the patient outdoors for some treatments, (especially those late in the recovery process), greatly increases the rate at which recovery of mobility and function occurs.

Developments in remote and micro technologies are changing the physiotherapists dependence on a stationary work station. These developments coupled with the overall positive effects of natural environments have prompted the movement of physical treatment centres into semi enclosed and well lit

" The sounds that people hear in healthcare facilities are very frightening.

Healthcare providers and those not under the stress off illness, often block out or overlook the sound environment which can be stressful for patients and families.

Control over making and hearing sounds helps to alleviate this discomfort. The design of sound buffers and sound makers such as waterfalls or green walls can also have a positive effect."

Tali Neumann
Creating a Healing Healthcare Environment

Journal of Healthcare Design

spaces such as atriums, sunrooms, and arcaded courtyards. Although the use of the outdoor environment in physical treatments has yet to be realized in medical settings, the positive effects of treatments undertaken in the exterior and interior environment born from the Roman Bath tradition has reached new levels of sophistication in the modern spa or resort hotel. These palaces of relaxation and rejuvenation have taken the best of traditional and alternative medicines such as homeopathy and acupuncture and blended them into a dynamic health maintenance and promotion program.

Design considerations for physical therapy can include: integrating exercise requirements into the landscape through permanent forms (stairs, pulleys, pumps, cycles etc..), integrating technology based treatment into exterior places or destinations (hydrotherapy pool, electrotherapy grove, heleopathy deck), creating adaptable built forms for multiple physical activities that can be modified based on client scale, strength and ability.

Artistic Therapies and The Therapeutic Landscape:
Artistic therapies are occupational programs designed to foster social, physical and psychological growth and well-being through exposure to and creation of arts, crafts, music, comedy, and dance. Artistic therapy can range from writing, finger painting, quilting, and sculpting to making music, dancing and acting. Artistic therapy is practiced in medical

Self Expression and The Outdoors go Hand in Hand

The Experience of Nature, page40

and community resource facilities. Until recently, most artistic therapies were delivered to clients in substandard interior settings (especially in hospitals) that were considered the leftovers or abandoned corners of buildings. Lacking adequate spaces many artistic therapists have sought out gardens, parks, gazebos and greenhouses for their activity programs. Imagine how successful these therapies can be if they are set within landscapes specifically tailored for them.

Increased research on the effects of artistic therapies, (Michael Samuels 1998, Tali Neumann 1997), has shown that these creative and social outlets influence stress levels, recovery rates, dexterity function, and many other health measures as effectively as more traditional forms of occupation. Research has also begun to show that the environments for these activities can enhance or hamper the therapeutic experience (Samuels 1998). As a result artistic therapists have begun working with designers and healthcare administrators to create more positive therapy environments. Many designers and therapists alike have found that places for creating and appreciating different forms of art are most comfortable and best served by a natural environment filled with diffused light, water, and nature's inspirational powers.

Design considerations for artistic therapies can include: designing the landscape as a sensual pleasing place full of balanced and dynamic composition, light, colour, texture,

" The new discovery for both the artist and the healer is simply that art heals.

When we paint or look at a painting, sculpt or feel a sculpture, play or listen to music, dance or watch dancers, write or read poetry, tell a story or enact a play, we heal.

When we are in presence or process of creativity, we heal."

Michael Samuels M.D.
Strategies for Incorporating Art as Healing Force

Journal of Healthcare Design, 1998

smell, sound etc.., creating objects and places in the landscape that are molded by nature or can be molded by people (rain sticks, wind sculptures, chimes, chalkboards, walls, stages, ampitheatres etc...), supporting creative activities by designing for multipurpose use (programmed or spontaneous, morning or night, individual or group), providing shelter for the ongoing achievement of these activities during different seasons and weather conditions.

Horticultural Therapy and Therapeutic Landscapes:
Horticultural Therapy is a recent addition to the world of occupation based therapy even though gardening has been exulted for its therapeutic effects domestically for centuries. The evolution of horticultural therapy programs for healthcare and community settings is closely linked to the environmental movement, the resurgence of homeopathic medicine and the rediscovery of the therapeutic qualities of nature. Horticultural therapy is the most biologically and environmentally rooted occupational approach, and therefore the most well suited to therapeutic landscapes.

Plants, animals and the natural elements have a wide spectrum of uses in our culture and underpin the very mechanism of our modern existence. Horticulture is defined by horticultural therapists as the intense use of plants for the sustenance, occupation, medication, recuperation and enjoyment of people.(Diane Relf 1998). Horticultural therapy (HT) is defined

"Imagine any mind ever thought a red geranium!

As if the redness of a red geranium could be anything but a sensual experience

And as if a sensual experience could take place before there were any senses

We know that even God could not imagine the redness of a red geranium nor the smell of mignonette when geraniums were not and mignonettes either.

D.H Lawrence

as an adjunctive therapy treatment approach. HT consists of activity systems and programs specifically designed around the growing, maintaining, harvesting and processing of a wide range of plant life. This occupation can also be extended to include the interaction with animal life, water, sunlight, and seasonal cycles intrinsic to gardening. Horticultural therapy programs can be found in psychiatric hospitals, physical rehabilitation facilities, educational centres, personal care homes, children's hospices, vocational training programs, prisons, community centres, arboretums and resource centres.

Horticultural therapy is successful because it is an extremely accessible form of occupation. Gardening is a vehicle that allows therapists to treat a wide range of individuals of various abilities, ages, and backgrounds. While the positive effects of viewing nature have been researched for some time (see section 3.2), the therapeutic power of active engagement and social interaction through gardening is just beginning to be studied scientifically. Researchers and practitioners (Messer 1996, McGrath 1996, Matsuo and Fuziki 1996, Craig 1994, Hoffman 1994, Williams and Lohr 1994, Mattson 1990 and Neuberger 1990) have begun to gather a body of evidence that confirms horticultural therapy increases the incidence and speed of recovery in physically and mentally ill patients while supporting the social and developmental growth of patients with inherited or developed disabilities.

Aids patient participating in the garden through raised plantings.

J. Schnaper Terrace Garden Contemporary Trends in Landscape Architecture, page 54

Unlike other therapies discussed in this section, horticultural therapy uses the outdoor environment as the main setting for healing. However, in climates where winter dominates a large portion of the year (Canada and especially Winnipeg), horticultural therapists have also begun to use greenhouses, atriums and arboretums for their treatment programs.

Design considerations for horticultural therapy can include: developing of an appropriate planting palette for the aesthetic and horticultural goals of the facility, considering edible, unedible and poisonous plant materials, providing accessible and malleable gardening spaces through the use of scale and ergonomics (raised and portable planters, irrigation/watering systems, shade, rest areas), organizing plantings to highlight the cycles of nature and life (planting for the changing seasons, planting for wildlife, planting for human comfort and microclimate), and celebrating all the other natural elements required for plant growth and natural balance (water, earth, air, light, minerals).

"The story of humanity is largely a chronicle of our struggle for control over the environment.

To a large extent, controlling the environment, means controlling plant life. Crop production, the management of useful plants, is the very basis of our civilization."

Jules Janick
Horticulture & Human Culture

The Role of Horticulture in Human Well -Being and Social Development, page 19

3.3.3 Case Studies and Precedents

As mentioned previously this study focuses on women and families dealing with the devastating effects of breast cancer (see chapter V). The following case studies have been chosen because they exemplify the power of occupation and environment on the process of healing.

Case Study 1:
" Teaching Gardening to The Blind as Therapy"
(Craig K.,The Healing Dimension of People Plant Relations. 1994)

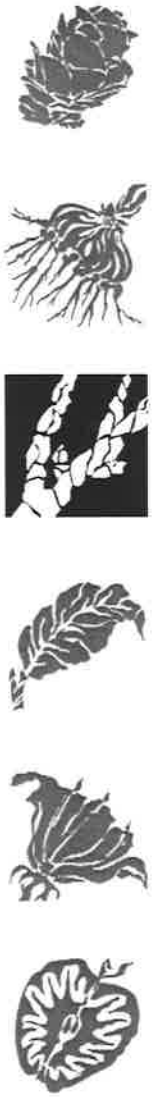
The Peninsula Centre for The Blind and Visually impaired (CPB) in Palo Alto California, undertook the development of a pilot program for the reintegration of blind individuals into society through gardening in 1988. Program organizers anticipated that clients taught to manage a garden would develop the self-esteem and confidence required to expand their activities into other parts of their lives further afield from their homes.

The New Horizons Garden was created by volunteers as a community garden environment. Visually impaired clients were encouraged to view the garden as a beautiful product for the community as well as a place for themselves. The garden was designed to feel as domestic as possible in order to ease future patient transitions into their own gardens. Special attention was paid to defining boundaries, pathways, planting areas and directional cues. Vertical walls, textured paths, distinctly shaped sculptural elements, and variously scented plantings, were used as sensual wayfinding cues geared to non visual senses. Client comfort was ensured by adjustable canvas awnings, picnic tables and raised planting beds. Water was used as a central element to the four square design and provided users with a gardening tool as well as an auditory

"The significance of plants to human history, for sustenance as well as healing... has created a rich treasure of plant symbolism that we cherish and use even in this modern technological society."

Jules Janick
Horticulture & Human Culture

The Role of Horticulture in Human Well -Being and Social Development, 1990, page 25



reference to the centre of the space. The program in this garden was designed to develop dexterity, increase physical and social activity, foster exploration, and engender a sense of accomplishment. Formal classes and informal get togethers were structured around the acquisition of basic gardening skills and procedures such as: seeding, transplanting, watering, fertilizing, cleaning, pruning, selecting and using tools, harvesting and marketing.

Clients used the garden over a four month period. The results of the study were gathered through a series of post program interviews and questionnaires. Over 90% of the program participants felt that the garden had increased their quality of life, their independence and their ability to regain some of the aspects of their pre-blind lives. Success was also implicit in the overwhelming number of patients who wanted to continue the program and the large number of new clients who began the program in the next few years. One of the unforeseen results of this staggered sequence of new and experienced users was the development of informal mentoring between individuals which was eventually integrated into the evolving exercises and curriculum.

The sense of accomplishment, regeneration of mobility, and group support this garden fostered was used in the concept and design of many garden elements at The Bridges of Hope Courtyard.

Teaching Gardening to the Blind as Therapy. Instruction Session
The Healing Dimensions of People Plant Relations, page 212

Case Study 2:
" Art and Healing. An Artists Journey Through Cancer"
(Jan Crawford, Art and healing. An Artists journey Through Cancer. 1991)

There are a variety of clinical case studies that chronicle the use of art therapy in treating abused, addicted and violent individuals or families. However, none of these studies touch upon the experience of cancer and the role that art can play in the life of cancer patients and their families. Although "The Light of Life" series of drawings Jan Crawford created while experiencing and recovering from lymphatic cancer were not part of a professionally guided art therapy program, the intensity and honesty of her experience coupled with the connections she made to nature, serve as a powerful inspiration for the users and designers of this project. It is difficult to describe the healing process Jan Crawford underwent without using her own words. The following introduction was written by Jan for a Women's Artists Monograph:

"I believe that in the face of death people gain an understanding of what life is. For me, cancer opened up a path of self discovery that would eventually bring me to my own inner light and my own path for living... My chemotherapy involved a series of highly toxic drugs given over an eight day period, followed by a rest period of twenty days, over the course of eight months... my first treatment was in March. I was very sick.

Shadow Collage Drawing
Jan Crawford

Art and Healing, Women Artists' Monographs,1991, page18

I sat on the edge of my bed weeping. Lee held me. She got out some pastels, paper and a board. 'Jan' she said gently 'I want you to draw a tree.' ... The tree I drew was greenish black, and horrible. It looked like it had cells. I started to cry again. Lee hugged me and asked 'What is the name of your drawing?' ... I sobbed 'It's a Dead Spring Tree. I don't know if it's going to live.

Lee said, 'Jan the tree needs blue oxygen to live.' She took a blue pastel and put it in my hand. Then Lee took my hand in hers, and together we drew blue air all over the surface of the drawing...

From that day I realized it felt good to draw and it was important for me to continue. ... Before long the drawings became a necessary part of my survival. Through the extreme physical distress of chemotherapy, the months of constant pain, and the psychological challenges I faced as I became disabled, lost my hair, confronted death, faced dependence and loneliness, the art sustained me. Without the drawings, I very probably would have ended my fight for life." (Crawford, pg5)

Jan Crawford's art healing process consisted of thirteen drawings. Each drawing is a distinct and vivid snapshot of the physical and mental struggle of facing cancer. The drawings in order are: Light In My Window, What is a Connection?, Almost Paradise, Opening Up, A Piece of the Picture, Overflow, Misfit, Shadow, Exchange, Open Your Heart, Centering, The Garden, and Autumn Dream. One of the most striking aspects of these drawings is Jan's unconscious and conscious reconnection to nature and natural cycles. Each of her drawings is based on the theme of flowers and a window. The window was a way for Jan

"I want to stretch my vision until it lights up every moment of every day."

Jan Crawford Journal
Art & Healing, Women Artists' Monographs, 1991, page 30

to see the world both a barrier and a connection, an inner and outer reflection and a plane for light and dark transmission. And as Jan explained:

" The flowers I could identify with personally. A cyclamen, an iris, a daffodil would seem to express my fragile sense of life, femininity, sexuality and survival. They spoke of rebirth - the incredible transformation I was undergoing physically and mentally." (Crawford, pg 6)

Jan credits sitting at a large window or out in the sun-porch of her Vancouver home as the activities that inspired her and rooted her to the earth. The changes that her garden underwent were deeply soothing and meaningful to the processes of her own recovering mind and body:

" Ironically, my life would begin again in autumn, when the leaves would turn luscious amber, dusty brown, and fire engine red. I dreamt how I would feel walking along the ocean with the leaves falling all around me." (Crawford, pg 32)

Jan Crawford has fully recovered from cancer, although she asserts the process of healing is still not over for her. She still lives in Vancouver where she now teaches art as therapy to children, adults and recovering cancer patients. Many of the breast cancer survivors at Hope, pursue activities such as dragon boat racing, cooking, gardening, making ceramics and quilting as a means of processing their cancer experiences as individuals and groups. These occupations were thoroughly considered in the design of the courtyard (see Chapter V).

Autumn Dream - Collage Drawing
Jan Crawford

From: Art and Healing, Women Artists' Monographs,1991, page 23

3.4 Landscape Architecture
- The Form of The Therapeutic Landscape

3.4.1 Definitions and Recent Developments

Although therapeutic landscapes have been around for over 1000 years, landscape architects and gardens specifically designed for healing, have not. The term 'landscape architect' developed over the last 150 years as the exterior human landscape became more and more important to the North American way of life. Growing from various traditions such as design, gardening, botany and the pure sciences, the landscape architect became concerned with a wide range of landscape forms and functions. Today landscape architecture is an expanding profession with many fields of study ranging from micro to macro scaled outdoor environments. Landscape architects can range from regional and ecological planners, to urban designers and facilities specialists. Falling under the umbrella of landscape architecture, all these areas of specialization have one thing in common: they all shape, respect, sustain, support and enhance people, nature and their interaction.

The development of therapeutic landscape architecture, is a relatively new addition to the profession. Supported by research in other fields (see sections 3.2 & 3.3), specifically designed 'healing landscapes' have begun to appear in a

"The forgotten garden in today's medical arena might be thought of as anagolous to the ignored psyche and spirit in the treatment of illness. The value of the garden and the role of the psyche in healing are both difficult to quantify and prove. Just as alternative medicine is beginning to reexamine the intricacies of the mind-body connection, so also are design professionals beginning to discover the therapeutic possibilities of sensitive landscape design."

Marni Barnes
Healing Gardens, page 17

diverse number of medical facilities (see end of chapter II). Certain relatively new healthcare settings that focus on providing 'care' rather than 'cure' (personal care homes, hospices, clinics), have enthusiastically embraced the design of exterior spaces for their users. More recently the organization that accredits 85% of US acute care hospitals, now requires that certain patient groups (pediatrics, oncology, ad long term care patients etc...) be provided access to the outdoors through the appropriate use of hospital grounds, parks, playgrounds and the adjacent countryside (The Centre for Health Design 1998). With new developments in the fields of medicine, a growing awareness of alternative medicines, an expanding number and variety of care facilities and an aging population, landscape architects have a new responsibility and opportunity to bring people and nature together for healing purposes.

"...do they (landscape architects) yet know enough to shape such gardens so they really help patients heal?"

William Thompson
Landscape Architecture,
April 1998, page 67

3.4.2 Current Attitudes and Theories

Traditional Landscape Architecture Approaches
Benefits and Deterrents to Therapeutic Landscape Design

Just as there are a varied number of disciplines in landscape architecture, there are also multiple approaches to landscape design. The design of a landscape can be approached from a historic, regional, aesthetic, functional, ecological, botanical,

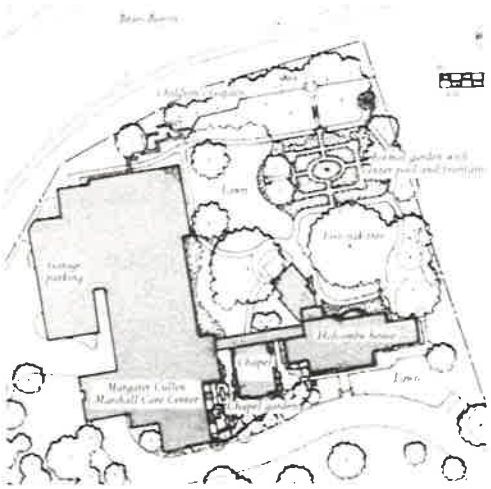
and behavioral point of view. Most landscape architects today approach each project from a combination of views most suitable to the task and most comfortable to them. This section reviews these basic approaches for how they support or deter the creation of healing landscapes. An example of a therapeutic landscape design from each perspective is provided.

The Historic Approach:
This approach to design looks back into history and uses successful precedents as the inspiration and foundation of new designs. Some of the most commonly used historic forms in modern healing gardens are: the Labrynth, the Asian Zen and Tea Gardens, Indian Paradise Gardens, and Monastic Cloister Gardens (see chapter II).

Benefits that can be derived from this approach:
- designs that are known to heal & have stood the test of time.
- a connection to a parent culture and meaningful traditions.
- places that bolster the spirit and support the mind and body.

Deterrents that can arise from this approach:
- a copy of patterns no longer relevant to current society.
- the repetition of set formula with no experimentation.
- inappropriate forms for environmental & cultural conditions.

Drawing on these ancient lessons when designing for health



Texas Medical Centre Hospice
Formal Garden Plan and Photo
Restorative Gardens, page 90, and 96

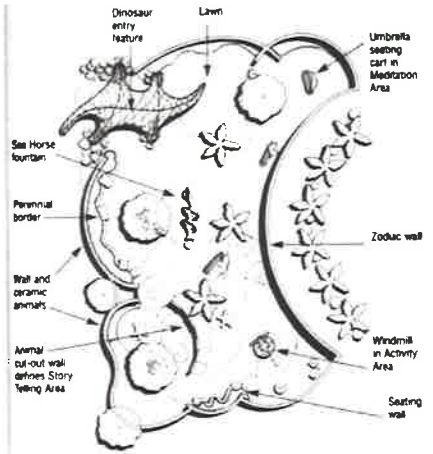
and healing can provide a framework or starting point for new designs. A good example of the historic approach to healing design is The Texas Medical Centre Formal Garden. Here a traditional four square paradise garden has been re-interpreted Texas style.

The Regional Approach:
This approach to design uses local materials, traditions and forms in the design of interior and exterior spaces. This type of design can range from master grounds and detailed gardens to interior detailing and corporate logos. The regional approach has no specific form, in fact the unique qualities of the region inspire site specific compositions and materials.

Benefits that can be derived from this approach:
- a local user comfort level derived from attention to regional materials & environmental conditions.
- a sense of cohesion & connection to the community.
- support of local artisans and manufactures

Deterrents that can arise from this approach:
- inappropriate regional attributes for healing (ie. hot desert)
- the abstraction of regional ideas into imperceptible forms (ie converting regional landform into a plan)

The regional approach is most successful when it engenders a sense of 'home' such as the prairie landscape does to farmers



Sandiego Children's Hospital Garden Regional Garden Plan and Detail

Landscape Architecture Magazine, February 2001, page 69 and 72

in personal care homes in Manitoba. A good example of the regional approach is The Sandiego Children's Hospital Garden. Here the aquatic environment and traditions of Sandiego are transformed into a magical place of squirting seahorses and sea walls that helps children cope and recover from illness.

The Aesthetic Approach:
This approach uses abstract art and art installations based on aesthetic principles to convey a strong message and to mark the land. This approach, while often beautiful and provocative, is the least well suited to healing landscapes in healthcare settings.

Benefits that can be derived from this approach:
- appropriately scaled and focused design themes can spark interest, exploration and discussion in the landscape.
- beautiful design and clear communication of ideas can inspire and comfort users.
- domestic themes and usable art become part of therapy.

Deterrents that can arise from this approach:
- artistic concepts override all other considerations such as function and accessibility.
- abstract forms and strong statements cause agitation, confusion and increased stress levels in patients.
- composition does not consider nature or her cycles creating unfriendly microclimates and environments. (ie no shade)

West Dorset Hospital, UK
Isolated Misperceived Courtyard
Healing Gardens, page100

In the aesthetic approach art is an end in itself rather than the patient or the healing process. An example of the ambiguous effect of 'land art' is evident at West Dorset Hospital, England. Here dry stone walls configured in crescent shaped patterns rise and fall out of the ground plane. Although helicopter pilots appreciate this lovely pattern from above, patients find the lack of shade and plantings, small seating areas and continuous steep ramped walkways a problem and don't bother to use the space at all.

The Functional Approach:
The functional approach follows the famous adage 'form follows function'. When used properly this approach creates the most useful and comfortable spaces for healing the body.

Benefits that can be derived from this approach:
- ergonomically designed environments that are open to all users whether they are blind, deaf, using a wheelchair or cognitively disabled .
- the creation of standard functional spaces with safe sizes, slopes, and details.
- careful programming for multiple uses at differing times.

Deterrents that can arise from this approach:
- design devoid of personality or meaning
- homogeneous materials lacking spice and excitement.
- set patterns limiting human creativity

Very Functional but Lost Space at Helen Bader Centre Rooftop Garden Healing Landscapes, page153

Many advances in functional design have evolved from a large body of research in ergonomics and universal accessibility. Accessibility standards form a solid framework for creating healing landscapes suitable and democratic for many users. Universal design melds function with aesthetics promoting the design of spaces that are functional and beautiful for all users. The Helen Bader Rooftop Garden is a good example of ergonomics and logistics overriding universal design principles. Although railings, planters, doors, and awnings have been designed for accessibility the space is an open wasteland no one uses.

The Sustainable Approach:
This approach strives to form an ecosystem in the built environment that is in harmony with nature's own support systems. Sustainable design focuses on a dynamic environmental and human balance in the landscape, where the process of healing goes hand in hand with the processes and cycles of nature. Designs can include native species, biological water and air filtration systems, organic maintenance and permaculture.

Benefits that can be derived from this approach:
- a healthy environment reflects a healthy state to the user.
- a connection to natural and human life cycles
- a healthier environment with less pollutants.
- the provision of comfortable microclimate environments.

"Makahikilua will be a comprehensive replicable model of fine art and ecological landscape, incorporating the essential elements of food production, sustainable methods, rare aesthetics, and deep- healing environments. Inspired by the beauty, quality, and high productivity of the very sophisticated Ancient Hawaiian Horticulture and the genus loci of this special healing place called Makahikilua, this local, multi-ethnic landscape will seek to demonstrate the necessary reunification of beauty and utility, ecology and economics, quality and permanence -- ideals the Ancients could not have conceived as separate. "

Colley O'Neil Project Coordinator
People Plant Council Newsletter
1995, www.hort.vt.edu

Deterrents that can arise from this approach:

•an overemphasis on nature and natural process losing the user and their needs in the ecological functions of the garden.

•an exclusion of any social and cultural influences or art forms

The gardens of Makahikilua at North Hawaii Community Hospital form a string of interconnected and supportive environments ranging from the Biointensive Mini Farm to the Mini Orchards. All the gardens are designed around Hawaiian ecological systems. These spaces moderate temperature, increase oxygen levels, and transmit the seasonal processes of nature to all their users.

The Botanical Approach:

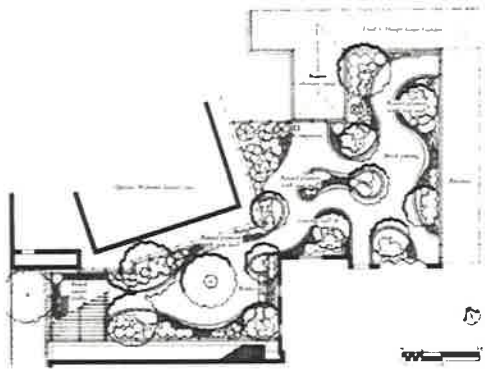
This approach uses medicinal and agricultural plants as visual and occupational tools for healing. Botanical planting plans allow users to see, touch and de-mystify some of the medicines and chemicals that are entering their bodies during treatment. Fostering and following the growth of these plants, decreases stress, and empowers the user with a sense of accomplishment and productiveness.

Benefits that can be derived from this approach:

•plants provide patients and staff a means of communicating about illness and treatment

•plants create a domestic garden environment for patients

•the medicinal qualities of the plants may be used in non-intrusive therapy such as massage



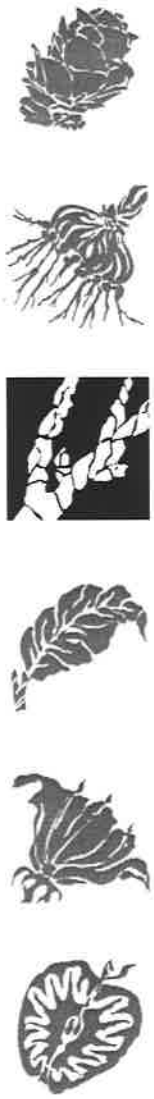
A Botanical Approach - Enid A Haupt Glass Garden, Howard A Rusk Institute for Rehabilitation Medicine Restorative Gardens, page 54 and 58

Deterrents that can arise from this approach:
- designs are high maintenance and deteriorate if unattended
- if used exclusively botanical plantings ignore human need for earth air, water, fire, and man-made elements in the process of healing.

A good example of the use of botanical design in healing gardens is the Eunid A. Haupt Glass Garden in New York. Set within a larger exterior perennial garden and connected to the main hospital building, the glass garden is an enclosed formation of greenhouses available to patients throughout the year. The enclosed space is capable of supporting a wide range of medicinal herbs, vines, trees and perennials that would not survive outdoors. Patients and staff incorporate the garden space and garden products into many therapy projects.

"Our eyes do not divide us from the world, but unite us with it. Let us then abandon the simplicity of separation and give unity its due. ... To do this we must design with nature."

Ian McHarg
Design With Nature, page 15



A People-Based Approach
The New Therapeutic Landscape Approach

Although all the design approaches mentioned above are rich in the forms and ideas they contribute to healing landscape design, none of them directly consider the people who will be using these spaces.

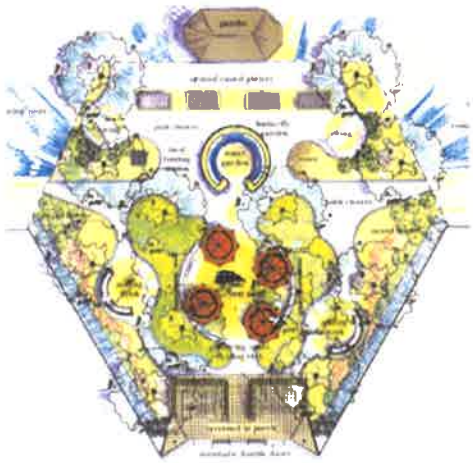
In their comprehensive book, Healing Gardens: Therapeutic Benefits and Design Recommendations, Clare Cooper Marcus

and Marni Barnes have begun to advocate an approach that intertwines the process of healing with the place that supports it through the people who use it.

This approach to designing therapeutic landscapes is based on the idea that people are the greatest resources of information and inspiration when designing a healing garden. Cooper Marcus and Barnes identify two groups of people that serve as sources for design: direct users and related professionals.

Direct Users: (staff, family, patients, friends, visitors)
Direct users can be used by design professionals to develop a better understanding of user needs. This understanding is developed through the exploration of 'personal experience'. Users are encouraged to work with designers in translating the specific experiences and needs of their illnesses and jobs into therapeutic places. Although Cooper Marcus and Barnes only develop this idea to the point of suggesting pre-design workshops and questionnaires, this study develops the interactive process even further (see Chapter IV).

User-driven design benefits are derived from a deep understanding of the physical, emotional, spiritual and social needs of users, rather than the designer's perception of them. A good local example user-driven design is the plan for the River East Personal Care Home (REPCH), in Winnipeg. The proposed design of the garden is based on interviews and focus

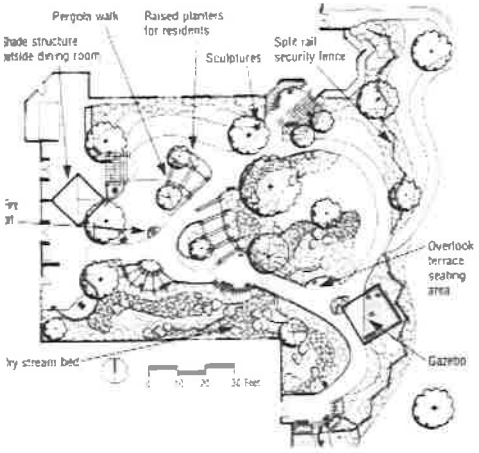


Proposed User Driven Healing Garden
Rive East Personal Care Home
Preliminary Report, 1998, page 43

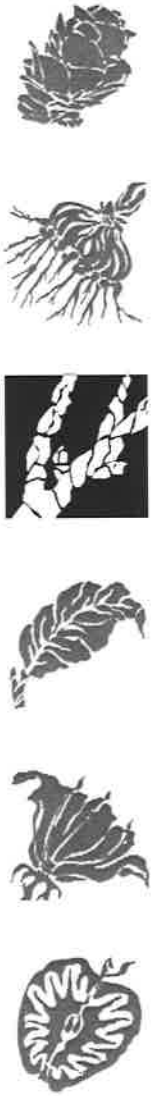
groups with the elderly patients undertaken before and during the design process.

Related Professionals: (doctors, therapists, administrators)
Related professionals can be used by design professionals to develop a better understanding of medical, psychological, social, administrative, and maintenance processes the facility and the patients are already experiencing. Understanding the specialized knowledge each profession has to offer (ie an oncologist would tell you chemotherapy patients become very sensitive to light), allows the designer to implement these ideas into a design that is better suited for treatment and healing. Although Cooper Marcus and Barnes develop this idea with respect to medical professionals they do not extend this resource gathering to other professionals These additional resources are fully considered in the design of this project (see Chapters V & VI).

Professional knowledge benefits are derived from expert information regarding medical, monetary and site conditions at the host healthcare facility, rather than the designer's perception of them. A good example of expert driven design can be seen at the Broadmead Lodge Alzhimers Garden in Victoria, BC. Using expert knowledge in geriatrics and memory loss, designers were able to design garden spaces that addressed issues such as diminished retention capacity, a need to pace, and compulsive behaviour. The garden incorporates a



Alzhimers Garden - Broadmead Lodge Victoria B.C , Plan and Photo Designed with Alzhimers Specialists. Healing Gardens, page398 and 402



winding but single circuit path, open views to the building and the garden edge, calming and non poisonous plants, the sound of water and memory therapy areas in the creation of a very well used place.

As Cooper Marcus and Barnes conclude: "Whatever approach is applied to the design it must primarily serve the user and his or her experience." (Healing Gardens, page113)

3.4.3 Case Studies and Precedents

As in the previous two sections, the following precedents were chosen because they have a direct application to this study site and/or user base. The examples below vary from healing landscapes for the terminally ill to therapeutic designs for winter climates.

Case Study 1:
The Joel Schnaper Terrace Garden
(David Kamp, Aids Care Unit - Terrence Cardinal Cooke Healthcare Centre, New York. Contemporary Trends in Landscape Architecture. 1997)

The Joel Schnaper Terrace Garden was chosen as an example because it deals with the long term care (sometimes recovery, sometimes death) of AIDS patients and the small enclosed

"It is the delicate interplay between the real environment, the observed environment, and the perceived environment that becomes critically significant is the design of therapeutic spaces.

An understanding of these interactions and the people who enact them must direct the vocabulary of the design as well as the design implementation if a healing landscape is to be obtained."

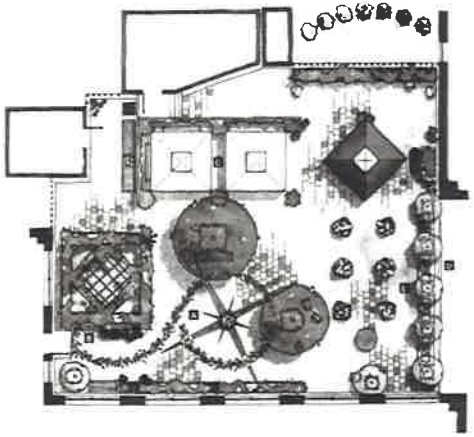
Clare Cooper Marcus
Healing Gardens, page 89

garden space that was designed through donations and volunteers much like The Bridges of Hope Courtyard was here.

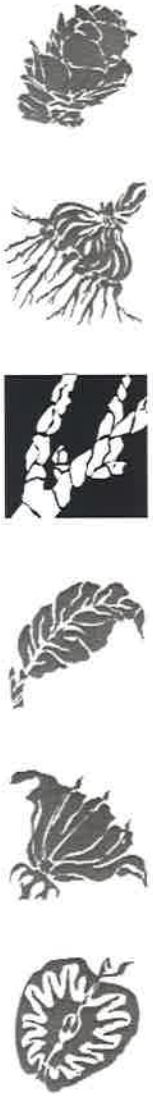
The AIDS Care Unit at The Terrence Cardinal Cooke Centre occupies the sixth to the eighth floors of one wing of a building that encloses three sides of a rooftop terrace. Accessible through treatment, recovery and recreation rooms at terrace level, this space was previously a closed off wasteland of air conditioners and heating ducts. David Kamp (ASLA) has turned this small space into a natural oasis for all of the patients and staff at the AIDS Unit. Through interviews and countless hours of just hanging out, Kamp has devised a place that inspires and empowers these all too often isolated members of society.

Kamp used previously negative aspects of the space such as the terra cotta roof tile and the large wall masses to great advantage through thoughtful layout and design. The garden opens facing south allowing sunlight to stream deep into the space, while the high walls form an enclosure that buffers winds and fosters a comfortable microclimate.

The garden is based on an open accessible design that requires no sharp turns or level changes. It includes portable and fixed planters, shade trees, tent pavilions, screens, arched lattices, sitting areas, and a water feature. A strong emphasis has been placed on smell and sound in the garden because they are the two least affected senses in AIDS patients. Scents mark special



J. Schnaper AIDS Memorial Garden New York, plan and photographs Landscape Architecture, March 1995, page 62 and 63



parts of the garden and guide users from one place to another while sounds created by water, bells and wind sculptures serve as auditory buffers and landmarks. Hypersensitivity to sunlight has been addressed through varying degrees of shade moving from covered tent spaces, to partial screens and trellises, dappled tree shade and full sunlight. Plantings range from raised cedar planters with herbs and annuals that can be tended even by someone in a wheelchair, to soft vines climbing the varied colours and textures of the trellises and walls. Colour and pattern are used extensively on the ground plane where stencilled graphics trace a route and create a sundial focal point.

Residents confined to the indoors can view their handiwork through large, low, bedside windows. Activity tables under the tents and trellises are designed for use by groups and individuals. Activities include planting, painting, board games, skits, reading and napping.

As the designer stated: " This garden is an investment in the future, in the hope, promise and potential of people to heal. ... This is a space that encourages people to come to terms not only with the way that they chose to heal but also how they chose to die." (Kamp D., page 52)

J. Schnaper AIDS Memorial Garden New York, plan and photographs Landscape Architecture, March 1995, page 62 and 63

Case Study 2:
(Barnes & Cooper Marcus, 'The Magicians Hat and Cloak.' Hesttoniemi, Tailairnhattu Finaland. Healing Gardens.1999)

These two examples were chosen because they are relevant to the design of therapeutic landscapes in cold climates such as Winnipeg. Although very different in location, form and scale, each example embraces and adapts to winter conditions and allows users to experience the season.

In Tailairnhattu Finland volunteers led by a snow sculptor designed the 'Magicians Hat and Cloak', a series of sensual serpentine half walls constructed from snow. These walls with their glittering and powdery snow and ice surround all the windows of the Hesttoniemi Hospital. The walls change in shape, shadow and colour depending on the time of day and the temperature. They serve as signals of seasonal changes and give patients a reason to look or go outdoors. At night, these beautiful sculptural elements are enhanced by lit candles that are given to visitors and staff to place in front of patients windows as they come and go. The candles are a gesture of hope and fun expressing peoples prayers and emotions. In a land frozen as long as ours, the Finnish people have found a way for the exterior landscape to heal even in sub-zero conditions.

'The Magicians Hat and Cloak'
Hesttoniemi, Tailcurinhattu, Finland
Healing Gardens, page 144

Case Study 3:
(Barnes & Cooper Marcus,The Royal Alexandra Hospital Atrium Edmonton Alberta.Healing Gardens.1999)

At The Royal Alexandra Hospital in Edmonton, Alberta designers decided to adapt to the cold climate by designing the buildings as two separate entities connected by an eight storey high atrium. Patients rooms, treatment rooms, waiting rooms and respite areas all face into this courtyard filled with light, sound, vegetation, and colour. Vines growing up steel cable walls create a natural screen that allows views out while protecting privacy within. At the ground level, sinuous planters cocoon a series of seating and eating areas of various sizes.

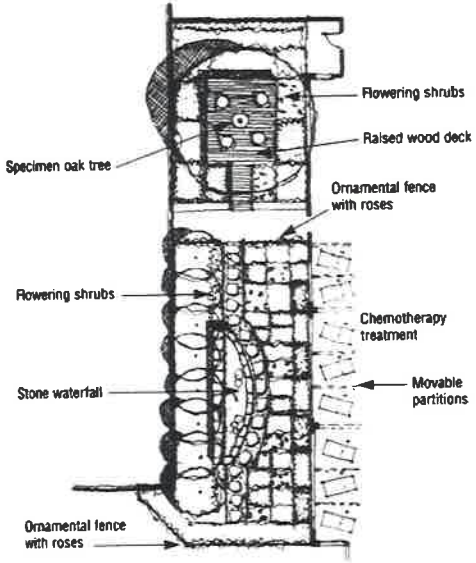
The atrium is a destination. Patients, families and staff come down to the main floor to relax, get away, and socialize. Although mostly for passive unstructured use, the plantings in the atrium transform the space into a lush tropical paradise accessible even in the middle of winter. Juxtaposing these conditions the east and west walls allow maximum light to enter while providing spectacular panoramic views of the winter landscape. The idea of an enclosed sunroom and the creation of winter-friendly exterior elements were incorporated into the design in this study. They have proven to be some of the most valuable and loved parts of the Bridges of Hope Courtyard design (see Chapter V).

'Royal Alexandra Hospital Atrium Edmonton Alberta, Photo courtesy of: Hilderman Thomas Frank Cram

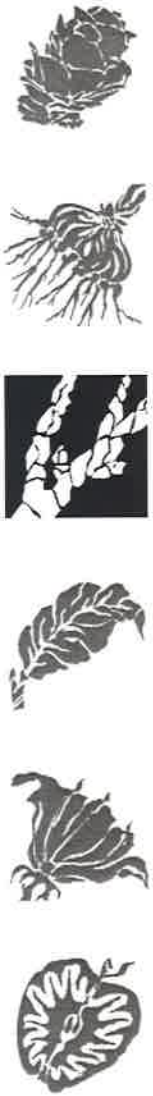
Case Study 4:
(Barnes & Cooper Marcus Shirley Burnett Peace Garden - St. Michael's Cancer Treatment Centre. Healing Gardens. 1999)

This garden was chosen because it is designed specifically for cancer patients undergoing indoor treatments. As a courtyard form and a garden of contemplation this design has a lot to offer the Bridges of Hope Courtyard.

The Peace Garden at St. Michael's is designed for contemplation as well as passive use. The landscape changes continuously not only with the seasons but with the passing of the day. This is important because chemotherapy often lasts eight hours or more. A series of bird feeders directly in front of the windows attract birds and small animals while plantings offer a wide range of seasonal blooms. The central water feature is designed to be viewed from the treatment rooms and forms a small aquatic ecosystem complete with lilies and koi. A checkered pattern of planting beds, pathways and pavers creates visual interest and a floor plane maze. Just as treatment areas have movable partitions inside, the view to the outside edges of the courtyard is mediated by trellises trained with climbing roses. A small raised wooden deck shaded by a large oak tree provides a quiet sitting area for staff, families and patients. The gardens straight forward simple lines and clear views support patients with bursts of colour, sound, activity and smell during this painful treatment.



The Peace Garden -Cancer Treatment Healing Landscape plan and photo St. Michael's Hospital, Texas Healing Gardens, page 143 and 189



3.5 A Holistic Design Theory
- For Therapeutic Landscapes

Having surveyed therapeutic landscape theories in Environmental Behaviour Research, Occupational Therapy and Landscape Architecture it is clear that the only approach conducive to the creation of beautiful, useful and appropriate healing landscapes is an approach that recognizes and pulls together all these diverse ideas and processes.

'Holistic' is defined as: "relating to or concerned with wholes or with complete systems rather than the analysis of, dissection of, or treatment of parts." (Merriam Webster Dictionary)

This study proposes that all the supporting therapeutic design ideas be organized under a 'Holistic Design Theory'. The linkage of behavioral, occupational and design issues into a comprehensive system of design depicted by this theory (see figure 1), does not mean that designers need to become experts in each field. On the contrary, the designer serves as a facilitator, organizer and transformer of non-spatial information and ideas into fully integrated and detailed spatial forms infused with function and meaning. The holistic approach provides designers with a skeleton (stems) of possible considerations that will support more detailed design as each area is considered alone and in conjunction with others.
The provision of all these areas of consideration (see figure 1),

" There is no logical way to the discovery of these elemental laws. There is only the way of intuition, which is helped by a feeling for the order lying behind appearance."

Albert Einstein
Healing Gardens, page 39

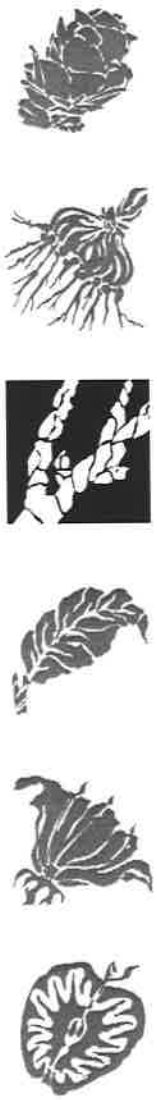
does not mean that each and every multi disciplinary consideration must be applied to the final design. On the contrary, the systematic and recursive review of all the issues and possibilities allows designers and users to decide which approaches and elements are or are not appropriate to the specific design problem and to what extent each approach influences the final design.

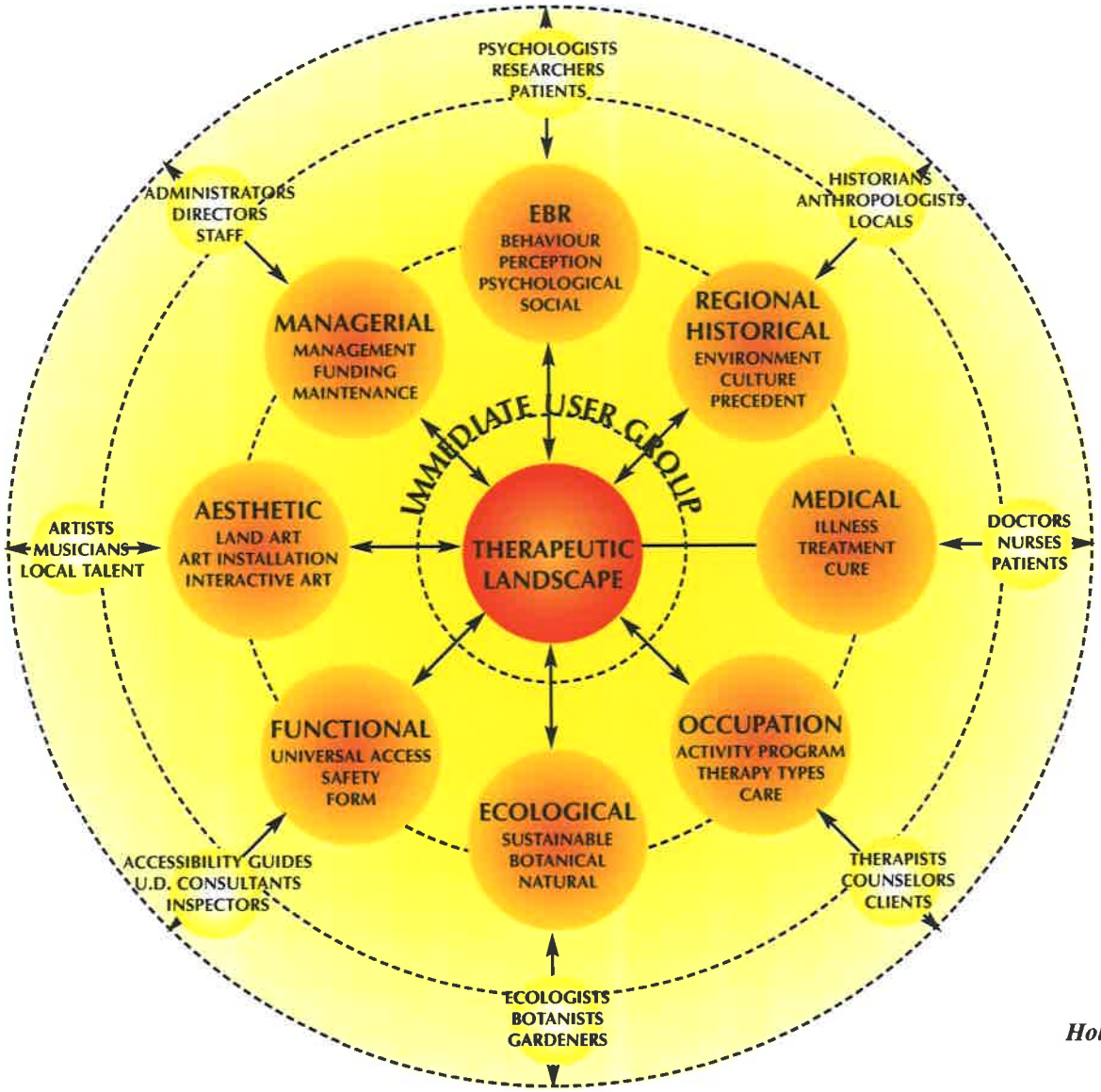
Figure 1 (page 98) is a visual mandala of the holistic design approach. It represents a shorthand or 'cole's notes' version of all research and design perspectives that need to be considered during the design of the therapeutic landscape.

This theory is anchored and sustained by people. The roles and interactions of users, professionals and designers are delineated throughout figure 1. The role of people in the process of design is also discussed in chapter IV Leafs -The Process.

" There is in souls a sympathy with sounds. ... With easy force it opens all the cells where memory slept. Whenever I have heard a kindred melody, the scene recurs, and with all its pleasures and its pains.

Reflections: Illness and Healing The Art of Robert Pope, page 99





The Holistic Therapeutic Landscape Approach is a dynamic and recursive relationship between all the users and disciplines that inform design.

The designer is implicit in the arrows and circles connecting these key areas as the mediator between ideas and the resulting spatial form.

The large yellow circle represents the users who are the informants and final decision makers every step of the way.

Figure 1.
Holistic Therapeutic Landscape Approach
A Mandala For Design

3.6 Holistic Design Considerations
-A Therapeutic Landscape Design Matrix

While a holistic design theory outlines the composition and connection of various design issues it does not provide a detailed list of considerations that can be used as a guide or checklist for design.

Many landscape architects find the development and use of detailed criteria (matrix) for designing specific spaces a useful resource during the process of design. Christopher Alexander: A Pattern Language (1977), Martha Tyson: Therapeutic Goals Matrix (1998), and Hilderman Thomas Frank Cram: A Playground Development Matrix for Community Driven Design (2001), were used as resources during the development of a design matrix for this study.

The Therapeutic Landscape Design Considerations Matrix is presented below in Figure 4 (a,b,c,& d). The Matrix has been organized in the following manner:

" Design directs perception through space.

Therapy guides healing over time.

Therapeutic design is the guidance of healing through time."

Marni Barnes
Healing Gardens, 1999, pg112

X Axis - Design Criteria

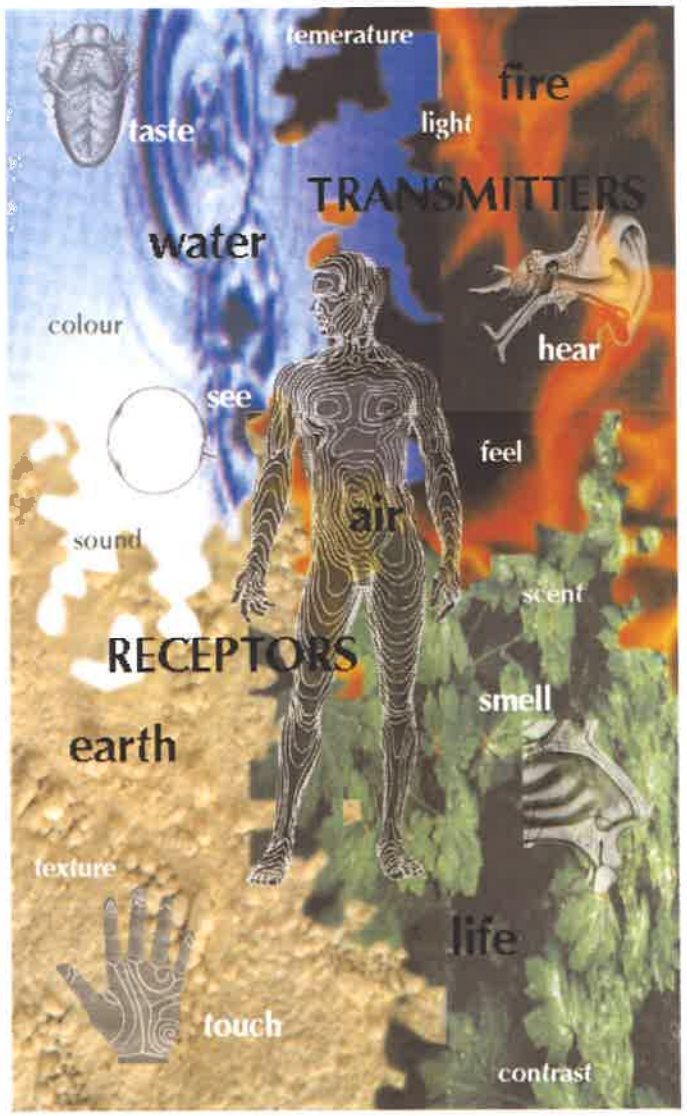
The X axis is composed of design criteria that must be applied to every design consideration that is inputted into the Y axis. The X axis consists of:

Receptors - The Senses

We get to know all our landscapes through our senses. They are the primary receptors of our emotional, physical and cognitive experiences and should be considered throughout the design process. The receptors are sight, touch, sound, smell and taste. Considerations directly related to these senses are light, colour, texture, temperature, and scent.

Transmitters - Materials

Landscapes are conveyed to the senses through the primary materials they are composed of. The transmitters send out signals to the mind and body. They can combine to form triggers and support structures for complex experiences. The transmitters are earth, air, fire, water and life. Considerations directly related to these materials can be natural or man made. For example earth - soil,sand, stone, metal, plastics, and canvas.



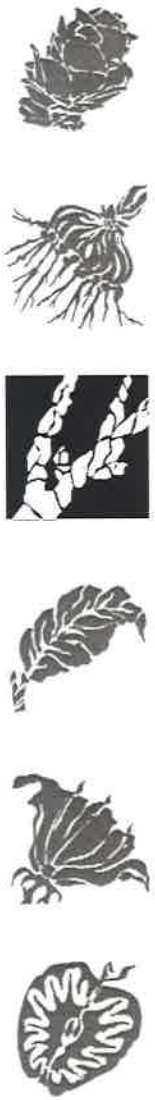


Figure 2 - Transmitters and Receptors

Composition - Spatial Design

Transmitter and receptor considerations are molded and given form through composition. The composition of space is a multifaceted process that will take place at many levels of detail. Composition consists of form, scale, balance, pattern and access. Considerations directly related to composition include size, symmetry, linkage, and safety.

Experience- Temporal Design

Human use of space or experience is a magical process that occurs when space and time are intertwined. Experience transforms the inert spatial composition into a healing landscape. Temporal design elements are the momentary, daily, seasonal, repetitive, and infinite, aspects of time as they relate to the other design considerations. Considerations directly related to time include light, temperature, length, and duration.

Y Axis - User Driven Criteria

The Y axis is composed of the psychological, social and occupational activities and emotions users, professionals, and staff would like to create or support in the therapeutic

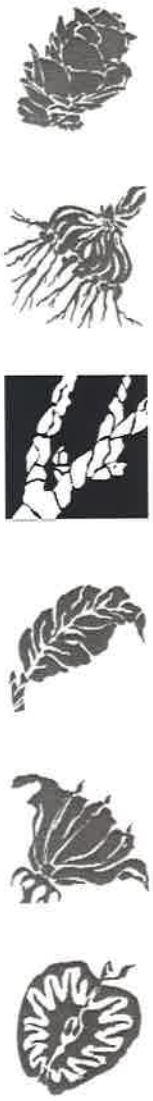


Figure 3 - Composition and Experience

landscape. They are the underlying motivators for the shape the landscape takes. The Y axis consists of:

Psychological Goals:
The emotional states to be fostered when individuals use the design. These can range from peace, safety, and escape, to acceptance, grief and joy etc...

Social Goals:
The social interactions that should be fostered when groups of people use the design. These can range from one on one talking, small group discussion, to large group gathering and classroom settings. Social goals can be formal, informal or a combination of both.

Occupational Goals:
The occupations that should be fostered when individuals and groups use the space for healing. These can range from watching, walking, sitting, climbing, running, and stretching to painting, gardening, sculpting, crafting, quilting, and bird feeding.

(N.B- Figure 4 Matrix
The matrix used here as an example is The Bridges of Hope Matrix as it was filled out during the design development process. See Chapter IV)

In Just-

in just-
spring when the world is mud-
luscious little
lame balloonman

and eddieanbill come
running from marbles and
priacies and it's
spring

when the world
is puddle-wonderful

the queer
old balloonman whistles
far and wee
and betty and isabel
come dancing

from hop-scotch and jump-rope
and it's spring
and the goat-footed balloonman

whistles
far and wee.

E.E. Cummings
Man The Myth Maker, page246






User Defined Needs and Space Wants

Use Needs	Space Wants
Psychological	
peace	tranquil space
safety	enclosure
escape	open area
grief	calming area
Social	
one on one	private area
small group	social area
learning	demonstration
playing	games area
Physical/ Occupational	
walking	circulation
gardening	garden
crafting	semi-interior
exercising	firm area

SIGHT	SMELL	TASTE	HEAR	TOUCH
-to see a simple composition - muted colours	- a gentle smell - no pungent odors	- NA	- no outside noises -gentle repetitive sounds	- comfortable materials -no hot or cold surfaces
-walls but not like a prison	- NA	- NA	- no medical sounds - no car sounds	- strong materials - soft materials
-something other than inside - openness outside	- cut grass	- a juicy delicious fruit	- no medical sounds - music	- plants, water - maybe a ladybug
- life going on -the sky, no others alone	-NA	- NA	- water - a place to yell	- things you can hit - gentle light
- see the other person clearly -nature all around	- the other person -the nature all around	- share something to eat	- no one else -no one to hear us	- each other for comfort -warm surfaces, shade
- to see others clearly - a good view of it all	- food cooking -flowers we are arranging	- food we made together	-laughter, each other -birds and animals	- each other -a wide range of new things
-to see the person teaching -to try it myself	-NA	- NA	- the person teaching -support from others	- the things I am learning about, natural or man made
- to see the game -lots of colours	- like pin the tail on the donkey only with flowers	- try this herb	- each other -not to disturb others	- lots of textures in different places rough smooth etc...
-t o see the way -to have a little mystery	-smell the way different smells at dif. places	- NA	-hear the way, different sounds at different places	- all one material if it takes me all the way around
- to see things grow -to enjoy all the colour	-to smell all the plants -to smell earth	- to taste what we grow	-to hear birds -water sparkling	- plants not thorny soft, fuzzy maybe rubbery
-to see outside but to be inside	- no smells only clean air	- NA	-to hear the birds maybe some chimes with the wind	- to feel comfortable inside with no bugs
-to move and see other things move and change	- smell light and earth	- NA	- other people breathing - relaxing sounds	- solid surface -good light, some shade

Figure 4a - Therapeutic Landscape Design Considerations Matrix - Receptors

User Defined Needs and Space Wants

Use Needs	Space Wants
Psychological	
peace	tranquil space
safety	enclosure
escape	open area
grief	calming area
Social	
one on one	private area
small group	social area
learning	demonstration
playing	games area
Physical/ Occupational	
walking	circulation
gardening	garden
crafting	semi-interior
exercising	firm area

EARTH	AIR	LIFE	WATER	FIRE
- made from soft warm surfaces like wood	- filtered light -no hard shadows	- soft green plants -all blending in and gentle	-sound of far away water	- comfortable - not hot or cold
- made with strong things like concrete or metal	- a little darker, cocoon like - diffuse light, light at night	-domestic plants, comfort plants, all types	-NA	- warm and cosy -home like
- open horizon -no hills or walls	-lots of light and shade - air and more air to breathe	- open fields, grass, wildflowers.	-NA	-let it be windy or hot or rainy, like it is outside
-soft materials translucent things glass	- light or dark -let me chose	- opening flowers - plants changing	- clear calm pool - gentle ripples	-NA
-stone or wood seats, low walls or glass	- good gentle light -no hard shadows	- familiar plants, things to watch and talk about	- falling water, a rush to keep others away	-warm and cosy -comfortable for talking
- different materials, metal, wood, stone, glass	- fresh and clean - nice breezes	- things to take care of - annuals and herbs	- NA	- some protection from the sun
- visible materials, not too much glare	- fresh and clean -no pests	- new and different plants -things to watch and learn	- water cycle maybe rain barrel	--warm and cosy -comfortable for talking
stone, plastic, glass, canvas, material whatever works	- good light even at night	- plants that can take a beating, Plants for games	- good drainage -no water where we play	- comfortable temperature - changes with seasons
- firm stone or concrete no slip surfaces	- no bright light in the eyes	- plants leading the way -cues for where you are	- water as a landmark -loud and clear	-different areas with different exposure
- thick rich soil in planters or in the ground	- good air circulation -lots of light	- Perennials, herbs, veggies, to grow, dry and eat	-watering hose or can -rain water preferably	-changing as it needs to with the seasons
metal, wood, stone upright and above for enclosure	- good air circulation even semi indoors, natural light	- NA	-NA	- able to change climate by opening and closing things
- stone, earth, grass, firm slip resistant surfaces	- nice diffuse light or dappled shade	- big overhanging trees - open below	-NA	- cooler to work up a sweat

Figure 4b - Therapeutic Landscape Design Considerations Matrix -Transmitters

User Defined Needs and Space Wants						
Use Needs	Space Wants					
Psychological						
peace	tranquil space	- small sitting area -one bench, small perch	- for one human standing or sitting	- good connection between openness and enclosure	-circular or crescent shaped -connected by small opening	- access lane -seating heights
safety	enclosure	- walled area big or small - by plants or man made	- height to block unwanted views. Thickness varies	- balance between mass and void	- pattern of uprights, or openings design for intrigue	- fence heights, materials -setbacks
escape	open area	- open lawn or savannah -rolling hills	-scale for a comfortable wall across	- asymmetrical, random	- clusters of trees in an open field,	- accessible surfacing
grief	calming area	-small sitting area -glider or seat wall, partition	-scale to fit one or two people sitting	- symmetrical, fully enclosed	- circular, square - simple	- access lane -seating heights
Social						
one on one	private area	-small sitting area -bench, wall, chairs	- to sit two comfortably- -talking distances	- balance between openness and enclosure,	-chairs around a central element. Surrounded	- access lane -seating heights
small group	social area	-patio or deck -seat walls, tables, benches	- to suit number of occupants. Low and cozy	-asymmetrical arrangements	clusters for sitting, standing, cooking etc.. room to move	- fire codes, occupancy, accessibility
learning	demonstration	- patio, deck, gazebo, shelter	- flexible to suit on e or many	balanced areas to shoe, interact and work	demo area, with encircling learning clusters	- accessibility, building, fire codes
playing	games area	- chess tables, tag paths, guess this plant plots	- human scale, easy to reach and easy to move	- balance between active and passive play	- scattered and clumped in areas around the site	- game configurations, ergonomics and accessibility
Physical/ Occupational						
walking	circulation	-pathway, lane or alee -stairs and ramps, bridges	- to suit a range of human sizes and abilities	- balance between accessible and challenging	- circular, sinuous, interwoven, maze like	- surfacing cods, accessibility, special needs
gardening	garden	-garden plots, raised planters, movable planters	- to suit a range of human sizes and abilities	-balance between accessible and challenging	- geometric plots, sinuous raised areas, boxes, circles	- plant profiles and needs, edible codes
crafting	semi-interior	-three season sunroom, screened gazebo	-to suit number of users and daily patterns of use	- between interior and exterior exposure	- attached to main building for transition	- building, fire and accessibility codes
exercising	firm area	- yoga or meditation area -open field or patio	- to suit small group comfortably, not too large	- balance between visibility and sense of separateness	series of open pods or one large cluster of pods	-ergonomics, kinnetics and accessibility.

Figure 4c - Therapeutic Landscape Design Considerations Matrix -Composition

User Defined Needs and Space Wants

Use Needs	Space Wants
Psychological	
peace	tranquil space
safety	enclosure
escape	open area
grief	calming area
Social	
one on one	private area
small group	social area
learning	demonstration
playing	games area
Physical/ Occupational	
walking	circulation
gardening	garden
quilting	semi-interior
exercising	firm area

MOMENTARY	DAILY	SEASONALLY	REPEATEDLY	INFINITELY
-just a minute away from it all	- 15 minutes of meditation every day	- The light changes year round	- a constant symphony of nature sounds	- time doesn't' hound you here
- safe and cozy	- shadows form patterns and edges of this space	- the boundary changes colour and texture with the	-NA	- edges are membranes letting things pass
- fresh sunlight tat last	- view to the outdoor world	- rabbits in the spring, squirrels in the fall	- birds on the flagstones talking up a storm	- a sense of freedom
- take a big breath, close your eyes, relax	- have a good cry if you need to	- even the plants seem somber here	-rant, scream, let it out	- a sense of the cycles of nature, of life and death
- say I love you to the person sitting next to you	- NA	- I can smell the changes, look at that flower	- hello mr butterfly	- the special place where you helped me back up
- tell a story	-support meeting in the evening light	- look a the view, the water sounds like a constant bell	- we gather as a community of women	- connecting survivors and new clients
- show and tell	- information sessions in the shade of the old tree	- tree is always changing, buds to orange leaves	- use the landscape to teach courage and change	- an evolving learning place
- tell a joke	- start a a game or continue on old one	- mark our many festive seasons	- evokes, comfort, companionship and laughter	- brings fun into life even during illness.
- one step at a time	- explore even further	- look at the changes in each nook and cranny	- a new adventure every time	- a sense of personal journey linked to the garden
- black crescent fingernails, the smell of earth	- look at the new shoots on my plant	- birth, growth, death and decay in a nutshell	- water, weed and nurture	- connect a person to natural cycles
- a stich in time framed by a view	- NA	- NA	- a quilt for every year of Hope	- reflections of the women of Hope past and present
- fell your heart race a little	- tai-chi or yoga on the warm pavement	- I close my eyes, the scents in the air are changing	- a refreshing routine of movements in a space	- a pace to gather and exude strength

Figure 4d - Therapeutic Landscape Design Considerations Matrix -Experience

Chapter IV
Leafs- Process

Leafs:

• ***A flattened, expanded, variably shaped green organ, constituting a unit of foliage.***

The food production centre of a plant through photosynthesis.

Oxford English Reference Dictionary.





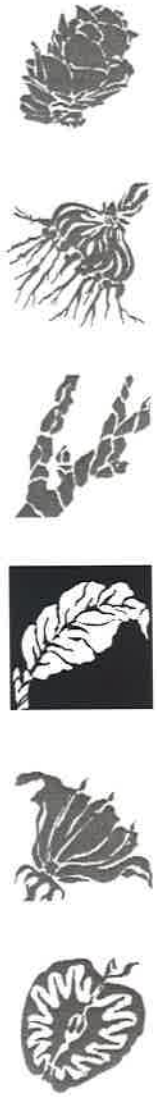

4.1 Introduction -Leafs

Leafs are considered to be the 'engines' of a plant. Through photosynthesis, they transform the raw power of sunlight into the energy a plant requires to grow and reproduce. It is through the new growth of leafs each season that a plant evolves and matures. The same can be said for the process of developing a therapeutic landscape. Even if the roots and the stems of history and theory are fully understood by the designer, the implementation of this knowledge without consideration for the location or the users is equivelant to trying to grow a plant in the dark.

All too often design is conducted in a partial light. Today, the designer is often more accountable to administrators, and policy makers, than to the people who use the landscapes they design. In traditional practice, it is unusual to find a project where the process is all about collaboration between users, administrators and designers.

This chapter focuses on the development and implementation of a user driven design process at The Breast Cancer Centre of Hope in Winnipeg. It introduces the special place and people that form the backbone of this project, explains the method developed to fully involve users in the development of a healing garden, and follows the design process at Hope from project start up to final conceptual design.

Fern Leaf Unfolding
Photograph by Hugh Martel
Benjamin Moore 2000 Calendar



4.2 The Breast Cancer Centre of Hope
-A Place for Women and Their Families

4.2.1 Location

The Breast Cancer Centre of Hope is located at 691 Wolseley Avenue in Winnipeg, Manitoba, Canada. Nestled between Sherbrook Street and Maryland Street, the centre is part of a large medical service hub composed of, The Misericordia Health Centre, Misericordia Geriatric Care Centre, Medical Office/Parkade Building, and various Clinics. This hub services multiple sectors of the city that intersect at the Maryland bridge. The Hope centre is immediately available to residents from the River Heights, Osborne Village, West Broadway and Wolseley neighbourhoods (see figure 6). In addition, this downtown location is easily accessible to all Winnipegers. The centre even services many referral clients from around the province.

The Breast Cancer Centre of Hope is a nine hundred square foot facility housed on the first floor of the Misericordia Family Services Building. Formerly the Misericordia Nurses Residence, this building has recently been converted into a support facility that houses family nutrition, health maintenance workshops, prenatal classes, and several counseling programs such as Hope.

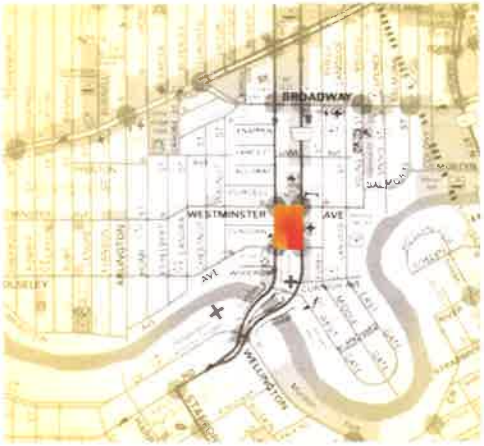
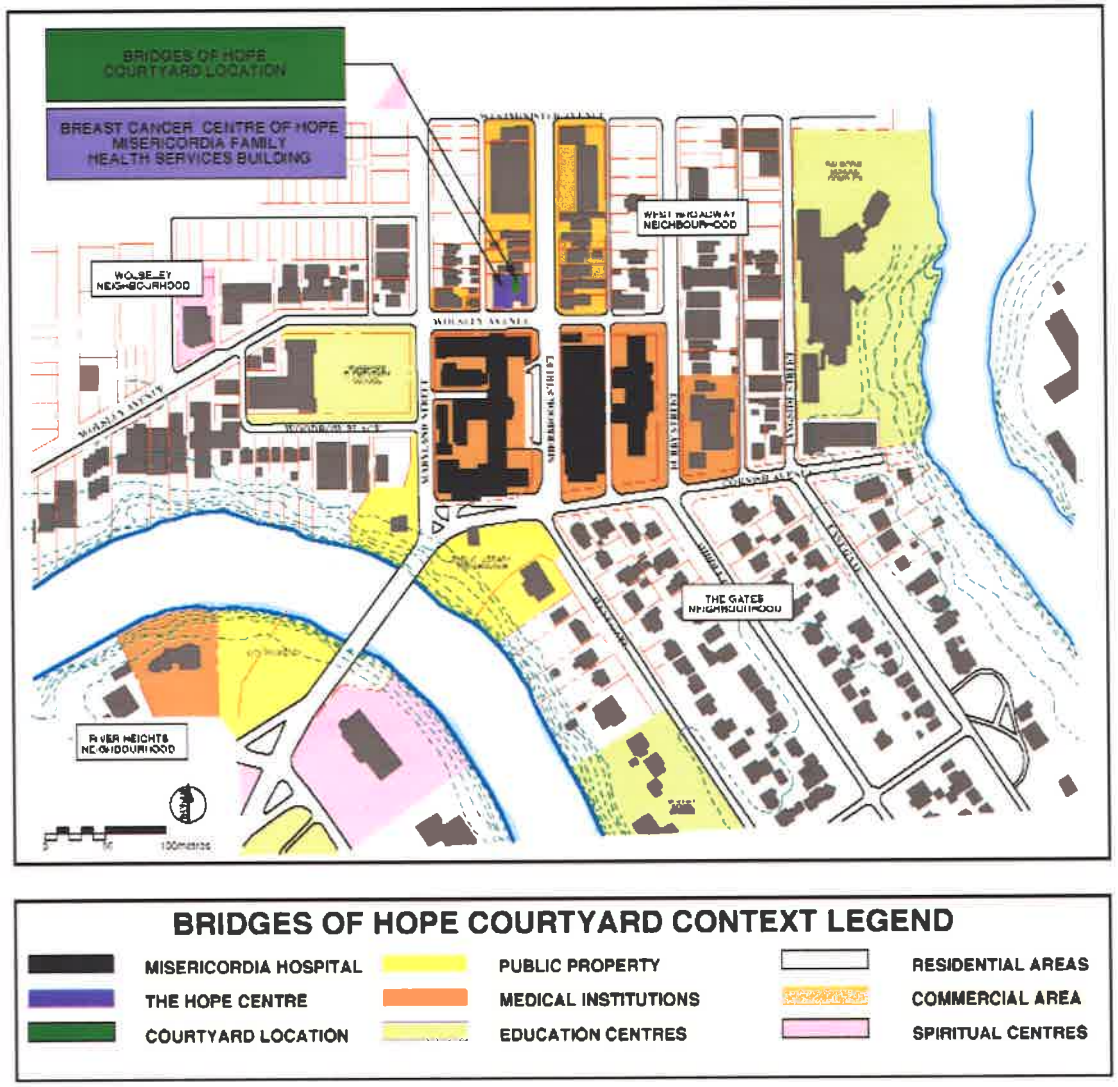


Figure 5 - General Site Location

Photograph of The Misericordia Hospital Building



The project context is rich and diverse. This figure graphically locates the Family Services Building and The Courtyard within the larger context of the city.

The Misericordia Health Care Hub services users from as close as West Broadway, Winnipeg to as far away as Churchill, Manitoba.

The neighbourhood is a diverse mix of social, economic and religious groups that often come together for health care programs such as Hope.

Figure 6
The Breast Cancer Centre of Hope Neighbourhood Context Map

4.2.2 History

The Breast Cancer Centre of Hope was officially opened on October 3, 1997. The space, donated by the Misericordia Health Centre, is composed of reception area, offices, kitchen, resource library and several private and group counseling areas.

In 1994 Cancer Care Manitoba established the Manitoba Breast Cancer Advisory Council to develop and oversee the creation of a Comprehensive Breast Cancer Program in Manitoba. In their initial 1995 report on the status of breast cancer care in Manitoba the advisory council outlined the following goal:

" to improve the outcomes of people with breast cancer by focusing on the continuum of breast cancer: prevention/ early detection, treatment/ care, palliative/ quality of life issues: with education, practice and research as their foundation." (Manitoba Breast Cancer Advisory Council Report 1995)

The report listed a range of existing resource materials and services for breast cancer patients that were scattered throughout the healthcare system in Manitoba. While recommending several rural and mobile care programs, the council also recommended a central comprehensive resource and information centre be developed in Winnipeg. The Breast Cancer Centre of Hope is one of the results of this initiative.

hope is like the sun,
which,
as we journey
towards it,
casts the shadow
of our burden,
behind us.

Anonymous
(Hope Pamphlet, 2000)

In 1995 internationally renowned artist Leo Mol created a bronze sculpture in support of the new breast cancer initiative in Manitoba. The statue named 'Hope' was used to raise funds for the centre and became its name sake.

With the vision of Barbara Bilodeau- Shumely and the spirit of volunteerism, this comforting home like place took shape. Students from the University of Manitoba ID Program and an interior design team from Number 10 Architectural Group began a tradition of community service through design at the centre. The result is an interior space where men, women and families, feel safe, protected, supported, and empowered to face the changes this illness creates in their lives.

Photographs of the interior of The Breast Cancer Centre of Hope

4.2.3 Services

All programs offered at Hope are based on the premise that information, support, and access to services facilitate adjustment to the breast cancer experience. (Manitoba Breast Cancer Advisory Council Annual Report 1999, page13)

The Breast Cancer Centre of Hope is mainly used by:

- Women and men with breast cancer especially those who are newly diagnosed or in intensive treatment .

- Parents, family and friends trying to learn about and cope with the effects of this illness on their loved ones.

- Support groups like survivor series and partner groups like the Chemo Savvy dragon boat raving team.

- Men and women interested in breast health, self examination and early cancer detection.

The Breast Cancer Centre of Hope offers:

- Professional consultations with Nurse Educators.

- Peer consultations and support groups with survivors.

- Referrals and news regarding Manitoba programs.

- A multimedia breast cancer resource lending library.

- Online resources, websites and help lines.

- A prosthesis bank and fitting services.

- Grief counseling and volunteer opportunities.

"A diagnosis of cancer can be very frightening and overwhelming. The Breast Cancer Centre of Hope provided an opportunity for me to become empowered with information, to dispel some of the myths and fears surrounding cancer treatment.

Armed with knowledge and support, I was better equipped to take on an active role in my own care planning."

Kathy, Hope Centre User

4.3 The Courtyard Idea
-Initial Inspirations and Goals

Since its opening in 1997, The Breast Cancer Centre of Hope has become an increasingly well used and well loved resource for many Manitobans. The increased activity at the centre in these first two years,prompted director Cathy Thomson to begin looking at ways to enlarge the spatial resources of Hope. Since the Centre only occupied the west wing of the u-shaped Family Resource Building (see figure 8), the logical route seemed to be expansion into these other first floor areas. However, the Misericordia was already using these areas as multipurpose spaces for large gatherings, and were unwilling to allow Hope to expand in this manner.

As the Centre considered its options it was approached by the organizing committee of the Annual Pink Ribbon Ladies Golf Classic. In two years of great fun, the ladies in the Golf Classic had raised over $25,000 for The Breast Cancer Centre of Hope. Many golf classic participants, recognized the healing power of nature in their own lives. They had noticed that the beautiful interior of Hope , faced into a small abandoned courtyard. The ladies suggested that instead of expanding indoors, the Centre might consider using the Pink Ribbon donation to develop a healing garden in this courtyard. The suggestion was circulated among the centre's clients and began to gain momentum as a possible Hope project.

" Many thanks to the dedicated ladies of The Annual Pink Ribbon Golf Classic and all their donors.

We could not have done it without your fundraising efforts or your great idea!"

Monica Macra

Bolstered by this positive feedback, Kathy Thomson began searching for a landscape architect to help make this great idea a reality. In the spring of 1999, Heather Cram (HTFC) was contacted regarding possible involvement. Having done extensive work on healing landscapes with Cancer Care Manitoba, Heather seemed to be a natural choice for this endeavor. Knowing about previous student involvement in the interior design of the Centre, she facilitated a new partnership between The Hope Centre and the author of this study Monica Macra.

An introductory meeting was conducted on May 31, 1999. The following goals and parameters were developed:

- The new exterior space should be an environment that supports Hope users in passive and active healing experiences.

- The garden should be developed with and for all Hope users, including clients, staff and family members.

- The strong volunteer base at Hope should be employed in as much of the design and building process as possible.

- The Centre's location may change within the next few years, Design elements that are easily transported and reassembled in a new location should be considered.

- The design must stay within the $30,000 budget allocated to it by Hope and Cancer Care Manitoba.

Existing Courtyard Condition
The Breast Cancer Centre of Hope

4.4 Developing A User Driven Process
-A design development methodology for Hope

With these initial goals and conditions in mind, it became apparent that a user driven design and implementation process would be the only appropriate means of creating this healing garden.

Working with Hope staff, using behaviour research, o0occupation driven therapies, and design resources, a comprehensive design methodology was developed.

The Hope Courtyard Design Methodology Matrix is intended as an overview. Figure 7 breaks down the forms of inquiry and analysis that were used in the development of this healing garden. Each method is discussed in depth as the results of this process are presented in section 4.5.

"Inquiry is the creation of knowledge or understanding: it is the reaching out of a human being beyond him or herself to a perception of what may be or could be, or what the world could be or ought to be."

C. West Churchman
The Design of Inquiring Systems
Inquiry by Design, page 3

Area of Inquiry Step No. ___	PROCESS Why and How	PRODUCT What and When
1. Base Info. user, structure	• **Breast Cancer Illness and Treatment Research** (staff interviews, statistics, library) • **Building and Courtyard History** (staff interviews, arch. drawings, articles)	• **Illness and Treatment - possibilities & limitations** (raw data appendix A) • **Form and Function - possibilities & limitations** (raw data appendix A)
2. Site Analysis social, physical emotional	• **Existing Structures Analysis** (mapping, notes, photos) • **Existing Environmental Conditions Analysis** (climate data, sun, shadow, wind mapping) • **Existing Occupation Analysis** (site use mapping and observation) • **Existing Circulation and Access Analysis** (circulation patterns and accessibility audit)	• **Existing Structures Collage** (raw data appendix B) • **Existing Environmental Factors Collage** (raw data appendix B) • **Existing Usage - Opportunities and Deterrents** (raw data appendix B) • **Existing Access - Opportunities and Deterrents** (raw data appendix B)
3. User Analysis social, physical emotional	• **Develop User Driven Ideas and Goals** (focus group session) • **Create a Diverse Courtyard Advisory Group** (solicit volunteers from all user groups)	• **Focus Group Results - Prelim. Site Program** (raw data appendix C) • **Hope Courtyard Development Committee** (members and advisors appendix C)
4. Concept Development collaborative design effort	• **Design Matrix Workgroup** (Courtyard Committee Meeting No.1) • **Preliminary Concepts Presentation Brainstorming Session and Design Charette** (Courtyard Committee Meeting No.2) • **Refined Concept Presentation Critical Review Session** (Courtyard Committee Meetings No.3&4))	• **Detailed Site Program and Preliminary Ideas** (filled out design matrix - Fig.4, pg103-106) • **Concepts 1&2 : Pros, Cons and Suggestions** (minutes of meeting no 2 - appendix D) • **Refined Concept 3: Detailed Design** (minutes meetings 3&4 - appendix D)

Figure 7 - The Hope Courtyard Design Methodology Matrix

4.5 The Bridges of Hope Courtyard Development Process

4.5.1 Base Information Gathering

4.5.1.1 A Closer Look at Breast Cancer

" The diagnosis is still serious, and even terrifying, but the prognosis is very different today than it was even five or ten years ago." (Donna Swinston, page 1, Our Voice August 2001)

Canadian cancer statistics (http://wwwcancer.ca) indicate that breast cancer will represent 30% (largest percentage) of all new cancers reported in females during the year 2000 . At 18% of all cancer related deaths, breast cancer is the second only to lung cancer as the most fatal cancer for women. One in nine Canadian women will be diagnosed with breast cancer at some point in their life. This statistic is on the rise and is largely attributed to environmental rather than hereditary changes over the past 50 years. The average age for breast cancer diagnosis is 45, but breast cancer has appeared in women ranging from 18 to 95 years of age. Over 300 Manitoban women will die of breast cancer in 2001.

However, more than 4000 Manitoba women will experience and survive breast cancer during this same time period. Breast Cancer treatment has evolved on scientific and alternative levels. Most doctors and patients today chose integrative

Breast Cancer Facts :

- ***Breast cancer is the most frequently diagnosed cancer in Canadian women.***
- ***Between 1984-1994, over 100 per 100, 000 Manitoba women were diagnosed with breast cancer annually.***
- ***Between 1984-1996, at least 30 per 100,000 Manitoba women died from breast cancer annually.***

Health Canada Cancer Update 1999 , pages 3 and 4

medicine, an approach to care that blends conventional and complementary treatments, as their healing process.

Breast cancer treatment begins with diagnosis. Self examinations and mammograms are essential to all women. If cancer is suspected a biopsy and a blood sample usually analyze malignant growth markers (see appendix A for glossary of terms). The diagnosis of breast cancer causes great upheaval in the lives of women and their families. initial diagnosis often causes families to experience fear, anger, pessimism and a realization of their ignorance of this deadly disease.

Breast cancer can be diagnosed and experienced at different levels of intensity and distribution. The treatment of this disease is dependent on the size and extent of cancerous cells in the body and the overall health of the patient. Breast cancer can begin as a localized (in-situ) occurrence. If treated early it is the least painful and most curable form of this illness. Invasive cancer is breast cancer that has spread beyond the original location into other tissues in the breast. This stage is harder to treat and may involve aggressive invasive surgery. Metastic breast cancer is an advanced stage where cancer cells have invaded and are taking over other parts of the body. This stage can be fatal and often includes multiple painful forms of chemical and invasive treatment. Recurrence refers to the reappearance of cancer in a patient while remission refers to the suppression of cancerous growth in a patient.

The Pink Ribbon
A Symbol of Breast Cancer Support

From Breast Cancer Centre of Hope
Promotional Materials

There are two types of medical procedures that form the majority of breast cancer treatment programs. They are pharmaceutical or chemical treatment and surgical or operative treatment.

Pharmaceutical treatment includes chemotherapy, internal and external radiation therapy, hormone therapy, and immuno therapy. These treatments involve toxic chemicals, synthetic hormones and radioactive rays in the process of killing cancerous cells. Unfortunately these ingredients also poison and imbalance the rest of the patients functioning systems. Side effects include: nausea, loss of appetite, hair and energy, nervous system pain, irregular digestion and hormone cycles, and skin discoloration. Patients undergoing these treatments are: too weak for extended exertion, sensitive to light, sound and temperature, allergic to many substances, and easily bruised. These patients are also highly stressed, and emotionally drained from their battle. Surgical treatment includes auxiliary node removal, organ transplants, lumpectomy and mastectomy. These treatments involve the surgical removal of lymph nodes, cancerous areas or the entire breast when necessary. Surgical procedures are painful and permanent. Side effects include: infection, contagious or immuno deficiency diseases, lymphadema, extended pain, and scarring. These patients are often left to recover from immobility, a sense of loss or anger and a crisis of sexuality.

" My personal goal is to change the climate in which we now discuss breast cancer, namely the high incidence and discouraging mortality statistics ... and to do all that is within human power to help reverse these trends.

Through prevention, research and better treatment choices, we may see the day when breast cancer is considered a chronic disease rather than a life-threatening one."

Jean Giguere
Cancer Care Mb. Volunteer
From A model of Hope, page 8

As patients recover from or undergo these treatments they require constant support and inspiration for living from their loved ones and their environment. An environment with visual and physical access to nature is essential in the road to full recovery (see chapter III).

Family and friends experiencing breast cancer through a loved one often feel helpless and confused. Spouses, children, siblings, parents and friends need places where their questions can be answered. They also need exposure to others going through the same process. Exterior environments are places where these people can process information, escape the situation, spend time with loved ones or grieve.

Breast cancer also takes a toll on care providers. Staff such as doctors, nurses, and counselors experience stress, frustration, happiness and loss on a daily basis. The outdoor healing garden serves as an oasis, a relaxation space and sometimes even a treatment area for many healthcare professionals.

Photograph of The Family Services Building, 691 Wolseley Avenue

4.5.1.2 Building and Courtyard History

Standing on the corner of Sherbrook and Wolseley, no one would guess that the Misericordia Family Services Building has a courtyard. The building, designed by Waisman Ross Architects and Engineers in 1963, was developed as a nursing residence for the hospital nursing intern program of that time.

The yellow brick, white concrete, and steel structure is an exercise in modern design principles. Modular, functional, and minimal spaces form a systematic rhythm of solids and voids throughout the inside and outside of the building. A flat roof, concrete screens and curtain glass window systems detail this modern design.

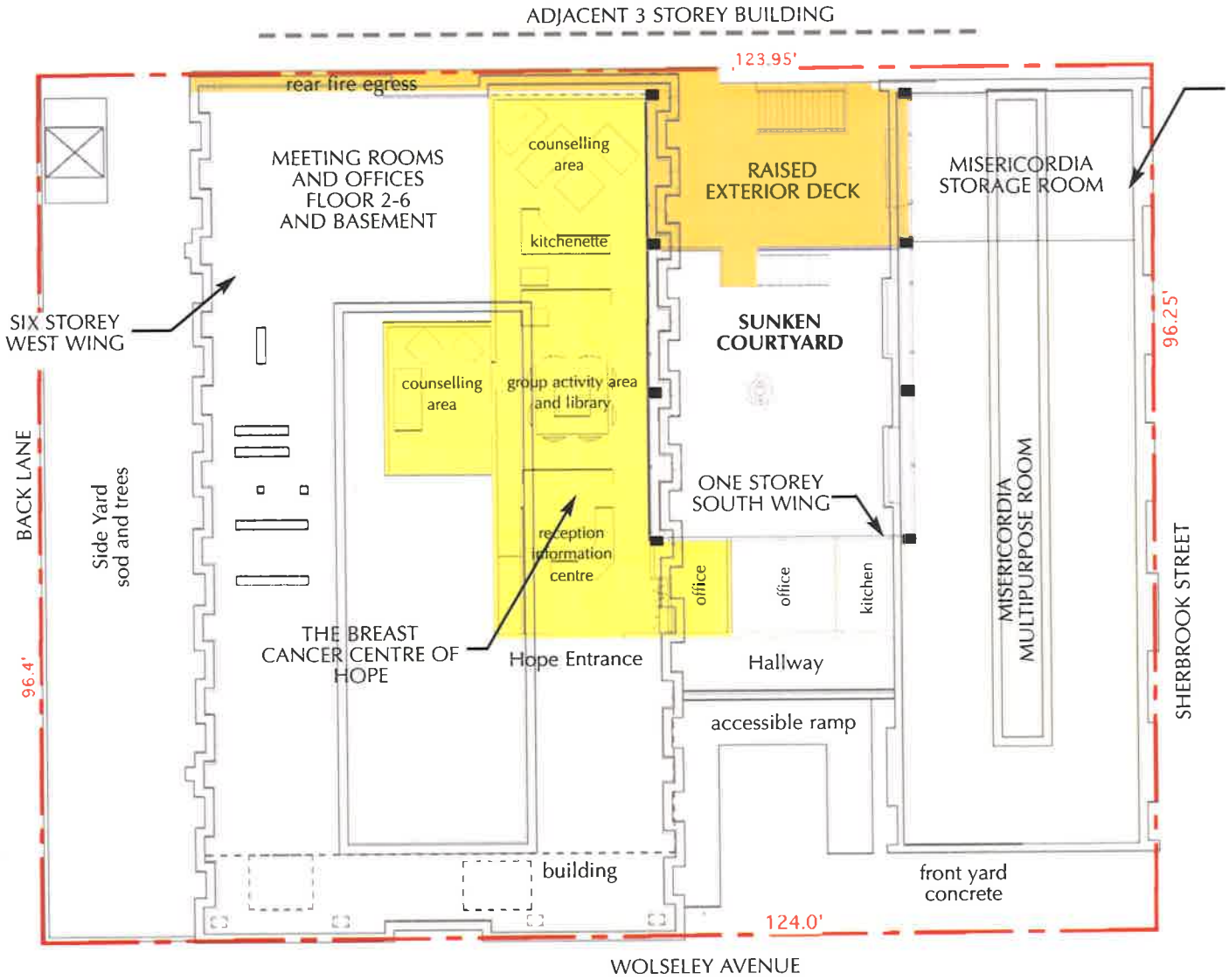
The building layout and connections are annotated in Figure 8. The building plan is u-shaped. The west wing is six storeys high and houses small dorm rooms (now offices) from the second to the sixth floor. The first floor of this wing is currently The Hope Breast Cancer Centre. It was initially designed as a large open lounge. The south and east sections of the building are one storey high. They were designed as kitchen and library facilities for residents. Recently the south wing has become Hope offices and a building food preparation area, while the east wing has been converted into a large multipurpose classroom and meeting place for Misericordia functions. The building is constructed with a full basement and a tunnel connection to the hospital. The first floor is set four feet above ground level allowing windows along the interior courtyard walls to illuminate classrooms in the basement. The north side of the complex is a first floor concrete deck that connects the east and west wings of the building, creating the enclosed sunken courtyard.

Photograph of The Family Services Building, 691 Wolseley Avenue

The one hundred year old elm tree in the centre of the courtyard is like the soul of this building. Sister St. Odilon, the director of nurses at the hospital in 1961, was the driving force behind this special situation. Always a distinct and spunky individual, sister Odilon defied bureaucracy, conventional wisdom and professionals by insisting that the new nursing building had to be constructed around the elm tree. Due to her persistence, the architects altered their original block design to create a 29- 36 foot container for the tree.

Today, upon closer inspection of the building masses, a tree seems to spring from the middle of the building like a large flower in a vase, spreading its branches over the lower wings in a benevolent and protective manner. Although the courtyard was part of the original building scheme, it is evident that it was a last minute compromise rather than a collaboration between built and natural form. This beautiful tree is the only living thing within the concrete courtyard cage. As a result people love the tree from a distance and often feel sorry for its lonely enclosed location. With no human scale or usable features, the courtyard is a lost and underused space. Despite these negative characteristics it seems this courtyard was especially set aside by providence to become the healing heart of a building under transformation.

Looking up at the 100 year old elm tree responsible for the courtyard's existence.



Building Facts:

Architects:
Weisman Ross Architects and Engineers

Construction:
Development 1961-1962
Construction 1963

Style:
Modern style, clean simple lines, rectilinear

Materials;
Concrete, Glass and Brick, metals

Courtyard:
Sister Oldilon's save the tree campaign created the courtyard

Retrofitted:
Number 10 Architectural Group - Hope 1997

Figure 8
Building Plan and Annotations

4.5.2 Site Analysis

4.5.2.1 Existing Structures Analysis

The existing structures analysis uses mapping, photographs, sketches and notes to establish a detailed understanding of the site. Figure 9 a-c, forms the existing structures collage. They are composed of detailed annotations regarding the form and materials in the courtyard organized around base maps and elevations.

Although small, the scale and size of the courtyard forms clearly defined edges and boundaries for design. The height and depth of the walls and ledges creates a sense of enclosure and structure that can be built upon or juxtaposed. The concrete deck is like an overlook high enough above the sunken area to act as a special transition area between the interior and the garden. The predominant materials of concrete, concrete block, steel, glass and metal form a very rigid space. Stone gives the walls mass, while the first floor curtain wall system and windows form transparent membranes to the courtyard. These hard, man-made materials will serve well as a foil to softer biological features.

The modern architecture of the courtyard is a minimal context capable of embracing a wide range of design features, however care must be taken not to crowd this already small space.

" This courtyard is like a hidden gem enclosed in heavy rock.

Looking at its white washed concrete walls, hexagonal screens, large windows and that beautiful tree from the height of the concrete deck fills me with wonderful ideas.

The potential makes me want to rush out there to transform this space into the special place I can already see in my minds eye."

Monica Macra
Journal, May 9, 1999

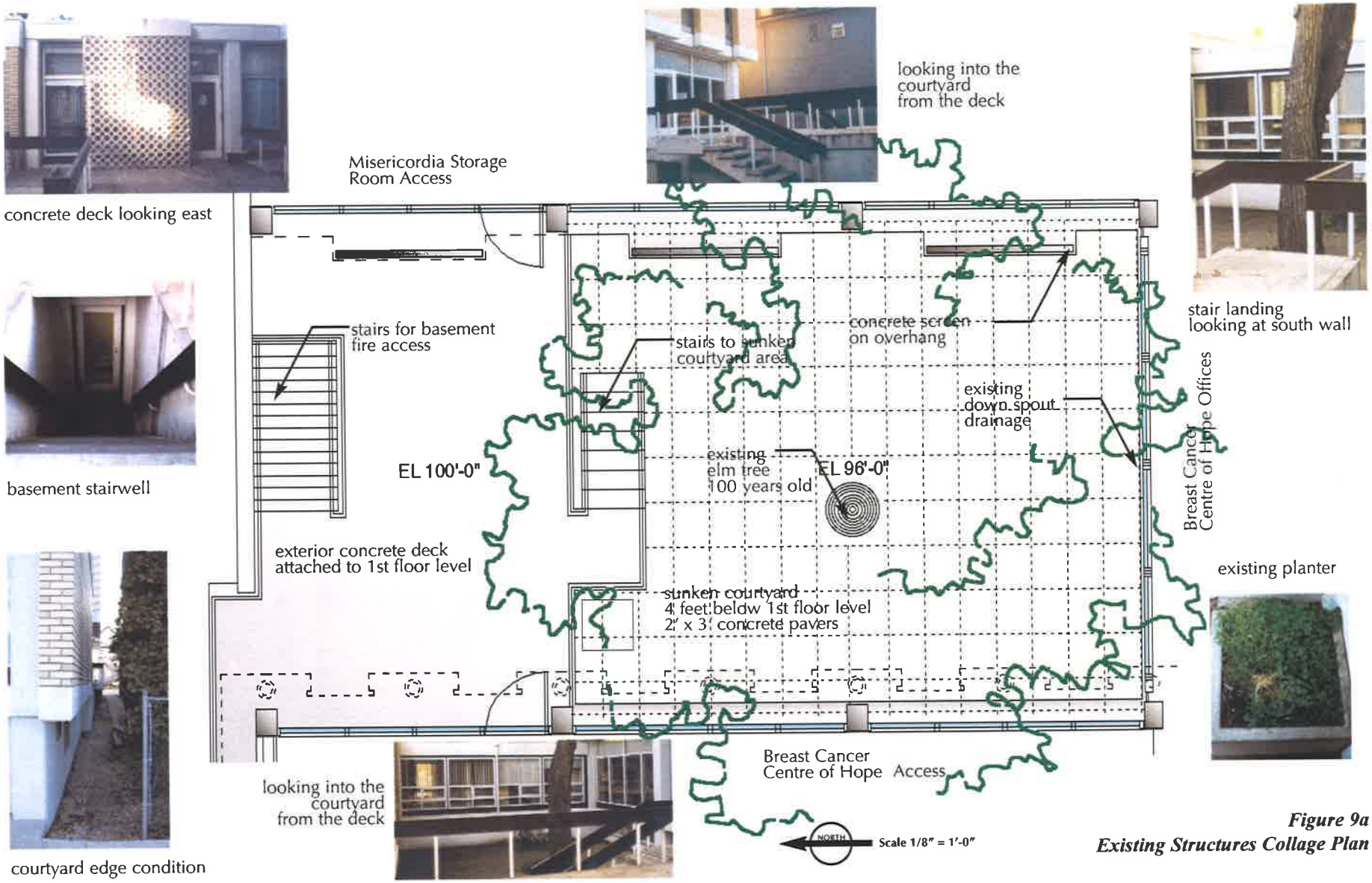
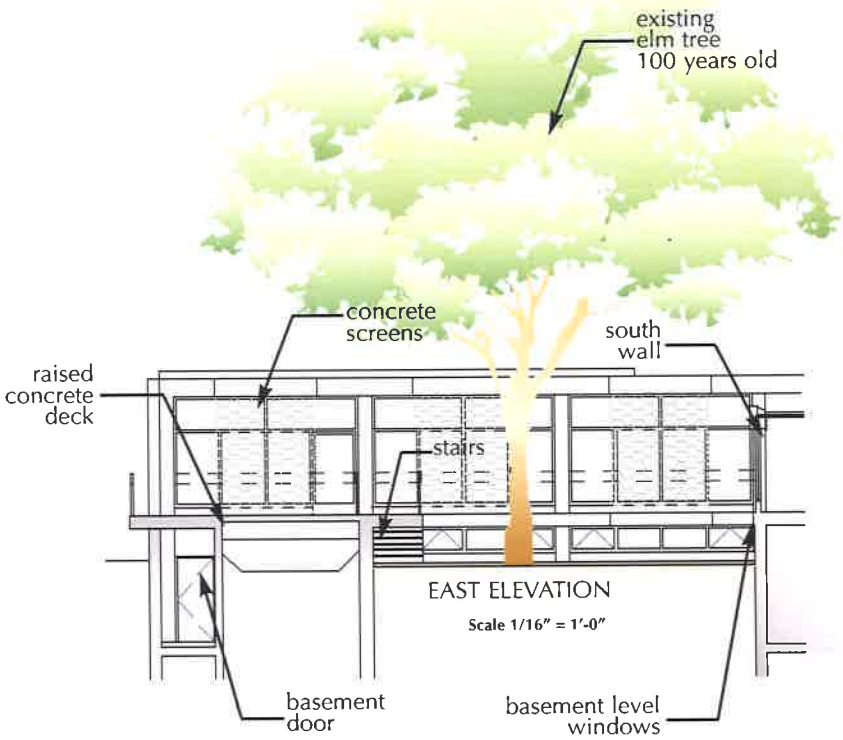
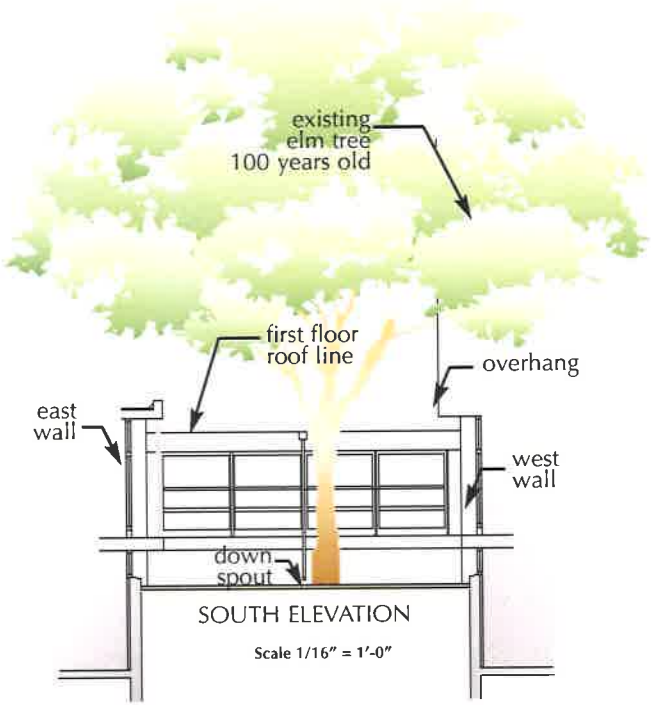


Figure 9a
Existing Structures Collage Plan

Figure 9b
Existing Structures Collage
East and South Elevations

east elevation photos and details

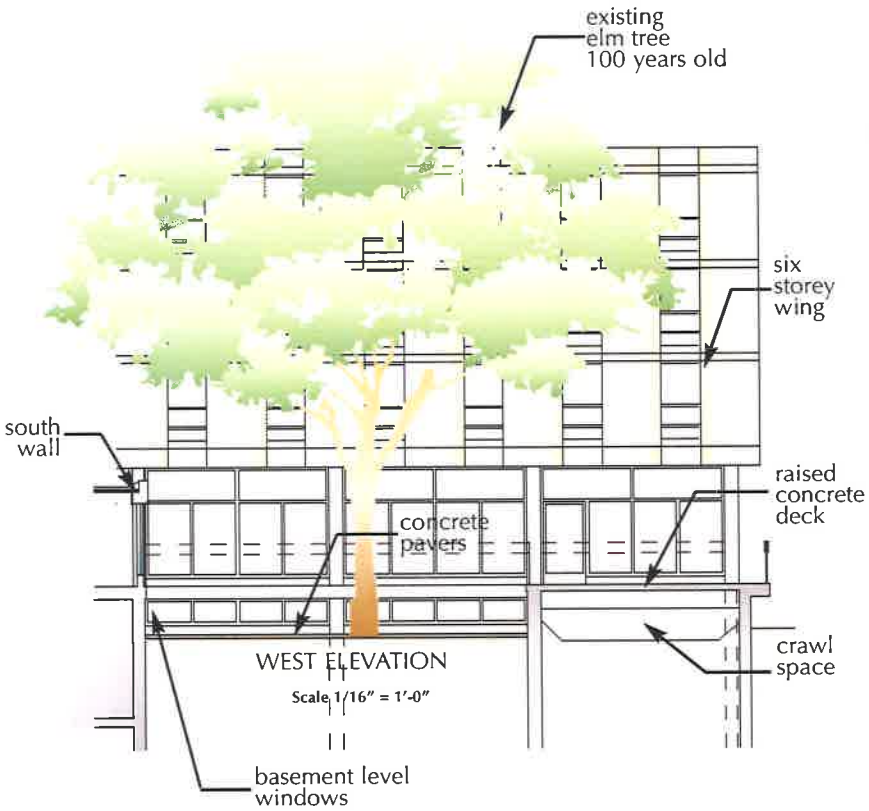


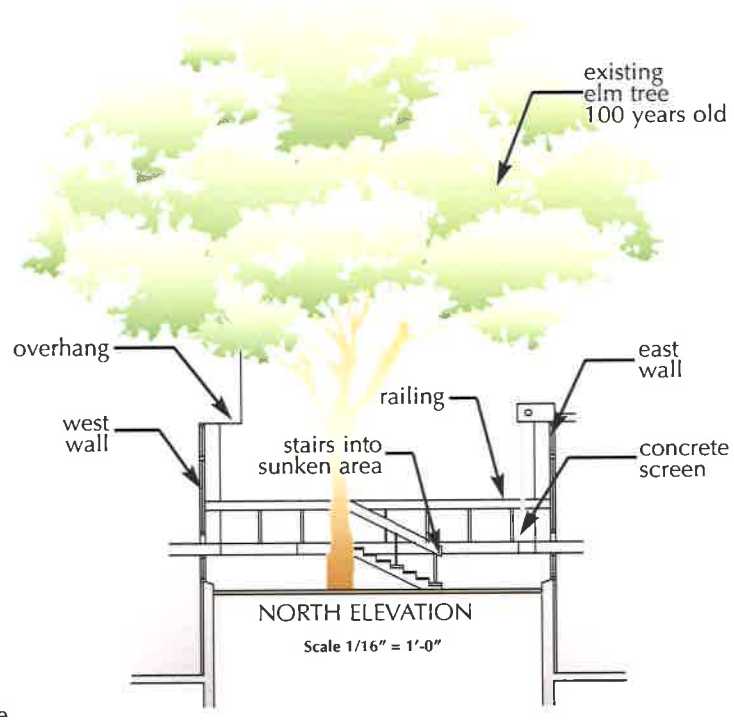


south elevation photos and details

Figure 9c
Existing Structures Collage
West and North Elevations

west elevation photos and details





north elevation photos and details

4.5.2.2 Existing Environmental Conditions Analysis

The existing environmental conditions analysis uses Winnipeg climate data to develop a detailed understanding of the momentary, daily and seasonal aspects of the courtyard space. Figure 10 a- b, forms the existing environmental conditions collage. It is composed of sunpath diagrams, wind and precipitation deposition diagrams, soil information and temperature statistics.

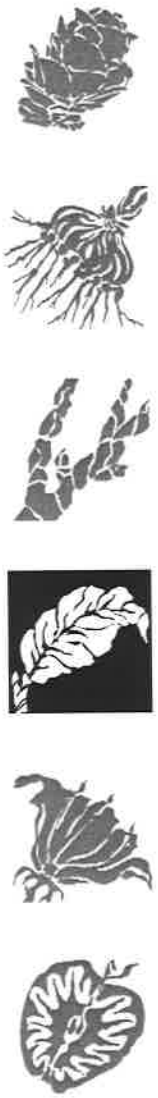
Almost fully enclosed and bordered by a six storey structure on the west side, the courtyard is a unique microclimate. Sunshine permeates the courtyard and the interior of Hope in the mornings, especially during the winter months. The tree and the east-west wings of the building create a range shade conditions throughout the day and seasons. The building configuration blocks almost all the wind and the noise although openings at the north end sometimes exhibit strong channeled gusts and some noise infiltration. The wind is most enchantingly visible in the swaying of the branches three storeys above. This sheltered condition makes the courtyard very comfortable at all times. Rain is captured by drainage tiles at the base of the basement wall. Snow accumulation is light and often undisturbed making the courtyard a peaceful winter wonderland. The space has great potential to become a microclimate haven for people and plants alike.

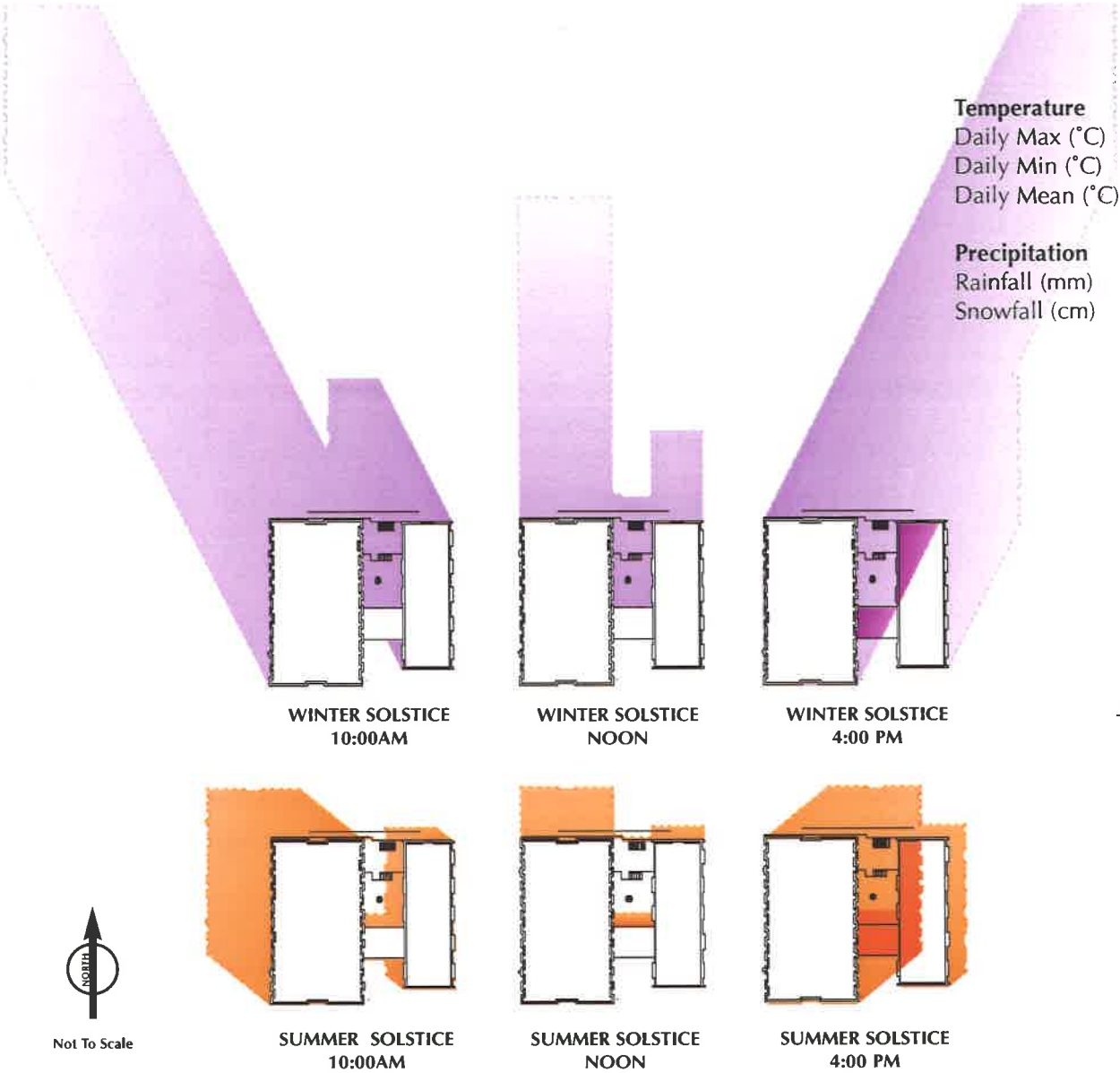
"I am struck by how the enclosure and removal from natural elements in the courtyard highlights usually subconscious experiences.

The sun on your face seems special, an errant breeze brings the scent of car exhaust (we'll have to change that)...and in the early afternoon as the shadows run across the building details the space seems to take on an even calmer and more peaceful attitude.

I wonder if the addition of other bio-elements will heighten these factors or blur them into richer overall experiences. I have to remember to plan for the special moment as much as for the general activity.

Monica Macra
Journal, June 1, 1999





	JAN	MAR	MAY	JUL	SEP	NOV
Temperature						
Daily Max (°C)	-13.2	-1.8	18.6	26.1	18.6	-.04
Daily Min (°C)	-23.6	-12.4	4.5	13.4	6.1	-9.2
Daily Mean (°C)	-18.3	-7.0	11.6	19.8	12.4	-4.7
Precipitation						
Rainfall (mm)	0.3	5.9	57.8	72.0	50.9	5.3
Snowfall (cm)	22.6	19.1	2.0	0.0	0.4	19.0

Statistics derived from Environment Canada
Statistic Normals 1961-1990
http://www.cmc.ec.gc.ca/climate/normals

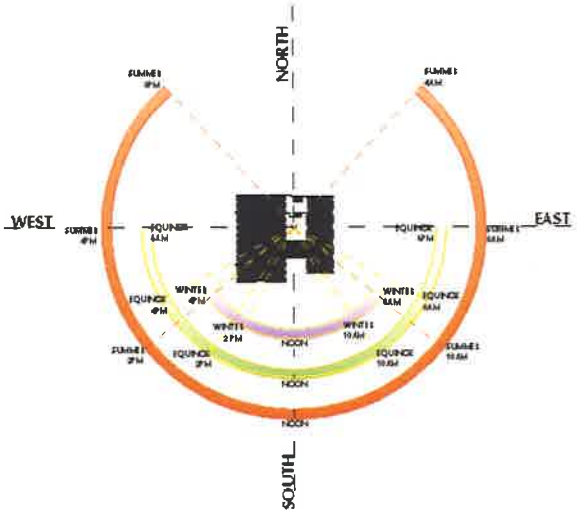
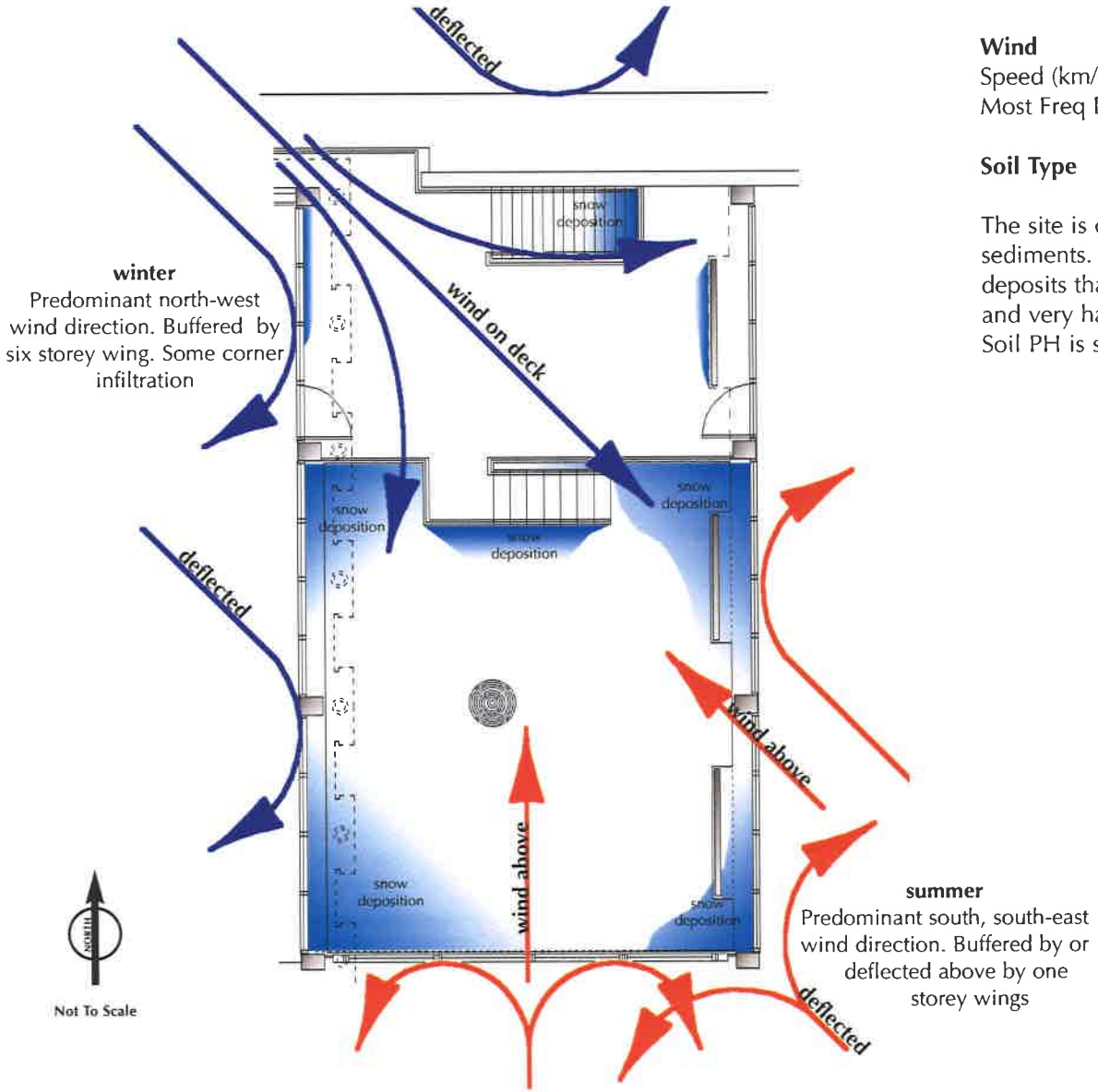


Figure 10a
Existing Environmental Conditions Collage
Sunpaths and Environmental Information



	JAN	MAR	MAY	JUL	SEP	NOV
Wind						
Speed (km/hr)	18	18	19	15	18	18
Most Freq Dir	NW	S	S	S	S	S

Soil Type

The site is composed of Fort Garry Clay and construction sediments. This soil is composed of deltaic and lacustrine deposits that range from silty to heavy clay. The soil is prismatic and very hard when dry. It is also plastic and sticky when wet. Soil PH is slightly alkaline to neutral.

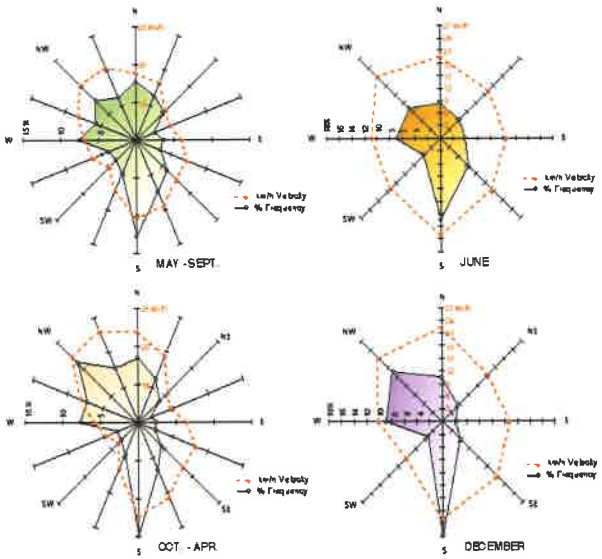


Figure 10b
Existing Environmental Conditions Collage
Windpaths and Soil Information

4.5.2.3 Existing Occupation Analysis

The existing occupation analysis used nonintrusive observation and mapping to determine existing behaviour in the courtyard space. The courtyard was observed from 9:00 am to 4:30pm. Figure 11 is a graphic representation of the users and activities observed on a Monday, Wednesday, Friday and Saturday in June of 1999. The summary below is a synthesis of these observations and staff interviews.

The courtyard was not used by Hope clients or staff at all. In fact it is even considered the back door or the emergency exit by regular staff and volunteers. In all the days of observation only Saturday (when the centre is closed) produced any human use of the site. Neighbourhood toddlers to teenagers use this hidden space to hang out and play games. Security personnel only walk along the perimeter of the courtyard every 4 or 5 hours during the weekend. Some homeless people have taken shelter here in the winter during the past two years. Hospital staff sometimes sneak here for a cigarette. The fourth courtyard wall needs to form a barrier to create a safe place for the people using Hope and dealing with tough situations. Overall the space is very underutilized and open to unwelcome visitors. The courtyard had many animal visitors including birds, squirrels, butterflies, bees and spiders. The persistence of wildlife, even in this concrete jungle suggests that more vegetation will be beneficial for people and animals.

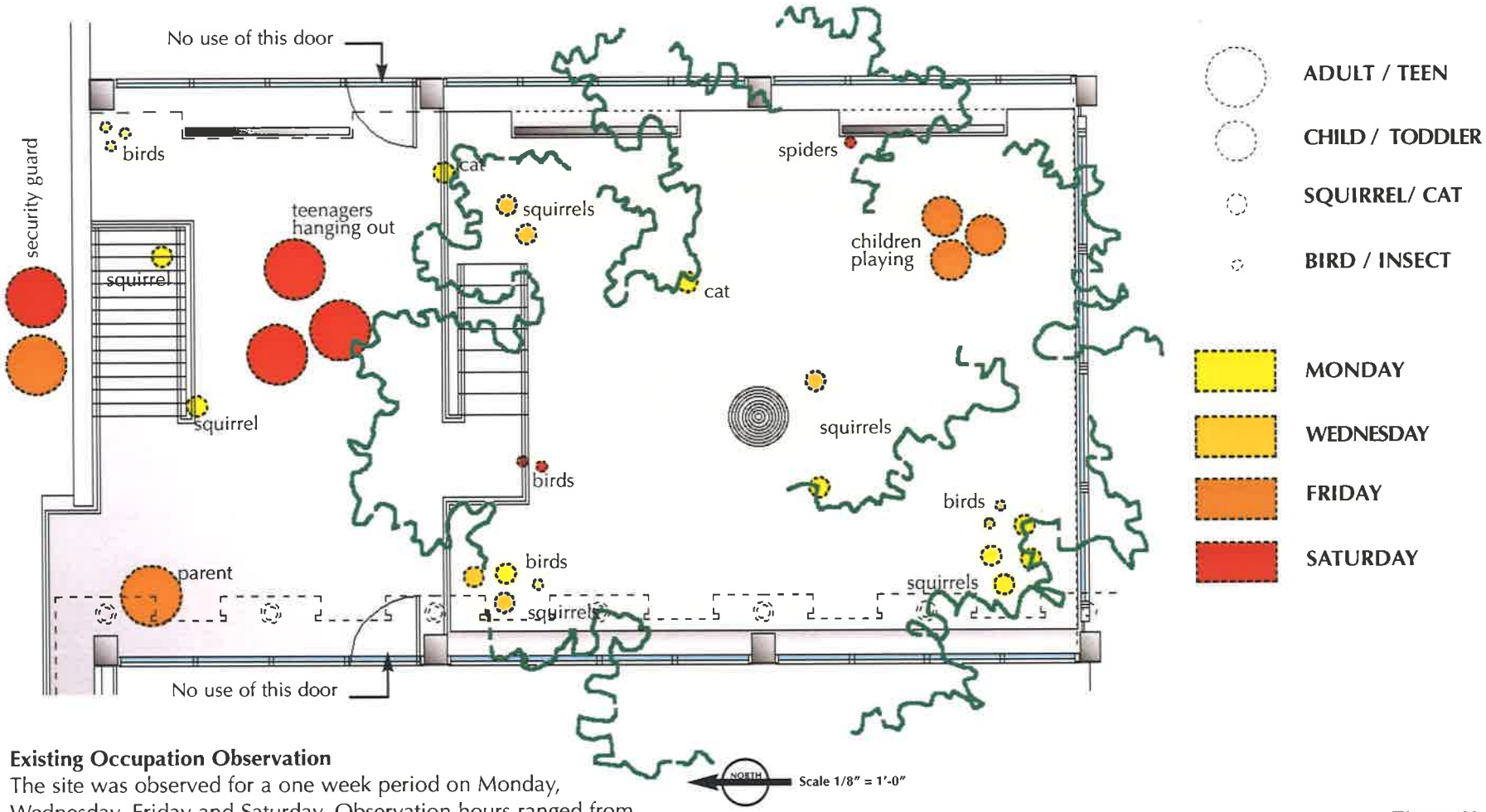
"I am not really shocked no one uses the courtyard, although I would have thought the staff might take their lunch outside.

It seems the lack of any comfortable sitting areas is not the problem they used to have those and took them out.

The kids certainly don't have any problem with the space. It is amazing to see what games their imaginations create even in this sterile concrete box. I bet the new garden will be their personal favourite if we don't close it off.

I need to give these women a reason to be inspired to go outside and use the courtyard. I think tending a garden and watching it grow and change will be perfect. "

Monica Macra
Journal, June 28, 1999



Existing Occupation Observation
The site was observed for a one week period on Monday, Wednesday, Friday and Saturday. Observation hours ranged from 8:30 am to 4:30pm (Hope hours of operation).

Figure 11
Existing Occupation Map
Hope Courtyard, June 10-17, 1999

4.5.2.4 Existing Circulation and Access Analysis

The existing circulation and access analysis uses site mapping and the accessibility standards to determine the circulation opportunities and constraints in and around the courtyard. Figure 12 annotates existing circulation patterns and highlights major accessibility issues on site. Appendix B contains a detailed site accessibility audit conducted in July of 1999.

Due to their age, the building and the courtyard do not meet Manitoba building codes or CSA Barrier Free Standards. A ramp at the front of the building and the newly designed interior makes the Centre fully accessible to all users. Stairs onto the deck from the rear egress and steps into the sunken area prohibit full access to the courtyard. A ramp solution spanning a four foot drop is awkward and impossible in the space due to the basement windows and space constraints. A lift could be installed, but it is very cost prohibitive. The most appropriate and feasible course of action will be the extension of the garden onto the accessible concrete deck level.

The courtyard also lacks safe surfacing, visual and textural cues and auditory landmarks. Doors meet code but deck and stair railings are too thick and lack appropriate guard rails. Although the courtyard can not be made fully accessible the elements on both levels (deck and sunken area) should be designed for circulation and access.

"The first thing I though when I walked out onto the deck and peered into the sunken area enclosed by widows right down to the paving level was how is anyone in a wheelchair ever going to get in there. I sketch ramp solutions that gobble up space until there is no garden and I am quickly getting frustrated.

From talking to the staff and to other designers I think the best solution will not be a fully accessible one. If people with decreased mobility are given a way to reach out and be surrounded by the garden garden even on the concrete deck and landing, the courtyard experience will be worthwhile for them.

Just one question. How did the architects ever justify doing this to begin with? Oh yeah it was 1961."

Monica Macra
Journal, June 28, 1999

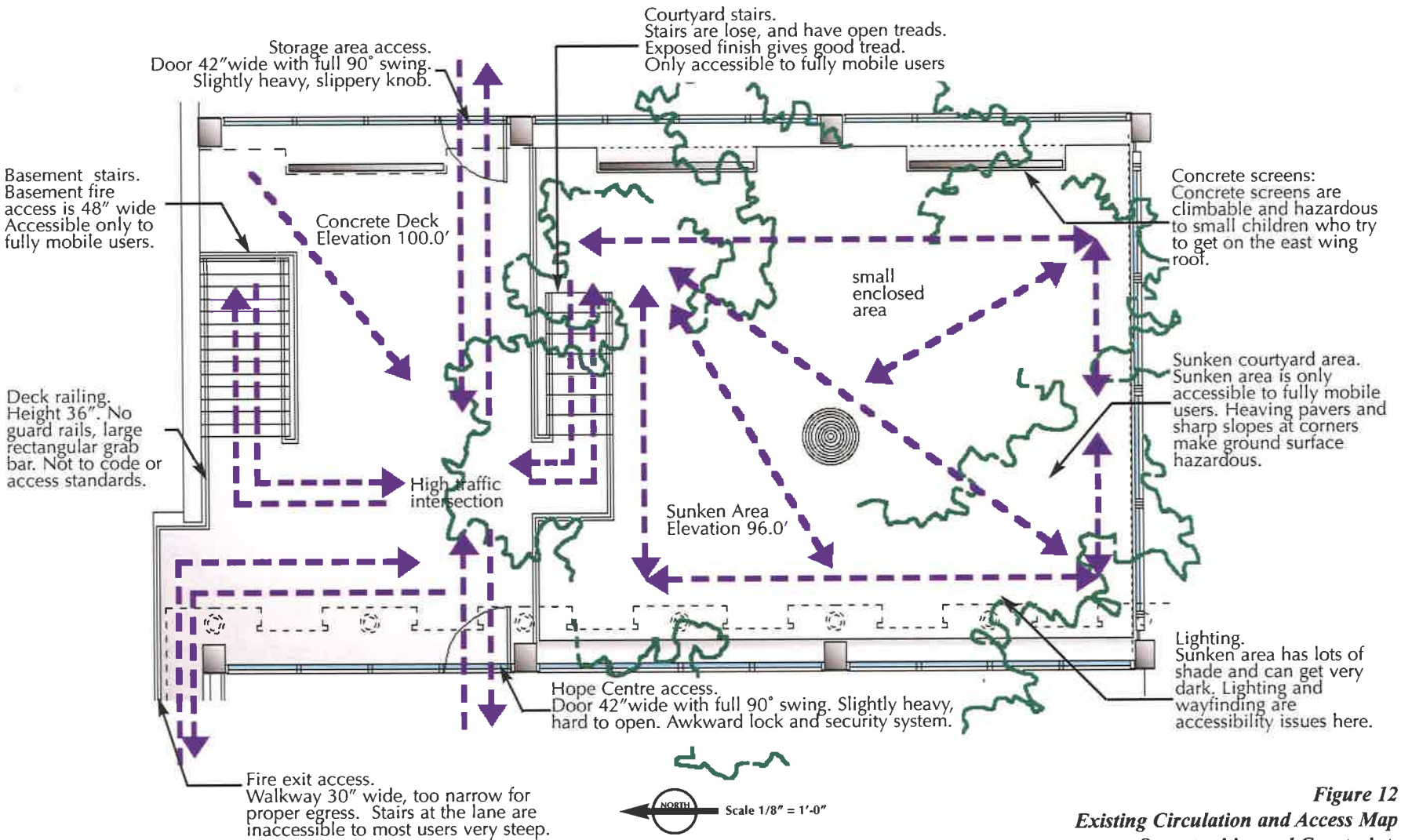


Figure 12
Existing Circulation and Access Map
Opportunities and Constraints

4.5.3 User Analysis

4.5.3.1 Develop User Driven Ideals and Goals

Developing an idea of user ideals and goals from which a healing garden program and form can be created is one of the most important steps in this process. Several Environmental Behaviour Research methods for user driven design were considered. The one on one interview, the questionnaire survey, and the focus group all seemed somewhat appropriate for this project. After discussions with Hope staff and users it was decided that on on one interviews and questionnaires isolated individual users and would not allow for the dynamic exchange of ideas between all the stake holders required at this stage of the courtyard development. A focus group session was conducted on June 28, 1999, with the full consent and knowledge of all the participants. A summary of the sessions findings is outlined below. For full focus group documentation please refer to appendix C.

Three members of Hope's staff always ready and willing to lend a helping hand.

Focus Group Results Summary

Mediator: Monica Macra Recorder: Heather Cram

Location: The Breast Cancer Centre of Hope

Participants: There were nine participants (MM and HC, NIC)
-3 professionals (staff, admin. and maintenance)
-4 clients (early, advanced, remission, survivor)
-2 family members (spouse and daughter)

The members of the group were generally positive and receptive to the idea of a healing garden for Hope. A broad range of opinions regarding the use of the Golf Classic funds were expressed. There was a strong feeling among some breast cancer users that the development of the courtyard space should be superceded by other projects such as library and counseling initiatives.

All the participants agreed that a redeveloped courtyard could create a connection to a useful outdoor environment that would improve the quality of life of Hope users and provide additional space for Hope services. The discussion revolved around major issues such as the temporary nature of the Centre's location, the cost of implementation and the safety of users. Question summaries are as follows.

Q1 Is the courtyard a currently a resource?
- not really, used very little or not at all right now
- the tree is nice to look at but not the rest

Q2 Who would use the new courtyard?
-cancer patients with sensitive conditions
-newly diagnosed people needing lots of help
- family members and friends trying to help
-care givers, maintenance staff, volunteers

Q3 How will these groups interact?
-alone, in pairs, in groups of 4-10, in large gatherings
-to meet, talk, yell, organize, prepare,support, relax

" I am really concerned about this idea. Hope has a limited number of people and resources and I can think of many more positive ways to spend this money.

How can you justify doing this when women with lymphodema have no insurance to cover protective sleeves or when we don't have enough prosthetics to services the body shape of many mastectomy patients.

Have you thought about the fact that Hope will probably move in a couple of years? An what about maintenance? Has someone thought of who will take care of the courtyard after it becomes a high maintenance garden?"

Breast Cancer Survivor
Focus Group Response

Q4 What activities would you see in the courtyard?
active - gardening, , walking, crafting, exercising
passive - viewing, sitting, listening, meditating, grieving

Q5 Question 5 brings together the ideas discussed so far in the development of garden goals and possible components. they are presented in decreasing order of importance as identified by users.

Goals: to relax, to get away, to feel safe, to feel productive, to be economical, to be portable but not mobile, to have maximum seasonal use, to view from inside, to use outside, to be alone or to gather, to encourage animals and discourage bugs, to maximize light filters and qualities, to reduce noise, to be built by volunteers.

Possible Components: fully or partially enclosed seasonal space, developed upper deck, access to the sunken area, a green -green garden in the sunken area, lots of raised planters and boxes, comfortable places to sit and stretch out, a pool or some kind of water, a commemorative feature and pieces of art, wildlife perches and bird houses.

Q6 After this discussion do you think the courtyard should be developed? Why?
-*Yes* (65%) because it will provide a wonderful place for all users to celebrate and connect to nature and life.
-*Yes* (20%) because it will provide additional places for counseling and therapy and because building it will

" I think the development of the courtyard is a great idea. I try to imagine it as a lovely garden where bad news, counseling and group support are not only more enjoyable but more successful at healing everyone involved.

The space out there is full of possibilities. As a family member who can not help in many other ways than moral support, I would like to build this garden with my own two hands. I know it will be a great experience for everyone involved, especially family members wanting to make a contribution.

I think we should give the courtyard our best effort. We owe it to the special women in our lives.

Breast Cancer Family Member Focus Group Response

probably be therapy in itself.
-*No* (15%) because there are better things to spend $30,000 on and besides being outside has no therapeutic value while you are sick anyways.

Many focus group participants, especially family members and survivors expressed a desire to give back to Hope. They wanted to volunteer to build the garden as a healing process for themselves and those who would use it.

All the participants felt that the development of the courtyard would be a positive and empowering experience. The establishment of a Courtyard Development Committee was suggested. These focus group results were used as the basis for the development of a detailed design program in section 4.5.4.1

A Typical Courtyard Development Committee Meeting Scenario. Thanks to Orst we always had great baking or fresh produce for a snack.

4.5.3.2 Create A Diverse Advisory Group

A Courtyard Development Committee was organized by Kathy Thomson the Director of Hope. It is composed of one administrator, a staff member, 3 cancer clients, 2 family members, 1 policy maker, 1 maintenance person and 2 designers. The Courtyard Development Committee has met throughout the design and implementation process. It has served as a sounding board, review medium, volunteer organizer and core implementation group.

4.5.4 Concept Development

4.5.4.1 Design Matrix Workshop

Courtyard Development Committee Meeting No. 1 took place at Hope in July of 1999. During this meeting focus group results were presented and distributed for review by Hope users. The goals and components developed in the focus group session were then systematically inserted into the Therapeutic Landscape Design Considerations Matrix. Figure 4 a-d (page 103-106) is the matrix developed for this project.

The detailed considerations of the matrix represent the core spatial and experiential program components for the development of the courtyard. They include receptor, transmitter, composition and experience factors for a range of psychological, social and occupational needs.

Figure 13 is composed of two bubble diagrams that were developed during this meeting. These bubble diagrams are lose interpretations of the possible locations of the diverse courtyard components under consideration. Sequence, pattern, connection, access and use are essential to these collaborative sketches. The matrix and the bubble diagrams were the primary guidance tools used during the development of all the courtyard concepts that follow.

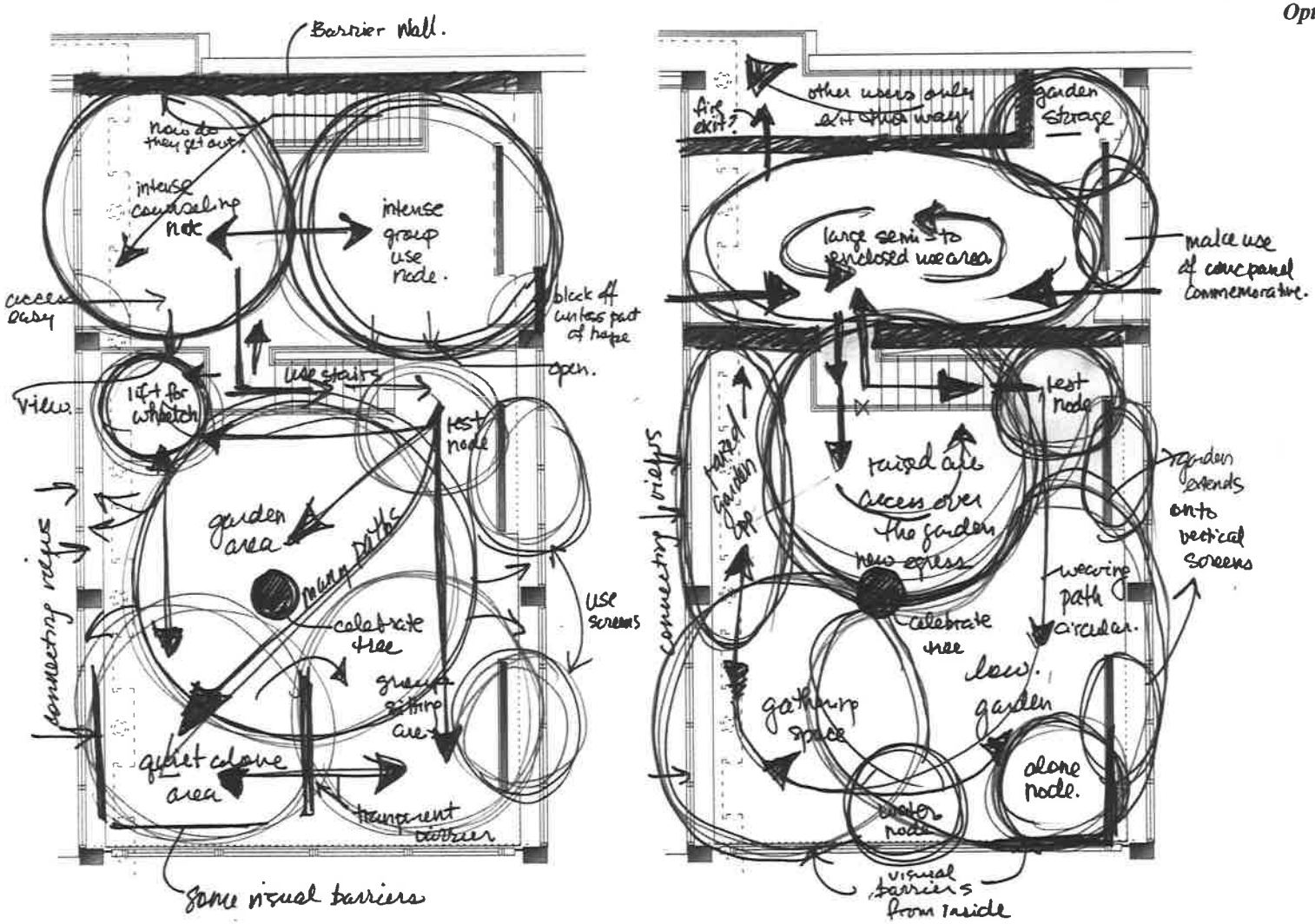
" I am glad to see that the possibilities and ideas for this courtyard are coming from all the people on the committee.

It is interesting that not everyone can see things as visually as designers do. I have to do a lot of gesticulating and even walking with the group in the courtyard in order to get my ideas across.

Some committee members are very good at verbalizing their feelings and ideas but they can not visualized the result. I am going to have to find a way for my drawings to communicate clearly with them."

Monica Macra
Journal, July 15,1999

Figure 13
Design Workshop Bubble Diagram
Options 1&2



Bubble Diagram 1
Possible uses and connections

Bubble Diagram 2
Possible uses and connections

4.5.4.2 Preliminary Concepts Presentation & Design Charette

Courtyard Development Committee Meeting No. 2 took place at Hope in August of 1999. During the meeting preliminary concepts A and B were presented for review.

Figure 14 a-b contains presentation A: The Tree House Courtyard Concept. Figure 15 a-b contains presentation B: The Secret Garden Concept.

The plans served as a starting point for the discussion of design ideas, symbols, imagery and form. After the initial presentation they were taken down and covered with tracing paper. Committee members and designers alike drew and annotated ideas that had been triggered by these initial design concepts. It was agreed that a third concept should be developed to incorporate the best aspects of these initial ideas. Minutes and drawings from Meeting No. 2 can be reviewed in Appendix D.

Concept A and B were left on display at Hope for the next two weeks. Users were encouraged to leave comments on an attached sheet of paper for each concept. These comments were used in conjunction with results from meeting No. 2 to develop a refined therapeutic landscape concept for the next meeting.

Nook
A small corner, alcove or recess, especially one that is part of a larger space. A hidden or secluded spot.

Introspection
To look into. The contemplation of one's own thoughts, feelings and sensations.

Websters II
New Dictionary

"Perch
A place for sitting, observing and resting. Often associated with a n elevated projection that provides an encompassing view of the surroundings.

Outlook
The act of looking out. A place that offers a view of something. An attitude or point of view."

Websters II
New Dictionary

Concept A: The Tree House Courtyard

The tree house courtyard concept is based on maximizing the use of the elevated concrete deck and creating extended access into the garden through elevated decks. In a tree house children are perched above the landscape in a secure, safe and exciting location. From the tree house they have many options for relaxing, playing and exploring the wonders of nature all around them. The sense of fun, adventure and innocence implied by the tree house has therapeutic value for The Breast Cancer Centre of Hope's clients, staff and families.

A semi enclosed roof structure hanging with vines and furnished with benches sits on the concrete deck perched above the sunken courtyard like a tree house. From this safe and comfortable node, users of all abilities can move out onto a series of floating horizontal deck surfaces that protrude into the space and surround the existing elm. From this elevated position 4' above ground level users can reach out and touch the garden in a series of raised planters adjacent to the deck filled with the colour and scents of annuals and herbs. Users can dangle their feet over the edge of the platform looking down on a sea of plants below. The vines and potted plants on the deck and the accessible raised planters will be used for active gardening.

The sunken area is designed as a lush, low maintenance, multiseasonal perennial garden. A combination of deciduous and coniferous shrubs form the structure and texture for smaller pockets of perennials. All the plants are shade tolerant. The existing concrete pavers are recycled to form a rectilinear path to the south wall where a soft sunken pool of water receives the flow of a water wall. Birdhouses, lanterns, metal screens and a light wall complete this magical exploration package. At night sitting in the garden the mini lights twinkle and the lanterns provide a soft glow.

The shade structure is great but it still lets bugs and strong light in. Could we close it completely?

The plexiglass north wall is not enough of a barrier. It would get destroyed. It needs to be solid

We are not sure about the floating platforms because we don't want to damage the tree or create places to fall. Adding railings would change the effect and it seems to take up a lot of room.

The water wall is a great idea, but could the pool be raised above ground with a sitting ledge around it?

The herbs and annuals would be very well used, could we have more smaller planters for everyone?

The perennial garden will need to be taken care of. How much time and people will it take? The shrubs can't block the basement windows.

Committee Comments
Meeting No. 2

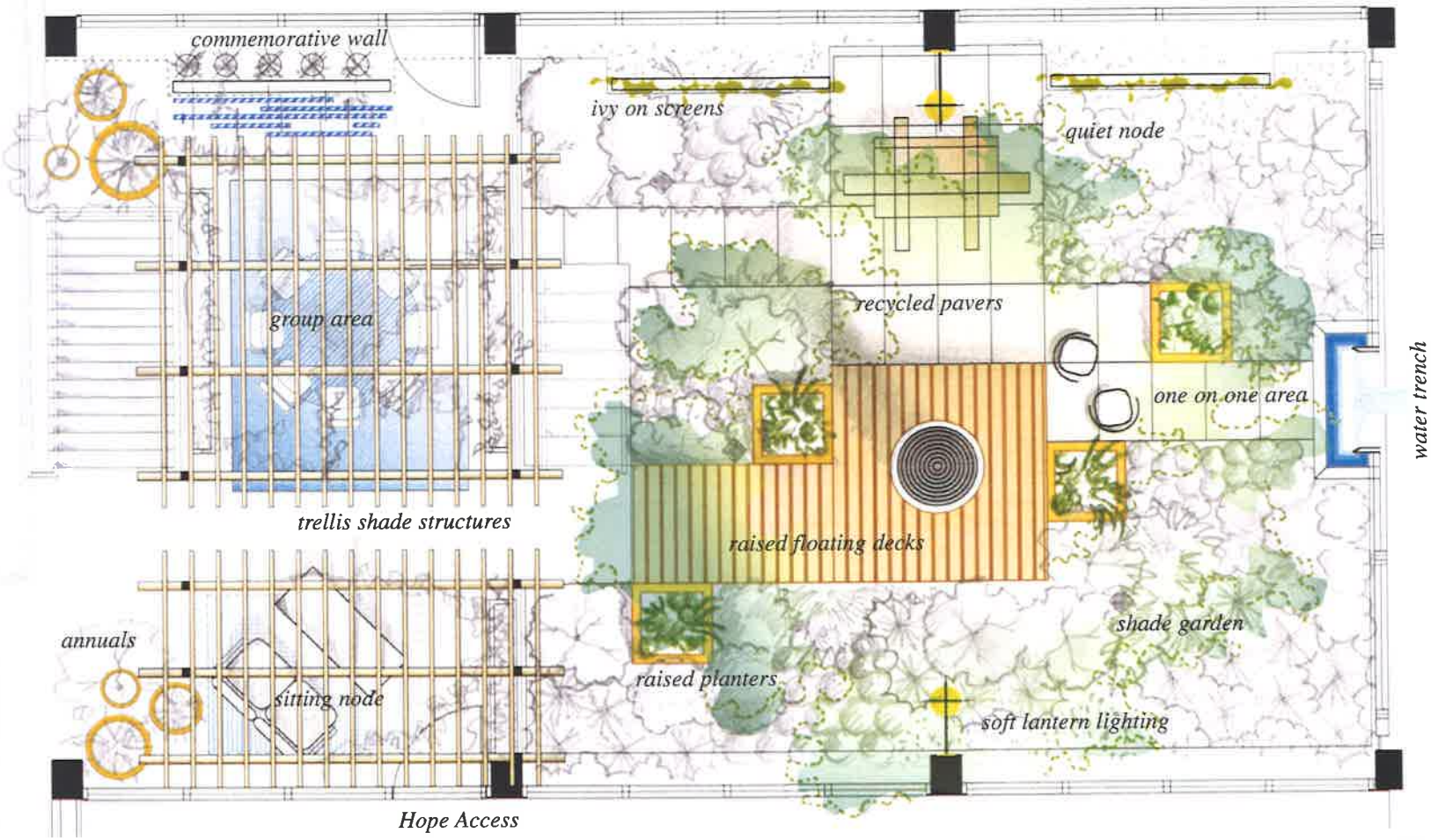


Figure 14 a
Presentation A: The Tree House Courtyard Concept Plan

Concept A Components:

Hard Components:
- Concrete deck shade structure
- Trellises and lattices to form rooms
- Floating tree house & accessible wood decks
- Sunken water trench & water wall
- Recycled concrete pavers & planters
- Large round clay platers

Vegetation:
- Annuals in round planters
- Herb garden in recycled raised planters
- Perennial shade garden
- Traditional planting order

Lighting, Furniture and Art:
- Outdoor tables, benches and chairs metal
- Commemorative wall under trellis
- Uplight existing tree
- Soft low level lighting in perennial beds
- Wind chimes and bird houses
- Metal mesh privacy screens

Figure 14 b
Presentation A: The Tree House Courtyard Concept
Concept Sketch and Notes

Concept B: The Secret Garden

The secret garden courtyard concept is based on the idea of a fully enclosed, wonderland. In the secret garden the walls and sheltered location form a magical sense of serenity, security, and peace while maintaining an exciting connection to cycles of life and nature. The domestic feel of the garden allows users to explore many healing activities such as relaxing, talking, meeting, working and observing. The form and the possible interactions have therapeutic value for The Breast Cancer Centre of Hope's clients, staff and families.

The raised concrete deck is closed off on the north side by a solid brick or concrete wall high enough to keep others out while letting light in. The deck is covered with a large canvas sail that acts as a retractable shade structure. Large planters filled with combinations of vines and annuals, comfortable chairs and tables, and a series of portable raised gardening boxes, are carefully arranged on the deck area.

Users can enjoy the enclosure on top of the deck or they can move down into the lush shade garden. The recycled existing pavers have been cut into various geometric sizes to form a random informal path that bleeds into the surrounding shrub beds. Nodes contain an informal fountain surrounded by lawn chairs and a swing in a niche. A series of glass screens create a sense of enclosure and privacy in this fishbowl space. Aromatic and colourful perennials are clustered around these areas. The typical perennial garden arrangement is reversed in this option. Larger shrubs are set near the centre of the courtyard to accommodate basement window lighting and view. The existing concrete screens are designed into stained glass commemorative walls that can grow with the Centre. Large japanese paper lanterns flank the courtyard, while whimsical iron sculptures of bugs and animals play in the garden.

The wall is nice but the tent structure will not last because of the weather and vandalism. The tent is not enclosed enough the deck area should be fully enclosed.

The sunken garden is great but it doesn't have much accessible hard space.

Can we use the first floor ledges around the courtyard for planter boxes? They are the right height

The glass screens are better than metal but they need to be plexi or tempered for safety

Could the swing be a glider?

The lose form of the water feature doesn't seem to fit in the courtyard/

Could the commemorative wall be moved into the enclosed space on the deck so it is accessible to everyone.

The lanterns and metal sculptures sound like lots of fun.

Committee Comments
Meeting No. 2

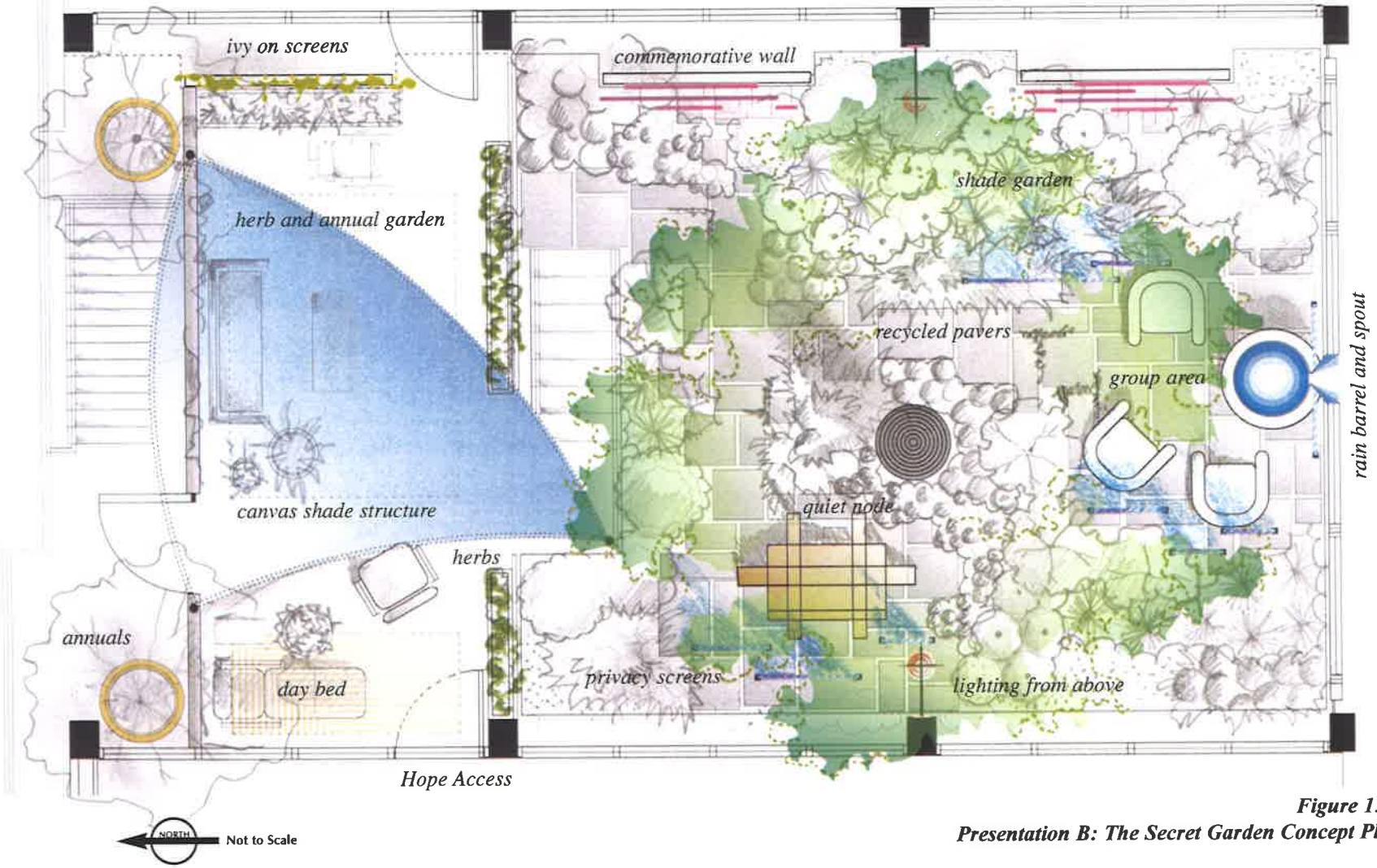


Figure 15 a
Presentation B: The Secret Garden Concept Plan

Concept B Components:

Hard Components:
- Brick or concrete north wall
- Wrought iron gate and coping
- Canvas shade structure
- Raised portable planter tables
- Recycled - recut concrete pavers
- Rain barrel with rain spout

Vegetation:
- Annuals in round planters
- Herb garden on concrete deck
- Perennial shade garden
- Traditional planting order

Lighting, Furniture and Art:
- Wood benches and chairs
- Coloured glass commemorative walls
- Japanese lanterns on steel brackets
- Lexan glass privacy screens
- Metal sculptures of birds & animals
- Softer lighting from overhang lights

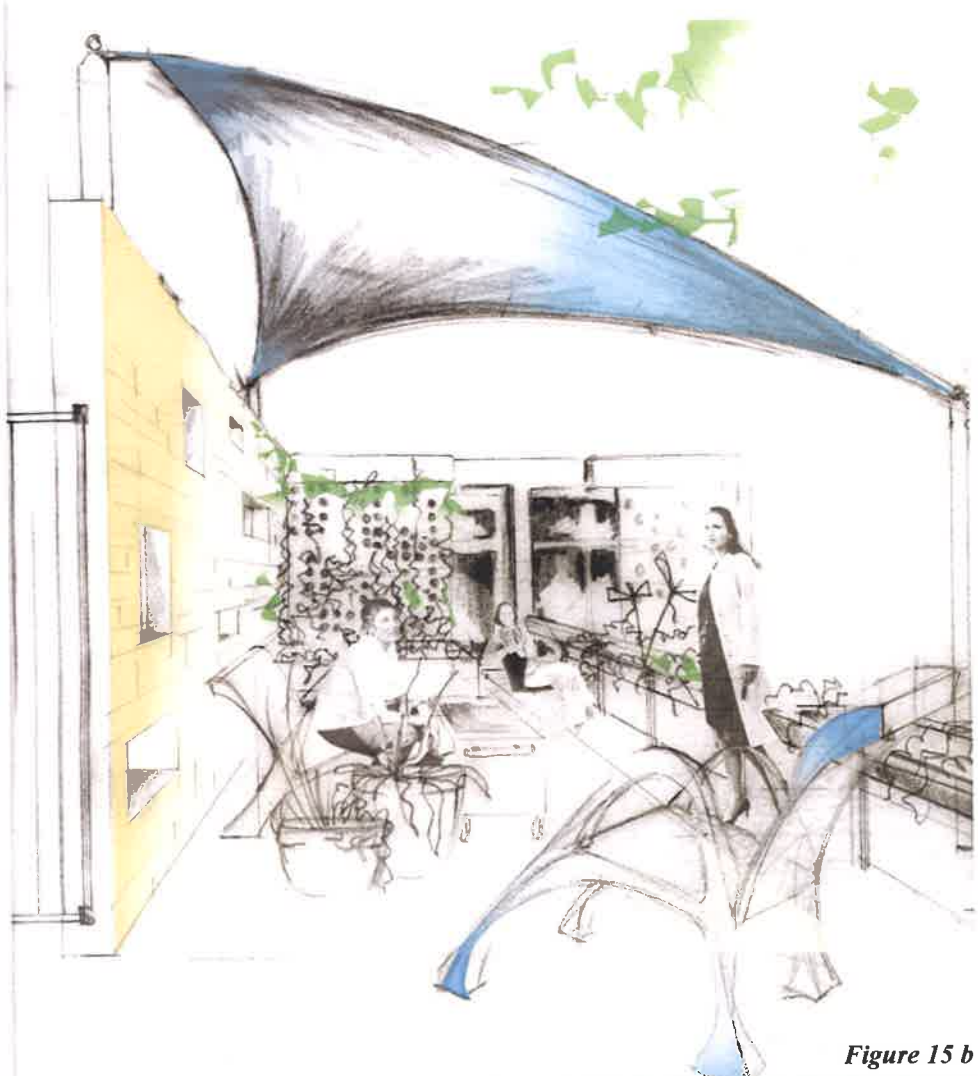


Figure 15 b
Presentation B: The Secret Garden Concept
Concept Sketch and Notes

4.5.4.3 Refined Concept Presentation

From September to November of 1999 two courtyard development meetings were held to review and refine an increasingly detailed courtyard concept. Figure 16 a-b contains presentation C: The Bridges of Hope Courtyard Concept. It includes a detailed plan, elevations, and a materials palette. Concept C is based on the idea that the courtyard can act as a bridge in many contexts and forms.

- Psychologically the Bridges of Hope Courtyard represents the journey from illness to recovery for women with breast cancer.

- Occupationally The Bridges of Hope Courtyard complements traditional treatments by providing outdoor activities for healing both mind and body.

- Physically The Bridges of Hope courtyard connects or bridges the need for a series of interior, semi exterior, and exterior environments for healing.

This idea is the last purely conceptual phase of the design process. Concept C is not what has been constructed at The Bridges of Hope Courtyard. The refinement of the design, development of construction drawings, and recruitment of material and labour donors, converted these initial ideas into the final design described in chapter V and the final product described in chapter VI.

We really like the integration of the positive aspects of the first two concepts into this revised design option.

Could the sunroom be detailed further, especially by checking if it is structurally possible and wether it could be designed to meet codes within our budget?

Could we look into using other pavers. They don't really seem to be working as an accessible or aesthetic component of the design?

Could the commemorative wall become a series of various shapes and sizes of coloured glass with peoples names etched on them that could grow and change as the Centre develops?

The plants for the garden seem to be low maintenance and accessible, but how will we reach the individual planting boxes on the ledge if that area is blocked of by a planting bed?

Committee Comments
Meetings No. 3-& 4

Concept C: The Bridges of Hope Courtyard

The bridges of hope courtyard concept is based on the idea connections and crossings. The various experiences the user can have in the courtyard act as a bridge between illness and health. Crossing a bridge is both a process and a destination. This idea has great therapeutic value for The Breast Cancer Centre of Hope's clients, staff and families. With the idea of process and transition in mind the healing environment has been designed to move from the full enclosure of a three season sunroom, through the semi exposed and accessible raised deck, to the fully exposed and outdoor environment of the sunken garden.

The three season sunroom connects the east and west wings of the building and transforms the existing concrete deck into a therapeutic greenhouse space that can be used for longer periods of the year. Women with weakened systems have full access to the benefits of the garden through the activities and views the sunroom provides. The north wall of the sunroom is solid except for clearastory windows while the south wall is composed of sliding plexiglass and mesh screening. Two activity areas and a large storage space are enclosed in this structure. The commemorative wall, soft lighting and arts and crafts considerations have also been brought under the roof. The roof is composed of lexan, a clear plastic that reflects UV rays while letting sunlight into the space.

The wood deck off the stair landing is designed to be wheelchair accessible. Seat height planters filled with herbs and annuals allow for plant interaction on deck level. The deck is completed by a bench seat and decorative plexiglass screen. The deck protrudes into the garden below like the deck of a ship above a sea of plants.

Concept C Components:

Hard Components:
- Screened in sunroom
- Accessible deck & planters
- Raised fountain with waterfall
- Recycled concrete pavers
- Planter boxes & clay pots

Vegetation:
- Annuals in raised boxes
- Herb garden on wood deck
- Perennial shade garden
- Reverse planting bed order
- Indoor plants for sunroom

Lighting, Furniture and Art:
- Memorial wall in sunroom
- Couches, table, & chairs sunroom
- Shelving & portable work surfaces
- Soft lighting & task lighting
- Glider and Adorondak chairs
- Sandblasted glass screens
- Wrought iron insect sculptures
- Japanese lanterns & wind chimes






The sunken area has been designed as a shade garden in the reversed perennial arrangement discussed in concept B. Paths and nodes have been widened but are still composed of a random pattern of refurbished concrete slabs.

The two activity nodes located at the south end of the courtyard are designed to be separate and unique experiences. The glider node, enclosed by higher plantings and a series of staggered sandblasted, decorative panels, is nestled in a corner to create a place for solitude, contemplation or intimate interaction. The muted colors and textures of the plants combine with the smooth motion of the glider and the gentle sound of a nearby wind chime to soothe and centre the user.

On the other hand the second node organized around a raised and bubbling water feature and surrounded by colourful perennials and comfortable seating is designed to create a social atmosphere for group discussion, exercises or recreation. The decorative glass panels are staggered around this space in a more open manner allowing people from inside to look down on the action.

Plant material is selected to provide colour and scent throughout the spring, summer and fall. The plants will also transform the courtyard into a varied, textured, exciting visual landscape that changes with the deposition of snow and the passing of long shadowy days, throughout the long Winnipeg winter.

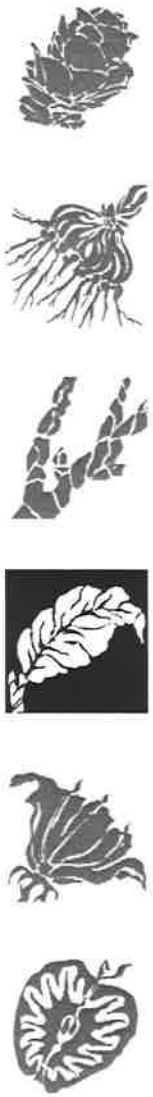
Special garden features include the whimsical iron sculptures of bugs and animals, the conversion of the concrete lattice into a green wall of twinkling miniature lights, and the installation of japanese lanterns, bird houses, individual planter boxes, and wind chimes throughout the sunken space.

The glider seems heavenly, when can we install it. I get first dibbs. Where can we get a glider like that in Winnipeg.

The fountain/pool enclosure could be made larger with a deeper lip so people could sit around the edge. Also I don't think the spout from the roof will be acceptable to the Misericordia. Could we have a pump in the pool itself?

How long will it take to convert these ideas and begin building. Can it all be done next summer?

Committee Comments
Meetings No. 3-& 4



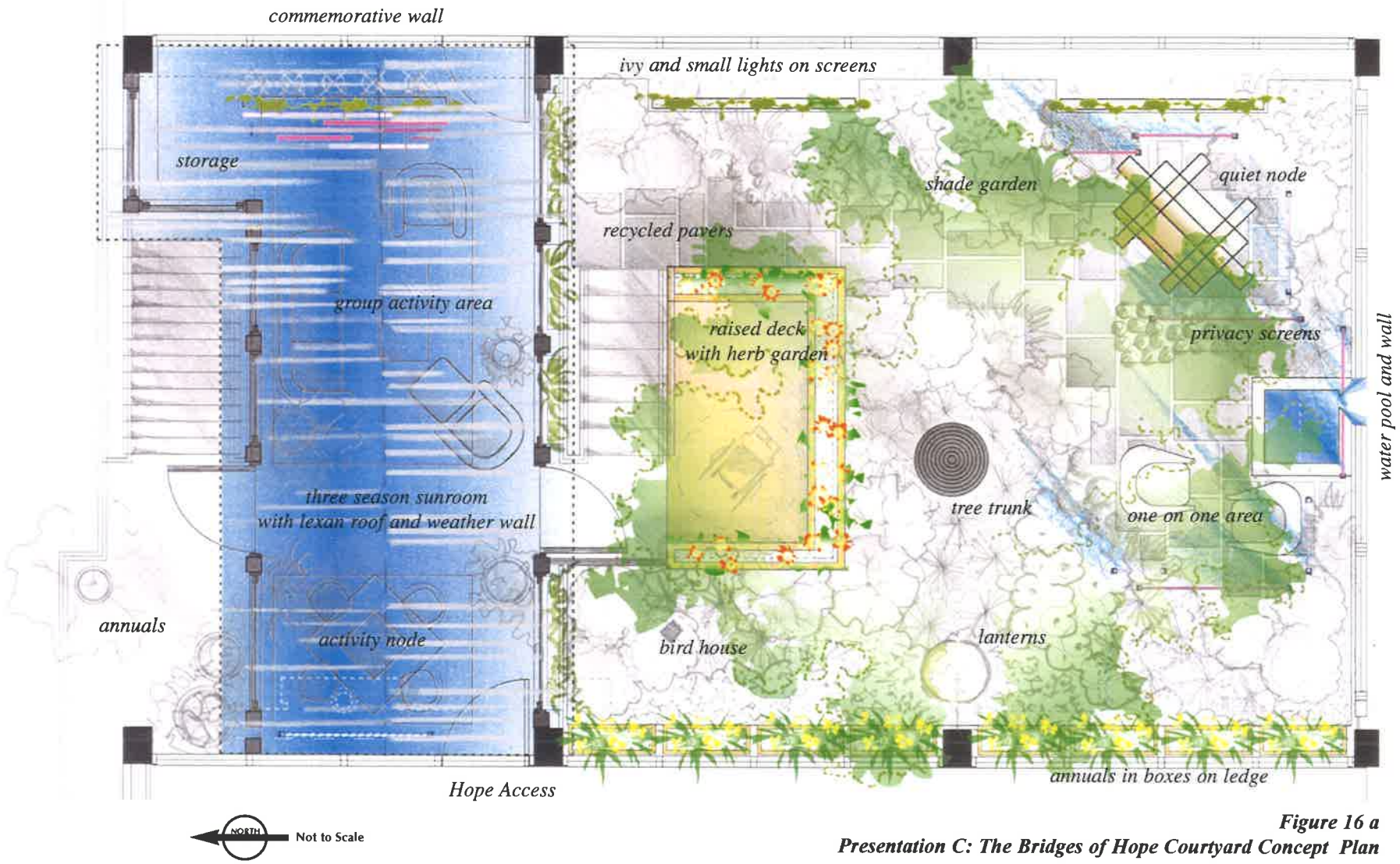


Figure 16 a
Presentation C: The Bridges of Hope Courtyard Concept Plan

Figure 16 b
Presentation C: The Bridges of Hope Courtyard
Concept Sketch

Chapter V
Flower - Final Design

Flower:

- ***A shoot of the sporophyte of a higher plant that is modified for reproduction and differentiated into calyx, corole, stamens and carpels.***

- ***To develop or flourish.***

- ***The best part of, or the finest most vigorous period of life.***

Oxford English Reference Dictionary.

5.1 Introduction -Flower

The flower of a plant is essential to pollination and reproduction. In the attempt to grow and multiply, plants have evolved complex, colourful and scented flowers that are filled with mechanisms for trapping and distributing pollen.

The Bridges of Hope Courtyard is the flower of this research project. With the nourishment of users and designers, the original abandoned courtyard space has been transformed into a detailed, complex and rich therapeutic landscape design. Many additional considerations molded the refined concept (C), into a magical yet buildable place for The Breast Cancer Centre of Hope.

This chapter takes a close look at the final Bridges of Hope Courtyard Design. It begins with design drawings and annotations in plan, section, and elevation, and closes with an in depth look at the construction details of the components that combine to form a wholistic healing place.

The chapter is divided into:

5.2 The Bridges of Hope Courtyard Final Design
5.3 The Bridges of Hope Courtyard Design Details

Flower Opening
Photograph by Hugh Martel
Benjamin Moore 2000 Calendar

5.2 The Bridges of Hope Courtyard Final Design

5.2.1 Final Design Plan, Elevations, and Perspectives

A note regarding the final design:
The final design presented here was deeply influenced by three additional factors that became very important after the original concept development stage. These factors are:

- The need to involve users and volunteers fully in the design implementation process.
- The need to involve engineering and architectural designers to meet city requirements for structural elements.
- The need to adapt original design ideas to suit budget constraints and community donor support.

These factors are discussed in chapter VI, however each final design component described in this chapter is annotated with respect to these three design considerations that so influenced the final outcome.

This section is composed of the following figures:

Figure 17	Layout Plan
Figure 18a	West Elevation / Section
Figure 18b	East Elevation / Section
Figure 19 a-b	North and South Elevation / Section

" Bridge"
A structure spanning and providing passage over an obstacle. A transitional passage between two subjects or movements.

"Connection"
The act of connecting or the state of being connected. Something that connects or links. An association or relationship. A line of communication between two points.

Websters II
New Dictionary

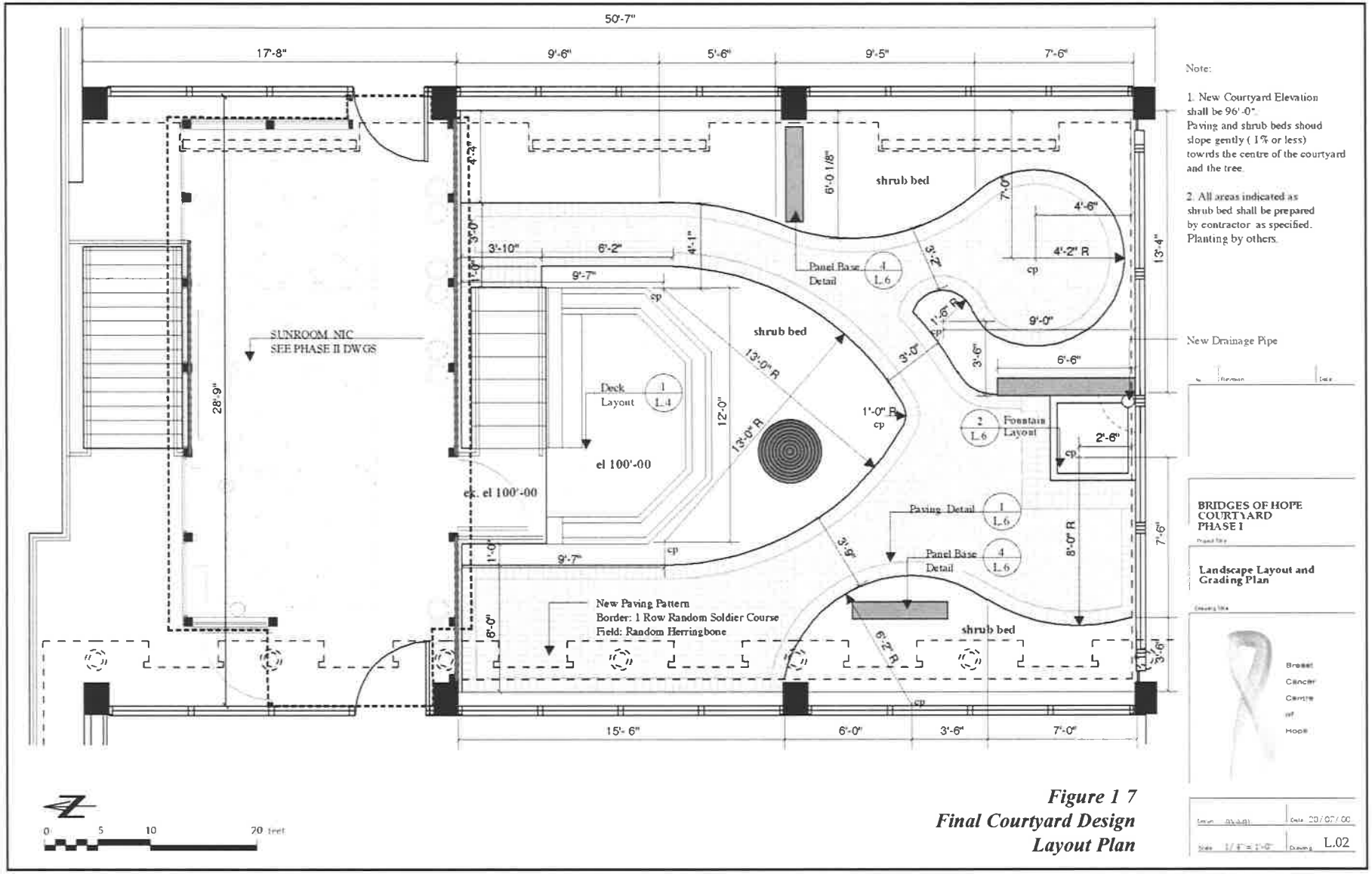


Figure 1 7
Final Courtyard Design
Layout Plan

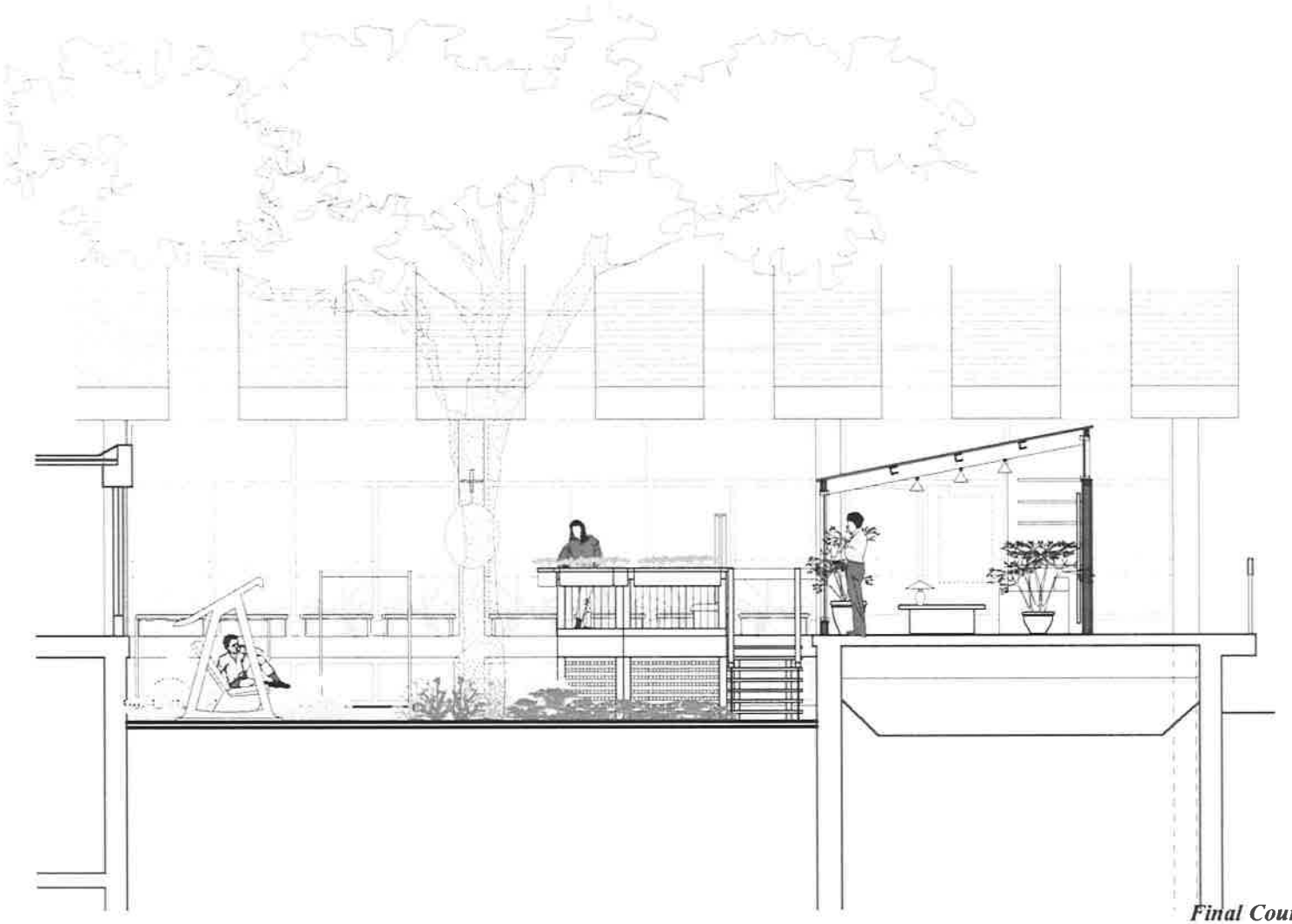


Figure 1 8a
Final Courtyard Design
West Elevation / Section

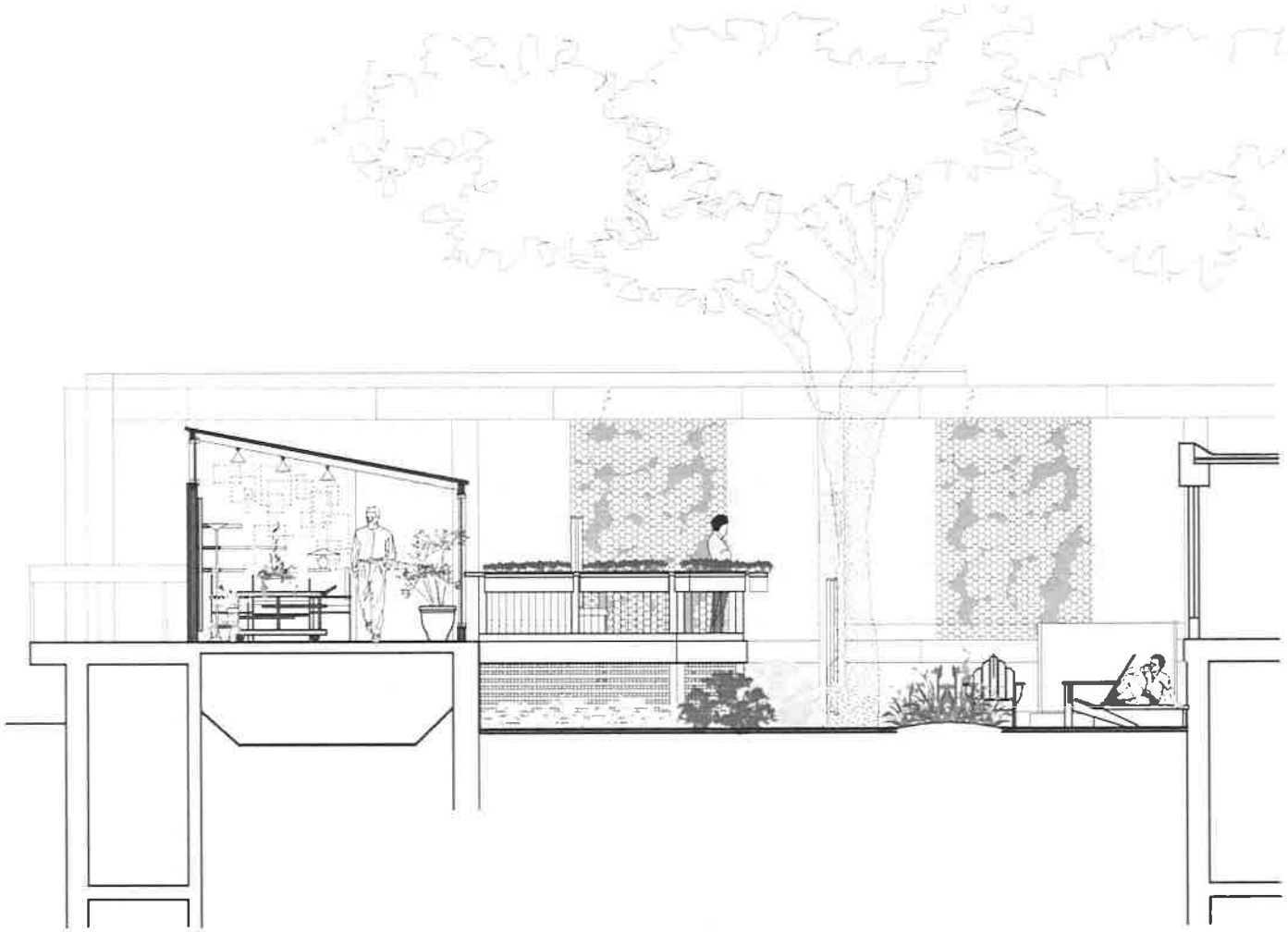


Figure 18b
Final Courtyard Design
East Elevation / Section

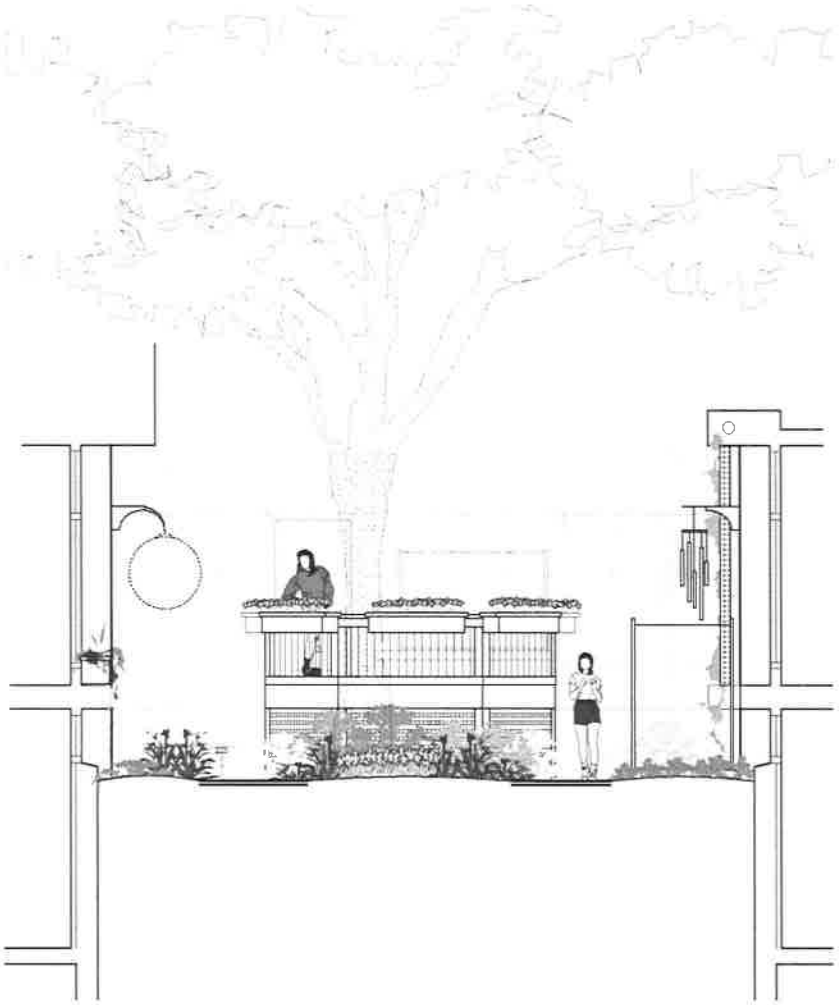


Figure 19 a
Final Courtyard Design
North Elevation / Section

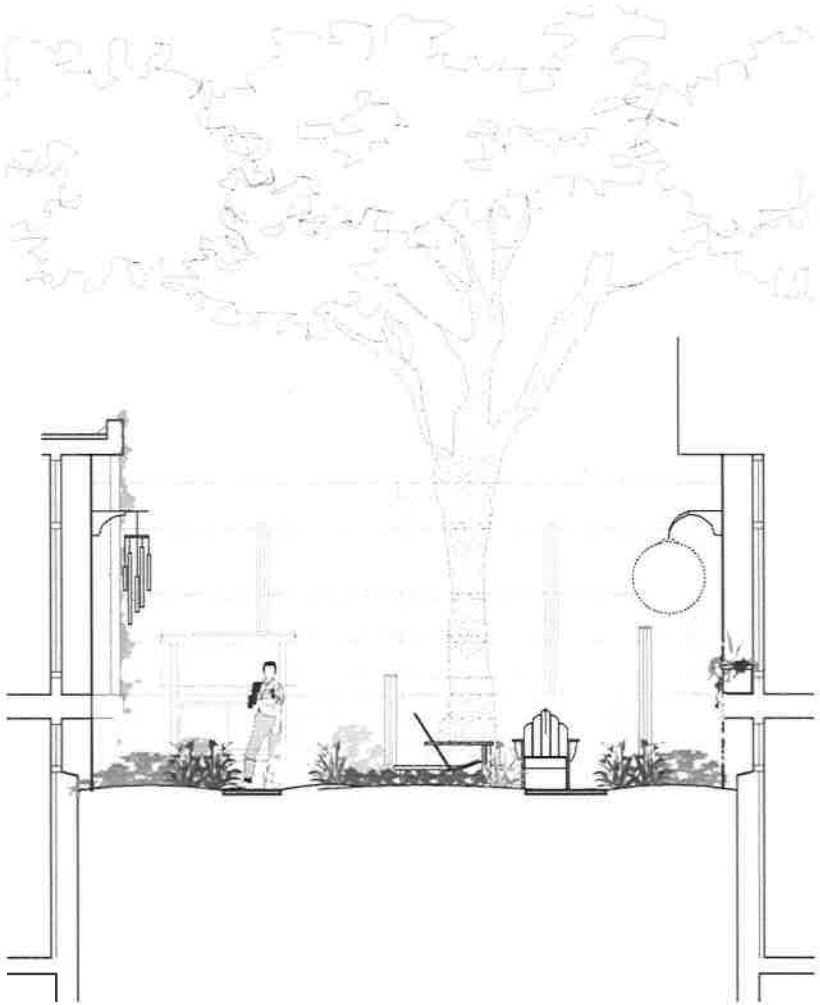


Figure 19b
Final Courtyard Design
South Elevation / Section

5.3 Detailed Design Elements

The overall design presented above can be divided into detailed design areas. These are:

5.3.1	Sunroom Design	(Figure 20 a-e)
5.3.2	Raised Deck Design	(Figure 21 a-e)
5.3.3	Path Design	(Figure 22 a)
5.3.4	Planting Design	(Figure 23 a-c)
5.3.5	Node Designs	(Figure 24 a-c)
5.3.6	Medicine Wheel Panels	(Figure 25 a-e)
5.3.7	Site Accessories	(Figure 26 a-d)

Each section includes a description of the detail component and it's importance to the overall design, development sketches and inspirations, construction details and a materials palette.

5.3.1 Sunroom Design

The sunroom is a key environment for healing in The Bridges of Hope Courtyard. As an enclosed, three season structure designed to mediate the connection between the indoor and outdoor environment, the sunroom provides Hope users experiencing the debilitating emotional and physical sideffects of battling breast cancer, with a safe place from which to begin the healing landscape experience.

" I am beginning to realize that the phrase ' design comes to life in the details' is not an old adage but a timeless truth.

It is amazing how attention to materials, scale, connection and meaning on every level seems to allow this small space to keep evolving.

There is an added bonus to this user and donor driven evolution. I am learning that details can grow as much from careful planning as from happy on site coincidences and testing."

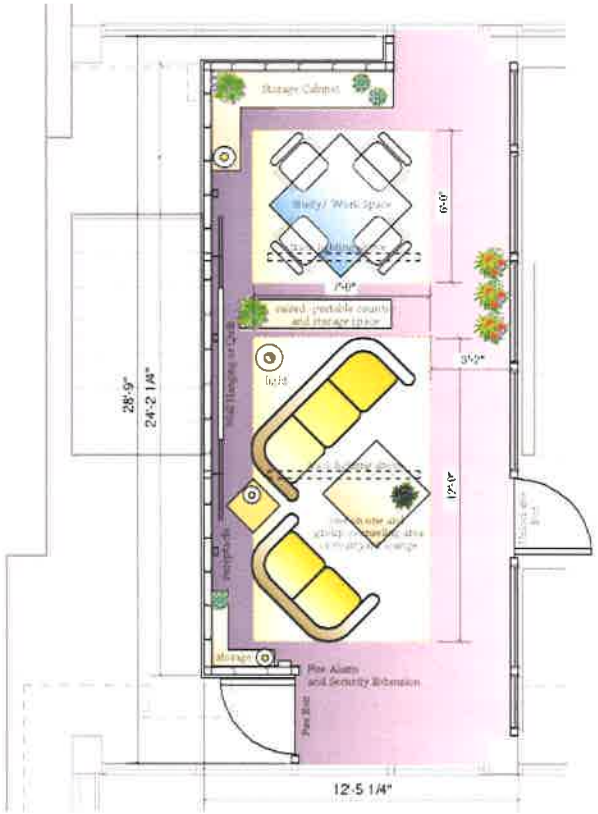
Monica Macra
Journal, April 12, 2000

The existing building construction and the local building codes created a narrow range of appropriate sunroom forms and materials. Working within these parameters, the sunroom design changed from a wood frame to an open steel structure.

The north wall has been converted from a partial view to the lane through security glass, into a solid fire proof wall with a narrow band of clearastory windows at the top. These windows set between 8-10′ off the deck are placed in an optimum position to collect and direct morning light into the sunroom. The north wall has one fire exit that is only operable from indoors. This effectively closes of the fourth side of the courtyard space to any noise, vandalism and unexpected visitors.

The south wall of the sunroom looks into the courtyard. This wall is designed with steel and glass, allowing users to access the sights, sounds and smells of the sunken garden below. The original plexiglass and screen idea has been modified to suit operable split unit windows that will be donated by Willmar. The smaller, operable portion of the window is oriented to the top of the wall. This creates air circulation through the space and allows the fixed pane below to act as a transparent barrier that requires no railing.

The sunroom roof has gone through many form changes and material revisions. This final shed roof from allows water to



Sunroom Concept Plan

Figure 20a - Sunroom Concept Interior Plan

spill into the courtyard rather than an existing deck stairwell. The roof configuration also creates a cleaner connection to the exiting curtain wall of the building on the east and west side. The roof and north wall are clad with anodized, corrugated metal siding. While the wall is covered on the interior the ceiling remains exposed articulating the steel frame and creating a wonderful musical symphony when it rains.

The interior of the sunroom is composed of two meeting areas, several storage spaces, and a central work island. The interior floor is stained a deep rich purple and the walls are a neutral warm tan continuing the colour palette of the interior. The exposed framing and the windows are finished in white to reflect light into the space and complement the existing window detailing. The space is completed by large throw rugs, deep comfortable furniture, soft lighting, interior plants, a commemorative wall, a memory quilt, and several volunteer created pieces of art (see 5.3.7).

When completed the sunroom will be used for support group meetings, one on one counselling, art therapy, spring seeding and fall clean up. The modifications to the sunroom developed as companies like TATRA Ornamental Iron Works, Tri Clad Designs, McCaine Electric, and Willmar Windows expressed interest in the project.

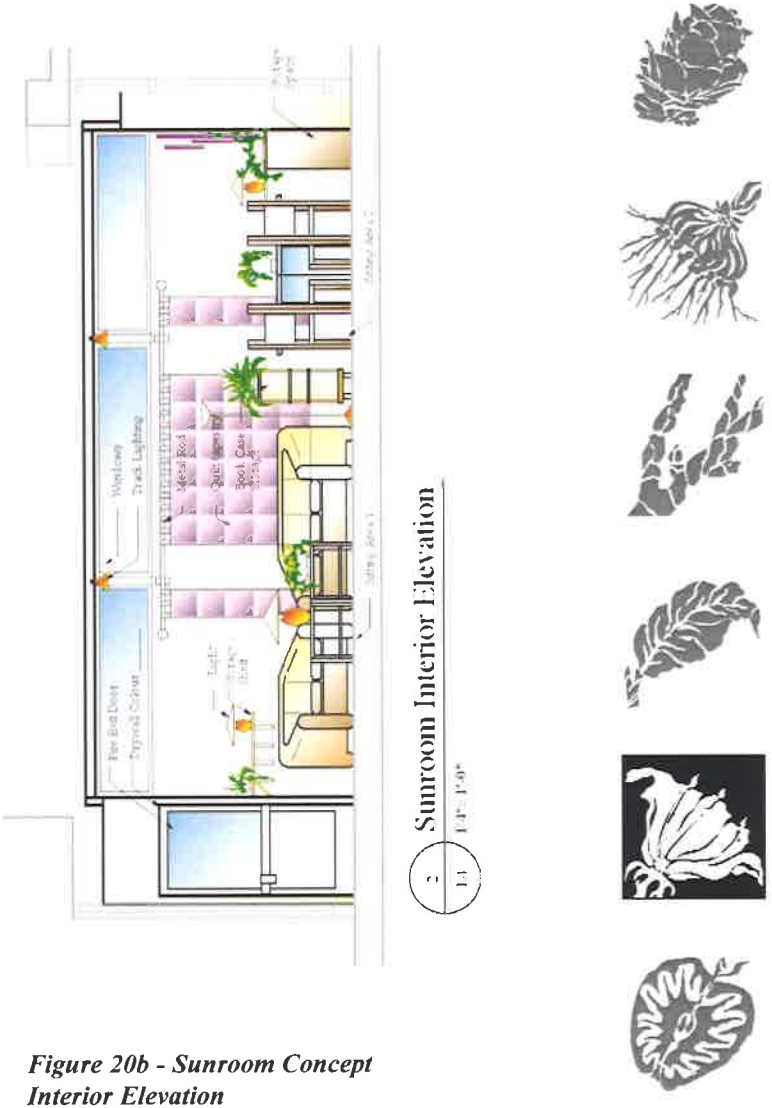


Figure 20b - Sunroom Concept Interior Elevation

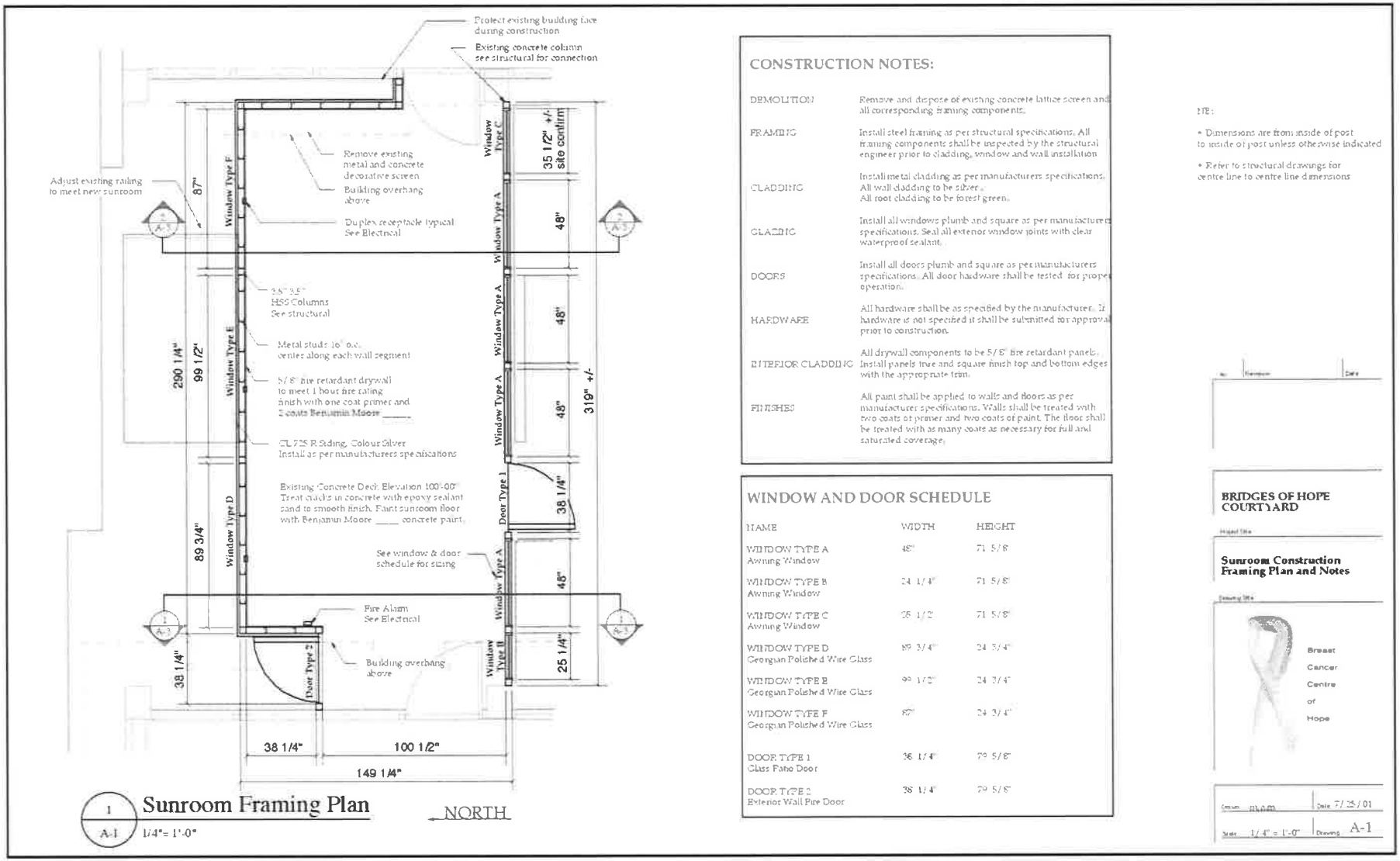


Figure 20c
Sunroom Framing Plan

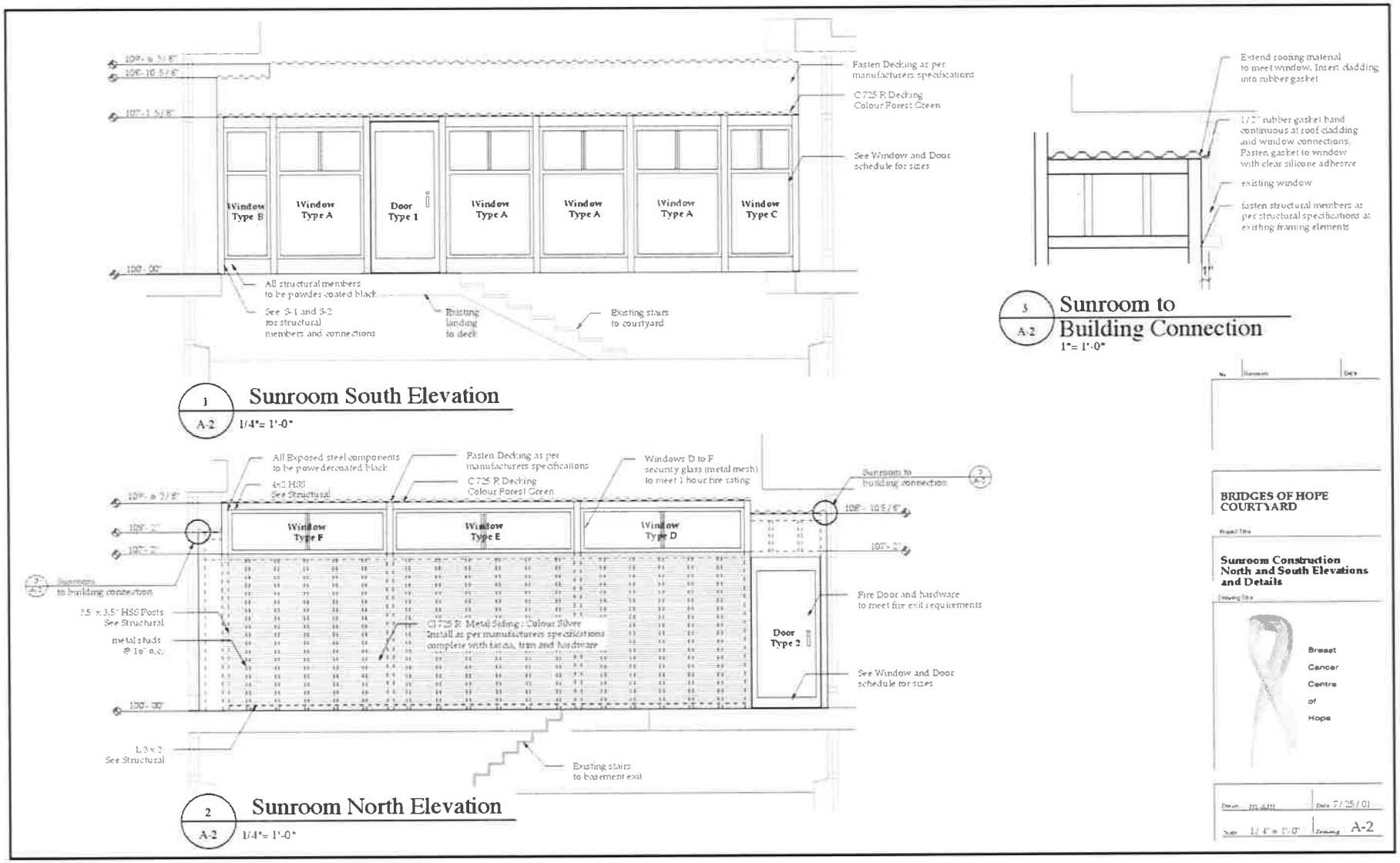


Figure 20d
Sunroom Elevations

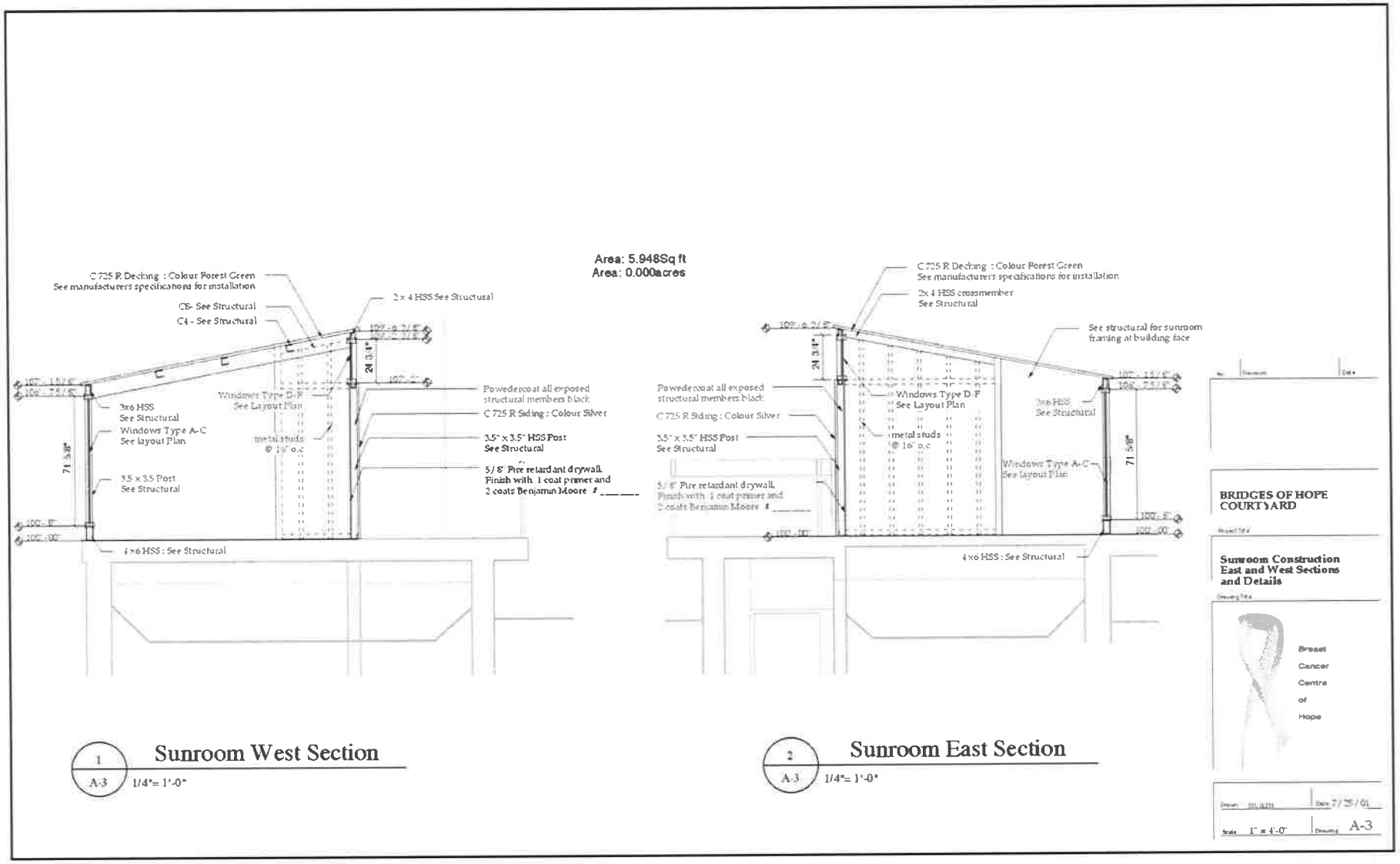


Figure 20e
Sunroom Sections

5.3.2 Raised Deck Design

The wood deck connected to the existing stair landing is also a crucial healing space for users with partially reduced mobility and abilities. The raised area adjacent to the sunroom door, provides a fully accessible miniature garden to users who can not or do not feel like venturing out into the sunken garden.The deck's half hexagon configuration is set within an arched planting bed that is terminated at the southern point by the massive trunk of the elm tree. The deck perched above a dense mass of plantings, is designed to feel like a ship's bow sailing into a sea of life, colour, sound and scent. The trellis skirt surrounding the base of the deck repeats the geometric patterns of the building and hides a storage area hidden beneath. Vines planted along the trellis base will eventually climb all the way to the top of the deck railing giving users a sense of nature reaching out to them.

The deck is constructed of pressure treated wood that has been left to weather to a light silver finish that will blend in with the softened edges of the aging walls and concrete ledges. Due to it's height four feet above ground level, the deck could not be constructed to code with the low seat planters initially proposed. As a result the design was modified to include the necessary railing and a bench seat with a plexiglass panel wall was added.

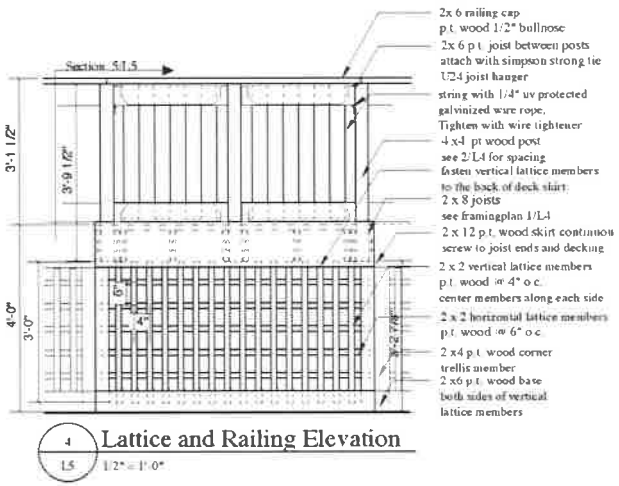
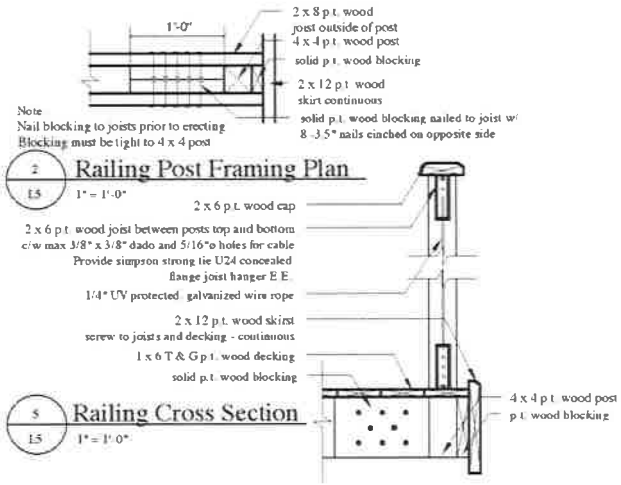


Figure 21
a Raised Deck Trellis Detail
b Raised Deck Railing Detail



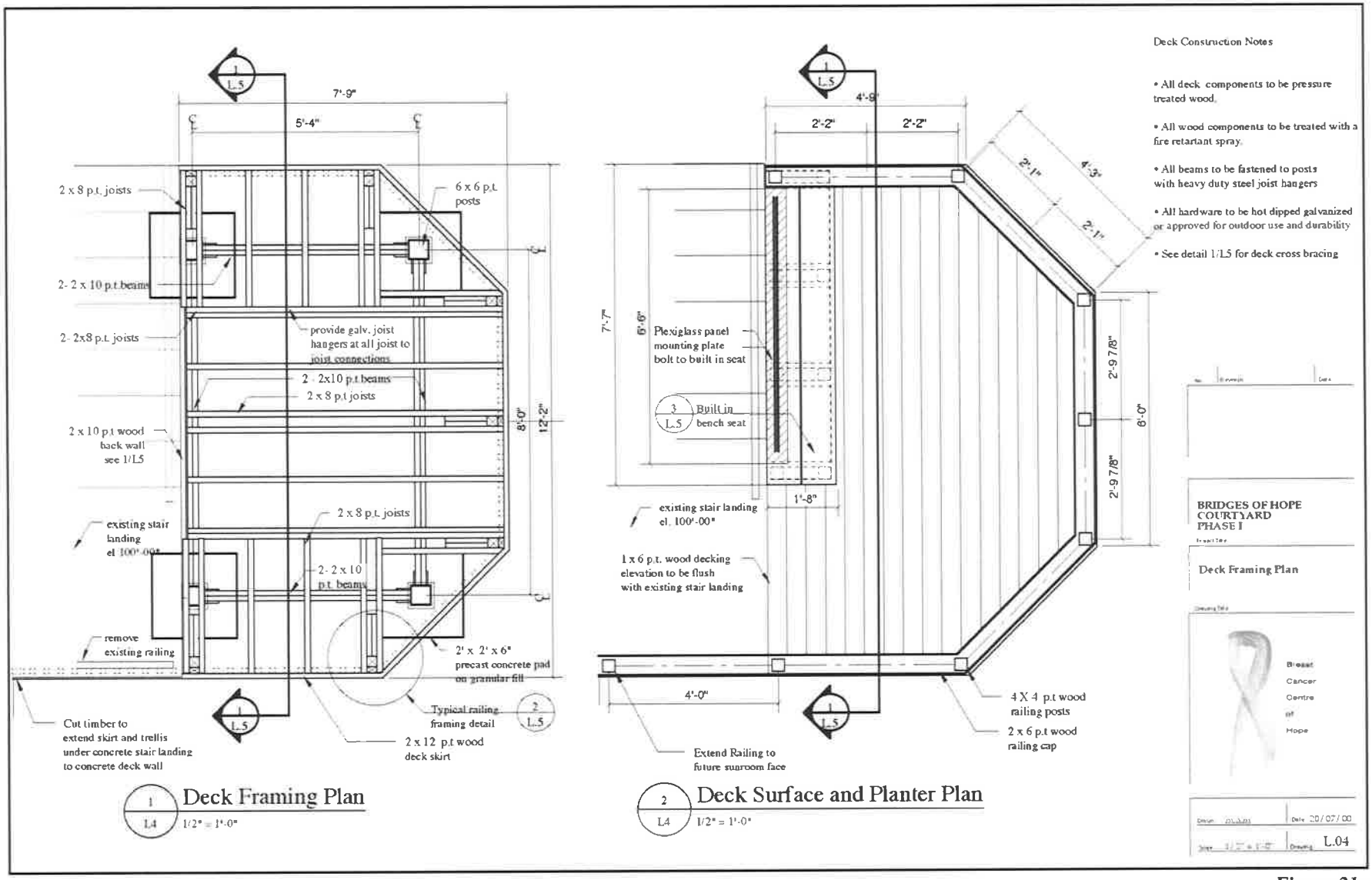


Figure 21c
Raised Deck Framing Plans

The railing must be three feet high and requires vertical guard rails at four inches on centre. Using wood throughout would mean blocking views from the deck and the sunroom when users were seated. This problem has been solved by designing the railing with 1/4″ diameter steel cable threaded through top and bottom railing beams. The result is a clean open and safe edge that can support a series of six planter boxes attached with removable metal brackets.These planter boxes filled with herbs and annuals allow users on the deck to touch and tend a personal portion of the garden.

The bench seat and plexiglass panel along the north edge of the deck are designed to provide a semi transparent barrier between the activities in the sunroom and on the deck. The plexiglass panel is described in section 5.3.6. In addition the back of the deck and the panel create a half wall along the stairs where new railings that meet code can be installed. The built in wood seat is comfortable for four, while the deck can accommodate two wheelchair users with a full turning radius.

The deck can be used by women who are beginning to recover from treatments, but still require close proximity to the indoors and family or staff support. It can also be used as a relaxation area by family, staff and visitors who wish to be outdoors. The deck is constructed from wood in anticipation of the generous collaboration of McDiarmid Lumber and Riverwood Construction Ltd.

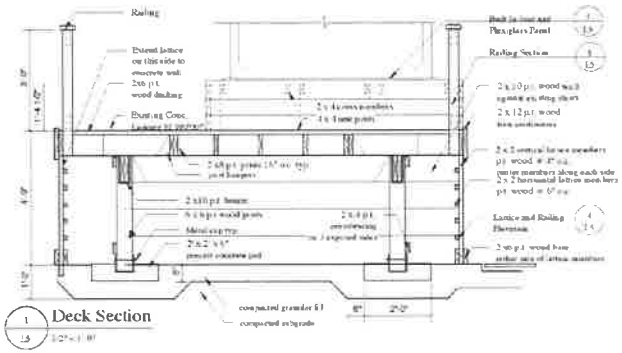
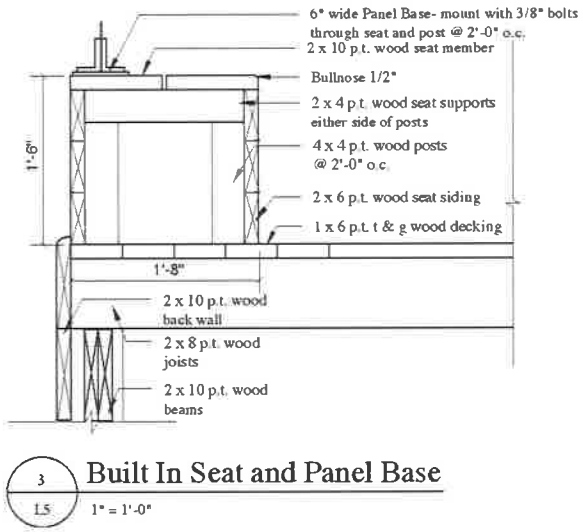


Figure 21
d Raised Deck Section
e Raised Deck Seat Detail



5.3.3 Path Design

The circulation of the courtyard is designed to flow from east or west wings of the building, through the sunroom, and out into the sunken area or the back lane. Once inside the courtyard the stairs remain the only means of getting into the sunken level. However the final design incorporates a sinuous path that moves all the way to the far north west corner of the garden, just beside the stair landing, where room has been set aside for the future installation of a wheelchair lift.

Due to the generosity of Barkman Concrete the existing concrete pavers no longer need to be recycled. Smaller interlocking units facilitate a curvilinear design that softens the sunken area creating a dynamic interplay between the rigid building forms and the garden space. As a result the activity nodes in the garden feel more enclosed and relaxed, while paving along the west ledge provides access to the window boxes. A paving space near the fountain has been enlarged to accommodate stretching and yoga exercises that could be executed alone or in small groups.

The path is articulated with natural, tumbled Roman Stone pavers organized in a soldier course border and herring bone field pattern. The decision to use these pavers was influenced by a generous donation of labour from J&D Penner Ltd.

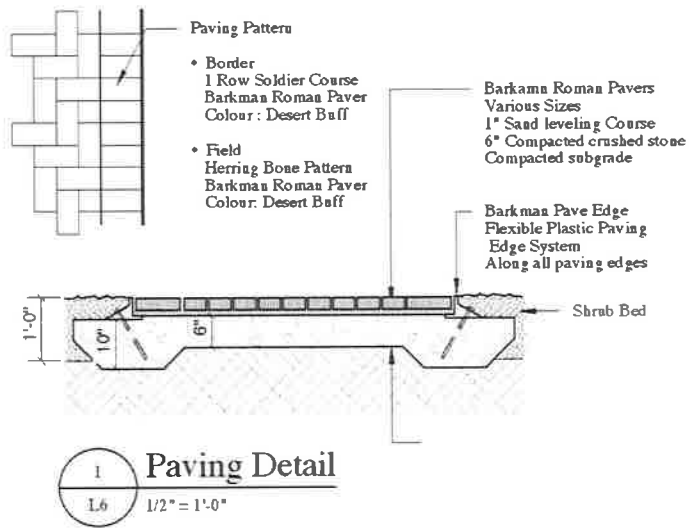


Figure 22
Paving Details

5.3.4 Planting Design

The planting plan is designed to provide maximum people plant interaction throughout the courtyard. In the sunroom, semi tropical house plants in freestanding planters along the windows can be cared for by users. The table and work station in the sunroom also serve as areas where plants are prepared and processed. On the raised deck the planting boxes will be filled with aromatic herbs ranging from mint, basil and thyme to rosemary, lavender and chamomile. This is an experiment since the courtyard may be too shady for some of these plants. The planter boxes along the west ledge are designed to be adopted by an individual or group each year. These boxes will be filled with the users choices of colourful annuals.

The remainder of the planting design concentrates on the sunken garden. This perennial shade garden is designed to be a year round visual, textural, audio and olfactory experience that attracts humans and wildlife. The design is also as low maintenance as possible in order to reduce the burden of taking care of the garden for staff and family volunteers.

Keeping the low basement windows in mind the initial reverse planting height order has been applied along the east and west walls of the courtyard. Vines and groundcovers are planted adjacent to the windows and under ledges, followed by larger shrubs and perennials closer to the centre of the sunken area.

Figure 23- a Shrubs and Groundcovers

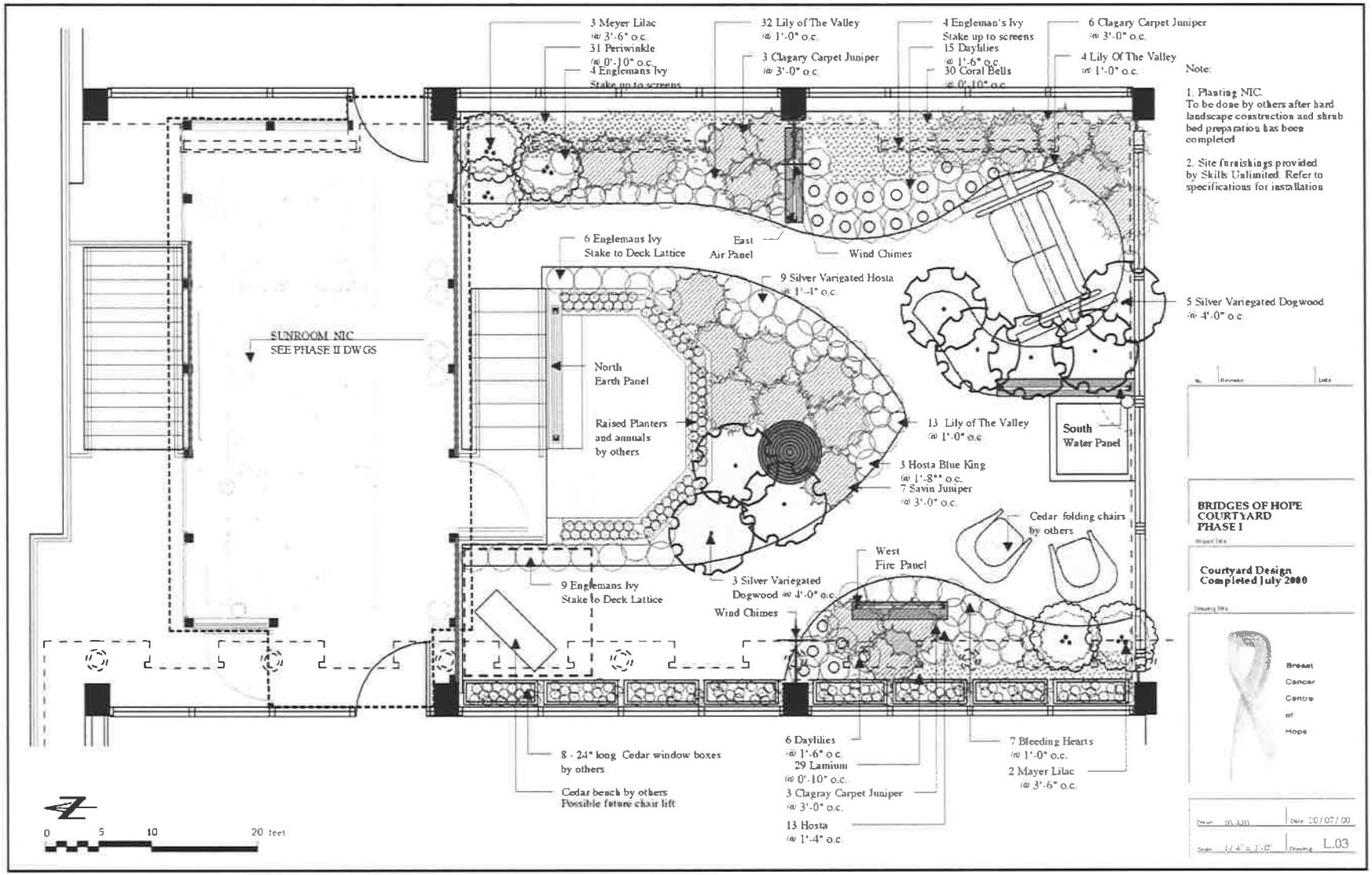


Figure 23-b
Courtyard Planting Plan

This allows the basement windows equal access to the sights and light provided by this healing landscape.

The shade garden is designed to be attractive year round. Shrubs include dogwood for winter texture and summer colour, meyer lilac for spring flowers and dense growth, and junipers for winter fullness with varied forms and textures. Perennials include a variety of daylilies that are hardy and bloom from April to September, a variety of hostas for a mixture of lush green growth and shade tolerance, bleeding hearts and coral bells for seasonal punches of contrasting colours and visual highlights. Fruit and hip bearing plants were not included in the sunken garden in order to avoid messy clean up and insects that can be dangerous to cancer patients. Vines and groundcovers are crucial in a small space with no room for additional vertical elements such as trees. Vines and groundcovers include Engleman's ivy for quick growth and fall colour, and lamium and periwinkle for texture, colour and shade tolerance.The scent and food value of these plants should attract non stinging insects, birds and small animals to the garden.

The installation of shrub beds and plants in the courtyard is the largest volunteer based portion of this project. Staff, families and volunteers are already organizing a planting day event. The use of all these wonderful plants will be made possible by a generous donation from Schriemer's Garden Centre.

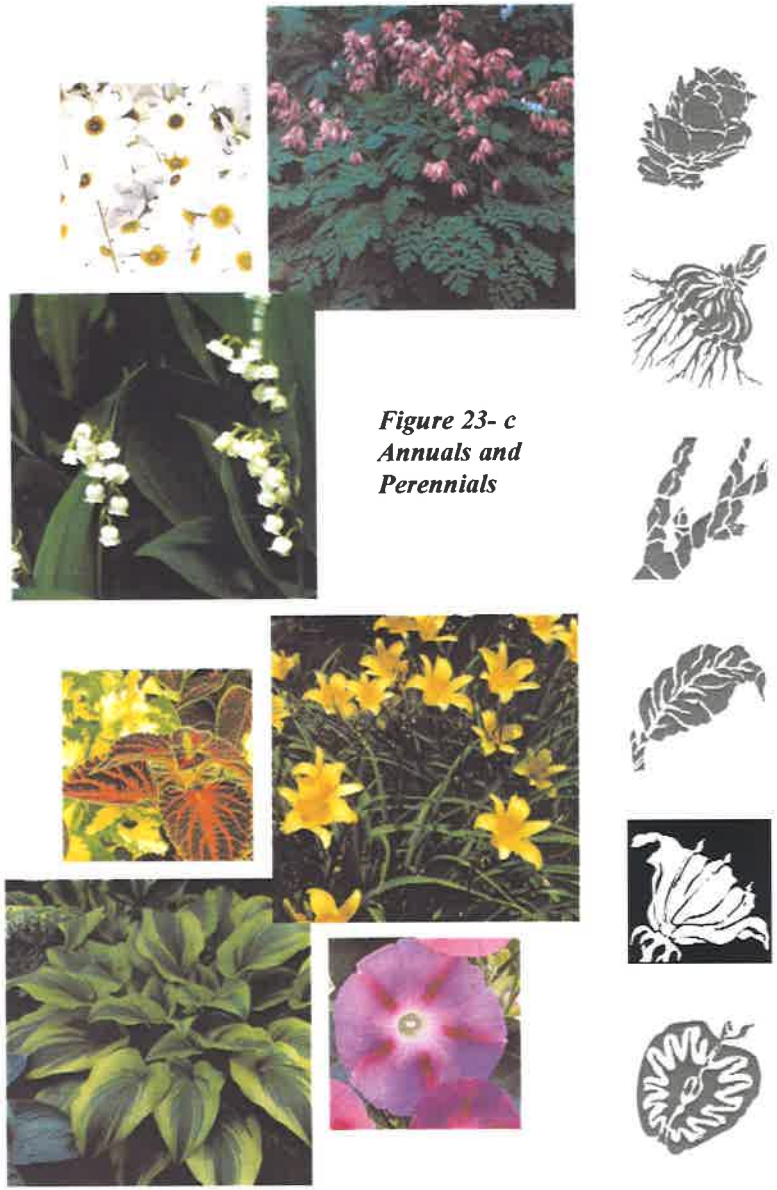


Figure 23- c
Annuals and Perennials

5.3.5 Node Designs

The two activity nodes at the south end of the sunken space are designed to draw users out into full engagement with the healing garden. Cancer patients, family members and staff with more energy and increased abilities can take advantage of the quiet contemplation node or the more social fountain gathering space.

The fountain gathering space is grouped around a four foot by four foot square water feature. The feature is composed of a precast concrete planter, ledge cap, round washed river stone, pump and nozzle. The original trench and water wall ideas have been modified to suit user concerns and the generous donation of the fountain equipment by Shelmerdine Nurseries.

The existing water spout will now drain into the pool replenishing the fountain that is continuously undergoing evaporation. The bell shaped fountain head will create a light membrane of water that spills continuously into the pool making a gentle rushing sound and inviting users to touch it. The soft sounds and sight of reflecting and refracting water will serve as a calming almost hypnotic agent that removes users from the worries of their daily lives.

Small groups of three or four can gather around the fountain sitting on its edge or in the comfortable, folding Adorondak

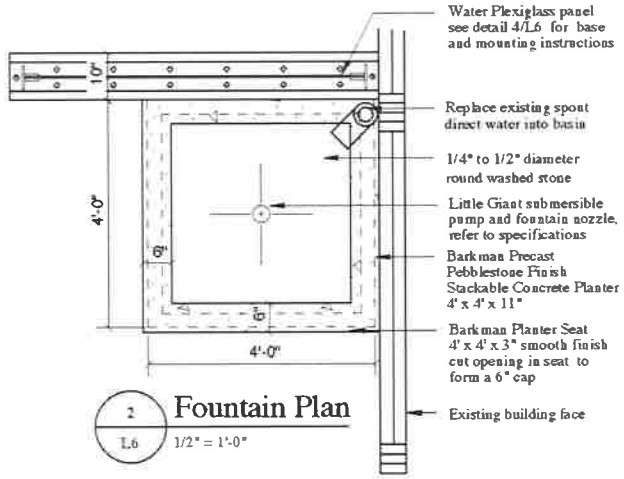
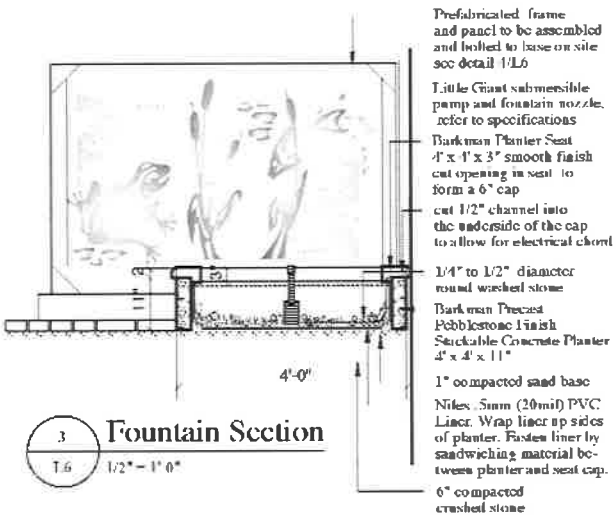


Figure 24
a - Water Feature Plan
b- Water Feature Section



chairs discussed in section 5.3.7. This gathering space is partitioned by the water plexiglass panel that runs along the edge of the pool and the planting beds that surround it. Users will use this space to talk, laugh, get away, exercise and relieve stress.

The Glider Node is designed as a quiet removed place for solitary contemplation or intimate conversations. The almost fully closed circular shape of the node articulated by higher masses of plants in a muted palette, acts like a warm encircling screen in this otherwise fish bowl like environment. The water and air plexiglass panels discussed in section 5.3.6 serve as additional translucent walls to this small corner of the garden.

The central feature of this small node is a cedar glider, that will be designed and manufactured in Winnipeg by Skills Manufacturing Ltd. The glider is oriented looking back towards the deck and sunroom, giving users a filtered view of the courtyards varied and transitional spaces. Arriving in this place a user can look back on the accomplishment of making it out into the garden. The soft, gentle motion of the glider will lull the user into a mental state of relaxation and meditation. Wind chimes will be installed close by to accompany this motion with a haunting musical sound created by the interaction of man and nature

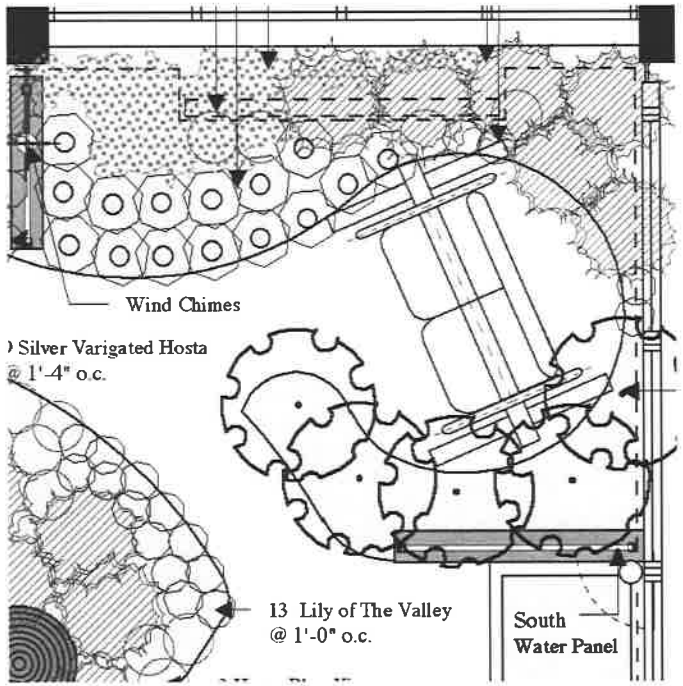


Figure 24-c
Glider Node Plan

5.3.6 Medicine Wheel Panels

The glass screens in the initial concept went through a large transformation during the development of the final design.

Discovering that many women and staff members who use the centre have a connection to or wish to learn more about Native North American forms of meditation and ritual healing, the panels were designed to serve as sculptural, functional and spiritual elements in the healing landscape.

Sculpturally the 4′ x 6′ plexiglass panels coated with various layers of frosted material, will not only create depth and a visual statement, but will also cast wonderful sculptural shadows throughout the space.

Functionally each panel is located to screen a view or define a special place. The earth panel flanks the deck, the air and water panel surround the glider node, and the fire panel backs onto the fountain gathering space. Each plexiglass sheet is secured in a black powder coated frame that will be bolted onto precast concrete wheelstops. The frame is black because each panel frames a view and because the colour ties into the black detailing along the south curtain wall of the courtyard.

" The medicine wheel is a Native North American healing tradition that is known to many of the women at Hope.

The women would like to provide for personal and group healing ceremonies in the garden without having these elements overpower the original amenities they identified.

We have talked about boulders and rocks, posts, and even paving. I think the best idea is to embed the imagery of the medicine wheel cardinal points into the privacy screens for the garden. In this way they can be beautiful and sculptural even when not being used directly."

Monica Macra
Journal, June 10, 2000

It is as spiritual elements that these panels take on a deeper meaning and use in the garden. The panels are graphically designed and carefully located to create the framework for medicine wheel healing ceremonies. Each panel represents a cardinal direction with it's associated healing properties. The Panels are:

North	-Earth Panel	Deck Bench	(horizontal)
East	-Air Panel	Stand Alone Screen	(vertical)
South	-Water Panel	Fountain Backdrop	(horizontal)
West	-Fire Panel	Stand Alone Screen	(vertical)

Each panel is a collage of the elements, animal totems, and associated healing plants for the quadrant of the medicine wheel a person would be traversing when walking along the corresponding path in the courtyard (see figure 25 c-f). The plexiglass and frosted adhesive materials have been adopted for cost savings and weathering resistance. Belle Fosche Signs and Precision Metalcraft will be donating materials and labour to make these panels become a reality.

The users at Hope will use the panels for visual pleasure, and healing exercises. May Louise Campbell, a noted aboriginal elder with ties to the community, has agreed to perform a sweetgrass ceremony at the courtyard opening. A detailed description of each panel is provided on the next few pages.

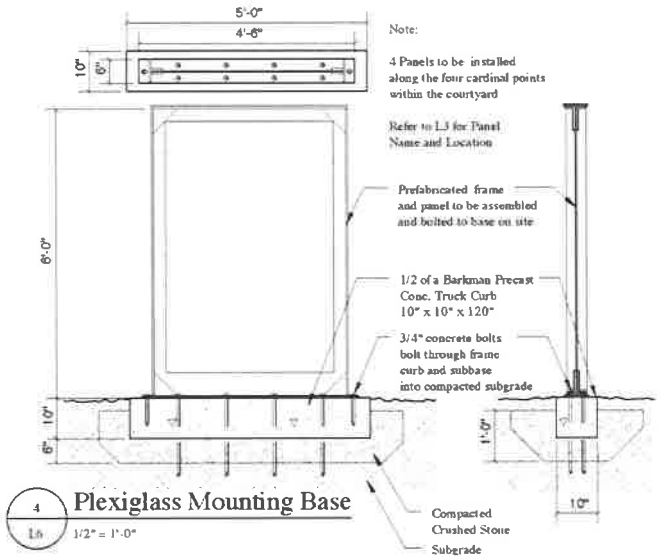


Figure 25 -a
Plexiglass Panel Construction Detail

Cardinal Direction North - The Element of Earth

Waboose Spirit Keeper of the North
The power of Waboose is the power of spirituality on earth. The time of Waboose is the time for new life cloaked in apparent death. It is deeply connected to transition, unburdening and acceptance. This time is a time to contemplate and cultivate patience. The path to Waboose is marked by moments of Cleansing, Renewal, and Purity. Although this is the most mystical time it is also grounded in the nurturing earth, reminding us that we should take care of body and spirit.

Associated Healing Animal Totems
The White Buffalo Woman represents the female aspects of the creator. Often described as She Who Brings Forth All Things, the Buffalo is associated with all the passages of life, birth, feminine cycles, birthing and death. The White Buffalo always wears white reminding us to look for the light despite the darkness. It is she who reassures us that all changes are part of a larger scheme.Turtles are believed to be original spirit descendants of the creator. The life of a baby turtle is dependent on the heat of the earth for incubation, much like the earth itself is dependent on the sun to germinate life. The turtle teaches us to care for all life as we would care for our dearest loved one.

Associated Healing Plant
Echinacea is a plant strongly associated with cleansing due to its disinfectant and astringent qualities. In native herbal traditions, Echinacea is renowned as a blood purifier, antibiotic and preventative medicine. Echinacea can also be used in poultices, herbal baths and tea. Traditionally Echinacea was used to treat poisonous bites, fungus and viral infection.

Figure 25b
North - Earth Panel

Cardinal Direction East - The Element of Air

Wabun Spirit Keeper of the East
The power of Wabun is the power of new beginnings. The time of Wabun is the time for freshness and enthusiasm, connected to rebirth and awakening. Native Americans believe that many times in life we reach points we believe to be dead ends, when suddenly a part of us opens a secret passageway to the next cycle. The path to Wabun is marked by moments of Illumination, Clarity and Wisdom.

Associated Healing Animal Totems
The butterfly is an ancient symbol of regeneration. It is said that when She Who Weaves Rainbows died, a small caterpillar asked to be buried with her in the hope that he could be reborn as giving and colorful as she was in life. Their spirits merged and now caterpillars become beautiful butterflies. The butterfly metamorphosis teaches us to trust, and not to be afraid of change. The firefly is the animal associated with illumination. Characterized by tiny and elusive flickers of light blinking in the night the firefly is a paradox both revealing and mysterious, light and dark. The light exhibited by the firefly is designed for the sole purpose of mating. The firefly reminds us to stay focused and intense upon the life forces that flow within us.

Associated Healing Plant
Ginseng is considered one of the great plant healers of this continent. It is especially important because all of its constituent parts can be used for healing. It is said Ginseng can be both sedative and strengthener, preventative and treatment. Wild American Ginseng is an endangered species. It reminds us of the fragility of all life if it is abused.

Figure 25c
East - Air Panel

Cardinal Direction South - The Element of Water

Shawnodese Spirit Keeper of the South
The power of Shawnodese is the power of change and growth. The time of Shawnodese is the time for spontinaiety and exploration, connected to energy, adaptation and playfulness. The path to Shawnodese is marked by moments of Love, Trust and Growth. Shawnodese is the time and place for healing emotions through an open heart working in conjunction with a discriminating mind

Associated Healing Animal Totems
Frogs are associated with the malleable qualities of water, a life giving source that exists and supports us in vapor, liquid and solid form. Like the healing water the frog has a transcending voice. The frog teaches us to reach out through transformation, evolution and communication. The salmon is the animal associated with trust. It is born with the trust and knowledge to return to its birthplace to spawn at all costs. Just like the water and its forceful current challenge the salmon so do many events in our lives. The determination and drive of the salmon teaches us to pay attention to our own courage, instinct and intuition.

Associated Healing Plant
The Cattail is a plant that bridges the transition between earth and water. It is most respected in native American folklore as the plant capable of colonizing the water and processing it into land over time. Cattails are known as nature's filters, capable of processing some of mans most destructive by products back into a contributing role in the landscape. In native culture, the cattail was used in all aspects of native life, including construction, food, medicine and celebration. Medicinally cattails are used as stimulants.

Figure 25d
South- Water Panel

Cardinal Direction West - The Element of Fire

Mudjekeewis Spirit Keeper of the West
The power of Mudjekeewis is the power of coming full circle, of reaching the harvest. The time of Mudjekeewis is the time for maturity and fullness connected to adaptation, responsibility and leadership. This time is a paradox when the feeling of arriving is mixed with the realization of the fleeting qualities of time. The path to Mudjekeewis is marked by moments of Strength, Experience, and Introspection.

Associated Healing Animal Totems
The Thunderbird is also known as the Big Hawk Who Hides Behind The Clouds. One day arrogance got the better of him and the creator raised him into the spirit world within the depth of a fiery thunderbolt. Thunderbird was given a second chance as the servant of the thunder beings. The thunderbird teaches us to rise out of our self absorption and to strive to help heal others. The ant is the animal associated with strength. Characterized by their survival instincts as individuals and as communities, ants are an example of strength derived from forethought, persistence, courage and cooperation. The ant teaches us to trust ourselves and others striving to reach a social and personal balance in our lives.

Associated Healing Plant
Fireweed is one of the first plants to grow in a damaged or burned landscape. Fireweed is known for its many medicinal and therapeutic uses. Young spring plants were often used in domestic cooking for sharp flavor. As the plant grows older its narcotic qualities increase and it is more often used in teas, poultices and lotions. Like the Thunderbird the fireweed serves all.

Figure 25e
West - Fire Panel

5.3.7 Site Accessories

For easier documentation this section has been divided into the following: Site Furnishings, Lighting, and Whimsical Elements. Where possible a photograph of the proposed material or object has been provided.

Site Furnishings:
The site furnishings throughout the courtyard have been designed or chosen for comfort and function. They include pieces that will be donated or manufactured by Dufresne Furniture and Skills Manufacturing Ltd.

In the sunroom the furnishings will be composed of natural wicker love seat and chair, steel and glass table, cushioned steel chairs, ber-ber area rugs, laminated wood work island and built in wood shelving. All these furnishings are designed to be easily maintained and well used and to create a comfortable home like environment.

All the furnishings in the sunken area are made of wood that will be allowed to weather naturally, because wood is a very warm and inviting surface that does not cause skin irritations and burns like some metals and plastics do. The glider, Adarondak chairs, solitary bench seat and the annual planter boxes are extra special because they are created at Skills Manufacturing, a company that hires and trains individuals with cognitive disabilities to become part of the work force.

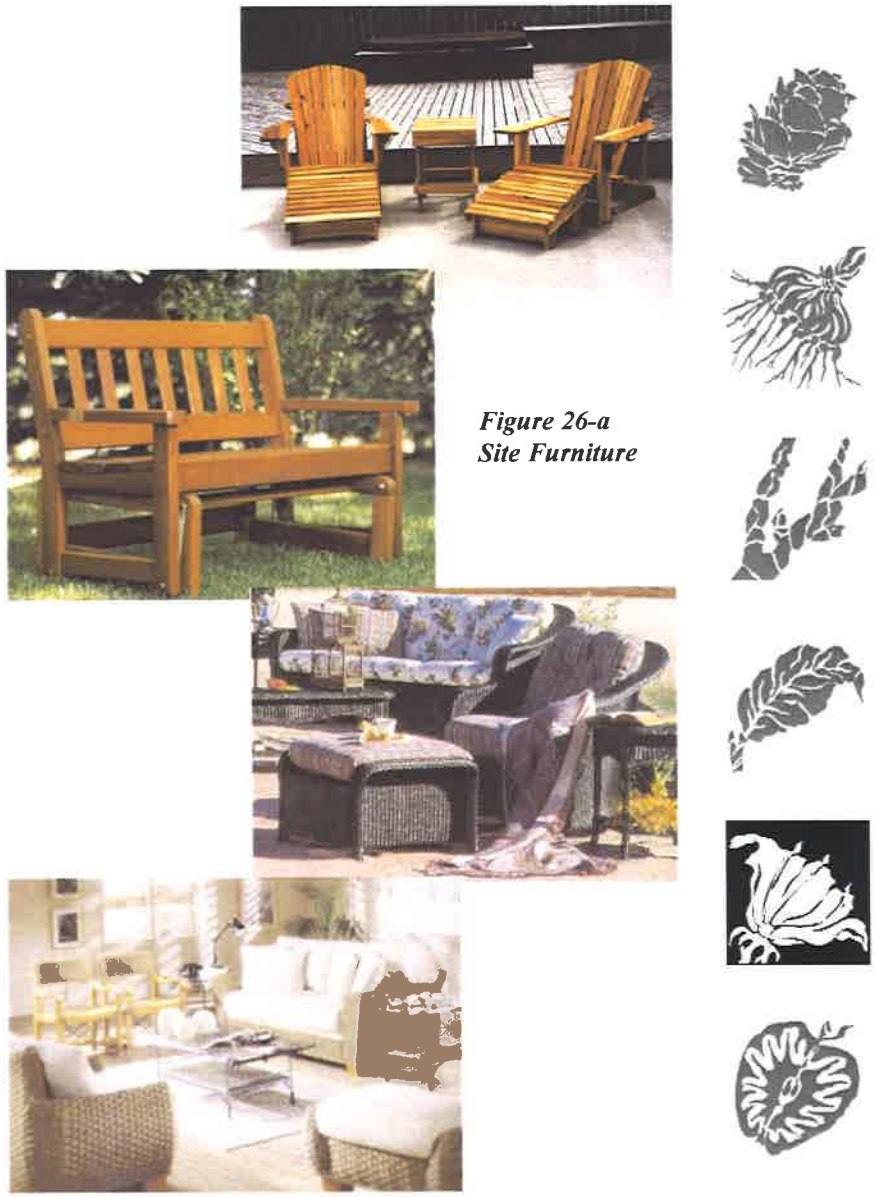


Figure 26-a
Site Furniture

Lighting:
Lighting is very important extending courtyard use and user comfort. Natural light has been considered a design partner in every aspect of the sunroom and the garden. It is diffused and directed into the sunroom from the north wall, dappled and patterned by the reach of the existing elm tree, transformed into a play of shadows on the panels and reflected off the sparkling water feature.

Artificial lighting has been designed into the courtyard for those summer evening gatherings and short winter days. In the sunroom ambient light is created by two tracks of lighting attached to the roof framing, while task lighting is created by rice paper standing lamps and hanging japanese lanterns. Outside existing floodlights along the first floor overhang (west wing) of the building will be retrofitted with blue bulbs that will wash the winter and summer landscape in a soothing dim light. On the opposite wall the existing concrete screens will be painted silver to refract light and hung with nets of small miniature white lights, that will eventually twinkle between a lush growth of engleman's ivy. Small candle lanterns will sit by the pool for special occasions.

All these lighting components will be installed with the generous help of AGE Engineering and McCaine Electric. On a cold winter day when users can't go outside they will enjoy the ever changing sculpture of the snow and light interacting with the dormant garden.

Figure 26-b
Lighting, Storage and Paving

Whimsical Elements:
Whimsical elements refers to small sculptures, musical instruments, memory triggers and playful installations in the healing garden. Whimsical elements are designed to delight the senses and stimulate user exploration of the environment.

On the raised deck a small copper frog sculpture playing a guitar will lounge on the built in seat awaiting company. Hung from the east wall central column, a set of finely tuned wind chimes will play haunting notes at the whim of periodic breezes. In the corner and around the glider, brightly painted wrought iron dragonflies and butterflies set at varying heights, will play and hover above the plantings. At the bottom of the splashing pool the silver glimmer of a ribbon of hope will grow and distort with the moving water. On the west wall an oversized starched japanese lantern will sway and glow like a floating balloon day and night. In the corner near the small bench a simple stainless steel plaque will thank all the people who made the courtyard possible.

In the sunroom a large hope quilt will adorn the north wall. Hope survivors are already planning to use the sunroom for their quilting bees. On the east wall a commemorative and evolving sculpture composed of an ever growing collage of engraved stained glass pieces will soon take shape as volunteers and family members begin the process of remembering.

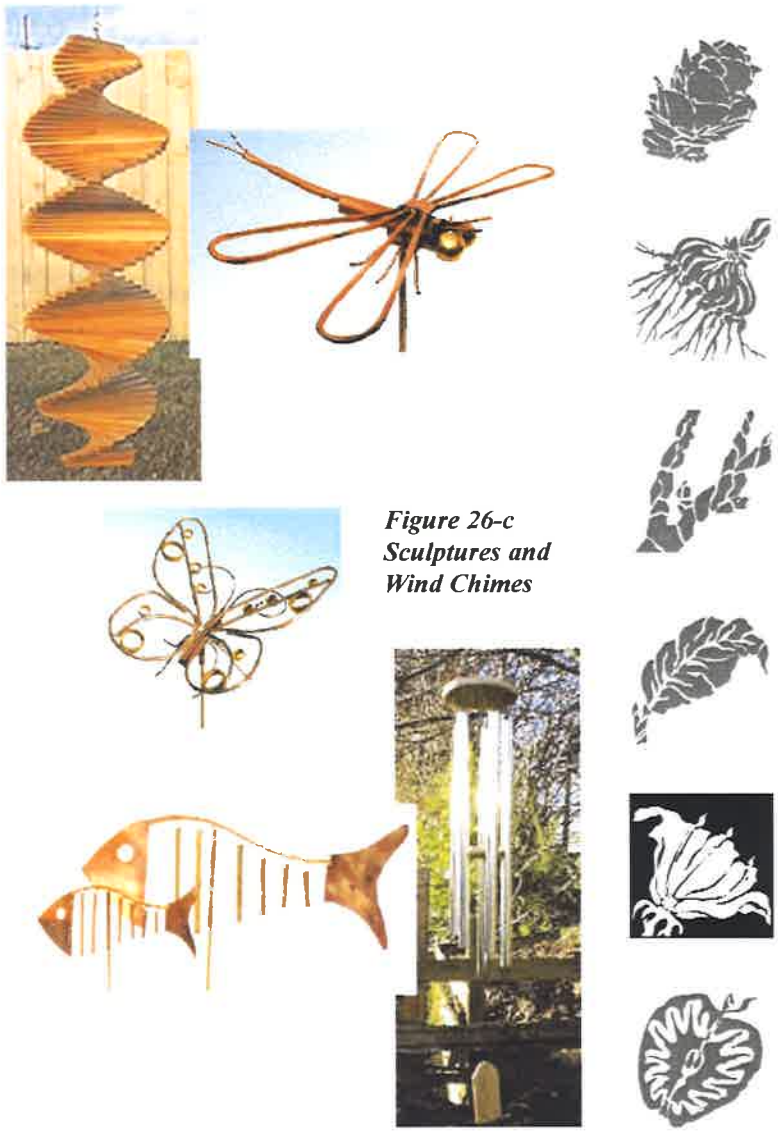


Figure 26-c
Sculptures and Wind Chimes

Chapter VI
Fruit- Implementation

Flower:

• The product of plant growth. The edible reproductive body of a seed plant.

• Progeny

• The effects and consequences of an action or operation. The fruits of labour.

Oxford English Reference Dictionary.

6.1 Introduction - Fruit

The fruit of a plant represents the end product of a season of growth. A fruit is a lush, juicy, fully realized form designed to ensure species survival while providing nourishment to animals and the earth. The constructed Bridges of Hope Courtyard is the fruit of this study.

The process of building has nourished the hearts and souls of many volunteers and provided women with breast cancer with a goal to work towards. Now that it is almost complete, the courtyard will begin a yearly cycle of growth and change formed by nature. However, the real fruit of this project will be the ongoing and ever changing healing experiences that can now occur in this place. It will be interesting to watch the original design change and grow as old and new users interact with the courtyard.

Just as a fruit matures slowly, the Bridges of Hope Courtyard has taken over two years to move from drawing board to reality. This chapter documents the process of construction. It highlights the organization, fundraising, and administration aspects of implementing a user driven healing garden. The chapter concludes with a visual journal of the past two years of construction.

Fruit
Garden Magazine, November 2001

6.2 The Implementation Process A Community Effort

6.2.1 Time Line

Figure 27 is a development and construction time line for the Bridges of Hope Courtyard. It follows the process of user driven design and implementation over the course of three years. This may seem like a long time especially when considering that other landscape projects of this scale are often designed and constructed in one season. A user driven design is different. One must always remember that almost everyone involved in the project is donating their time above and beyond the duties of their busy lives.

The design development process discussed in chapters IV and V, is an ongoing aspect of this project that evolves and changes as construction issues arise. The time line begins in the spring of 1999 and ends in the spring of 2002 when the project should be completed with a grand opening celebration.

The construction of the courtyard happened over two seasons. In the spring and summer of 2000, the sunken garden area was demolished and features such as the deck, shrub beds, fountain and portable planters were installed. The installation of the portable planter boxes and the water feature turned out to be a mistake. The young children in the neighbourhood who

Planting Day Volunteers

had so loved this accessible space before it started to change, now loved it even more. Hot pink spray paint covered windows and walls, soil plugged up the fountain, and portable window boxes were overturned within weeks of installation. As a result all other portable and breakable items such as the chimes, sculptures, furnishings and medicine wheel panels have been put on hold or in storage to await the full security a finished sunroom can provide.

The winter, spring and summer of 2001 were devoted to refining the sunroom design and undergoing a long building permit application process. As a result, the sunroom which was to be completed this year, will only begin construction this fall. It should be completed in the spring of 2002 along with all the unfinished sunken area details. The sunken area and the sunroom both had detailed construction schedules that have often been extended or modified to meet volunteer and donor needs. These detailed schedules are provided as supplementary information in appendix E.

These delays have not prohibited Hope users from enjoying the portions of the healing garden that are already complete. Many clients and staff escape to the garden to do a little weeding or watering. Other family members come to visit the garden regularly. Events such as Planting Day, (held in 2000 and 2001) are quickly becoming annual courtyard traditions.

" I stopped today and realized that it has been three years since I started this journey with the women of Hope.

I never thought this would take as long as it has. It is amazing how many pieces have to fall into place before an idea can become a reality.

Some of the women who began this journey with us are very sick now. I hope that they will be able to take solace and comfort in the finished garden."

Monica Macra
Journal, January 10, 2001

Development Item	1999			2000				2001				2002
	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring
start up meeting	■											
focus group	■											
design matrix	■	■										
develop concepts		■										
final concept			■									
garden final design			■	■	■					■	■	
recruit donors garden				■	■	■						
garden construction					■	■						
planting day					■			■				■
sunroom final design						■	■	■	■			
sunroom permits								■	■			
recruit donors sunroom								■	■	■		
sunroom construction										■	■	■
accessory installation												■
grand opening												■
garden in use												■

Figure 27
Project Time Line

6.2.2 Volunteers and Donors

As has been mentioned throughout this document, the Bridges of Hope courtyard would not have become a healing place without the support of volunteers, designers, suppliers and contractors. This diverse group of people came together because they all felt that providing a quality outdoor environment for women and families dealing with breast cancer was an important and worthwhile cause. Sadly, most of these local supporters were especially willing to help with the courtyard because they had been personally affected by breast cancer. As people who transform ideas into reality, these donors understood theat the Bridges of Hope Courtyard could become a a place for healing and refuge through their efforts.

It is important to acknowledge all the volunteers and donors in this document. Figure 28 lists all the courtyard supporters by the capacity and category in which they participated.

A special thank you to all these great people! We could not have done it without you. For links to these community supporters please log on to the Bridges of Hope Website at www. cancercaremanitoba/hopecentre/courtyard (not there yet coming soon).

Courtyard Volunteers and Donors

Pink Ribbon Ladies Golf Classic

Hope Volunteers:
Kathy Thomson, Gaye Taylor, Dianne Brown, Donene Sawatzky, Linda Watson, Pat Antonick, Brenda Drystako, Donna Swiston, Mark Basson, Catherine Tolton, Val Graham, Jackie Wilkie, Susan Stratford, Orist Rosolowich, Jill Taylor Brown, Barb Shumeley, Bonnie Williams.

Design Volunteers:
Heather Cram (HTFC), Rob O'Toole (Crosier Kilgour), Barrie Ottenbriet (Number 10), Ken Green (AGE Engineering), Terry Giesbrecht (Ovalplanet Website Development Services)

Suppliers:
Barkman Concrete, Shelmerdine Nurseries, Skills manufacturing, Willmar Windows, Dufresne Furniture, McDiarmid Lumber, Speedy Autoglass, Schriemers Garden Centre, Belle Fosche Signs, Precision Metalcraft

Contractors:
J&D Penner, TATRA Ornamental Iron Works, Tri-Clad Designs, Security Glass Services, Calabria Interiors, McCaine Electric, Riverwood Construction.

Figure 28
Courtyard Volunteers and Donors

6.2 Construction Administration The Invisible Side of Design

Developing a detailed design idea is only half of a designer's responsibility when implementing a user driven therapeutic landscape. The other half involves construction administration, the process through which a designer ensures the qualities of a paper design become fully realized in the built environment.

Administration involves good communication skills, patience and organization. Often invisible during and after construction this role of the designer as orchestrator was one of the most difficult portions of this exercise and perhaps the greatest learning experience. Three key aspects of construction administration are discussed below. However this by no means encompasses all the roles the designer takes on during construction. The administration of any project, even one as small as this courtyard, is a labour of constant supervision and loving care.

6.3.1 Budgeting:

In order to ensure that the conceptual ideas for The Bridges of Hope Courtyard could become a reality, a series of incrementally more detailed cost estimates were developed and reviewed by the committee. Cost estimating for this

The Bridges of Hope Courtyard
Implemented & Market Value Cost Comparison

Sunken Garden	Market	Implemented
1. Demolition (remove & dispose)	$ 1000.00	$ 0.00
2. Paving (supply and install)	$ 2500.00	$ 0.00
3. Raised Deck (supply and install)	$ 8000.00	$ 5000.00
4. Planting Beds (supply and install)	$ 700.00	$ 150.00
5. Plants (supply and install)	$ 2500.00	$ 900.00
6. Glass Panels (supply and install)	$ 6000.00	$ 1500.00
7. Concrete Screen (refinish and light)	$ 500.00	$ 150.00
8. Site Furniture (supply and install)	$ 1500.00	$ 800.00
Sunken Garden Subtotal	**$22,700.00**	**$ 8,500.00**

Figure 29a
Courtyard Cost Comparison

project was especially difficult because of the combination of purchased and donated products and labour. As a result of the continuously changing list of possible donors and contractors, cost estimates for the sunken garden and the sunroom evolved as these designs were refined and finalized.

It would be nice to say that money is no object, however this projects ambitious goals and limited budget were definitely a design challenge. Although on a budget, the design of this project tried to optimize the quality of experiences and spaces that could be achieved within the limits of the existing space. Through the combination of purchased and donated items or services, this healing garden has been constructed for less than half of it's value if it had been constructed through traditional contractual means.

Figure 29 compares the volunteer and donor based costs of developing the courtyard with the market value of the project. It is important to note that this type of project costs a lot more in design and organization time, however in this case these were also donated. Detailed construction estimates for the sunken garden and the sunroom are available for review in appendix E. These cost estimates were one of the tools the courtyard design committee used to narrow down design options and select details.

The Bridges of Hope Courtyard
Implemented & Market Value Cost Comparison

Sunroom	Market	Implemented
1. Framing (supply and install)	$ 16,000.00	$ 11,600.00
2. Siding and Roof (supply and install)	$ 7,500.00	$ 4,000.00
3. Windows (supply and install)	$ 10,000.00	$ 5,000.00
4. Electrical (supply and install)	$ 5,000.00	$ 0.00
5. Interior Walls (supply and install)	$ 2,000.00	$ 0.00
6. Paint (supply and install)	$ 2,500.00	$ 0.00
7. Furniture (supply and install)	$ 4,000.00	$ 1,000.00
Sunroom Subtotal	**$ 47,000.00**	**$ 21,600.00**
Courtyard Total	$ 69,700.00	$ 30,100.00

Figure 29b
Courtyard Cost Comparison

6.3.2 Codes and Permits:

Open communication between city officials, designers and contractors is essential to the implementation of any design. In order to ensure that environments are safe and sound, all new interior or exterior additions to existing structures must meet City of Winnipeg zoning bylaws and building codes. The City of Winnipeg Specifications and Guidelines, The National Building Code and The Winnipeg Zoning Bylaw Guide, were used to prepare the courtyard deck and sunroom for permit application. A structural engineer and an architect reviewed the design of each component, modified it to suit structural and fire codes, and endorsed it for approval by the City.

Applications for more complex additions such as the three season sunroom attached to a thirty year old building can take some time to process and approve. A good relationship and open communication between the applicant and permits review officers is essential. Construction permit applications are reviewed by fire, structural, electrical, mechanical, zoning, and underground structures, departments.

Some of the building code and zoning challenges that had to be met during the course of the courtyard development process include: maximum travel distance from inside of the courtyard to access lane (fire code), deck railing design (structural), wood products for the deck (fire code), zoning

Wood Deck Railing
Required structural engineer endorsement for loads on steel cable construction prior to permit approval

variance applications for building to floor area ratios and parking requirements (zoning), steel framing for the sunroom due to non sprinklered building (fire code), security glass along north wall as new outside building wall (structural), security lighting and fire alarm extension (electrical and fire code). Detailed documentation of the permit applications is provided in appendix F.

It took three months in the summer of 2000 to obtain the permit for the raised wood deck. The sunroom permit application included a community zoning variance application, and took six months for full processing and approval. This delayed the installation that was supposed to occur in the summer of 2001. These construction permits are necessary. They provide the city and the owner with a product that is safe for all users. However certain regulations, such as the zoning for this building which has changed occupancy and use over the years, can become outdated, irrelevant and cumbersome to the building process.

The two construction permits required for this project cost $ 1,600.00. Budget and time allocations should be made for this crucial step in the construction process.

Sunroom Framing
Required collaboration between architectural design elements and structural needs. The resulting exposed framing system is both beautiful and functional.

6.3.3 Coordination:

Due to the volunteer based nature of this project, coordination of the varied and busy schedules of people and groups doing the Centre this 'favour' was the most difficult task during construction. During this project, the best laid plans have always been delayed. The assertion of contractors donating their time that they will be there when they can rather than when you want them to, or the supplier forgetting the promise of a donation made earlier in the season, are only a few examples of the various situations that require constant flexibility and reorganization if a project like the Bridges of Hope Courtyard is to move towards completion.

Constant vigilance, communication and patience are crucial to ensuring volunteer support and cooperation while realizing design and schedule goals. If the interior sunroom construction and sunken garden site furnishing installation are completed on schedule, the Bridges of Hope Courtyard will be fully operational by May 2002.

Ongoing development and coordination by staff at the centre, has already begun to yeld existing and new cancer care programming that will occur in the healing garden places provided by the new sunroom and courtyard.

Soil Day
Coordination included the solicitation of help from many wonderful friends and family members.

6.3 Construction : A Photographic Journal

It is only fitting to conclude this chapter with a collage of photographs taken over the past two years as the courtyard was developed.

The journal begins with existing conditions photos taken in 1999. It then moves on to document the demolition, paving, deck, and fountain installation process. These photographs were taken during the spring and summer of 2000.

The jouranl focuses on user and donor participation especially during 'Planting Day', the now annual planting event that began with the initial plant material implementation. Planting day photographs date from the summer of 2000.

The journal concludes with the ongoing final step of the implementation process - the sunroom construction. The sunroom photographs were taken in the fall of 2001.

Design Development on Paper
Summer and Fall 1999

Existing Conditions & Demolition

Paving & Soil Installation

Fountain & Screen Installation

Deck Installation

Planting Day

Planting Day

Fall 2000

Sunroom Construction

Sunroom Construction

Fall 2001

Chapter VII
Seeds- Conclusion

7.1 • Conclusion
A Return to Seeds

7.2 • Project Summary
Accomplishments and Limitations

7.3 • Looking to the Future
New Seeds for Further Study

Seed:

• The fertilized ripened ovule of a flowering plant containing an embryo and capable of germination to produce a new plant.

• The Source of development or growth. - Progeny.

Oxford English Reference Dictionary.

7.1 Conclusion - A Return to Seeds

Seeds are not only the beginning but also the end of each cycle of plant development. Seeds are the special capsules of new potential enclosed in the showy fruit waiting for distribution and germination.

The completed Bridges of Hope Courtyard will hold special seeds for designers and users. For users, this healing landscape can be a seed for growth and comfort as they struggle with the diagnosis, treatment, recovery and grief that marks the various faces of breast cancer. For the designer, this special place will form a seed of expanded knowledge, experience and renewed conviction that the development of therapeutic landscapes is essential to the human healing process throughout all the phases of our lives.

This chapter re-examines the initial assumptions and goals of this project. It takes a critical look at the last three years, and pulls the successes and failures of this study into perspective.

Finally this chapter takes a look at future research that should be done in this field of study, to ensure that the healing interaction between people and nature is strengthened, understood, and promoted in all landscapes and environments.

Dandelion Seeds
Photograph by Hugh Martel
Benjamin Moore 2000 Calendar

7.2 Project Summary Accomplishments and Limitations

The process of designing a healing landscape for women, families, staff and friends combating breast cancer has confirmed and enriched the initial hypothesis of this study.

The symbiotic interaction between designers, users and professionals during the entire course of this projects development, supports the assumption that designers have a key role and a responsibility to help users organize their outdoor environments into healthy and healing places. The increasing popularity and use of the Bridges of Hope Courtyard, even by women who were initially skeptical of the benefits of such environments, suggests that the opportunity to interact with well designed exterior environments catered to special needs is essential to the healing process.

The three main objectives of this study were: to understand and develop a therapeutic design theory, to develop an interactive user driven design process, and to apply these ideas through the design and implementation of a user driven healing garden.

All of these goals have been met during the course of this study. The research, design, and development of this special place has a series of accomplishments and limitations:

There is nothing more fulfilling than seeing the women of Hope taking this shell of a healing garden and transforming it into their own.

Monica Macra
September, 2001

Accomplishments:

- The development of a better understanding of the diverse fields of research and history that influence the successful design of healing landscapes.

- The development of a personal approach to holistic therapeutic design through the amalgamation of these diverse ideas.

- The development of a therapeutic design theory that can be used as a foundation for the design of a wide range of outdoor healing environments. The creation of a sensitive design development matrix that guides the creation of participatory and healthy environments.

- The realization that users have diverse, sometimes contrary and often strong attitudes towards the landscapes that they will be using. The understanding that all these ideas are valid and need to be accommodated in successful design.

- The implementation of a collaborative design and construction process, that has been fun, educational, empowering, exhausting and frustrating all at the same time.

- The creation of a healing garden space that is already growing and changing as users define it's full potential. Knowing that the users of the Breast Cancer Centre of Hope will have one more resource with which to fight the mental and physical challenges presented by breast cancer.

- The fulfillment of a personal goal to contribute to my community through a worthwhile cause.

Limitations:

• The realization that there are so many avenues of knowledge feeding the concepts of human health and healing that exploring all of them is not a masters study but a lifetime endeavor.

• The understanding that both the theory and the materials developed during this project are a first attempt at designing therapeutic landscapes and could be refined further during future design processes.

• The understanding that collaboration can not be forced on others, as for instance the Misericordia Hospital chose to have very limited input into this study.

• The realization that each unique space can not fulfill all the possibilities of a healing garden and that the ideal is often a compromise between existing conditions and design goals. For instance the courtyard is not fully accessible as everyone would like it to be due to existing conditions.

• A deeper understanding of the fact that the final installation is often a combination of original design ideas and auxiliary factors such as budget, workmanship and donor availability.

• The disappointment of building a place of Hope while watching some patients who were once fully involved in the project succumb to the destructive powers of breast cancer. Understanding and accepting that sometimes not even the best modern medicine, a positive attitude, a loving support group and a healing garden can save a persons precious life.

7.3 Looking to the Future
New Seeds for Further Study

The processes and experiences of this study have accomplished one more thing. They have motivated this author to continue learning about the relationship between landscapes and human health. A series of possible research directions are considered below:

It is very important to objectively evaluate completed projects. A post occupancy review of The Bridges of Hope Courtyard by an independent researcher would provide another level of knowledge and understanding about the positive and negative aspects of this design. It would also add to the general body of knowledge for therapeutic landscape theory.

Considering the relatively isolated and narrow scope of this detailed project, the next step may be to seek out a broader range of experiences in this specialized field of landscape architecture. The test will be the application and modification of the approach developed at the Bridges of Hope Courtyard to diverse user groups, varied landscape contexts, and other forms of illness and disability.

Another possible area of study could focus on the communication between pure researchers and designers. At the moment, The People Plant Council, The Art Therapy

Through further research, I hope to have a part in changing prevailing systematic attitudes towards healthcare and landscape.

The journey has just begun.

Monica Macra
December, 2001

Journal, The Journal of Environment and Behaviour, The Journal of Healthcare Design, Landscape Journal ,Landscape Architecture Magazine etc..., and the professionals who contribute to each of them have no common forum for cross disciplinary education, discussion and growth. Research should concentrate on developing a communication process for the exchange of ideas. A flexible open ended venue where pure research can inform design guidelines while design experience can inform new research directions has to be fostered.

Last, but not least, the connection between landscapes and health must be studied on a broader scale that includes all the contexts of a human lifetime. As many healthy communities movements across the world have discovered, human health is as much about maintaining social, mental and physical health in the everyday environment as it is about dealing with, treating, and recovering from major illnesses. In fact, these socially driven approaches to living promote, the health of the individual, the connection between people and the outdoors, and the importance of healthy landscapes for both people and the earth. Studying how to connect isolated healthcare landscapes within a broader spectrum of parks and urban open spaces is the next step in the development of healthy communities.

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Appendix A

what our clients say...

e Breast Cancer Centre of Hope was the first place I went to after my diagnosis. The women there showed me that there is life after a diagnosis of breast cancer. They were "my light at the end of the tunnel." Talking to other women who have experienced breast cancer helps you to realize that other women have gone through exactly what you have. It helps you to feel normal at an abnormal time of your life."

— Laury

'as very lucky to be referred to the Breast Cancer Centre of Hope when I was first diagnosed with breast cancer. Before I began the many months of treatment I went to the centre filled with anxiety, questions and concerns. They were so supportive, giving me books, videos and answers to my many questions."

— Sherry

diagnosis of cancer can be very frightening and overwhelming. The Breast Cancer Centre of Hope provided an opportunity for me to become empowered with information, to dispel some of the myths and fears surrounding cancer treatment. Armed with knowledge, I was better equipped to take an active role in my own care planning."

— Cathy

the History of the Centre

Breast Cancer Centre of Hope (formerly Hope Breast Cancer Information and Resource Centre) was officially opened on October 3rd, 1997. It represented the culmination of years of planning and discussion around the need for a Manitoban centre for breast cancer related services and resources.

We are here for you!

It has been said that knowledge is power. Here at the Centre, we seek to empower individuals whose lives have been touched by breast cancer by providing information, support and referral. We also provide resources to individuals who are concerned about breast health issues, generally. It is our hope that these services will enable our clients to make informed decisions and to gain increased control over quality of life issues.

In 1994, the Manitoba Cancer Treatment and Research Foundation (now CancerCare Manitoba) established the Manitoba Breast Cancer Advisory Council to develop and oversee a Comprehensive Breast Cancer Program. The Centre represents one focus of their mandate.

In 1995, internationally renowned Winnipeg artist Leo Mol created a bronze sculpture in support of the Breast Cancer Program. The statue is named "Hope", and thus the centre gained its name.

In 1997, the CancerCare Manitoba entered into a partnership with the Misericordia Health Centre and Breast Cancer Centre of Hope was established at its present Wolseley location.

the need to Know

Breast Cancer Centre of Hope

Main Floor, 691 Wolseley Avenue
Winnipeg, MB R3G 1C3

For Appointment Call:
Telephone: (204) 788-8080
Toll Free: 1-888-660-4866
Website: www.breastcancerhope.mb.ca
Hours: Mon - Fri 8:30 - 4:30

CancerCare MANITOBA

Who uses the Centre?

* women with breast cancer, especially those who are newly diagnosed or in treatment
* men with breast cancer
* partners, family and friends
* support groups
* partner groups including Breast Cancer Action Manitoba and "Chemo Savvy," the local dragon boat team
* members of the general public interested in breast health issues

hope is like the sun,
which,
as we journey
towards it,
casts the shadow
of our burden
behind us
— anonymous

What we offer...

* a beautiful facility in a central location * professional consultations with Nurse Educators
* peer consultations with breast cancer survivors * links to other programs * a lending library
* internet access * a toll free line * a website * a prosthesis bank * volunteer opportunities

Breast Cancer Centre of Hope

information support referral

Health Canada Santé Canada

April 1999

Cancer Updates

BREAST CANCER IN CANADA

- Breast cancer is the most frequently diagnosed cancer in Canadian women.
- Incidence rates are increasing among women over 50, while mortality rates are beginning to decrease among women under 70.
- The most important risk factors, age and sex, are non-modifiable.
- Mammographic screening for women aged 50-69 has been proven to reduce breast cancer mortality.

Breast cancer is the most frequently diagnosed cancer in Canadian women, accounting for about 30% of all new cancer cases each year. It is estimated that in 1999, 18,700 cases will be diagnosed and 5,400 women will die of this disease[1]. While breast cancer is the most frequently diagnosed cancer among women, lung cancer has now surpassed breast cancer as the leading cause of cancer deaths in women. In 1995, breast cancer accounted for 97,000 potential years of life lost for Canadian women[1]. Male breast cancer accounts for less than 1% of all breast cancer.

Trends

Since 1984 breast cancer incidence rates have increased steadily for women overall (Figure 1), while mortality rates have remained relatively stable (Figure 1). Incidence rates have remained steady over time for women under age 50 (Figure 1). In contrast, women over 50 have had an increasing risk of breast cancer. Since 1990 there has been a decrease in mortality rates among women 50 to 69 years of age, with the most dramatic decrease – 15% – occurring among women 60 to 69 years of age[2]. Similar trends of decreasing breast cancer mortality rates have been observed in the United States, the United Kingdom, and Australia[1] and have been attributed to screening and improved treatment.

Breast cancer incidence and mortality rates vary between the provinces and territories of Canada (Figure 2). There are many reasons why breast cancer rates may vary between areas of Canada including differences in the characteristics of women living in these jurisdictions and differences in the way the disease is reported. Figure 2 indicates that British Columbia, Manitoba, Saskatchewan and Alberta have higher incidence rates while having lower mortality rates when compared with the Canadian average.

Primary Prevention

One in nine Canadian women is expected to develop breast cancer in her lifetime and one out of every 25 is expected to die from it[1]. The likelihood of a woman developing breast cancer in the next 5 years increases rapidly with age[3] making age the most significant risk factor for breast cancer (Table 1).

Cancer Bureau website:
http://www.hc-sc.gc.ca/hpb/lcdc/bc

Can also be accessed from any fax machine using LCDC's *FAXlink* Service 1-613-941-3900

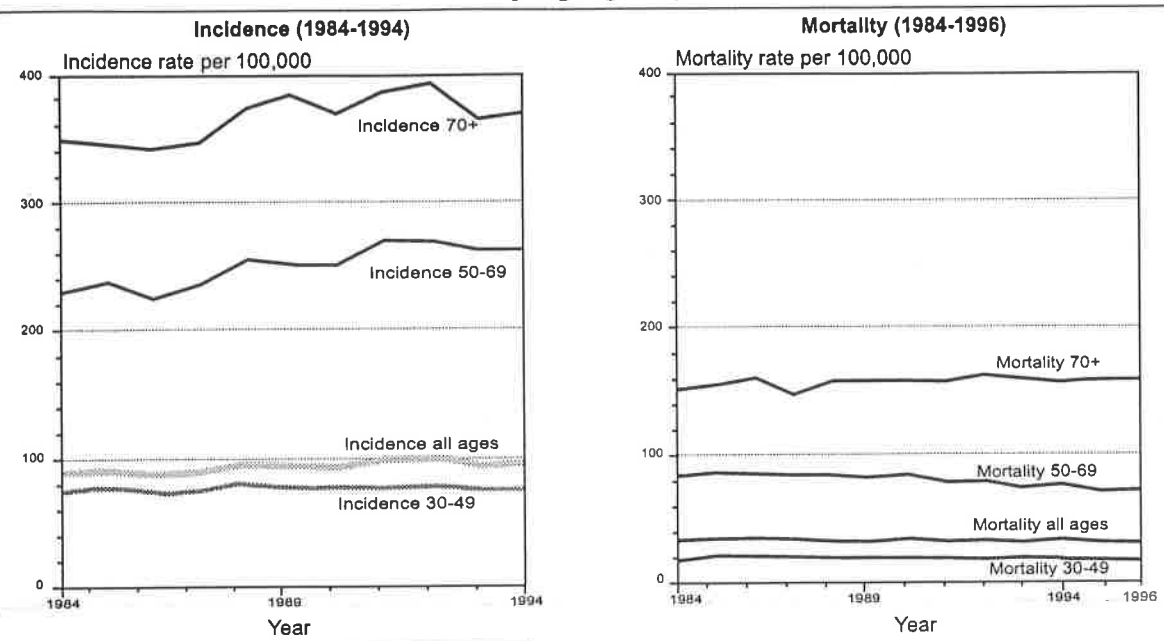
Contact person:

Judy Snider
Phone: (613) 941-2058
Fax: (613) 941-5497
E-mail:
judy_snider@hc-sc.gc.ca

Our mission is to help the people of Canada maintain and improve their health

Health Canada

Figure 1
Age-standardized incidence and mortality rates for breast cancer in Canadian women, by age-group



Note: Rates are standardized to the age distribution of the 1991 Canadian population.
Source: Cancer Bureau, Laboratory Centre for Disease Control, Health Canada, based on data supplied by Statistics Canada.

Table 1
Probability of developing breast cancer in the next 5 years[3]

Age	Breast cancer per 1,000 women
30	1.5
35	2.6
40	4.8
45	7.8
50	9.2
55	10.6
60	12.9
65	14.3
70	15.4
80	15.5

Other risk factors for breast cancer include a family history of breast cancer, a history of breast cancer in one breast, a history of certain types of benign breast disease, and high levels of radiation exposure to the chest[4]. Weak but well-established risk factors include obesity in post-menopausal women and various reproductive risk factors such as never having had children, being 30 or more years of age at first full-term pregnancy, having an early onset of menstruation, and a late onset of menopause. Other demographic factors that increase the risk of developing breast cancer include living in an urban area, belonging to a higher socioeconomic class, and being born in North America or Northern Europe[4].

Most of these established risk factors are not modifiable, and there is insufficient evidence to advocate primary preventive action[5]. The evidence linking the use of oral contraceptives to the risk of breast cancer remains controversial. There is also suggestive evidence linking post-menopausal estrogen replacement therapy, high intake of dietary fat, alcohol use and physical inactivity to the risk of breast cancer[4].

Tamoxifen

There is tremendous interest in the use of tamoxifen for the prevention of breast cancer because of its demonstrated effect in decreasing the risk of breast cancer recurrence. The results of three tamoxifen chemoprevention trials have recently been published. The National Surgical Adjuvant Breast and Bowel

ACCESS Reporter
Claims Form
Critical Illness
Dental
Disability
Drugs
Extended Health
International Coverage
Legislation
Life
Rewards

communiqué-ting with Canada Life

e-mail

Cancer

An estimated 129,200 new cases of cancer and 62,700 deaths from cancer will occur in Canada in 1998.

In 1998, the most frequently diagnosed cancers will continue to be breast cancer for women and prostate cancer for men.

Lung cancer remains as the leading cause of cancer death for both sexes. Almost a third of the cancer deaths in men, and over one-fifth in women are due to lung cancer alone.

Among men the cancer mortality rate for all cancers combined is declining slowly, due to decreases in mortality rates for lung, colorectal, and certain other cancers.

Among Canadian men, prostate cancer will continue to be the most frequently occurring cancer in 1998. Whereas incidence rates for prostate cancer increased rapidly over the past decade, there was no associated change in mortality rates, and there is now an indication that incidence rates may begin to decline. This pattern was largely due to the rapid increase in the use of early detection techniques.

Among women, cancer incidence and mortality rates have remained relatively stable. However, when lung cancer rates are excluded, the mortality rate for women has dropped by 15% since 1971.

Lung cancer incidence and mortality rates among women continue to increase rapidly and are now more than four times as high as rates in 1969. However, they remain only half as high as rates for men.

Breast cancer incidence among women rose steadily over the past decade, whereas mortality rates for breast cancer declined slightly

since 1985 and particularly since 1990.

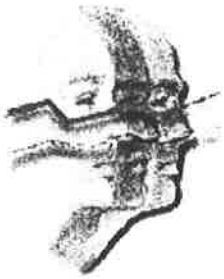
Despite the relative stability in the overall age-standardized rates, the number of new cases and deaths continue to rise as the Canadian population ages. For example, in the past decade, the number of new cases increased by almost one-third and the number of deaths rose by over one-fifth.

There is a steady decline since 1969 in mortality among both Canadian men and women in all age groups under 60 years.

During their lifetime, 1 in 9 women are expected to develop breast cancer, 1 in 18 will develop colorectal cancer and 1 in 21 will develop lung cancer. Among men, 1 in 8 will develop prostate cancer during their lifetime, mostly after age 70, and 1 in 11 will develop lung cancer.

source :National Cancer Institute of Canada: Canadian Cancer Statistics - 1998
www.cancer.ca/stats/egc020.htm

Top of this Page



Research/Statistics

CANADIAN CANCER | SOCIÉTÉ CANADIENNE

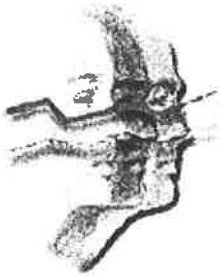
Breast Cancer Research

During a woman's lifetime she has a one in nine chance of being diagnosed with breast cancer. The Canadian Cancer Society enhanced and strengthened its efforts to address this deadly cancer in the early 1990s, through its leadership role in forming the Canadian Breast Cancer Research Initiative (CBCRI). The CCS, along with its research partner the National Cancer Institute of Canada, the Medical Research Council and Health Canada, joined forces to form the CBCRI in 1993. The National Cancer Institute of Canada provides $2 million a year to the CBCRI, with funds raised by Canadian Cancer Society volunteers.

In 1998, three more partners joined the CBCRI — the Canadian Breast Cancer Foundation, Breast Cancer International Centre and the Canadian Breast Cancer Network.

By 1998, the CBCRI has provided approximately $39 million for breast cancer research across Canada and today it is the primary funder of breast cancer research in Canada.

More information about breast cancer research and the Canadian Breast Cancer Research Initiative



Research/Statistics

- Research Sponsored by the Canadian Cancer Society
- 2000 Canadian Cancer Statistics
- Breast Cancer Research
- Behavioural Research
- Clinical Research
- Progress in Cancer Research **HOT NEWS!**
- The National Cancer Institute of Canada

CANADIAN CANCER | SOCIÉTÉ CANADIENNE

Canadian Cancer Statistics 2000

Each year since 1987, the National Cancer Institute of Canada, with funding provided by the Canadian Cancer Society, publishes and interprets current statistics about cancer statistics in Canada. These statistics are compiled through a collaboration of the NCIC, Statistics Canada, Health Canada, provincial/territorial cancer registries and university-based researchers.

The goal of the publication is to provide health professionals, researchers and policy-makers with detailed information regarding the incidence and mortality of the most common types of cancer in Canada. It is hoped that this data will stimulate new research and assist decision-making and priority-setting processes at the individual, community, provincial and national levels.

2000 Canadian Cancer Statistics

If you need more information about cancer call the Canadian Cancer Society's Cancer Information Service toll-free at 1-888-939-3333, (Monday to Friday, 9˚a.m. to 6˚p.m.; information is available in English and French.)

General Information | Locations | Information About Cancer | What We Do
Research/Statistics | What's Happening? | How to Donate | Volunteering

Contacting the Canadian Cancer Society | Help ?

Canadian Cancer Statistics 2000

Table 1

Estimated New Cases and Deaths for Cancer Sites and Gender, 2000

	New Cases 2000 Estimates			Deaths 2000 Estimates			Deaths/Cases Ratio 2000 Estimates		
	Total	M	F	Total	M	F	Total	M	F
All Cancers	**132,100**	**67,900**	**64,300**	**65,000**	**34,600**	**30,400**	**0.49**	**0.51**	**0.47**
Lung	20,600	12,200	8,400	17,700	10,700	7,000	0.86	0.88	0.83
Breast	19,200	—	19,200	5,500	—	5,500	0.28	—	0.28
Colorectal	17,000	9,200	7,900	6,500	3,500	3,000	0.38	0.38	0.39
Prostate[1]	16,900	16,900	—	4,200	4,200	—	0.25	0.25	—
Non-Hodgkin s Lymphoma	6,000	3,300	2,700	2,600	1,400	1,250	0.44	0.43	0.46
Bladder	4,800	3,600	1,250	1,500	1,000	450	0.31	0.29	0.36
Kidney	3,900	2,400	1,500	1,450	880	540	0.36	0.36	0.36
Melanoma	3,700	1,950	1,750	800	480	320	0.22	0.24	0.18
Body of Uterus	3,500	—	3,500	670	—	670	0.19	—	0.19
Leukemia	3,500	1,950	1,500	2,100	1,200	930	0.62	0.62	0.62
Oral	3,200	2,200	990	1,050	740	320	0.33	0.33	0.32
Pancreas	3,100	1,500	1,600	3,100	1,500	1,650	1.00	0.98	1.02[2]
Stomach	2,800	1,750	1,050	2,000	1,200	790	0.71	0.68	0.75
Ovary	2,500	—	2,500	1,500	—	1,500	0.60	—	0.60
Brain	2,300	1,300	1,050	1,550	880	670	0.66	0.67	0.65
Thyroid	2,100	500	1,600	170	55	110	0.08	0.11	0.07
Multiple Myeloma	1,700	940	750	1,250	660	570	0.73	0.70	0.76
Cervix	1,450	—	1,450	430	—	430	0.29	—	0.29
Esophagus	1,350	920	410	1,450	1,050	390	1.08[2]	1.14[2]	0.94
Larynx	1,250	1,050	230	530	430	95	0.41	0.41	0.41
Hodgkin s Disease	840	450	390	130	70	60	0.16	0.16	0.15
Testis	820	820	—	40	40	—	0.05	0.05	—
All Other Sites	9,500	4,900	4,600	8,800	4,600	4,200	0.93	0.94	0.92

— *Not applicable*

[1] *The estimate of new prostate cases was based on data years 1980-1989. Please refer to Appendix I: Methods for further details.*

[2] *The high ratio (in excess of 1.0) for cancers of esophagus and pancreas may result from incomplete registration of this cancer before death. Please refer to Appendix I: Methods for further details.*

Note: Incidence figures exclude an estimated 68,000 new cases of non-melanomaskin cancer (ICD-9 173). Totals may not equal the sum of the parts due to rounding. Please refer to Appendix I: Methods for further details.
Source: Cancer Bureau, LCDC, Health Canada

National Cancer Institute of Canada: Canadian Cancer Statistics 2000

Need help? Follow this link for detailed download instructions.

Comments/queries regarding this publication should be sent to stats@cancer.ca.
Comments/suggestions regarding this page should be sent to webadmin@cancer.ca.

The nun who saved an elm

June 1993
Wpg Free Press

Val Werier

WINNIPEGGERS CAN get emotional about trees as shown in the controversy over the Exchange District where Hollywood asked that the trees be removed to shoot a film

It is wrong to say that those strongly against removal of the trees were "anti-business." Opposition came from a broad cross section of people, angry that the trees were being treated as disposable items and that the normal city inquiry was not held

This fervor over trees wells up periodically in the Winnipeg ethos and has produced a rich folklore and some heroic figures

One is Sister St. Odilon who rather than destroy a tree, had a building constructed around it 30 years ago when she was director of nurses at Misericordia Hospital. A six storey nurses' residence was being built on Wolseley opposite the hospital. Only one tree survived in construction and it remains today in a patio enclosed by the residence and a one storey library

I remember Sister St. Odilon well, a diminutive, spunky individual, defying bureaucracy, conventional wisdom and professionals who thought it was absurd to design the residence around a tree. But she persisted and she won.

At [illegible] Sister St. Odilon wanted to save a border of elms on the property. She prodded and cajoled the contractor and the architect to save six elms, each marked with a ribbon during excavation for the foundation

Unfortunately the roots were exposed and cut in construction. Sister St. Odilon, in her long black habit, strode to the site to make certain all was being done to keep them alive. Tarpaulins were placed on the exposed roots so they wouldn't dry out in the sun

She would appear again and again, walking through the sticky clay, admonishing the builders to make sure [illegible] safe! But all died, except one within the designated site of the building.

Sister St. Odilon stood her ground. She was adamant that this tree be saved. So the design was altered to provide a patio within the structure to accommodate the elm.

"Isn't it beautiful?" Sister St. Odilon remarked of the elm. "It hurts me to see a tree come down. To me a tree is a symbol of life."

Sister St. Odilon (her family name is Anita Belanger) is retired in Montreal and approaching 90 years of age.

Sister Anna Plamondon, pastoral associate of the hospital, remembers Sister St. Odilon.

"For her the tree was very important," she recalls. "She wanted a tree that was within the building. She was tiny but very powerful and a very compassionate and kind woman."

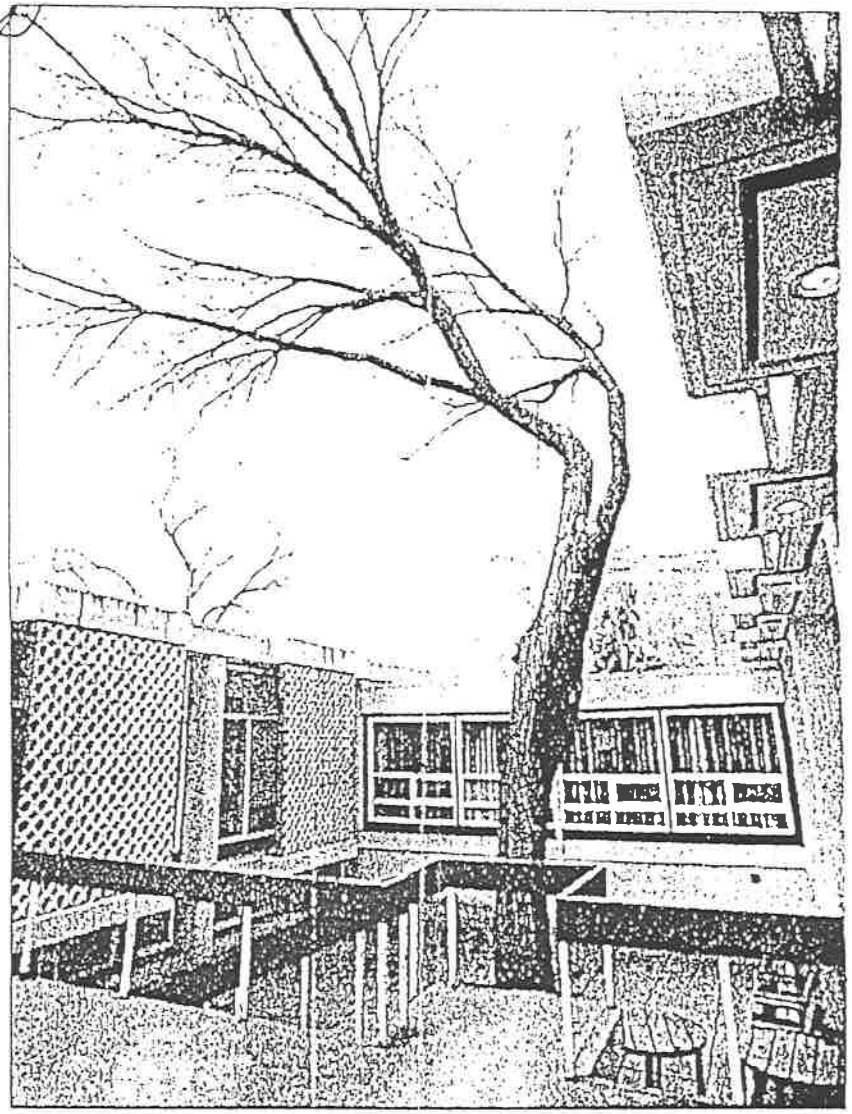
At the official opening of the residence in 1963, the elm was the centre of attraction. Right Rev. O. J. McInerney, vicar general of the Winnipeg archdiocese was moved to compose a poem about the tree. Premier Duff Roblin and Mayor Stephen Juba too talked about the elm.

The court yard may not be the finest environment for the Misericordia elm now about 80 years old, for it cannot spread in a natural fashion. But it is a lovely sight, emerging out of the brick and glass, a reminder that conforming to rigid rules of urban development needs to be challenged to dwell on human values.

It is fitting that Winnipeg will be the host to the First Canadian Urban Forests Conference from May 31 to June 2. It is a departure from the usual conferences on trees which focus mainly on technical matters. It will concentrate on the greening of urban areas, environmental values, how cities impose [illegible] safeguards to protect their trees, and subjects of community interest.

The Misericordia elm is a symbol of such concern, rising from a building like a giant plant in a giant vase.

It is a preposterous sight and an appealing one too.



Misericordia elm shades the nurses' residence courtyard

APPENDIX A.

Appendix B

Measurable Precipitation	12	8	9	8	10	12	11	11	11	9	9	11	119	pr cipitation mesurable
Freezing Precipitation	2	2	2	*	*	0	0	0	0	*	3	3	13	Pr cipitation vergla ante
Fog	2	2	3	*	*	*	*	1	1	2	2	2	17	Brouillard
Thunderstorms	*	0	*	*	3	6	8	6	3	*	*	*	28	Orages
Sunshine (Hrs)	119.7	139.9	177.7	232.4	276.8	290.6	321.7	285.9	189.3	149.8	94.9	98.6	2377.3	**Insolation (h)**
Station Pressure (kPa)	98.87	98.95	98.78	98.64	98.48	98.29	98.45	98.48	98.55	98.53	98.66	98.79	98.62	**Pression la station (kPa)**
Moisture														**Humidit**
Vapour pressure (kPa)	0.16	0.20	0.33	0.54	0.82	1.25	1.57	1.43	1.01	0.67	0.38	0.20	0.71	Pression de vapeur (kPa)
Rel. Humidity - 0600L (%)	80	81	83	81	77	80	85	87	86	84	84	81		Humidit relative - 0600L (%)
Rel. Humidity - 1500L (%)	75	75	72	54	45	50	52	50	53	56	72	77		Humidit relative - 1500L (%)
Wind														**Vent**
Speed (km/h)	18	17	18	20	19	17	15	15	18	19	18	17	18	Vitesse (km/h)
Most Frequent Direction	NW	S	S	N	S	S	S	S	S	S	S	S	S	Direction la plus fr quente
Extreme Hourly Speed (km/h)	70	80	81	80	72	80	89	74	71	77	76	71		Vitesse horaire extr me (km/h)
Direction	NW	W	NW	NW	NW	S	SE	E	N	NW	W	S		Direction
Extreme Gust Speed (km/h)	106	129	113	106	109	127	127	122	98	102	124	89		Vitesse extr me du coup de vent (km/h)
Direction	S	NW	N	N	NW	W	S	NW	S	N	W	NW		Direction

for aditional information / pour information suppl mentaire

Canadian Climate Normals 1961-1990

Normales climatiques au Canada 1961-1990

Environment Canada / Environnement Canada

WINNIPEG INT'L A, Manitoba
49¡54-N 97¡14-W/O
239m
1938 to/ 1990

	Jan janv	Feb f vr	Mar mars	Apr avr	May mai	Jun juin	Jul juill	Aug ao t	Sep sept	Oct oct	Nov nov	Dec d c	Year ann e	
Temperature														**Temp rature**
Daily Maximum (¡C)	-13.2	-9.7	-1.8	9.8	18.6	23.4	26.1	24.9	18.6	11.3	-0.4	-9.9	8.1	Maximum quotidien (¡C)
Daily Minimum (¡C)	-23.6	-20.6	-12.4	-2.3	4.5	10.4	13.4	11.7	6.1	0.1	-9.2	-19.4	-3.4	Minimum quotidien (¡C)
Daily Mean (¡C)	-18.3	-15.1	-7.0	3.8	11.6	16.9	19.8	18.3	12.4	5.7	-4.7	-14.6	2.4	Moyenne quotidien (¡C)
Extreme Maximum (¡C)	7.8	11.7	23.3	34.3	37.0	37.2	37.8	40.6	38.8	29.4	23.9	11.7		Maximum extr me (¡C)
Date	942/23	958/25	946/27	980/21	980/22	988/11	940/22+	949/07	983/02	961/06	975/05	939/06		Date
Extreme Minimum (¡C)	-42.2	-45.0	-37.8	-26.3	-11.1	-3.3	1.1	0.6	-7.2	-17.2	-34.0	-37.8		Minimum extr me (¡C)
Date	966/24+	966/18	962/01	979/02	958/01	964/03	972/03	965/28	965/26	941/30	985/30	973/31+		Date
Degree-Days														**Degr s-jours**
Above 18 ¡C	0.0	0.0	0.0	0.7	13.0	36.8	73.1	56.4	9.2	0.3	0.0	0.0	189	Au-dessus 18¡C
Below 18 ¡C	1129.1	936.2	778.5	428.6	212.0	69.0	18.5	45.7	178.6	380.9	683.3	1013.7	5874	Au-dessous 18¡C
Above 5 ¡C	0.0	0.0	1.8	54.1	214.0	357.8	457.6	413.6	224.0	74.9	4.3	0.0	1802	Au-dessus 5¡C
Below 0 ¡C	571.2	428.8	237.1	30.4	0.8	0.0	0.0	0.0	0.1	10.7	168.3	456.1	1904	Au-dessous 0¡C
Precipitation														**Pr cipitations**
Rainfall (mm)	0.3	0.4	5.9	26.4	57.8	83.8	72.0	75.3	50.9	24.6	5.3	1.6	404.4	Chutes de pluie (mm)
Snowfall (cm)	22.6	17.1	19.2	9.4	2.0	0.0	0.0	0.0	0.4	4.9	19.0	20.1	114.8	Chutes de neige (cm)
Precipitation (mm)	19.3	14.8	23.1	35.9	59.8	83.8	72.0	75.3	51.3	29.5	21.2	18.6	504.4	Pr cipitations (mm)
Extreme Daily Rainfall (mm)	3.8	7.6	30.0	36.0	60.2	69.8	69.1	83.8	65.0	74.4	17.0	21.8		Extr me quotidien de pluie (mm)
Date	944/20	958/23	945/25	986/30	978/25	984/21	942/29	962/11	941/03	949/10	948/02	982/02		Date
Extreme Daily Snowfall (cm)	23.0	23.6	35.6	21.3	21.1	0.3	0.0	0.0	5.8	24.6	27.7	21.6		Extr me quotidien de neige (cm)
Date	989/07	955/20	966/04	964/13	967/01	969/12	990/31+	990/31+	984/24	971/30	958/17	948/15		Date
Extreme Daily Pcpn. (mm)	22.5	23.6	35.6	44.1	60.2	69.8	69.1	83.8	65.0	74.4	27.7	21.8		Extr me quotidien de pr c. (mm)
Date	989/07	955/20	966/04	986/30	978/25	984/21	942/29	962/11	941/03	949/10	958/17	982/02		Date
Month-end Snow Cover (cm)	24	23	9	0	0	0	0	0	0	1	8	15		Couver. de neige, fin de mois (cm)
Days With														**Journ es avec**
Maximum Temperature > 0¡C	2	3	13	27	31	30	31	31	30	30	15	3	246	Temp rature maximale > 0¡C
Measurable Rainfall	*	*	2	5	9	12	11	11	11	7	2	*	73	Hauteur de pluie mesurable
Measurable Snowfall	13	9	7	4	*	*	0	0	*	2	9	12	56	Hauteur de neige mesurable

Winnipeg

Planning, Property & Development Department • Service de l'urbanisme, des biens et de l'aménagement

Development and Inspections Division • Division de l'aménagement et des inspections

In reply please refer to / Référence à rappeler :

K. W. Franklin, P.Eng.
(204) 986-5202
Fax / Téléc : (204) 986-7307

June 8, 2001

Mr. R.J. O'Toole, P. Eng.
Crosier Kilgour & Partners Ltd.
207 Donald ST Unit 300
Winnipeg MB R3C 1M5

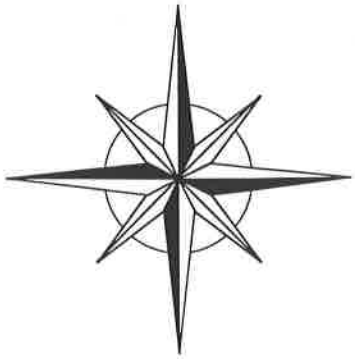
Dear Sir:

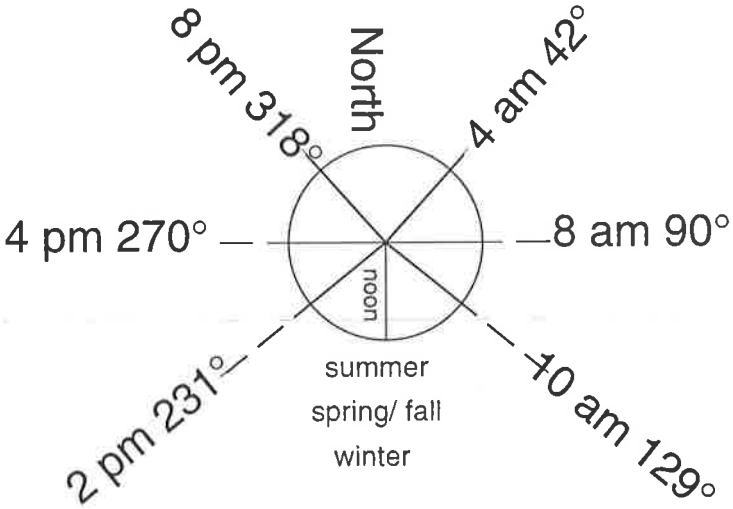
RE: BRIDGES OF HOPE COURTYARD - 691 WOLSELEY AVE
FILE: 01 156329 000 00 PI (PLEASE QUOTE WHEN REPLYING)
WORK BEING DONE: BUILDING ADDITION

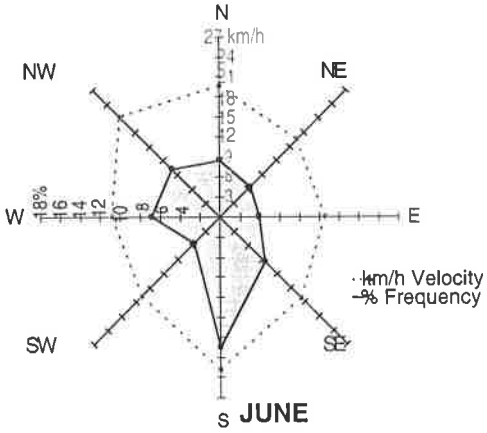
Structural drawings for the above noted project have been reviewed for compliance with respect to **Part 4, Structural Design** of the Manitoba Building Code (MBC) as adopted by the Winnipeg Building By-law No. 4555/87.

Please note the following:

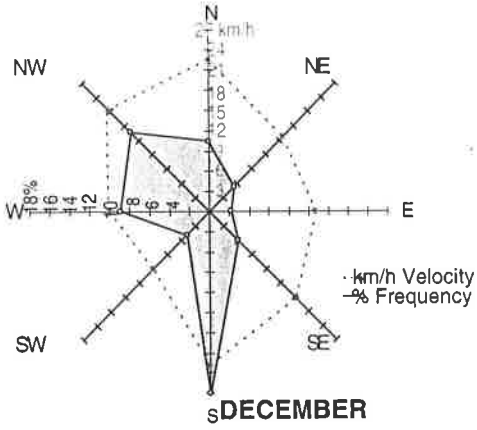
1. All welding must be done by Canadian Welding Bureau (CWB) certified welders supervised by a CWB approved firm.
2. The ***designer*** is responsible to inspect the structural aspects of construction as required by Subsection 6.1 of the City of Winnipeg Building By-law No. 4555/87 and Subsection 2.6.2. of the MBC.







JUNE



DECEMBER

TEMPERATURE & PRECIPITATION

Winnipeg Int'l A 49°54' N

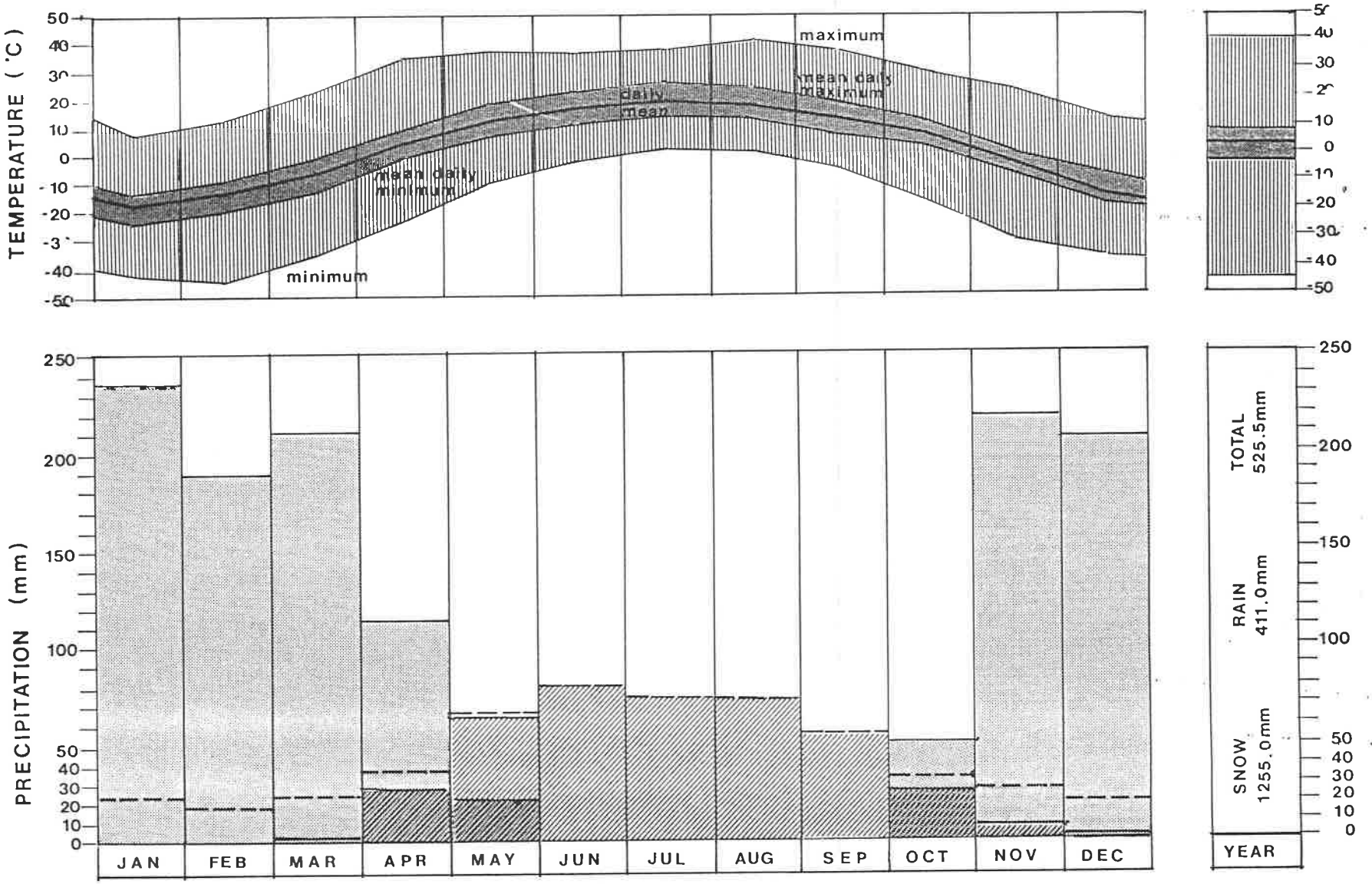


FIGURE 8

MANITOBA/MANITOBA

WILSON CREEK WEIR
50° 43'N 99° 33'W 366 m

	JAN JAN	FEB FÉV	MAR MAR	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOÛT	SEP SEPT	OCT OCT	NOV NOV	DEC DÉC	YEAR ANNÉE	CODE CODE	
Daily Maximum Temperature	-12.2	-7.7	-1.6	8.8	17.4	22.5	25.4	23.8	17.7	11.4	0.2	-7.7	8.2	8	Température Maximale Quotidienne
Daily Minimum Temperature	-24.3	-20.5	-13.5	-3.1	3.9	9.4	12.7	11.1	5.7	0.1	-9.8	-19.3	-4.0	8	Température Minimale Quotidienne
Daily Temperature	**-18.3**	**-14.1**	**-7.6**	**2.8**	**10.7**	**16.0**	**19.1**	**17.5**	**11.7**	**5.8**	**-4.8**	**-13.5**	**2.1**	**8**	**Température Quotidienne**
Standard Deviation, Daily Temperature	3.4	4.3	3.7	3.6	3.6	0.7	1.6	1.7	1.5	2.0	2.5	3.8	1.1	5	Écart Type de la Température Quotidienne
Extreme Maximum Temperature	12.2	12.2	17.8	34.5	36.0	38.0	36.7	35.6	36.7	27.2	24.4	12.5	38.0		Température Maximale Extrême
Years of Record	9	9	9	9	10	10	10	10	10	10	10	10			Années de Relèves
Extreme Minimum Temperature	-40.6	-38.5	-34.4	-25.5	-8.3	-1.1	0.6	1.7	-5.6	-15.6	-31.0	-37.8	-40.6		Température Minimale Extrême
Years of Record	9	9	9	9	9	10	10	10	10	10	10	10			Années de Relèves
Rainfall	0.3	0.2	1.0	27.7	48.4	82.3	64.0	83.1	61.3	22.6	7.7	0.6	397.2	8	Chutes de Pluie
Snowfall	20.7	17.0	22.3	12.7	1.0	0.0	0.0	0.0	1.2	8.6	22.7	27.6	133.8	8	Chutes de Neige
Total Precipitation	**24.5**	**20.6**	**25.3**	**40.3**	**48.4**	**82.3**	**64.0**	**83.1**	**59.4**	**29.8**	**30.0**	**28.3**	**536.0**	**8**	**Précipitations Totales**
Standard Deviation, Total Precipitation	16.1	9.4	21.8	29.8	33.8	70.9	43.7	75.7	59.6	36.9	13.9	11.7	189.6	5	Écart Type des Précipitations Totales
Greatest Rainfall in 24 hours	T	0.0	3.0	38.1	44.7	83.8	53.8	70.6	147.3	35.1	8.6	4.3	147.3		Chute de Pluie Record en 24 heures
Years of Record	9	9	9	9	9	10	10	10	10	10	9	10			Années de Relèves
Greatest Snowfall in 24 hours	13.4	11.4	26.4	18.8	6.4	0.0	0.0	0.0	6.6	21.5	30.5	23.4	30.5		Chute de Neige Record en 24 heures
Years of Record	9	9	9	9	9	10	10	10	10	10	10	10			Années de Relèves
Greatest Precipitation in 24 hours	21.5	10.2	27.2	38.1	44.7	83.8	53.8	70.6	147.3	35.1	22.1	18.0	147.3		Précipitation Record en 24 heures
Years of Record	9	9	9	9	9	10	10	10	10	10	9	10			Années de Relèves
Days with Rain	0	0	0	3	7	9	9	9	7	4	1	0	49	8	Jours de Pluie
Days with Snow	8	7	6	2	1	0	0	0	0	2	6	8	40	8	Jours de Neige
Days with Precipitation	9	8	7	6	9	10	10	11	8	6	8	9	101	8	Jours de Précipitation

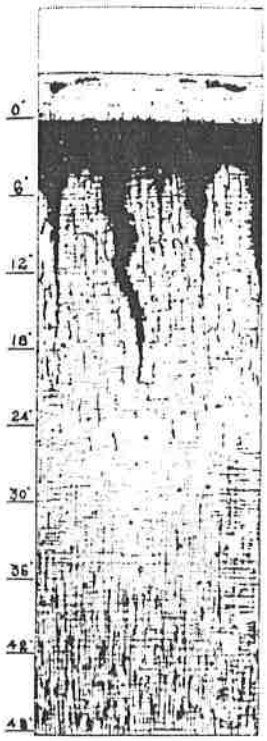
WINNIPEG INT'L A
49° 54'N 97° 14'W 239 m

	JAN JAN	FEB FÉV	MAR MAR	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOÛT	SEP SEPT	OCT OCT	NOV NOV	DEC DÉC	YEAR ANNÉE	CODE CODE	
Daily Maximum Temperature	-14.3	-10.1	-2.8	8.9	18.0	23.1	25.9	24.7	18.4	11.5	-0.3	-9.4	7.8	1	Température Maximale Quotidienne
Daily Minimum Temperature	-24.2	-21.0	-13.5	-2.2	4.5	10.5	13.3	11.8	6.3	0.7	-8.8	-18.6	-3.4	1	Température Minimale Quotidienne
Daily Temperature	**-19.3**	**-15.6**	**-8.2**	**3.4**	**11.3**	**16.8**	**19.6**	**18.3**	**12.4**	**6.1**	**-4.5**	**-14.0**	**2.2**	**1**	**Température Quotidienne**
Standard Deviation, Daily Temperature	3.2	3.3	3.5	2.6	2.4	1.6	1.5	1.7	1.6	2.2	2.6	3.6	0.9	1	Écart Type de la Température Quotidienne
Extreme Maximum Temperature	7.8	11.7	23.3	34.3	37.0	36.7	37.8	40.6	36.2	29.4	23.9	11.7	40.6		Température Maximale Extrême
Years of Record	42	42	43	43	43	43	43	43	43	43	43	43			Années de Relèves
Extreme Minimum Temperature	-42.2	-45.0	-37.8	-26.3	-11.1	-3.3	1.1	0.6	-7.2	-17.2	-32.2	-37.8	-45.0		Température Minimale Extrême
Years of Record	42	42	43	43	43	43	43	43	43	43	43	43			Années de Relèves
Rainfall	0.2	0.7	3.3	27.1	63.2	80.1	75.9	75.2	53.0	25.9	5.5	0.9	411.0	1	Chutes de Pluie
Snowfall	23.7	18.9	21.1	11.3	2.5	T	0.0	0.0	0.2	5.2	21.9	20.7	125.5	1	Chutes de Neige
Total Precipitation	**21.3**	**17.5**	**22.7**	**38.5**	**65.7**	**80.1**	**75.9**	**75.2**	**53.3**	**30.9**	**25.2**	**19.2**	**525.5**	**1**	**Précipitations Totales**
Standard Deviation, Total Precipitation	14.2	10.4	11.8	23.7	46.7	41.9	44.8	42.7	34.9	18.7	21.6	11.1	109.2	1	Ecart Type des Précipitations Totales
Greatest Rainfall in 24 hours	3.8	7.6	30.0	33.3	60.2	60.7	69.1	83.8	65.0	74.4	17.0	5.8	83.8		Chute de Pluie Record en 24 heures
Years of Record	42	42	43	43	43	43	43	43	43	43	43	43			Années de Relèves
Greatest Snowfall in 24 hours	19.1	23.6	35.6	21.3	21.1	0.3	0.0	0.0	1.8	24.6	27.7	21.6	35.6		Chute de Neige Record en 24 heures
Years of Record	42	42	43	43	43	43	43	43	43	43	43	43			Années de Relèves
Greatest Precipitation in 24 hours	19.1	23.6	35.6	33.3	60.2	60.7	69.1	83.8	65.0	74.4	27.7	21.6	83.8		Précipitation Record en 24 heures
Years of Record	42	42	43	43	43	43	43	43	43	43	43	43			Années de Relèves
Days with Rain	[illegible]	1	2	5	10	11	11	11	11	7	2	1	72	1	Jours de Pluie
Days with Snow	12	9	9	4	1	[illegible]	0	0	[illegible]	2	9	11	57	1	Jours de Neige
Days with Precipitation	12	9	9	8	10	11	11	11	11	8	9	11	120	1	Jours de Précipitation

TABLE NO. 6--SUMMARY OF THE SOIL CHARACTERISTICS, INDICATED LAND USE AND SOIL PROBLEMS IN THE WINNIPEG-MORRIS AREA. (Cont'd.)

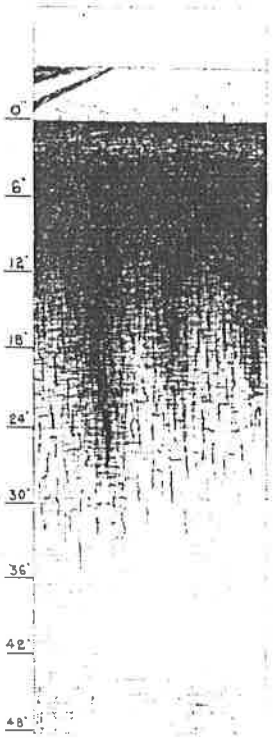
Soil Zone or Subzone	Association	Profile Characteristics of Typical or Dominant Soil	Associated Local Soils	Geological "Parent Material" and Prevailing Texture
Black-earth Zone	MARQUETTE	Dominant Soil Associate (P-PH) Well to Intermediately drained "A" Horizon: Very dark grey to black, clay or heavy clay loam; 8 to 10 inches thick;weakly developed prismatic clods of irregular form which break into medium granular aggregates; very hard when dry, moderately plastic and sticky when moist; neutral to slightly alkaline. "B" Horizon: Dark greyish brown clay to heavy clay loam, 6 to 14 inches thick; medium granular; hard when dry, moderately plastic and moderately sticky when moist; alkaline. May be flecked with lime carbonate. "C" Horizon: Light brownish grey clay to heavy clay loam, 10 to 14 inches thick; finely granular to cloddy; hard when dry, moderately plastic and sticky when moist; strongly alkaline. ("C" horizon may be absent.) Grades into:- "D1" Horizon: Light grey modified till of clay texture, more or less marbled. Contains small stones, strongly alkaline. "D2" Horizon: Unmodified calcareous till.	Intermediately drained associates: Blackearth-Meadow soils (PH). Calcic Blackearth - Meadow soils (PH_{Ca}). Salinized soils (G_s). Alkalinized soils(G). Poorly drained associates: Meadow soils (H). Calcic Meadow soils (H_{Ca}). Saline Meadow soils (H_{Gs}). Peaty Meadow soils(Ho	Thin mantle of lacustrine clay over till. Surface textures range from clay to heavy clay loam.
	FORT GARRY	Dominant Soil Associate (P-PH) Well to Intermediately drained "A" Horizon: Very dark grey clay, 7 to 10 inches thick in normal position, (tongues may intrude 20 inches downward); prismatic; very hard when dry, moderately plastic and sticky when moist;neutral to slightly alkaline. "Ca" Horizon: Light grey, marly, very fine sandy clay loam to silty clay 5 to 8 inches thick; weakly granular;friable; very calcareous. "C" Horizon: Light grey to pale yellow, very fine sandy clay loam to silty clay; more or less stratified; friable; very calcareous. (This horizon may be up to 5 feet thick). "D" Horizon: Lacustrine clay.	Intermediately drained associates: Degrading Blackearth soils (P-PHw). Blackearth-Meadow soils (PH). Alkalinized soils(G). Degrading Alkalinized soils (Gd). Poorly drained associates: Meadow soils (H). Saline Meadow soils (H_{Gs}).	Deltaic and lacustrine deposits.Dominantly clay surfaced textures (but may range from silty clay loam to clay) over more or less stratified pale yellow very fine sand and silty clay which rests on lacustrine clay.
	RED RIVER-EMERSON TRANSITION	A complex of soils developed on Red River and Emerson soil parent materials. Both Red River and Emerson types are intermixed with soils that are intergrades between these two associations. The dominant soils are well to intermediately drained. Small areas of halomorphic and poorly drained soils occur in lower sites.	Intermediately drained associates: Blackearth-Meadow soils (PH). Alkalinized soils(G). Poorly drained associates: Meadow soils (H). Calcic Meadow soils (H_{Ca}). Saline Meadow soils (HGs)	Deltaic and lacustrine deposits. Surface textures range from silty clay loam to clay.
	EMERSON Silty loam to silty clay loams	Dominant Soil Associate (P-PH) Well to Intermediately drained "A" Horizon: Very dark grey silt loam to silty clay loam, 5 to 15 inches thick; finely granular; friable; alkaline. (Approximately 5 inches of dark greyish brown "B" horizon is evident in some well-drained sites.) Tongues of surface material in the heavy textured soils may extend 2 feet downward. "Ca" Horizon: Grey marly horizon, 6 to 12 inches thick; silt loam to silty clay loam; crumb structure; friable. "C" Horizon: Light grey to pale yellow silt loam to silty clay; weakly granular; friable; strongly calcareous; iron stained and frequently contains gypsum concretions. "D" Horizon: Lacustrine clay.	Intermediately drained associates: Degrading Blackearth soils (P-PHw). Blackearth-Meadow soils (PH). Alkalinized soils(G). Poorly drained associates: Calcic Meadow soils (H_{Ca}). Saline Meadow soils (H_{Gs}).	Yellowish deltaic and lacustrine deposits. Surface textures dominantly silty clay loam but range from silt loam to silty clay.
	Silty clays	Soils similar to the silt loams and silty clay loams but heavier in texture and often more poorly drained.		
	LAKELAND Fine sandy loams	Dominant Soil Associate (P-PH) Well to Intermediately drained "A" Horizon: Dark grey to very dark grey fine sandy loam to silt loam, 5 to 12 inches thick; structureless to fine granular; very friable; moderately alkaline. Grades irregularly into:- "Ca" Horizon: Light grey to white loamy fine sand to very fine sandy loam, 6 to 9 inches thick; structureless; loose to extremely friable; calcareous. "C" Horizon: Very pale brown to light grey, fine-sand to silt loam structureless to crumb structure; loose to friable; calcareous; iron stained. (Usually laminated.) "D" Horizon: Very pale brown to light grey,lake-washed calcareous till is encountered from 2 to 6 or more feet below the surface. A gravelly or cobbly lens is present at the junction of the till and water-laid deposits in some profiles.	Intermediately drained associates: Blackearth-Meadow soils(PH). Salinized soils (Gs). Poorly drained associates: Meadow soils (H). Saline Meadow soils (HGs). Peaty Meadow soils (Ho) Small occluded areas of Woodlands complex. (See below.)	Thin deltaic and outwash deposits underlain by till. Surface textures range from a fine sandy loam to a silty clay loam.
	Clay loams to clays	Soils with profiles similar to the fine sandy loams but heavier in texture and generally more poorly drained.		

POORLY DRAINED
H = Hydromorphic
ASSOCIATE



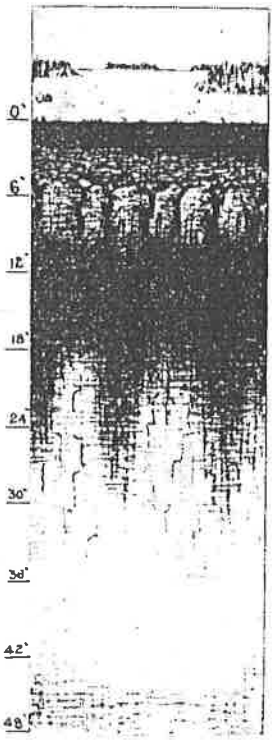
Meadow Soils
(Nonsalinized,Calcic and)
(Salinized Types)

ALKALINIZED
G = Halomorphic
ASSOCIATE



Alkalinized or
Solonetzic
Type

DEGRADED
Gd = Degraded Halomorphic
ASSOCIATE



Solodized-
Solonetzic
Type

THOMPSON A MAN.

PERIOD 1967-80 PERIODE

Lat. 55°48′N Long. 097°52′W

Elevation 215 m Altitude

	JAN JANV	FEB FEV	MAR MARS	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOUT	SEP SEPT	OCT OCT	NOV NOV	DEC DEC	YEAR ANNUEL	
PERCENTAGE FREQUENCY														**FRÉQUENCE EN %**
N	6.0	7.1	7.4	5.7	9.0	7.2	7.5	7.1	6.7	7.7	6.8	5.5	7.0	**N**
NNE	2.3	3.7	4.9	5.2	6.7	5.9	4.7	4.4	5.0	5.4	4.0	3.3	4.6	**NNE**
NE	4.3	6.2	9.5	11.0	10.3	7.9	5.5	4.4	6.8	5.3	4.8	6.4	6.9	**NE**
ENE	3.4	4.4	7.8	9.2	10.4	7.0	4.6	4.1	7.3	5.2	4.2	5.6	6.1	**ENE**
E	3.1	3.9	7.1	9.5	11.4	10.6	5.8	5.7	9.9	7.4	5.4	7.5	7.3	**E**
ESE	2.1	2.1	2.9	4.6	3.5	4.5	2.8	2.8	3.5	3.8	3.4	3.2	3.3	**ESE**
SE	1.4	2.4	2.6	3.8	3.4	4.1	2.4	3.1	2.8	3.8	2.6	2.9	2.9	**SE**
SSE	1.4	2.6	2.6	3.9	3.5	2.7	2.3	3.0	2.5	2.8	2.7	2.3	2.7	**SSE**
S	3.3	4.9	5.8	8.0	6.7	6.6	5.7	6.0	5.0	5.5	4.5	3.3	5.4	**S**
SSW	1.8	2.7	2.6	3.9	3.0	3.8	3.3	3.7	3.1	3.9	3.5	2.5	3.1	**SSW**
SW	2.3	2.2	2.6	3.7	3.0	3.4	3.8	4.0	4.0	3.3	3.7	2.5	3.2	**SW**
WSW	5.2	4.0	4.2	4.4	3.2	3.6	6.3	5.9	4.8	3.9	4.6	4.3	4.5	**WSW**
W	20.6	14.6	9.7	6.2	4.7	7.7	14.1	12.4	11.7	11.6	13.0	14.2	11.7	**W**
WNW	13.5	9.7	6.6	3.4	3.1	5.1	7.1	7.5	6.0	6.8	8.4	10.1	7.3	**WNW**
NW	9.9	8.6	5.0	3.1	3.9	4.7	6.0	6.2	5.1	7.4	8.8	8.2	6.4	**NW**
NNW	6.7	6.8	5.7	3.8	5.2	4.9	5.0	5.9	4.8	5.9	6.8	5.3	5.6	**NNW**
Calm	12.7	14.1	13.0	10.6	9.0	10.3	13.1	13.8	11.0	10.3	12.8	12.9	12.0	**Calme**
MEAN WIND SPEED IN KILOMETRES PER HOUR / VITESSE MOYENNE DES VENTS EN KILOMÈTRES PAR HEURE														
N	13.5	12.8	14.3	15.2	16.6	15.2	14.5	14.0	13.1	12.6	13.2	12.5	14.0	**N**
NNE	11.8	13.4	15.4	17.9	16.4	16.3	13.8	14.7	14.0	13.8	13.2	13.7	14.5	**NNE**
NE	13.6	13.2	16.1	18.8	18.2	17.4	15.5	15.2	15.4	14.1	13.0	15.2	15.5	**NE**
ENE	13.0	12.2	15.2	16.6	17.5	16.4	14.1	13.0	17.0	15.2	11.6	12.4	14.5	**ENE**
E	11.2	10.5	13.2	13.5	14.9	12.9	12.1	12.3	13.5	13.1	10.7	9.9	12.3	**E**
ESE	11.1	9.8	10.6	13.5	13.5	13.2	11.5	11.0	11.3	10.7	10.1	8.6	11.2	**ESE**
SE	9.9	10.4	11.3	12.0	12.2	13.2	11.9	10.2	10.7	11.6	11.0	10.2	11.2	**SE**
SSE	8.8	11.5	11.2	11.4	13.0	11.6	11.9	11.6	12.2	9.9	11.0	10.3	11.2	**SSE**
S	10.1	13.0	13.2	13.5	14.9	14.4	13.9	13.9	13.8	11.5	11.8	10.1	12.8	**S**
SSW	10.7	13.5	13.4	15.9	16.8	15.5	14.7	12.8	13.7	13.2	12.1	11.4	13.6	**SSW**
SW	10.9	12.8	14.9	15.9	15.6	14.7	13.6	14.3	14.6	12.5	12.0	10.6	13.5	**SW**
WSW	11.0	10.7	12.5	14.3	13.4	13.3	13.3	13.1	13.2	12.6	11.7	10.3	12.5	**WSW**
W	12.3	12.1	13.2	14.2	13.5	13.0	13.7	13.1	12.7	13.8	11.7	11.2	12.9	**W**
WNW	13.3	13.5	15.4	15.4	15.3	15.0	14.8	14.4	13.9	14.5	13.2	12.4	14.3	**WNW**
NW	12.8	13.8	15.5	15.4	15.8	15.8	15.3	13.8	13.9	15.5	14.8	13.2	14.6	**NW**
NNW	13.5	13.1	16.2	16.0	16.2	16.2	14.2	15.5	14.6	14.5	14.4	11.8	14.7	**NNW**
All Directions														**Toutes directions**
	10.8	10.8	12.4	13.6	14.3	13.2	12.1	11.6	12.3	12.0	10.9	10.2	12.0	
Maximum Hourly Speed														**Vitesse horaire maximale**
	45 NNW	43 WNW	42 SVL	48 SVL	50 N	48 SVL	50 WSW	48 SVL	61 ENE	58 ENE	48 SVL	48 NE	61 ENE	
Maximum Gust Speed														**Vitesse maximale des rafales**
	77 NNW	66 NNE	68 NE	76 SE	79 SSW	130 SSW	105 W	90 WSW	79 SVL	72 SVL	80 W	69 WNW	130 SSW	

Height of anemometer 13.1 m hauteur de l'anémomètre

STATION INFORMATION

Station is located at Thompson Airport, 6.5 km north of Thompson on Highway 382.

DONNÉES RELATIVES À LA STATION

La station se trouve à l'aéroport de Thompson, à 6.5 km au nord de la ville, sur l'autoroute 382.

WINNIPEG INT'L A MAN.

PERIOD 1955-80 PERIODE

Lat. 49°54′N Long. 097°14′W

Elevation 239 m Altitude

	JAN JANV	FEB FEV	MAR MARS	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOUT	SEP SEPT	OCT OCT	NOV NOV	DEC DEC	YEAR ANNUEL	
PERCENTAGE FREQUENCY														**FRÉQUENCE EN %**
N	7.4	9.6	9.6	10.9	10.1	8.8	7.2	7.6	7.2	8.9	8.5	7.0	8.6	**N**
NNE	4.6	6.9	6.6	9.9	9.6	7.5	4.9	5.5	4.4	5.0	5.1	5.3	6.3	**NNE**
NE	2.7	3.3	3.9	6.3	7.5	6.3	4.1	4.6	3.8	3.1	3.0	3.6	4.3	**NE**
ENE	1.2	1.2	1.5	3.2	3.5	2.9	2.0	2.5	2.2	1.8	1.6	1.9	2.1	**ENE**
E	1.4	1.7	2.9	4.8	4.9	3.9	2.9	3.3	3.2	2.2	2.0	2.1	2.9	**E**
ESE	1.8	1.6	3.1	4.0	4.3	3.3	2.6	3.7	3.3	2.3	2.0	2.1	2.8	**ESE**
SE	3.5	3.0	4.7	5.6	6.3	6.2	4.3	6.5	5.9	4.7	3.6	4.0	4.9	**SE**
SSE	5.0	5.8	6.5	6.4	7.6	8.3	6.3	7.8	7.5	7.2	6.4	6.6	6.8	**SSE**
S	15.3	17.1	15.4	12.2	10.7	13.1	13.4	12.9	15.2	15.7	15.1	18.0	14.5	**S**
SSW	4.9	4.7	4.6	4.0	4.3	4.9	6.0	5.1	5.5	5.5	5.4	4.8	5.0	**SSW**
SW	3.3	3.0	3.2	3.0	3.8	3.8	4.7	3.6	4.3	3.5	3.6	3.2	3.6	**SW**
WSW	3.2	2.5	2.4	2.5	2.9	3.5	4.8	3.7	4.5	3.7	3.4	2.9	3.3	**WSW**
W	10.1	7.8	6.7	4.4	4.6	6.8	9.9	8.1	9.0	8.0	8.8	8.8	7.8	**W**
WNW	10.1	7.8	7.4	4.9	4.1	5.4	7.2	6.8	6.9	6.8	7.6	8.2	6.9	**WNW**
NW	15.0	12.1	11.3	8.3	6.6	6.7	9.5	7.8	8.3	10.8	11.9	11.3	10.0	**NW**
NNW	8.1	8.5	7.5	7.5	6.9	6.0	7.0	6.3	6.4	8.3	8.8	7.4	7.4	**NNW**
Calm	2.4	3.4	2.7	2.1	2.3	2.6	3.2	4.2	2.4	2.5	3.2	2.8	2.8	**Calme**
MEAN WIND SPEED IN KILOMETRES PER HOUR / VITESSE MOYENNE DES VENTS EN KILOMÈTRES PAR HEURE														
N	20.9	20.8	24.3	23.7	22.5	19.5	16.3	17.9	19.8	21.0	22.2	22.4	20.9	**N**
NNE	18.4	16.8	21.2	23.4	22.2	19.0	15.6	17.0	18.3	18.9	19.1	18.9	19.1	**NNE**
NE	15.4	13.1	16.0	17.3	18.1	16.6	13.8	14.7	15.5	16.3	16.6	15.6	15.8	**NE**
ENE	14.5	11.8	15.0	18.3	16.8	15.3	12.8	14.3	15.9	14.7	15.0	14.4	14.9	**ENE**
E	15.3	14.7	18.0	19.6	18.5	15.7	13.6	14.9	16.9	15.3	15.5	15.7	16.1	**E**
ESE	17.4	16.6	18.6	21.8	19.3	17.6	15.0	17.0	17.5	17.7	17.2	18.3	17.8	**ESE**
SE	18.8	17.7	19.4	19.9	18.2	18.5	16.4	16.4	17.8	18.8	16.1	18.2	18.0	**SE**
SSE	20.1	19.9	21.7	21.2	20.8	20.5	18.2	18.6	20.0	21.7	19.7	20.3	20.2	**SSE**
S	22.7	23.3	22.7	22.6	22.7	20.8	18.2	18.6	21.3	22.5	22.5	22.9	21.7	**S**
SSW	14.9	15.7	16.5	19.1	19.6	17.3	15.9	16.5	17.8	18.5	17.0	15.5	17.0	**SSW**
SW	13.1	11.9	13.3	17.4	17.2	15.2	14.5	13.8	15.5	15.9	13.9	12.1	14.5	**SW**
WSW	13.3	12.9	13.9	17.2	18.1	16.1	15.2	14.5	16.9	16.2	15.2	12.5	15.2	**WSW**
W	15.7	14.4	14.4	18.1	18.2	17.2	15.9	16.5	16.7	17.8	16.9	15.0	16.4	**W**
WNW	16.8	16.4	18.1	19.4	21.0	17.9	16.5	17.7	19.1	19.5	19.5	16.7	18.2	**WNW**
NW	21.5	20.7	20.7	23.2	23.5	20.7	18.9	18.8	21.5	22.5	23.7	21.7	21.5	**NW**
NNW	23.2	22.2	21.5	24.6	24.9	20.8	18.0	18.3	21.4	23.3	24.9	22.9	22.2	**NNW**
All Directions														**Toutes directions**
	18.6	18.1	19.3	20.9	20.2	18.1	16.0	16.4	18.5	19.6	19.4	18.6	18.6	
Maximum Hourly Speed														**Vitesse horaire maximale**
	68 SVL	80 SVL	80 N	80 SVL	72 SVL	64 N	89 SE	72 SVL	68 NNW	77 NW	76 WNW	71 S	89 SE	
Maximum Gust Speed														**Vitesse maximale des rafales**
	98 NW	129 NW	113 N	106 N	109 NW	127 WNW	127 SSW	122 NW	98 SVL	102 NNW	124 WNW	89 NW	129 NW	

Height of anemometer 10.1 m hauteur de l'anémomètre

STATION INFORMATION

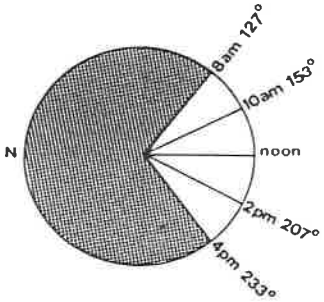
Airport is located on the west edge of the city in the broad flat Red River Valley.

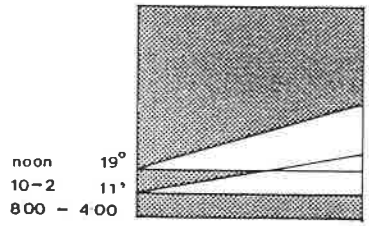
DONNÉES RELATIVES À LA STATION

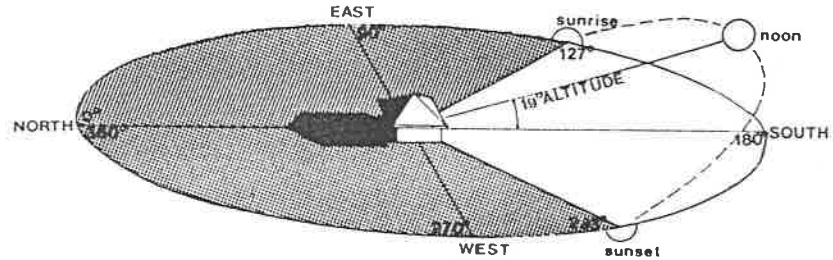
L'aéroport se trouve à la limite ouest de la ville, dans la vallée plate et large de la rivire Rouge.

AZIMUTH 49° 54′ ALTITUDE 49° 54 WINNIPEG

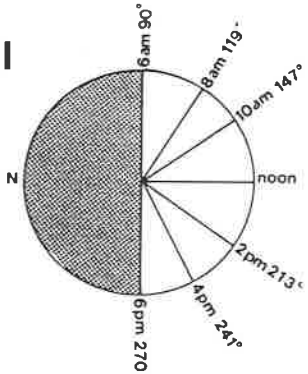
winter
DECEMBER 22

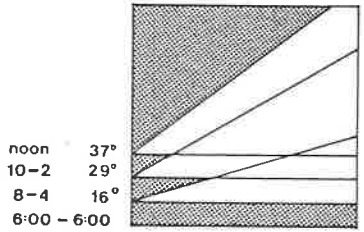


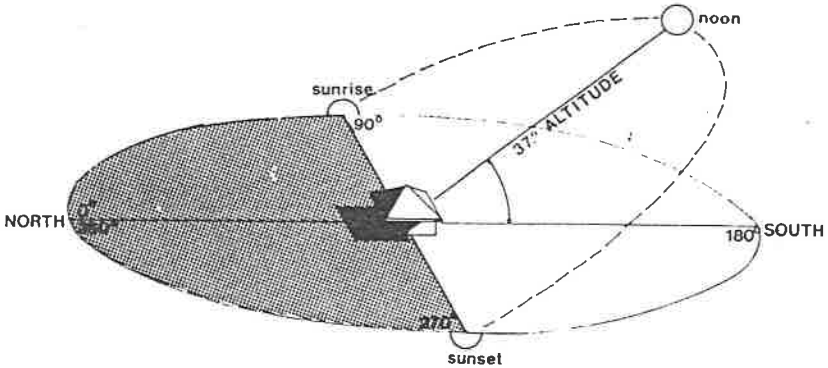




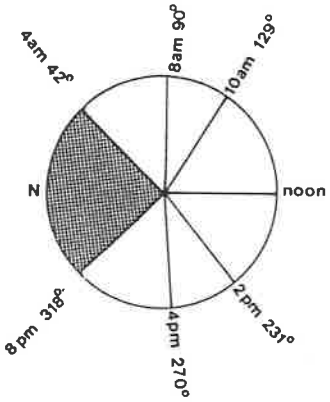
spring-fall
MARCH 21
SEPTEMBER 22

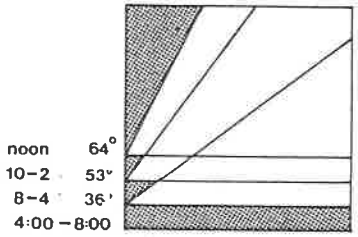


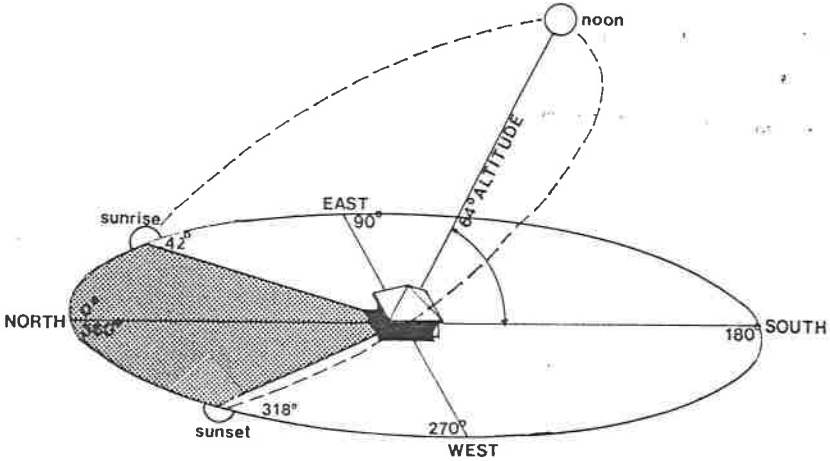




summer
JUNE 22







Sun Angles

National Center on Accessibility

NCA Links

The web sites listed below have been particularly helpful to the NCA staff. Each URL was tested prior to its listing and was functional at that time. If you should have difficulty in linking with a site or know that a URL has changed, please contact us at nca@indiana.edu.

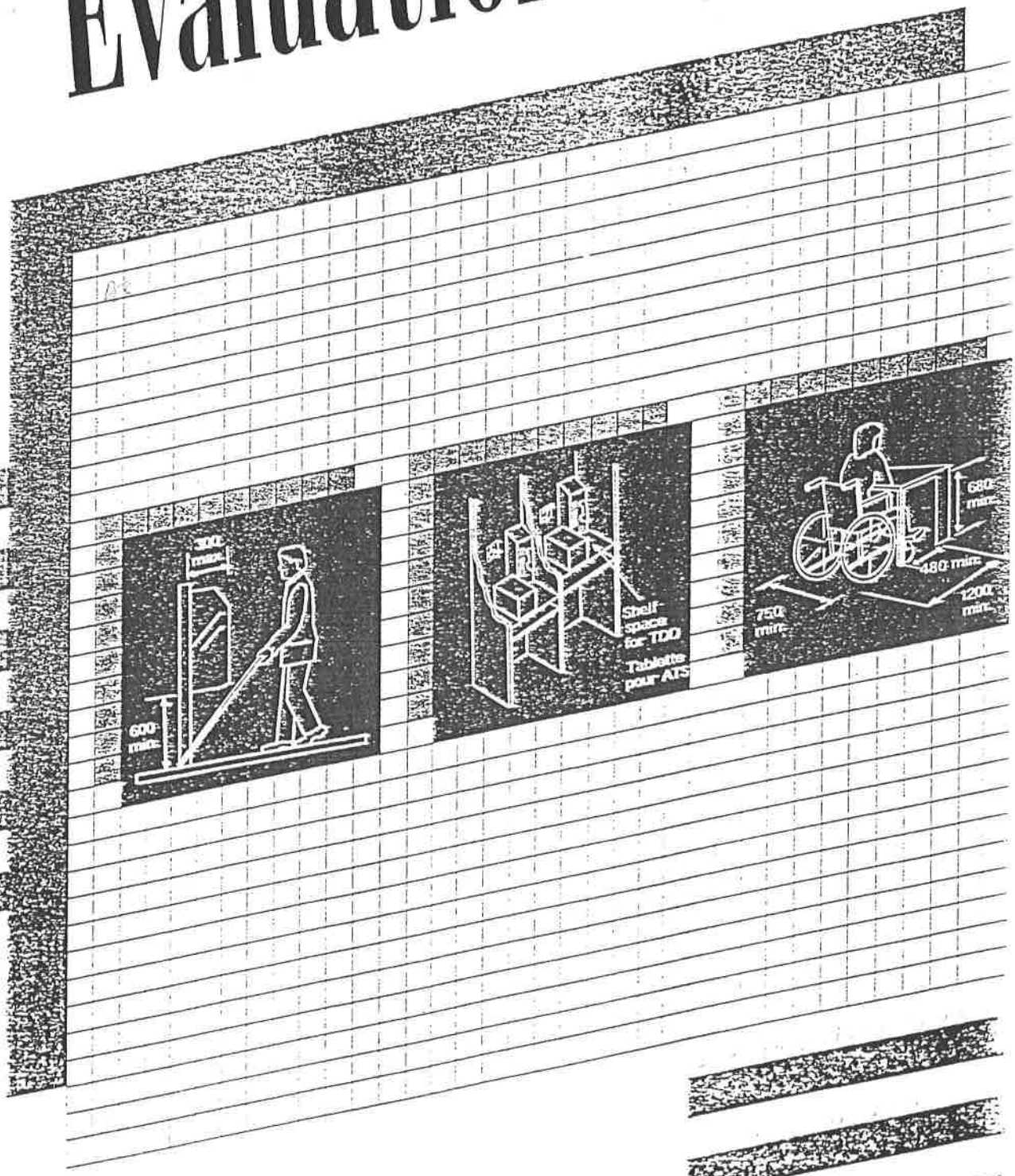
Accessibility Related Links

- Abledata
- ADA Infonet
- U.S. Access Board
- Wilderness Inquiry
- ADA Document Center
- Evan Kemp Associates
- Beneficial Designs, Inc.
- Center for Universal Design
- National Council on the Aging
- Life Options Rehabilitation Program
- U.S. Department of Justice Gopher Site
- Accessibility Data Management System
- Trace Research & Development Center
- Association of Disabled American Golfers
- Disability and Technical Assistance Centers
- National Center on Accessible Media (WGBH)
- Center for Inclusive Design and Environmental Access

Public Works and Government Services Canada

Travaux publics et Services gouvernementaux Canada

Accessibility Evaluation Guide



Hope Courtyard.

Universal Access Audit:

	COMPONENT	EXISTING	ADA STANDARDS	CSA STANDARDS	Comments
4) ACCESS ONTO DECK	DOOR: Width	32" clear opening	32" clear opening	31.5" clear opening	satisfactory 36" preferred
DOOR	DOOR: outside clearance depth.	60" clear space 90° angle	60" clear space	59" clear space	satisfactory
	DOOR SILL: clearance	.25" threshold sloped	1:2 slope max	1:2 bevel max	satisfactory
	DOOR HARDWARE	44" to P sturdy metal fixture - turn knob	48" above FF (MAX)	47.25" above FF (MAX)	satisfactory
	DOOR OPERATION	operable w/ one hand turn knob w/ lock must twist wrist.	should be oper w/ 1 hand w/out twisting wrist	no finger control tight grasping or twisting wrist.	replace hardware
	DOOR OPENING FORCE	opening force 6 lbs	Opening force of 5 lbs or less	38 Newtons or less	marginal.

COMPONENT	EX	ADA	CSA	comments.
B) DECK SPACE EXISTING	FLOOR MATERIAL ~~CONC DECK~~	conc. deck brush finish.	smooth textured finish hard surface pref. →	" good.
~~RAILING/ HANDRAIL~~	~~mahogony wood railing 1" depth 1" thickness on posts at 3' o.c~~			
Handrail location	continuous around all the edges of the deck & on stairs	must be continuous around elevated surface		satisfactory.
posts.	posts 3' o.c	post max 6" o.c no clearance for heads or arms		unsatisfactory replace railing
height	36" ht	34-38" ht	31 - 36.25" ht	satisfactory
diameter	rectangular 2x10' mahogony	rounded max 1.5" Ø	rounded max 1.5" Ø	unsatisfactory
ends	~~round~~ hard angled ends no rounded	rounded ends	rounded ends	unsatisfactory.

C. COURTYARD ACCESS	COMPONENT	EX	ADA ST.	CSA ST	comments.
	Ramp	Stairs	1:20 max	1:12 max	ramp required no access for wheelchairs ex.

look up → Stairs

D) paving.

Courtyard itself.

E) FIRE EXITS.	COMPONENT	EX	ADA ST	CSA ST	comments
	Access lane	3' lane	min 48"	min 48"	too narrow no turning R.
	Ramp	4 Stairs	ramp req @ major fire ex 1:20 max	ramp req @ major fire ex 1:12 max	does not meet code ramp req.

Appendix C

FOCUS GROUP SESSIONS (THE BASIC VERSION, IN A NUTSHELL)

Focus groups represent one kind of research tool.
They are a friendly and respectful method to gather qualitative information.

Your goal is to LISTEN and LEARN

- do not be an "expert" - let the participants be the experts

Focus Group Sessions are a Team Effort

the team consists of:

- moderator
- recorder (flip chart)
- note taker (if only two people are available, this is the position to do without)

THE PURPOSE OF A FOCUS GROUP TEAM IS TO:

1. Gather Information
2. Record Information
3. Analyze Information
4. Report Information

1. Know what you want to find out

- Questions / Topic Guide
- Consistency – if you are looking for the same information from all scheduled focus group sessions, ask the same questions of each group, in the same order

2. Recording Information

- Clarification of answers -- do not be afraid to ask participants for clarification if you think you are not understanding them - don't assume you know
- Constant check back – as the recorder writes the response, particularly if s/he has to paraphrase the response due to time or space constraints; whenever possible, use the participant's own words
- Involving participants – post-it exercise, one-to-one and smaller group break-outs
- Listing / rating / choosing alternatives – if some of your questions are suited to this. Be sure to have them prepared on flip chart paper ahead of time.

3. **Analyze Information**
   - Note taking
   - Flip chart record
   - Taped de-briefing with rest of team

4. **Report**
   - Verbatim report on each session, taken from flip charts and notes
   - Synthesis of information gathered at all sessions – trends, common concerns, etc.

STEPS IN A FOCUS GROUP SESSION

Preparation

1. prepare questions for all sessions as a group
2. do all flip chart preparation ahead of time
3. allow 30 – 45 minutes prior to session to get set up and mentally prepared

Starting the Focus Group Session

1. Introduce yourself, the recorder and the note taker
2. tell participants how long the session will last
3. provide background information – what you hope to accomplish with this session and with the project as a whole
4. remind participants that they may know one another, and will continue to have contact after the project is long over (in terms of disclosures)
5. explain your role as moderator
6. set the ground rules (see below)

Focus Group Questions

1. have participants introduce themselves by name and answer a brief introductory question (e.g. what is your favorite building in Souris?)
2. lead-in or transition questions
3. key questions or topics
4. closure – usually one wrap-up question

Finishing the Focus Group

1. ask if there are any questions from participants - only answer those you can. If you do not know an answer, say so, and say you will try to find out.

2. do not make any promises you cannot keep
3. have a feed-back mechanism worked out - when will participants find out results of these sessions and how.

Attributes of a Moderator

- understanding of group process
- curiosity
- communication skills
- friendliness
- sense of humour
- interest in people
- openness to new ideas / viewpoints
- listening skills

Role of Moderator

- welcome participants
- introduce focus group
- ask questions
- anticipate flow
- control your reactions
- be comfortable with silence
- probe as needed
- listen
- ensure participation
- summarize discussion

BE A MODERATOR, NOT A PARTICIPANT

Ground Rules

(examples only) – get group consensus at beginning of session / post them

- One person speaking at a time (recognized by moderator)
- No right or wrong answers or opinions
- Respect for other points of view
- No one has to speak if they do not wish to (although it should be emphasized that you would like to have everyone's input)
- Participants do not need permission to leave the room, if they need to do so, but should try not to be disruptive.

MATERIALS

- flip chart and paper
- masking tape / sticky stuff
- pens (lots)
- note pad & pens for note taker
- elastic bands
- name tags

GENERAL TIPS (in no particular order)

- do not use red or orange pen for recording – people with even mild sight impairment have particular difficulty seeing these two colours
- tear off a bunch of pieces of masking tape in preparation for the session, so you can hang the completed flip chart pages without disturbing the flow of questions / conversation too much
- hang the completed flip chart pages so people are aware of the answers already given (if space permits)
- watch body language for tension(s) arising, or to identify when participants are ready to contribute (if they are shy or nervous)
- you cannot offer participants anonymity in a focus group, but you can say you will make every effort to protect confidentiality (i.e. names / identifying information will not be used in the report)
- be aware of the potential for "over-disclosure" if sensitivities are aroused - take a break if this appears to be happening, or re-focus on the questions.

(DRAFT 1)

Hope Breast Cancer Information and Resource Centre
691 Wolsley Ave.
Winnipeg, Mb. R3G 1C3

Hope Breast Cancer Courtyard Focus Group
Introduction and Questionnaire Outline

Introduction

Hello my name is Monica Macra and I will be your facilitator this evening. I hope everyone is comfortable, if you have not yet done so please feel free to help yourself to the refreshments before we begin.

I want to begin by thanking all of you for coming, your participation this evening is very important in the sensitive and appropriate development of a healing garden. As you all know we have gathered here this evening to discuss the pros and cons of developing the courtyard behind you as a resource for Hope. The questions I will be asking all of you shortly, and which have been distributed to each of you, are meant to act as a framework for discussing the ideology and goals of a healing garden, and hopefully gaining a sense of direction for this project.

At this time I am going to begin recording our discussion, if anyone is uncomfortable with this please let me know now. Let me assure you that the rule of strict confidentiality applies to everything discussed here this evening. Your ideas will be used, but your identities will not be disclosed in any manner. If you would like a copy of the findings can be mailed to you through Hope.

Before we get underway, there are a few key points that will make this discussion a pleasant experience for all of us. You are not required to answer any questions you do not wish to, however I would like to remind you that your participation will determine the richness of this discussion. You are not required to answer in any specific order (ie around the table) this is more like a forum, but please remember to respect others while they are speaking so that everyone may be heard. And this is very important... Please remember there are no right or wrong answers only valid and useful opinions. We are here to gather as many diverse viewpoints as possible.

Warm Up Question

With that let me begin by asking each of you to tell us a little about yourself and how you came to be involved with Hope and specifically the Courtyard Project?

Body Questions

Q1 Lets begin with the existing courtyard. Could you explain the current use of the courtyard if any? Do you think the courtyard is currently a valued resource at hope?

Q2 This question is trying to define a user base for the garden. Who do you think will be the main user of the garden and why? Will this person be an active (helping to work and maintain the garden) or passive (enjoying the evolving product) participant?

Q3 The next question deals with using the courtyard. If it is developed your answers will help the design facilitate programming and maintenance for the space:

If the Courtyard was developed as an extension of Hope's support functions,

a) What are some of the important activities the space could facilitate (in a large group, small group, individually)

b) As people touched by cancer what kind of feelings should the courtyard support or inspire. (Eg. hope, peace, acceptance, invigoration)

Q4 Take a minute and imagine your ideal picture of a healing garden, remember at this time there is no price tag on the garden, we are developing a wish list. Now, tell us what physical attributes would the garden have in order to function as a magical place for healing. Follow up question (why this particular feature?)

Q5 Looking at all the responses from the last question (written on flip chart), flip your questionnaire over and write the first five features in descending order of importance, one being the most important.

Now lets see if we can reach a consensus, does anyone want to share their list?

Q6 (key question)
Considering all the functions of Hope, which you are much more familiar with than I am, should the courtyard be developed into a healing environment? Why? Why not? Remember there is no wrong answer.

Wrap Up Question
Take a minute to think about the ideas that have surfaced in the last hour. I would like to open the floor to you now. Any last comment or ideas? Have I missed any key issues you wanted to discuss tonight? Do you have any questions for me?

Conclusion

Thank you very much for coming tonight. Your ideas have been very informative and helpful. If you have anything else to add that you did not feel comfortable sharing with all of us please write it on the back of the question sheet and give me the sheet before you leave.

Thank you again and have a great night.

Courtyard Development
Focus Group Questions

Q1 Lets begin with the existing courtyard. Could you explain the current use of the courtyard if any? Do you think the courtyard is currently a valued resource at Hope?

Q2 This question is designed to begin defining a user base for the garden. Who do you think will be the main user of the garden and why? Will this person(s) be an active (helping to work and maintain the garden) or passive (enjoying the evolving product) participant?

Q3 The next question deals with using the courtyard. If it is developed your answers will help the design to anticipate and facilitate programming and maintenance for the space:

If the Courtyard was developed as an extension of Hopes' support functions,

a) What are some of the important activities (verb-actions) the space could facilitate (in a group, individually)

b) As people touched by cancer what kind of feelings (noun-mindset) do you think the courtyard should support or inspire. (Eg. hope, peace, acceptance, invigoration)

Q4 Take a minute and imagine your ideal picture of a healing garden, remember at this time there is no price tag on the garden, we are developing a wish list. Now, tell us what physical attributes would the garden have in order to function as a magical place for healing.

Q5 Looking at all the responses from the last question (written on flip chart), flip your questionnaire over and write the five crucial features in descending order of importance, one being the most important.

Q6 Considering all the functions of Hope, which you are much more familiar with than I am, should the courtyard be developed into a healing environment? Why? Why not? Remember there is **no** wrong answer.

Focus Group Results
Summary

In general the focus group had a positive outlook. A broad range of interests and conflicts regarding spending valuable resources raised by the Pink Ribbon classic were expressed. There was a general feeling among participants, especially breast cancer survivors, that developing a courtyard space is superseded by other priorities, namely library resources and support programs. All agreed the courtyard and a connection to the outdoor environment would improve quality of life for all Hope Users.

Amongst the major issues in the discussion, the underlying problems with developing the courtyard stemmed from cost and the uncertain future location of Hope itself. As a result the most important issues in the design of such courtyard came to be identified as economy and portability.

Is The Courtyard currently a resource?

- Very little lunch time, staff breaks
- Somewhat of an eye sore right now
- Rich history and tradition linked to the tree

Who uses the Courtyard?

-Patrons dealing with cancer	- in a more delicate mental and physical condition - greater environmental sensitivity
- Families dealing with cancer	-husbands, children, siblings
-Care givers	- employees, volunteers
-Maintenance staff	-volunteers, building engineer

How do these groups interact?

-sometimes	- alone - in a family group - in a counselling pair - in a counselling group

Activities foreseen for a successful courtyard

Active:	- gardening, weeding, watering, walking
Passive:	- viewing, sitting, listening, contemplating

With these in mind here is what you came up with:

Primary User Defined, Design Goals and Components

Goals

- Economical and safe
- Built by volunteers
- Portable yet non mobile
- Year round use (if possible)
- For viewing and participating
- For meeting or solitude
- Screening out bugs
- Retaining light qualities
- diminish noise pollution

Possible Components

- Enclosed three season area
- Deck area for meeting
- Lower area for viewing and gardening
- comfortable furnishings
- lighting
- water feature
- wildlife (not bugs)
- commemorative wall
- Elements of art

Fund Raising Ideas

- Spend a fin buy a brick/ plaque/ mosaic piece
- Donate a plant for Hope. (commemorative tags/ planting ceremony)
- Design Auction. Auction off parts of the design for support from the community and business sponsors.
- Business and Art community contacts - donations

Building The Garden as Therapy

Many of the focus group participants, especially the children and husbands of breast cancer survivors, expressed the desire to give back to Hope, or to help build the resource that was not available during their difficult times. These participants feel that such an activity would empower them and help them deal with this disease.

Final Remarks

These Focus Group Findings were assimilated in the following Design Concepts.

Courtyard Committee Members

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Hilderman, Thomas, Frank, Cram
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Fax: 957-1467

Val Graham
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Winnipeg, MB
Tel: 489-5315

Monica Macra
C/o Heather Cram
Tel: 944-9907 (wk) 261-4718 (hm)
Fax: 957-1467
(see above for address)

Sophie Munro
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MCTRF
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Appendix D

May31, 1999

Welcome to the Courtyard planning committee:

Thank you for agreeing to share your ideas and help us plan the courtyard at Hope Breast Cancer Information and Resource Centre. We are thrilled with the possibility of having a natural, peaceful, beautiful, and meaningful outdoor environment for the people that use Hope. The funds for the Courtyard have been generously donated by the Pink Ribbon Ladies Golf Classic.

I am forwarding you some reading materials that might be helpful as we start to think about the Courtyard development. These articles offer examples of the potential for this "garden space" (an area for solitude/reflection, a memorial garden, a place for "gardening therapy"). I have also enclosed a newspaper clipping that details the history of the grand elm tree located in the Centre of the Courtyard. I hope this information is useful and inspiring!

As Gaye discussed on the telephone, our first get together will be on Wednesday, June 9 at 6:30 p.m. at Hope Breast Cancer Information and Resource Centre (main level at 691 Wolseley Avenue). We will gather at Hope and look at the site and then have our meeting in the education classroom down the hall.

Once again, thank you so much for giving you time and ideas to this project. It will be wonderful to work together and witness the "fruits of our labor" in this potentially lovely setting.

I look forward to seeing you on the 9th. If you have any questions, please call me

Sincerely,

Kathy Thomson
Director, Hope Breast Cancer Information & Resource Centre

COURTYARD COMMITTEE MEETING
JUNE 9, 1999

MEMBERS:
Brenda Drystayko
Healther Cram
Interior Design Student?
Donna Swiston
Mark Basson
Catherine Tolton
Val Graham
Jackie Wilkie
Kathy Thomson

CORRESPONDING MEMBERS
Jill Taylor-Brown
Barbara Bilodeau-Shumeley

1. Introductions

- Outline for first meeting (meeting each other, background, setting theme or components, working toward a plan)

-Who are we and why interested in project?

2. Background:

- courtyard area - Sister Odilon's tree, MHC donation of space but may not be pernament so need to be mindful of this

-Pink Ribbon Golf Classic: 2years of fundraising = $25,000+

- Plans (McGowan Design Group)

- Original vision (Barb)

3. Components of "garden":

- peaceful environment (reflection garden - ?water)

-memorial (stones?, plants?)

- gardening therapy (maintenance?)

- counselling area (individual/class)

4. Plans for project:

- Draft plans: Who? By When?:

- Initial "projects"- remove pavers?

- furnishings?

- flowering plants in boxes or pots etc. for now?

5. Next meeting:

COURTYARD COMMITTEE MEETING
JUNE 9, 1999

MEMBERS:
Brenda Prystayko (regrets)
Heather Cram
Monica Marca
Donna Swiston
Mark Basson
Catherine Tolton (regrets)
Val Graham (regrets)
Jackie Wilkie (regrets)
Kathy Thomson

CORRESPONDING MEMBERS
Jill Taylor-Brown
Barbara Bilodeau-Shumeley

1. Introductions

- Outline for first meeting (meeting each other, background, setting theme or components, working toward a plan)
-Who are we and why interested in project?

2. Background:

- courtyard component of initial vision for Hope Resource and addressed at that time by implementation committee (health professionals, survivors, and designers)
- courtyard area - Sister Odilon's tree must not be harmed.
- MHC donation of space but may not be permanent so need to be mindful of this. If at all possible, components of garden need to be "portable" in the event that Hope is re-located
-all funds raised by Pink Ribbon Golf Classic (2years of fundraising = $25,000+)- member of committee a R.T. who approached Hope re funding of project
- Initial Plans (McGowan Design Group) : Committee reviewed option 1 and option 2 - designs require wheelchair ramp or lift to ensure accessibility for all. Accessibility components will increase cost significantly ($15,000-$20,000) and will impact on budget requiring need for additional fundraising. Upper area requires development as well - perhaps use area for "programs".

3. Components of "garden":

Discussed possible components including: peaceful environment (reflection garden - ?water); memorial (stones?, plants?); gardening therapy (maintenance?); and programs area.
-Monica discussed conducting focus group with 8-14 people re courtyard components and ideas for plan - will facilitate in conjunction with Kathy, analyze results, and develop a plan that includes these components (as practicum for Master's Degree).

4. Plans for project:

1) Conduct focus group- June 28 at 6:00 p.m. in main level classroom at 691 Wolseley.
- Kathy to invite participants - committee members, "survivors", family members, others who may be interested
2) Heather will speak with "Skills Unlimited" re patio furnishings and planters that can be used this year and integrated into overall plan
3) Committee to meet following focus group and discuss next steps

5. Next meeting: *Focus group June 28 at 6:00.*

Hope Breast Cancer Courtyard **Meeting No. 3**
Preliminary Concept Discussion and Brainstorming Session

Agenda:

1. • **Focus Group Results**

   • The possibility of conducting other focus groups as the project progresses. Why this is important.

2. • **Concept Presentation Options A and B**

   Ideas, pros, cons, special features, concerns
   • Discussion and Brainstorming
   Question and answer, group sketch exercise

3. • **Things I still need to track down with your help**

   • The official fire egress for the building
   • Structural drawings for the courtyard
   • South wall roof drain detail
   • Drainage plan and drainage pipes in the courtyard suspicion they are at each corner/ need to confirm
   • Possible materials donors and suppliers.

4. • **Other Issues**

   • If the screened area is constructed we will need to get building permits and more than likely hire a contractor for part of the job.
   • Liability for design. Since I am a student who will take responsibility for the design, especially if there are contractors and permits involved.

5. • **My plans for the next time we meet**

   • Refine and draft a preferred plan option/s from todays' discussion. Prepare a product library of materials being considered (with photographs) for review.
   • Calculate quantities and prepare a preliminary cost estimate for materials only. (no labour included)
   • Preliminary spreadsheet of how the labour could be divided and what types of skills our volunteers may need.

6. • ***Next Meeting on...***

Concept Plan A
Bridges of Hope Garden

Concept Statement

This design tries to capture the feeling of an elevated position simultaneously on the edge and within the courtyard. The bridge to nature is safe, celebrates the tree, and allows universal access in the limited space available. Wood decking allows people to sit on the edges or around the tree, dangling their feet into the 'sea' of plants.

The screened porch is designed so that the garden is visible when standing. The railing height allows groups to meet in the porch for private discussion extending the limited space at Hope for three seasons of the year. Interior plants, and a clear acrylic roof, help increase the sense of the outdoors within a bug free environment. The concrete screen within the porch is designed as a commemorative piece of stained glass that grows with Hope. It's interior location allows all users to enjoy it up close.

Plantings, water features, swing and wildlife attractors are designed into the garden in order to allow for a multi - sensory experience. The annual planters are small enough to be maintained and tended by interested gardeners, who wish to plant personal garden pots. The mass plantings are designed to be as maintenance free as possible. Lighting and texture makes the garden as special place at night, especially during the short days of the winter months.

Concept Plan A
Bridges of Hope Garden

Hard Components

- Screened deck porch.
- Floating bridge
- Recycled concrete planters
- Water fountain and pump
- Recycled concrete pavers
- Varied sizes of clay pots

Vegetation Components

- Groundcover close to windows
  goutweed, periwinkle
- Shade tolerant deciduous shrubs
  large and small scale
- Shade tolerant coniferous shrubs
  juniper varieties
- Perennials and creeping herbs
  hosta, daylliliy, asiatic lily,
  thyme, mint, lavender
- Annuals and vines in planter boxes,
  clay pots and raised concrete platers
  annuals by participants
- Vines -Ivy
- Interior plants

Lighting, Furniture and Art

- Wicker, Wood, Iron, patio furniture
- Outdoor swing or bench
- Light strings on trellis
- Japanese Lanterns on steel brackets
- Wind Chimes, Seed Feeders
- Memorial wall /mosaic on concrete screen
  in screened porch
- Sculptural Element if donated
  or created by Hope volunteers

Concept Plan B
The Secret Garden

Concept Statement

This design tries to capture the feeling of privacy and comfort attained in your own backyard. The paving pattern and circulation are designed in an informal manner, to sperate spaces and screen out the fish bowl effect of the current courtyard condition. Pavers could be reclaimed or interlocking. Loose spacing allows herbs and ground covers to form a soft carpet. Etched plexiglass screens, that could be made by donation of time and materials provide semi opaque and transparent visual shelter for users. They also serve as sculptural elements.

The screened porch is designed so that the garden is visible when standing. The railing height allows groups to meet in the porch for private discussion extending the limited space at Hope for three seasons of the year. Interior plants and a clear acrylic roof help increase the sense of the outdoors within a bug free environment.

Plantings, water features, swing, wind chimes and bird baths are designed into the garden in order to allow for a multi - sensory experience. The two exterior concrete screens are used as commemorative walls intertwined with a mosaic of plaques, ivy and small white lights. The mass plantings are designed to be as maintenance free as possible. Lighting and texture makes the garden as special place at night, especially during the short days of the winter months.

Concept Plan B
The Secret Garden

Hard Components

- Screened deck porch.
- Recycled , re-shaped pavers
  or new interlock
- Etched plexi-glass screens
- Rain barrel
  naturally driven waterfall spout
- Varied sizes of clay pots

Vegetation Components

- Groundcover close to windows
  goutweed, periwinkle
- Shade tolerant deciduous shrubs
  large and small scale
- Shade tolerant coniferous shrubs
  juniper varieties
- Perennials and creeping herbs
  hosta, dayliliy, asiatic lily,
  thyme, mint, lavender
- Annuals and vines in planter boxes,
  clay pots and raised concrete platers
  annuals by participants
- Vines -Ivy
- Interior plants

Lighting, Furniture and Art

- Wicker, Wood, Iron, patio furniture
- Outdoor swing or bench
- Light strings on trellis
- Japanese Lanterns on steel brackets
- Wind Chimes, Bird Baths
- Memorial wall/ mosaic on concrete
  screens outside
- Sculptural Element if donated
  or created by Hope volunteers

Hope Breast Cancer Courtyard **Meeting No.4**
Preliminary Concept Discussion and Brainstorming Session

Agenda:

1. • **Amalgamated Concept**

   Presentation and comparison to previous
   Discussion

2. • **Product Discussion**

   Ideas, pros, cons, special features, concerns
   Discussion and Brainstorming

3. • **Cost Estimate Breakdown**

   Cost Estimate includes all components
   Cost Estimate does not include extra permits
   Contractors
   Sponsors

4. • **Project Time Line**

   Design, Events and Construction

5. • **Engineering, Legal Issues**

   Looking for a volunteer Engineer to do what we are doing on the design side
   Liability and responsibility issues

6. • **Work Plan For Next meeting**

7. • ***Next Meeting on...***

Concept Plan 6
Combining The Bridges of Hope Garden and The Secret Garden
We Need A Name?

Concept Statement

This new combination design tries to balance the need for access with the need for privacy. Users can capture the feeling of an elevated position from the deck where they are both on the edge and within the courtyard. The deck is safe, celebrates the tree, and allows universal access in the limited space available. Planters and seats allow people to sit and observe the 'sea' of plants.

The design tries to capture the feeling of privacy and comfort attained in your own backyard. The paving pattern and circulation are designed in an informal manner, to sperate spaces and screen out the fish bowl effect of the current courtyard condition. Loose spacing allows herbs and ground covers to form a soft carpet. Etched plexiglass screens, that could be made by donation of time and materials provide semi opaque and transparent visual shelter for users. They also serve as sculptural elements.

The screened porch is designed so that the garden is visible when standing. The railing height allows groups to meet in the porch for private discussion extending the limited space at Hope for three seasons of the year. Interior plants, and a clear acrylic roof, help increase the sense of the outdoors within a bug free environment. Glass windows and a solid door Enclose the courtyard discouraging vandalism. The concrete screen within the porch will be designed as a mosaic of commemorative pieces of stained glass. As it grows with Hope, the Wall of Hope's interior location allows all users to enjoy it up close.

Plantings, water features, a swing-glider and wildlife attractors are designed into the garden in order to allow for a multi - sensory experience. The annual planters are small enough to be maintained and tended by interested gardeners, who wish to plant personal garden pots. The mass plantings are designed to be as maintenance free as possible. Lighting and texture makes the garden as special place at night, especially during the short days of the winter months.

Concept Plan C
Bridges of Hope Garden

Hard Components

- Screened deck porch.
- Accessible Deck
- Concrete Fountain Base
- Water fountain and pump
- Recycled concrete pavers
- Varied sizes of clay pots

Vegetation Components

- Groundcover close to windows
  goutweed, periwinkle
- Shade tolerant deciduous shrubs
  large and small scale
- Shade tolerant coniferous shrubs
  juniper varieties
- Perennials and creeping herbs
  hosta, dayliliy, asiatic lily,
  thyme, mint, lavender
- Annuals and vines in planter boxes,
  clay pots and raised concrete platers
  annuals by participants
- Vines -Ivy
- Interior plants

Lighting, Furniture and Art

- Patio Furniture
- Outdoor swing-glider
- Light strings on trellis
- Japanese Lanterns on steel brackets
- Plexiglass Screens
- Wind Chimes, Seed Feeders
- Memorial wall /mosaic on concrete screen
  in screened porch
- Sculptural Element if donated
  or created by Hope volunteers

Hope Breast Cancer Courtyard **Meeting No.5**
Getting things back on track

Agenda:

1. • **Modified Concept**

   Presentation and comparison to previous
   Discussion

2. • **Product Discussion**

   Ideas, pros, cons, special features, concerns
   Discussion and Brainstorming

3. • **Cost Estimate Breakdown**

   Cost Estimate includes all components
   Cost Estimate does not include extra permits
   Contractors
   Sponsors

4. • **Revisiting The Project Time Line**

   Design, Events and Construction

5. • **Engineering, Legal Issues**

   Looking for a volunteer Engineer to do what we are doing on the design side
   Liability and responsibility issues

6. • **Work Plan For Next meeting**

7. • ***Next Meeting on...***

Concept Plan D
Design Modifications and Refinements

Concept Statement

This new combination design tries to balance the need for access with the need for privacy. Users can capture the feeling of an elevated position from the deck where they are both on the edge and within the courtyard. The deck is safe, celebrates the tree, and allows universal access in the limited space available. Planters and seats allow people to sit and observe the 'sea' of plants.

The design tries to capture the feeling of privacy and comfort attained in your own backyard. The paving pattern and circulation are designed in an informal manner, to sperate spaces and screen out the fish bowl effect of the current courtyard condition. Loose spacing allows herbs and ground covers to form a soft carpet. Etched plexiglass screens, that could be made by donation of time and materials provide semi opaque and transparent visual shelter for users. They also serve as sculptural elements.

The screened porch is designed so that the garden is visible when standing. The railing height allows groups to meet in the porch for private discussion extending the limited space at Hope for three seasons of the year. Interior plants, and a clear acrylic roof, help increase the sense of the outdoors within a bug free environment. Glass windows and a solid door Enclose the courtyard discouraging vandalism. The concrete screen within the porch will be designed as a mosaic of commemorative pieces of stained glass. As it grows with Hope, the Wall of Hope's interior location allows all users to enjoy it up close.

Plantings, water features, a swing-glider and wildlife attractors are designed into the garden in order to allow for a multi - sensory experience. The annual planters are small enough to be maintained and tended by interested gardeners, who wish to plant personal garden pots. The mass plantings are designed to be as maintenance free as possible. Lighting and texture makes the garden as special place at night, especially during the short days of the winter months.

Concept Plan D
Bridges of Hope Garden

Hard Components

- Screened deck porch.
- Accessible Deck
- Concrete Fountain Base
- Water fountain and pump
- Recycled concrete pavers
- Varied sizes of clay pots

Vegetation Components

- Groundcover close to windows
  goutweed, periwinkle
- Shade tolerant deciduous shrubs
  large and small scale
- Shade tolerant coniferous shrubs
  juniper varieties
- Perennials and creeping herbs
  hosta, dayliliy, asiatic lily,
  thyme, mint, lavender
- Annuals and vines in planter boxes,
  clay pots and raised concrete platers
  annuals by participants
- Vines - I v y
- Interior plants

Lighting, Furniture and Art

- Patio Furniture
- Outdoor swing-glider
- Light strings on trellis
- Japanese Lanterns on steel brackets
- Plexiglass Screens
- Wind Chimes, Seed Feeders
- Memorial wall /mosaic on concrete screen
  in screened porch
- Sculptural Element if donated
  or created by Hope volunteers

Hope Breast Cancer Courtyard
Sunroom Development
One Last Time With Feeling

Meeting No.6
November 22, 2000

Agenda:

1. • **SUNROOM DESIGN UPDATE**

   - Changes to the design and how they have come to be required.
   - Opportunities created by the additional degree of finish
   - What needs to be done to finish the drawing package
   - Electrical expertise now needed, Ken Green next week.

2. • **CITY ZONING AND CONSTRUCTION REQUIREMENTS**

   - Package
   - Letters
   - Zoning Variance
   - Items from HOPE and Miserecordia to be included in package

3. • **MATERIALS AND PRODUCTS**

   - New Products
   - Old Products
   - Decisions, Decisions, Decisions

4. • **THREE SEASON VS FOUR SEASON**

   - Why I think we need to stick with the 3 season solution
   - Discuss

5. • **BUDGET**

   - Revised Sunroom cost estimate, for fund-raising purposes
   - NB. Prices are still estimates, I am beginning the process of confirming costs and getting quotes
   - Division of solicitation tasks, focused on the sunroom

6. • **WHERE DO WE GO FROM HERE?**

   - Timeline and tasks

7. • **NEXT MEETING ON...**

Hope Breast Cancer Resource Centre
Miserecordia Health Centre

August 29,1999
Possible Contractors

Landscape Contractors

1 McEwen Bros
2 Kro Bert
3 Schrimers
4 St. Marys
5 Three Seasons
6 Second Nature
7 Kackenhoffs
8 Blanchard
9 Beaucage
10 D & B
11 A & T

Plumbing and Electrical Contractors

1
2
3

Carpenters and Carpentry resources

1
2
3
4
4

Possible Donors

1 Lowen Windows
2 Wilmar Windows
3 Cedar Creek Woodworks
4 Skills Unlimited
5 Speedy Autoglass
6 Habitat for Humanity
7 St. Mary's
8 Schelmerdenes
9 McDirmid Lumber
10 Home Depot
11 Ikea
12 Private Artists/Sculptors
13 Daytech manufacturing Ltd.
14 Prescision Metalcraft Ltd.
15
16
17
18
19
20
21

Volunteer Groups

1 Hope Breast Cancer Users and Families
2 Hope Volunteers
3 U of M Landscape Arch Students
4

Hope Breast Cancer Resource Centre
Miserecordia Health Centre

7-Mar-00
Preliminary Cost Estimate

Item	Description	Quantity	Unit	Price	Contract/ Volunteer	Total
						PHASE I Hard Components
A	**Demolition, and Salvage**					
1	Removal and salvage of pavers	1	l.s	1000	contract	1000.00
2	Power wash re-usable pavers	1	l.s	300.00	contract	300.00
3	Strip mahogany railing	1	l.s	~~200.00~~ 800	contract	200.00
					Subtotal	~~$1,500.00~~ 1800
B	**Site Prep, Drainage and Paving**					
1	Compact and level subgrade	266	sq.m.	2.00	contract	532.00
2	Clean existing drainage pipes	1	l.s.	100.00	Mis. maint. staff	100.00
3	Install new weeping tile	33.5	l.m.	12.00	contract	402.00
4	300mm topsoil for new planting areas	50	cu.m.	17.00	contract	850.00
5	150mm gravel base	87	sq.m.	10.00	contract	870.00
6	75mm sand base for re-installed paving	4.2	cu.m	20.00	contract	84.00
7	Labour for re-installation of conc. pavers	60	sq.m.	6.00	contract	360.00
8	Drip irrigation for planter boxes (- copy hydro)	1	l.s.	500.00	contract or volunteer	~~500.00~~
					Subtotal	**$6,698.00** 6 198
C	**Three Season Room**					
1	Wood framing supply and install	1	l.s.	7,000.00	contract	7,000.00
2	Lexan roof system supply and install	1	l.s.	3,000.00	contract	3,000.00
3	North side safety windows	5	ea	150.00	contract	750.00
4	North side safety door	1	ea	200.00	contract	200.00
5	South side screen door	1	ea	80.00	volunteer install	80.00
6	South side screen windows	4	ea	60.00	volunteer install	240.00
7	~~Re-finish Railing to meet code~~	~~1~~	~~l.s.~~	~~300.00~~	volunteer install	~~300.00~~
					Subtotal	**$11,570.00**
D	**Deck Area**					
1	Deck Piles	2	ea	150.00	contract	4500 ~~300.00~~
2	Framing and Decking	25.6	sq.m.	30.00	contract	768.00
					Subtotal	~~$1,068.00~~ 1218
E	**Water Feature**					
	Barkman concrete basin and Steel Spout	1	l.s.	200.00	volunteer install	$200.00
e.	Water Pump and Accessories	1	ea	300.00	contract	$300.00
	Tap into existing waterline	1	l.s.	300.00	contract	$300.00
					Subtotal	**$800.00**

* double check *

MERICA

* Donna & Leslie *

PHASE II Soft Components

F Planting

1	Carpet Juniper	11	ea	30.00	volunteer install	330.00
2	Lilac	20	ea	22.00	volunteer install	440.00
3	Alpine Currant	15	ea	18.00	volunteer install	270.00
4	Dogwood	5	ea	22.00	volunteer install	110.00
5	Hosta	22	ea	10.00	volunteer install	220.00
6	Daylily	21	ea	12.00	volunteer install	252.00
7	Lilly of the Valley	5	ea	4.00	volunteer install	20.00
8	Lupins	10	ea	5.00	volunteer install	50.00
9	Engelman's Ivy	20	ea	8.00	volunteer install	160.00
10	Bishops Goutweed	18	ea	4.00	volunteer install	72.00
11	English Ivy	4	ea	15.00	volunteer install	60.00
12	Ferns	10	ea	4.00	volunteer install	40.00
					Subtotal	**$2,024.00**

Hope Volunteers

G Site Furnishings and Accessories

1	Round Table and Chairs	1	set	800.00	volunteer install	650.00
2	Couch and Armchair	1	set	800.00	volunteer install	800.00
3	Glider	1	ea	500.00	volunteer install	500.00
4	Patio Chairs	2	ea	50.00	volunteer install	100.00
5	Plexiglass Screens	4	ea	100.00	volunteer install	600.00
6	Wall of Hope	1	allow	250.00	volunteer install	250.00
7	Planter Boxes	12	ea	20.00	volunteer install	240.00
8	Clay Pots	7	avg	30.00	volunteer install	210.00
9	Outdoor String Lighting	4	ea	25.00	volunteer install	100.00
10	Japanese Lanterns and Brackets	2	ea	100.00	volunteer install	200.00
11	Wind Chimes	1	ea	80.00	volunteer install	80.00
12	Bird Feeders	3	ea	20.00	volunteer install	60.00
					Subtotal	**$3,790.00**

Susan. Kathy Jackie. Monica. Mom/Heather. (Skill unlimited). Blue Hen. Donna. Susan.

	SUBTOTAL	$27,450.00
	5% Contingency	$1,372.50
H	**TOTAL COST**	***$28,822.50***
	Money that could be donated in the form of an item	$5,214.00
	Total Cost if all these items are donated	$22,236.00

Hope Breast Cancer Resource Centre
Miserecordia Health Centre

15-Jun-00
Progress Cost Estimate

PHASE I - SUNKEN AREA

Item	Description	Quantity	Unit	Price	Contract/ Volunteer	Total
	Demolition, and Salvage					PHASE I Hard Components
1	Removal of pavers, and railing section	1	l.s	500	contract	750.00
2	Power wash building and concrete deck	1	l.s	100.00	Miserecordia	100.00
4	Clean existing drainage pipes	1	l.s.	0.00	Miserecordia	0.00
					Subtotal	**$850.00**
	Site Prep, Drainage and Paving					
1	Compact and level subgrade	77	sq.m.	2.00	contract	154.00
3	300mm topsoil for new planting areas	30	cu.m.	17.00	contract	510.00
4	150mm gravel base	42	sq.m.	10.00	contract	420.00
5	75mm sand base for re-installed paving	2	cu.m	20.00	contract	40.00
6	Labour forinstallation of conc. pavers	34	sq.m.	6.00	contract	204.00
7	Residential Drip Irrigation System	1	allow	1,100.00	contract	1,100.00
					Subtotal	**$4,128.00**
	Deck Area					
1	Concrete Pads	4	ea	40.00	contract	160.00
2	Framing and Decking	8	sq.m.	200.00	contract	1,600.00
3	Raised Planters & Seat	3.5	sq.m.	250.00	contract	875.00
					Subtotal	**$2,635.00**
	Water Feature					
1	Barkman Concrete Basin and Steel Spout	1	l.s.	210.00	contract	210.00
2	Water Pump and Accessories	1	ea	190.00	contract	190.00
3	Basin and Liner Installation	1	l.s.	200.00	contract	200.00
					Subtotal	**$600.00**
	Irrigation					
1	Supply and Install Irrigation System	1	l.s.	1,100.00	contract	$1,100.00
					Subtotal	**$1,100.00**

TOTAL COST HARD LANDSCAPE ***$9,313.00***

PHASE I - SUNKEN AREA CONTINUED

						PHASE I Soft Components
	Shrub Bed Planting					
1	Plants for planting day	1	l.s.	1,000.00	volunteer install	$1,000.00
					Subtotal	**$1,000.00**
	Planters and Furnishings					
1	Rectangular Ledge Planters	8	ea	18.70	volunteer install	149.60
2	Swing/ Glider	1	ea	0.00	contractor	0.00
3	Patio Chairs	2	ea	140.00	volunteer install	280.00
4	Small Bench	1	ea	75.00	volunteer install	75.00
5	Plexiglass Screens (w/ base installation)	4	ea	425.00	constract	1,700.00
6	Outdoor String Lighting and Colour Bulbs	1	l.s	50.00	volunteer install	50.00
					Subtotal	**$2,254.60**
					TOTAL COST SOFT LANDSCAPE & FURNITURE	***$3,254.60***

	SUBTOTAL	$12,567.60
	5% Contingency	$628.38
H	**TOTAL COST PHASE I**	***$13,195.98***

Bridges of Hope Courtyard
Miserecordia Health Centre

13-Jul-00
Progress Cost Estimate

Phase I Courtyard and Phase II Sunroom

Item	Description	Q	U	Price	Who	Total
	Demolition, and Salvage					
1	Power Washing	1	l.s	125.00	Scotty's	125.00
					Subtotal	**$125.00**
	Site Prep, Drainage and Paving					
1	Paving Installation	34	sq.m.	0.00	J & D Penner	0.00
2	Shrub bed Topsoil (300mm)	15	cu.yd.	12.00	Volunteer	180.00
					Subtotal	**$430.00**
	Deck Area					
1	Deck Permit	1	l.s.	50.00	City	50.00
2	Deck Material	8	sq.m.	255.00	McDiarmid	2,040.00
3	Deck Installation	1	l.s	2,500.00	Riverwood	2,500.00
					Subtotal	**$4,590.00**
	Water Feature					
1	Fountain Basin	1	l.s.	210.00	Barkman	210.00
2	Fountain Supply and Install	1	l.s.	0.00	Shelmerdine	0.00
					Subtotal	**$210.00**
	Shrub Bed Planting					
1	Plant Material	1	l.s.	1,000.00	Schrimers	$1,000.00
					Subtotal	**$1,000.00**
	Planters and Furnishings					
1	Rectangular Window Boxes	8	ea	18.00	Skills	144.00
2	Glider	1	ea	0.00	Skills	0.00
3	Patio Chairs	2	ea	125.00	Skills	250.00
4	Small Bench	1	ea	75.00	Skills	75.00
5	Plexiglass Screens (w/ base installatio	4	ea	360.00	3F & Precisior	1,440.00
6	Outdoor String Lighting and Colour Bulbs	1	l.s	50.00	volunteer	50.00
7	Garden Hose and Accessories	1	l.s	25.00	volunteer	25.00
					Subtotal	**$1,984.00**
					SUBTOTALCOST PHASE 1	***$8,339.00***
					PST	$583.73
A					**TOTAL COST PHASE I**	***$8,922.73***
	Three Season Room					
1	City Permits	1	allow	150.00	City	150.00
2	Demolition	1	allow	0.00	volunteer	0.00
3	Framing System Supply and Install	1	l.s.	13,500.00	ABESCO	13,500.00
4	Window and Door Supply and Install	1	l.s.	1,000.00	Wilmar	1,000.00
5	Siding and Roof Supply and Install	1	l.s	3,300.00	Tri Clad	3,300.00
6	Electrical Work	1	allow	500.00	volunteer	500.00
7	Furniture	1	allow	500.00	Dufresne	500.00
8	Alarm System	1	allow	500.00	volunteer	500.00
9	Comemoration Plaque	1	allow	200.00	volunteer	200.00
					SUBTOTAL SUNROOM	***$19,650.00***
					PST	$1,375.50
B					**TOTAL COST PHASE II**	***$21,025.50***
C	***TOTAL COST OF PROJECT***					***$29,948.23***

Bridges of Hope Courtyard
Miserecordia Health Centre

14-Aug-00
Progress Cost Estimate

Phase I Courtyard Invoiced

Item	Description	Q	U	Price	Who	Total
	Demolition, and Salvage					
1	Power Washing	1	l.s	107.00	Scotty's	107.00
					Subtotal	**$107.00**
	Site Prep, Drainage and Paving					
1	Paving Installation and pavers	34	sq.m.	0.00	JD/ Barkman	0.00
2	Shrub bed Topsoil (300mm)	1	l.s	172.54	Volunteer	172.54
					Subtotal	**$386.54**
	Deck Area					
1	Deck Permit	1	l.s.	86.00	City	86.00
2	Deck Material	1	l.s.	1,807.78	McDiarmid	1,807.78
					Subtotal	**$1,893.78**
	Water Feature					
1	Fountain Basin, and Screen Bases	1	l.s.	334.56	Barkman	334.56
2	Fountain Supply and Install	1	l.s.	0.00	Shelmerdine	0.00
					Subtotal	**$334.56**
	Shrub Bed Planting					
1	Plant Material	1	l.s.	950.73	Schrimers	$950.73
					Subtotal	**$950.73**
	Planters and Furnishings					
1	Rectangular Window Boxes	1	l.s.	210.00	Skills	210.00
2	Plexiglass Screens (w/ base installatic	1	l.s.	1,527.60	BF & Precisior	1,527.60
3	Garden Hose and Accessories	1	l.s	12.00	volunteer	12.00
4	Painting Supplies	1	l.s.	75.00	volunteer	75.00
					Subtotal	**$1,824.60**
					SUBTOTALCOST PHASE 1	***$5,497.21***

Phase I Courtyard To Be Invoiced

1	Deck Installation	1	l.s	2,500.00	Riverwood	2,500.00
2	Glider	1	ea	400.00	Skills	400.00
3	Patio Chairs	2	ea	75.00	Skills	150.00
4	Small Bench	1	ea	75.00	Skills	75.00
5	Outdoor String Lighting and Colour Bulbs	1	l.s	50.00	volunteer	50.00 - not nec this yr.
					Subtotal	**$3,175.00**

A	**TOTAL COST PHASE I**	***$8,672.21***

	Three Season Room					
1	City Permits	1	allow	150.00	City	150.00
2	Demolition	1	allow	0.00	volunteer	0.00
3	Framing System Supply and Install	1	l.s.	13,500.00	ABESCO	13,500.00
4	Window and Door Install	1	l.s.	1,000.00	???	1,000.00
5	Siding and Roof Supply and Install	1	l.s	3,300.00	Tri Clad	3,300.00
6	Electrical Work	1	allow	500.00	volunteer	500.00
7	Furniture	1	allow	500.00	Dufresne	500.00
8	Alarm System	1	allow	750.00	volunteer	750.00 - should be sep budget.

	SUBTOTAL SUNROOM	***$19,700.00***
	PST	$1,379.00
B	**TOTAL COST PHASE II**	***$21,079.00***
C	***TOTAL COST OF PROJECT***	***$29,751.21***

Bridges of Hope Courtyard
Miserecordia Health Centre

23-Aug-00
Progress Cost Estimate

Phase I Courtyard Invoiced

Item	Description	Q	U	Price	Who	Total
	Demolition, and Salvage					
1	Power Washing	1	l.s	107.00	Scotty's	107.00
					Subtotal	**$107.00**
	Site Prep, Drainage and Paving					
1	Paving Installation and pavers	34	sq.m.	0.00	JD/ Barkman	0.00
2	Shrub bed Topsoil (300mm)	1	l.s	172.54	Volunteer	172.54
					Subtotal	**$386.54**
	Deck Area					
1	Deck Permit	1	l.s.	86.00	City	86.00
2	Deck Material	1	l.s.	1,807.78	McDiarmid	1,807.78
					Subtotal	**$1,893.78**
	Water Feature					
1	Fountain Basin, and Screen Bases	1	l.s.	334.56	Barkman	334.56
2	Fountain Supply and Install	1	l.s.	0.00	Shelmerdine	0.00
					Subtotal	**$334.56**
	Shrub Bed Planting					
1	Plant Material	1	l.s.	950.73	Schrimers	$950.73
					Subtotal	**$950.73**
	Planters and Furnishings					
1	Rectangular Window Boxes	1	l.s.	210.00	Skills	210.00
2	Plexiglass Screens (w/ base installatic	1	l.s.	1,527.60	BF & Precisior	1,527.60
3	Garden Hose and Accessories	1	l.s	12.00	volunteer	12.00
4	Painting Supplies	1	l.s.	75.00	volunteer	75.00
					Subtotal	**$1,824.60**
				SUBTOTALCOST PHASE 1		***$5,497.21***

Phase I Courtyard To Be Invoiced

1	Deck Installation	1	l.s	2,500.00	Riverwood	2,500.00
2	Glider	1	ea	400.00	Skills	400.00
3	Patio Chairs	2	ea	75.00	Skills	150.00
4	Small Bench	1	ea	75.00	Skills	75.00
5	Outdoor String Lighting and Colour Bulbs	1	l.s	50.00	volunteer	50.00
					Subtotal	**$3,175.00**
A				**TOTAL COST PHASE I**		***$8,672.21***
	Three Season Room					
1	City Permits	1	allow	150.00	City	150.00
2	Demolition	1	allow	0.00	volunteer	0.00
3	Framing System Supply and Install	1	l.s.	13,500.00	ABESCO	13,500.00
4	Window and Door Install	1	l.s.	1,000.00	???	1,000.00
5	Siding and Roof Supply and Install	1	l.s	3,300.00	Tri Clad	3,300.00
6	Electrical Work	1	allow	500.00	volunteer	500.00
7	Furniture	1	allow	500.00	Dufresne	500.00
8	Alarm System	1	allow	750.00	volunteer	750.00
				SUBTOTAL SUNROOM		***$19,700.00***
				PST		$1,379.00
B				**TOTAL COST PHASE II**		***$21,079.00***
C	***TOTAL COST OF PROJECT***					***$29,751.21***

Bridges of Hope Courtyard
Miserecordia Health Centre

22-Nov-00
Progress Cost Estimate

Phase II Sunroom Construction

Current Account Balance - with outstanding Phase I Items **$ 21,000.00**

Item	Description	Q	U	Price	Who		Total		
A	**Permits and Approvals**								
1	Building Permit	1	each	120.00	City	$	120.00		
2	Zoning Variance	1	each	305.00	City	$	305.00		
						$	425.00		
					GST	$	29.75		
						$	454.75	$	20,545.25
B	**Framing and Cladding**								
1	Demolition	1	l.s.	300.00	Abesco	$	300.00		
2	Railing Adjustment	1	l.s	400.00	Riverwood	$	400.00		
3	Framing System (S & I)	1	l.s	15,000.00	Abesco	$	15,000.00		
4	Siding and Roof (S & I)	560	sq ft.	7.00	Tri Clad	$	3,920.00		
5	Windows Supply (safety glass)	3	allow	150.00	AFG Glass	$	450.00		
6	Windows and Doors Installed	1	l.s.	1,000.00	Riverwood	$	1,000.00		
7	Fire Door Hardware Installed	1	l.s	250.00	Pro Finish	$	250.00		
8	Fire Retardant Drywall (S & I)	300	sq ft.	5.00	Riverwood	$	1,500.00		
						$	22,820.00		
					GST	$	1,597.40		
						$	24,417.40	$	(3,872.15)
								$	(387.22)
								$	(4,259.37)
C	**Interior Finishes**								
1	Wall Primer Supply	1	galon	20.00	Home Depot	$	20.00		
2	Paint Wall Supply	2	galon	30.00	Home Depot	$	60.00		
3	Repair Concrete Supply	1	each	40.00	Home Depot	$	40.00		
4	Conc. Bonding Primer Supply	1	galon	25.00	Home Depot	$	25.00		
5	Concrete Stain Supply	2	galon	25.00	Home Depot	$	50.00		
6	Paint Floor and Wall	1	l.s	0.00	Volunteer	$	-		
7	Supply and install trim	1	l.s	200.00	Volunteer	$	200.00		
						$	395.00		
					GST	$	27.65		
						$	422.65	$	(4,294.80)
								$	(429.48)
								$	(4,724.28)
D	**Electrical Work**								
1	Electrical Wiring	1	l.s	600.00	Ken Green	$	600.00		
2	Fire Alarm (wire & hardware)	1	l.s	1,000.00	Ken Green	$	1,000.00		
3	Alarm Ext. (wire & hardware)	1	l.s	1,000.00	Ken Green	$	1,000.00		
						$	2,600.00		
					GST	$	182.00		
						$	2,782.00	$	(7,076.80)
								$	(707.68)
								$	(7,784.48)
E	**Furniture and Accessories**								
1	Wicker Couch	1	each	600.00	Dufresne	$	600.00		
2	Wicker Armchair	1	each	400.00	Dufresne	$	400.00		
3	Table and Four Charis	1	each	350.00	Dufresne	$	350.00		
4	Book Case / Room Divider	1	each	200.00	Dufresne	$	200.00		
5	Storage Cupboard	1	each	100.00	Dufresne	$	100.00		
6	Shelf	1	each	25.00	Dufresne	$	25.00		
7	Track Lighting	2	each	80.00	Superlite	$	160.00		
8	Fresstanding Lighting	1	each	40.00	Superlite	$	40.00		
9	Table Ligths	3	each	25.00	Superlite	$	75.00		
10	Area Rugs	2	each	130.00	Home Depot	$	260.00		
11	Wall Covering Hardware	1	allow	50.00	Home Depot	$	50.00		
12	Wall Tapestries/ Quilts	1	allow	200.00	Hope Users	$	200.00		
						$	2,460.00		
					GST	$	172.20		
						$	2,632.20	$	(9,709.00)
								$	(970.90)
								$	(10,679.90)

SUNROOM CONSTRUCTION BOTTOM LINE

SUBTOTAL	$	28,700.00
GST	$	2,009.00
SUBTOTAL	$	30,709.00
MINUS FUNDS AVAILABLE	$	21,000.00
TOTAL FUNDS NEEDED	$	9,709.00
10% Contingency	$	970.90

Harvey Penner **H. Penner Construction**

Harvey thank you very much for your offer, we have received the other prices and you seem to be the most generous so I think that we will pursue building the deck with you. There are a few other items of work I was wondering if you could include in your contribution to this project. All the items you would be responsible for should you choose to accept are listed below:

- Deck construction complete with lattice, seat, & built in planters
- Installation of 1 plexiglass panel (Earth) located on deck seat

- The priming and painting of two existing concrete screens along the east wall of the courtyard with silver latex based paint. (screens will be power washed by Miserecordia maintenance prior to painting)
- The installation of small white twinkle lights on the above screens

These last two tasks on the list above may be done by Miserecordia staff, I am waiting for a reply. If that is the case we will go back to the initial price you suggested.

If you could please get back to me as soon as possible with a revised cost, that includes these extra items, and a response to the proposed time line that would be great. In addition the work you will be doing will probably need to be coordinated with Dick Penner of J&D Penner, his number is 895-8602 if you have any questions.

The work will have to be billed to Hope, care of Kathy Thomson, Director, The Hope Breast Cancer Information and Resource Centre, 691 Wolsley Ave, R3G 1C3. As a nonprofit organization Hope does not get charged GST. Hope's GST# is 107863847RT0004.

Thanks Monica Macra

HILDERMAN
THOMAS
FRANK
CRAM

April 19, 2001

BRIDGES OF HOPE COURTYARD
The Breast Cancer Centre of Hope, 691 Wolesely Avenue
Phase Two Construction - Three Season Sunroom

Dear Potential Donor:

We are pleased and honored that you have considered taking the time and effort to contribute to this worthwhile cause. Hope is a nonprofit organization operating under the umbrella of Cancer Care Manitoba. As a resource facility, The Centre's main focus is devoted to providing a full spectrum of information and support to women experiencing all stages of breast cancer. Hope's services include counseling, professional referrals, exam bookings, prosthetic aid delivery, library resources and support groups for women, their friends and their families. The Breast Cancer Centre Of Hope is located in a space donated by the Misericordia Health Centre on the first floor of the former Nursing Residence. The 900ft^2 centre, is currently comprised of meeting areas and office spaces. The continued success of this facility has created increased spatial and programming needs. As a result, a holistic healthcare environment and its relationship to human well being recently became the focus for the physical expansion of The Centre.

I am writing to you today in the hope that you will help us to continue the exemplary journey of collaboration already underway at Hope. In June of 1999, Hope administrators organized a committee to explore the idea of developing the abandoned exterior courtyard space immediately adjacent to the centre. The Hope Courtyard Committee is entirely volunteer based. Committee members include users and staff as well as healthcare and design professionals, who have donated over a year of their time and expertise on this project. Some of the professionals involved are Robert O'Toole – Crosier Kilgour Partners, Ken Green – MCW AGE Engineering, and Heather Cram – Hilderman Thomas Frank Cram.

Over the past two years this committee has designed two phases of development for The Breast Cancer Centre of Hope. Phase One, a healing garden in the existing ground level courtyard space, was implemented during the summer of 2000. As a result, the courtyard has been transformed into a place many visitors seek for contemplation, gardening and meeting. Phase One cost $ 10,000 and was built with funds raised by the Pink Ribbon Golf Classic Golf Tournament. This low cost of Phase One was made possible through the kind support of community businesses such as J&D Penner, Barkman Concrete, Shelmerdine Nurseries and Skills Manufacturing.

Landscape Architecture • Planning
500-115 Bannatyne Avenue East, Winnipeg, Manitoba R3B 0R3

Courtyard Sponsors

Designers

Hilderman Thomas Frank Cram
Crosier Kilgour Engineers
MCW/ AGE Engineering
Misericordia Hospital
Hope Courtyard Committee

Contractors

J & D Penner
Riverwood Construction
Scotty's Mobile Power Wash
Belle-Fosh Signs
Skills Manufacturing
Precision Metalcraft

Suppliers

Barkman Concrete
Shelmerdine Nurseries
Schriemers Nurseries
Speedy Autoglass
McDiarmid Lumber

... and all the Hope Volunteers

The Breast Cancer Centre Of Hope

Bridges Of Hope Courtyard

Main Floor, 691 Wolseley Ave.
Winnipeg, Manitoba, R3G 1C3
Phone 788-8080

Crossing Bridges

The Healing Garden ...

In the year 2000, The Breast Cancer Centre of Hope realized the dream of converting their existing deserted courtyard into a healing garden. The Bridges of Hope Courtyard is a special place for the women and families who come here to deal with life altering issues.

The garden is designed to complement the supportive and informative mandate of the centre. It is a lush oasis, a place for meditation and a place for therapeutic activities.

A Building Process ...

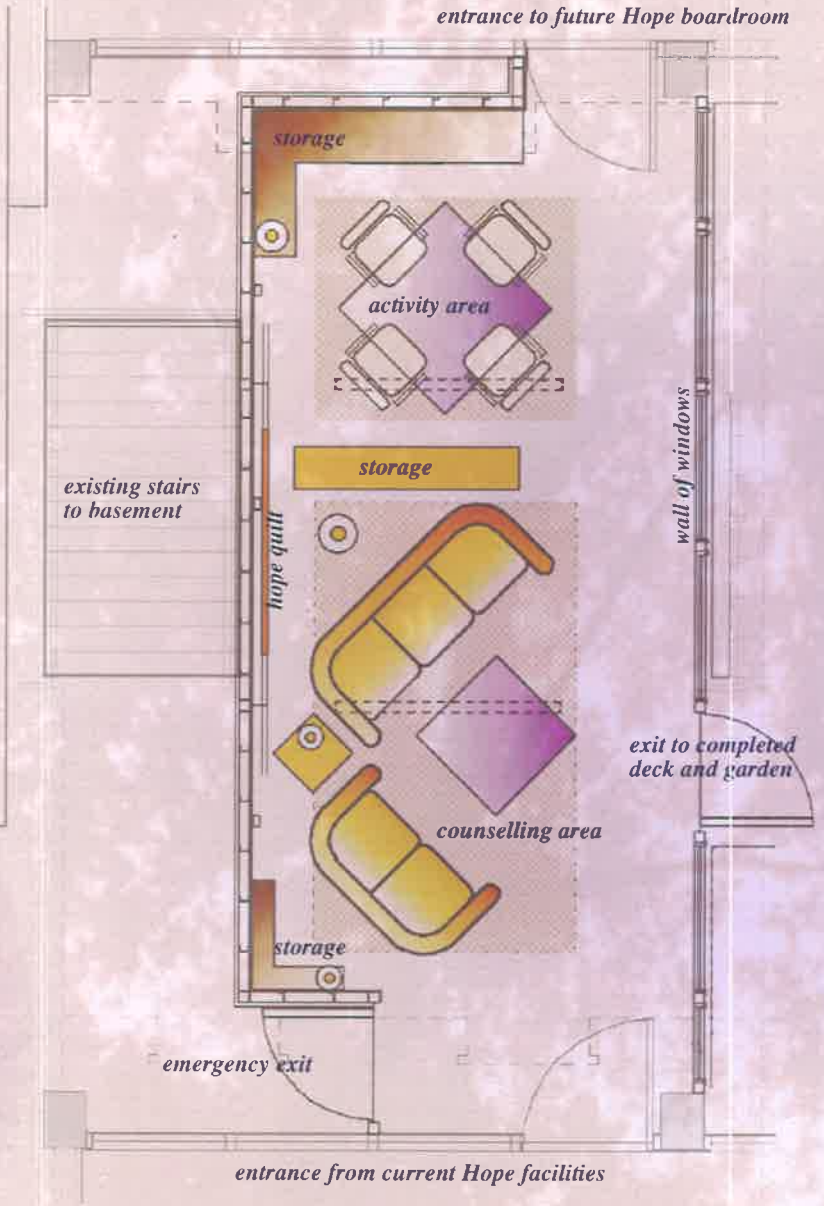
The process of making the garden a reality was a group effort. Volunteers, designers, users and community businesses came together in support of a great cause.

As a result of support from key donors mentioned on the back of this brochure, the courtyard is a rich environment complete with a deck, shade structures, environmental art, a fountain, shrub beds, a glider, informal paving and individualized window boxes.

Next The Sunroom ...

When the women of hope first expressed their wishes for the Bridges of Hope Courtyard one of the most important elements was a three season sunroom where those who are too ill to be outdoors can have a direct experience with the garden.

The sunroom will serve as an extension of Hope's counseling space and will provide facilities for group discussions and activities. With more support from the community, we hope that the sunroom will be completed in the summer of 2001



Would You Help Us Create Bridges
Community Sponsors Like You
Can Make Hopes Come True

Bridges Of Hope Courtyard Pha
Sunroom Develop
Summer

looking from the activity area towards existing facilities

sitting in the counseling area looking out at the garden

looking from the Hope doorway into the new sunroom

This year The Centre hopes to implement Phase Two, The Bridges of Hope Sunroom as a new resource facility. Early in the courtyard planning process it became evident that in order to allow all users the positive benefits of the therapeutic garden, a semi enclosed, transition space was required between the existing interior and the new garden exterior. Phase Two proposes the construction of a three season sunroom addition on the existing structural concrete slab that currently connects the east and west wings of the building.

The Bridges Of Hope Sunroom is a very necessary resource for Hope users. Cancer and cancer treatments such as chemotherapy cause many side effects and sensitivities to environmental conditions. Some of the most common symptoms prohibiting some cancer patients from the full use of outdoor spaces are direct sunlight, extreme temperatures, pollens, bacteria and allergens. The flexible nature of the sunroom allows users of The Centre that are too weak for direct exposure outdoors, to participate in the healing garden experience. Indoor garden activities, a direct view of the garden, and positive sensory experiences such as sound and scent are provided to all users through the sunroom. Most Importantly, this space is being planned to house an additional counseling area and a workspace for occupational group therapy.

In the continuing spirit of community effort The Pink Ribbon Golf Classic has already donated $20,000.00 towards the construction of the sunroom. Many other community businesses such as Abesco Industries, Wilmar Windows, Tri-Cladd Systems and Dufresne Furniture have offered discounted or free supplies and services.

The funds required for the completion of Phase Two amount to $ 7,000.00. If you could contribute in any way, through a donation of funds or time we would be greatly appreciative. All donors and sponsors will be recognized on the Bridges of Hope Courtyard Donor Wall located in the garden and through links on The Bridges of Hope Website. Please call Kathy Thomson, director of The Breast Cancer Centre of Hope at 788-8080 with your donations.

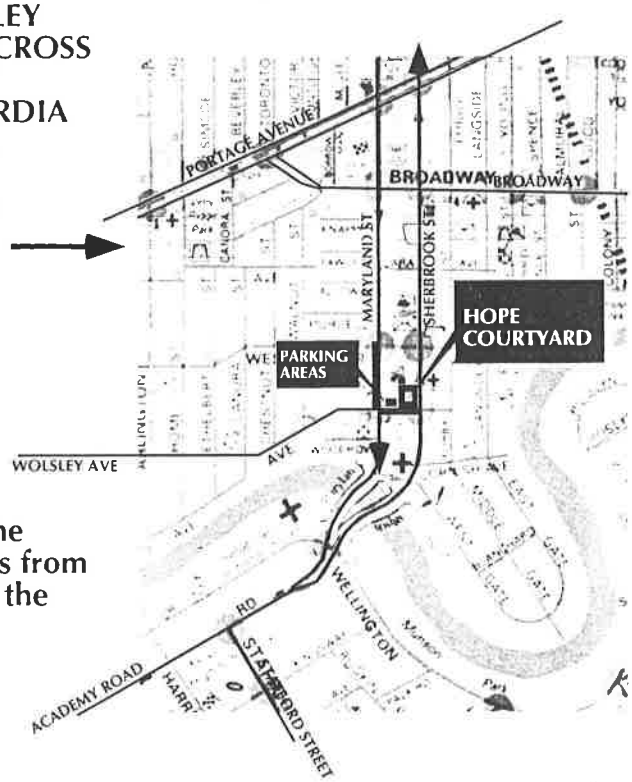
Thank you for your time

Monica Macra,

Bed. / MLarch Pending University of Manitoba
Designer, Hilderman Thomas Frank Cram, Landscape Architects and Planners
Breast Cancer Centre of Hope, Hope Courtyard Committee Design Team

BRIDGES OF HOPE COURTYARD
LANDSCAPE ARCHITECTURE CONSTRUCTION DAY
SATURDAY JULY 15 10:00 AM - 2:00 PM

WHO:	SPONSOR	The Breast Cancer Center of Hope
	INVITEES	All Dept. Of Landscape Arch. members
	RSVP	Monica Macra work 944-9907 or home 261-4718
WHAT:	PROJECT	The courtyard is a therapeutic landscape that has been designed to give women who have been diagnosed with breast cancer a place for solitude or solidarity.
	WORK	We are using this day to: • prepare shrub beds • install a fountain • paint some concrete screens
	B.Y.O.E	Bring Your Own Equipment - Any of the following • Shovel, wheelbarrow, rake, street brush or broom • Work clothes, boots, and bug repellant
	REFRESHMENTS	Hard work shall not go unrewarded. All 'refreshments' are on us. So please come down for a while, say hi to some friends, and help out a worthy cause
WHERE	LOCATION	691 WOLSLEY AVENUE ACROSS FROM THE MISERECORDIA HOSPITAL. PLEASE SEE THE MAP .
	P.S.	Access to the Courtyard is from the back of the building.



Appendix E

Hope Breast Cancer Resource Centre
Miserecordia Health Centre

August 29,1999
Tentative Time Line

Design, Event or Installation		Day B		Begin		Day C		Complete
Design								
Final Design Refinements		Tues ~~Wed~~			March (7th) ~~1-Sep-99~~	~~Tues~~ ~~Fri~~		(March 15) 15-Oct-99
Fundraising – remove								
Advertising the Future Courtyard		Mon			1-Nov-99	Wed		1-Dec-99
Fundraising Auction		Sat			15-Jan-00	Sat		15-Jan-00
Name the Courtyard Draw		Sat			15-Jan-00	Sat		15-Jan-00
Construction Preperation								
Construction Drawings and Specs		Wed Wed			March 15 ~~1-Dec-99~~	Monday ~~Wed~~ Tues		April 17 1-Feb-00
Permits, Approvals		Fri		March 15	14-Jan-00	Fri	April 17	4-Feb-00
Teneder procedures for contract work	Mon	Mon		April 17	7-Feb-00	Mon	May 1	21-Feb-00
Demolition and Site Preperation	Mon	~~Wed~~ Mon		May 8	20-Oct-99	Fri ~~Mon~~	May 12	1-Nov-99
		Mon		May	~~20-Mar-00~~	Mon	May	~~27-Mar-00~~
Construction								
Phase I								
Hard Landscape Construction		Mon		May 22	27-Mar-00	Sun ~~Mon~~	June 18	24-Apr-00
Sunroom Contract Construction		~~Mon~~	mon	May 22	3-Apr-00	Mon ~~Sun~~	June 18	1-May-00
Sunroom Volunteer Construction Days		Sun		May 28	~~1-May-00~~	Sun		~~1-May-00~~
		Sun		June 11	~~8-May-00~~	Sun		~~8-May-00~~
Phase II								
Hope Courtyard Planting Day		Sun		June 18	~~22-May-00~~	Sun		22-May-00
Volunteer Installation of Furniture and Accs.		Sun		June 18	22-May-00	Sun		22-May-00
Hope Courtyard Grand Opening	*	~~Sun~~	Tues	(July 4)	4-Jun-00	Sun		4-Jun-00

Dick Penner **J & D Penner**

Dick, as agreed the items of work that your company will be responsible for are as follows:

- Removal of concrete pavers
- Preparation of sub base
- Installation of paving
- Preparation of shrub bed
- Installation of fountain basin with liner
- The cutting of the fountain cap

(we will install the small fountain and stone fill on planting day)

- Installation of 3 plexiglass panels (Fire, Water, Air)
- Supply and delivery of wood chip mulch for planting day

You may need to do some coordination with the carpenter and the irrigation guys, here are their phone numbers. Dave K. - Ful Flo Industries 633-4414 and Harvey Penner- Carpenter 981-8255. As for services on site once you start the best person to contact would be George Petenuade his number is 788-8002

If you could please get back to me as soon as possible with an overall cost and a starting date that would be great.

Thanks Monica Macra

Jim Jerome ***Belle Fosch Signs***
Helen Macra ***Precision Metalcraft***

Jim and Helen you will have to coordinate the movement of the panels between each other. The pre-drilled plexiglass will be delivered to Belle Fosch on Monday June 19 for the installation of the artwork. When this is complete the plexiglass must be returned to Precision Metalcraft for final assembly into the frames. The panels should be fully assembled and delivered to the site for the week of July 17-21, when they will be installed by others.

In case you need to talk to one another here are you respective phone numbers.

Helen Macra	*Precision Metalcraft*	*694-7200*
Jim Jerome	*Belle Fosch Signs*	*633-0738*

Jim I am working on the other files you have requested you should have them by Friday June 16, I will be e-mailing them or giving them to Helen to drop off since Precision is right next door.

Also Jim, I am not sure if I have already sent you this information, but should you wish to send out an invoice, please send the bill to, Kathy Thomson, Director, The Hope Breast Cancer Information and Resource Centre, 691 Wolsley Ave, R3G 1C3. As a nonprofit organization Hope does not get charged GST. Hope's GST# is 107863847RT0004.

Thanks Monica Macra

Dave K. ***Ful Flo Industries***

Dave thank you very much for getting back to me so promptly and for you generous offer. The price and the system you have suggested sound very good but I do have a few questions before we proceed.

When talking to Jeff Frank here in the office about the courtyard he suggested that we use pop up heads regardless of the overspray because drip lines are harder to service and maintain and tend to deteriorate faster since they can get clogged etc.

Could you offer any advice on this point? If you do not feel this is an issue, we will go with your suggestion.

Please review the time line and let me know if this is reasonable for you. If the drip irrigation system goes in I assume you will need to do some coordination with Dick Penner of J&D Penner, his number is 895-8602.

The work has to be billed to Hope, care of Kathy Thomson, Director, The Hope Breast Cancer Information and Resource Centre, 691 Wolsley Ave, R3G 1C3. As a nonprofit organization Hope does not get charged GST. Hope's GST# is 107863847RT0004.

Please call or fax
Thanks Monica Macra

Aaron Hirota ***Schreimers Nurseries***

Aaron as you may have already noticed the Planting day date has been moved back by two weeks to allow for construction to be fully complete when it happens. I was wondering if this change of date was acceptable to you? The delivery of the plants would have to be arranged for Friday July 28.

Please fax or call to let me know that you have received this notice and that it is acceptable to you.

In addition could you please forward me the name of the person I should send an official thankyou note to.

If you guys want to send out an invoice it should be sent to Kathy Thomson, Director, The Hope Breast Cancer Information and Resource Centre, 691 Wolsley Ave, R3G 1C3. As a nonprofit organization Hope does not get charged GST. Hope's GST# is 107863847RT0004.

Thanks Monica Macra

George Petenaude

George I have replaced the company that we were paying to powerwash the courtyard with your name in the time line. I hope that this can work out it will be greatly appreciated.

In addition it occurred to me that you may be able to help us with another small detail that I was going to ask the carpenters to do.

I was wondering if your staff could prime and paint the two concrete screens on the East wall of the courtyard for us.They would have to be painted with a metallic silver colour and finished off by installing nets of white christmas lights behind them. If you guys could help us out with this task it would reduce the cost again.

If you need to charge us a fee for these services please let me know.

Please get back to me so I can let the carpenter know.
Thank you very much Monica Macra

Bob Burns ***Skills Unlimited***

Bob as you may have noticed on the schedule we have moved back planting day and thus the day that the courtyard furniture needs to be ready. I hope this gives you more time to finish everything. The furniture will have to be delivered between July 24 and 28.

I was wondering however about the glider.

1. Could you please send me a small sketch of the finished dimensions of the glider so I can make sure it will fit into the proposed space.

2. We can install the smaller furniture ourselves but the glider is too big for us to move onto the site. I was wondering if you could arrange for one of your crews to come down on Friday July 28 to install the glider and deliver the rest of the furniture.

3. Last but not least, I am preparing a revised cost estimate so that we can keep track of our expenditures. If you could please firm up you previous estimate by adding the cost of the glider (Heather mentioned that you may like to donate it in memory of your wife - we would love that) that would be great. Here is what I have as an estimate to date:

8 Cedar Planters Stained	*25"x14"x12"*	*$18.70ea*	*$149.60*
2 Adarondak Chairs Folding		*$140.00ea*	*$280.00*
1 Glider		*$?*	*$?*
1 Small Bench		*$?*	*$?*
Subtotal			_____
GST exemption	*GST#107863847RT0004*		
PST			_____
TOTAL			_____

Thank you very much
Monica Macra

Hope Breast Cancer Resource Centre 14/6/00

Bridges of Hope Courtyard

Work Program Phase 1

Courtyard Construction

	Task	Company/ Individual	Materials	Labour	Timeline
1	Demolition and removal	J & D Penner		√	June 19-30
2	Powerwashing	Scottys Mobile Powerwash		√	July 3-4
3	Grading	J & D Penner		√	July-4-14
4	Paving Supply	Barkman Concrete	√		
5	Paving Install	J & D Penner		√	July 4-14
6	Shrub Bed Prep	J & D Penner		√	July 4-14
7	Deck Permit	Monica		√	for July 3
8	Deck	McDiarmid Lumber	√		
9	Deck Construction	H. Penner or M. Sieburn		√	July10-28
10	Water Feature Basin	Barkman Concrete	√		
11	Water Pump and installation	Shelmerdine	√		
12	Install Fountain	J & D Penner		√	July 14-28
13	Paint Screens and install lights	H. Penner or M. Sieburn		√	July 14-28
14	Panels	Belle Fosch Signs	√	√	for July 10
15	Panel frame and assembly	Prescision Metalcraft	√	√	for July 17
16	Install Assembled Panels	H. Penner or M. Sieburn			July 24-28
17	Furniture	Skills unlimited	√		for July 24
18	Install Furniture	H. Penner or M. Sieburn		√	July 24-28
19	Prep all raised planters	H. Penner or M. Sieburn		√	July 24-28
20	Plant Matrial	Schrimers	√		
21	Plant Delivery	Arron Hirota/ Schrimers		√	July 28 pm
22	Planting Day	Volunteer		√	**on July 29**

Work Program Phase 2

Sunroom Design andConstruction

1	Sunroom construction dwgs	Monica/ Heather/ Rob/Ken		√	June
2	Sunroom permits	Monica/ Heather/ Rob/Ken		√	July 3-21
3	Sunroom tender	Monica/ Heather/ Rob/Ken		√	July 21-July 31
5	Sunroom Cladding	Tri-Clad	√		
6	Sunroom Glazing	Wilmar Windows	√		
7	Sunroom Construction	T.B.A.		√	August 7-31
8	Electrical work	Ken Green to recommend		√	August 21-35

Completion Of All Work **Sept 1/ 2000**

Hope Breast Cancer Resource Centre 13/7/00

Bridges of Hope Courtyard

Work Program Phase 1

Courtyard Construction

	Task	Company/ Individual	Materials	Labour	Timeline
1	Demolition and removal	J & D Penner		√	June 19-30
2	Powerwashing	Scottys Mobile Powerwash		√	July 3-4
3	Grading	J & D Penner		√	July-4-14
4	Paving Supply	Barkman Concrete	√		
5	Paving Install	J & D Penner		√	July 4-14
6	Shrub Bed Prep	J & D Penner		√	July 4-14
7	Deck Permit	Monica		√	For July 16
8	Deck	McDiarmid Lumber	√		
9	Deck Construction	Conrad- Riverwood		√	July 17-29
10	Water Feature Basin	Barkman Concrete	√		
11	Water Pump and installation	Shelmerdine	√		
12	Install Fountain	Volunteer		√	on July 15
13	Paint Screens and install lights	Volunteer		√	on July 15
14	Panels	Belle Fosch Signs	√	√	for July 10
15	Panel frame and assembly	Prescision Metalcraft	√	√	for July 22
16	Install Assembled Panels	Volunteer			July 24-28
17	Furniture	Skills unlimited	√		for July 24
18	Install Furniture	Skills unlimited		√	July 24-28
19	Prep all raised planters	Volunteer		√	July 24-28
20	Plant Matrial	Schrimers	√		
21	Plant Delivery	Arron Hirota/ Schrimers		√	July 28 pm
22	Planting Day	Volunteer		√	on July 29

Work Program Phase 2

Sunroom Design andConstruction

1	Sunroom construction dwgs	Monica/ Heather/ Rob/Ken		√	July
2	Sunroom permits	Monica/ Heather/ Rob/Ken		√	July- August
3	Sunroom tender	Monica/ Heather/ Rob/Ken		√	August
5	Sunroom Cladding	Tri-Clad	√		September
6	Sunroom Glazing	Wilmar Windows	√		September
7	Sunroom Construction	T.B.A.		√	September
8	Electrical work	Ken Green to recommend		√	September

Completion Of All Work **Oct-00**

HILDERMAN
THOMAS
FRANK
CRAM

FAXED
Pg 4pt 9 Date Aug 24/01
(KG) 4pt 1 Aug 27/01

FAX MEMORANDUM

PROJECT: Bridges of Hope Sunroom Construction

		Fax No.
To:	Scott Grieg- Tatra Ornamental Iron Works	633-9891
	Trevor - Security Glass Services	774-9672
	Russ Hinds- Tri Clad Designs	878-2225
	Kevin Morril – Wilmar Windows	668-5746
	Peter Calabria – Calabria Drywall	487-1392
	John Shubert – MacCaine Electric	783-2180
cc:	Kathy Thomsen- Hope	779-8384
	Rob O'Toole – Crosier Kilgour Engineers	943-7507
	Barrie Ottenbriet - #10 Architectural Group	947-9626
	Ken Green – MCW/AGE Engineering	779-1119
From:	Monica Macra - HTFC	957-1467
Date:	August 24, 2001	
Re:	**Sunroom Construction Schedule**	

Hello Everyone:

After many months of city permit delays we are finally ready to build the Bridges of Hope Sunroom. I would like to take this opportunity to thank each and every one of you for the generosity you have shown this worthwhile cause so far. I hope this sunroom can continue to become a reality through ongoing cooperation and hard work from all of us.

If any pages are not legible: Phone: (204) 944-9907 / Fax (204) 957-1467

Landscape Architecture • Planning
500-115 Bannatyne Avenue East, Winnipeg, Manitoba R3B 0R3

HILDERMAN
THOMAS
FRANK
CRAM

The sunroom construction is slated to begin on Monday August 27, 2001 with the demolition and I hope it can be completed and ready for inspection by Friday September 21, 2001.

After preliminary discussions with all of you I have organized a construction schedule (see Page 3). I would like to stick to this schedule as closely as possible, so that the sunroom can be completed by the end of September. Please review the schedule and make sure that the timing allowed for your portion of the work is sufficient. If the timing or length of the schedule set aside for your work is not suitable please let me know as soon as possible.

I will try to keep everyone informed of changes and delays as construction proceeds. As a result I have also attached a full contact list for this project to this package (see page 4) so that each of you can coordinate your work with others as required.

I would also like to set up a site meting on Friday August 31, 2001 at 9:00am with all the contractors and consultants so that we can all meet and discuss any arising issues before the structural framing is completed. Please fax confirmation that you would be able to attend to me (Monica Macra) at 957-1467.

Finally feel free to call me if you have any questions, concerns or suggestions. I look forward to seeing you all on site soon.

Sincerely

Monica Macra, HTFC
Construction Coordinator

If any pages are not legible: Phone: (204) 944-9907 / Fax (204) 957-1467

Landscape Architecture • Planning

500-115 Bannatyne Avenue East, Winnipeg, Manitoba R3B 0R3

HILDERMAN
THOMAS
FRANK
CRAM

BRIDGES OF HOPE SUNROOM CONSTRUCTION
CONTACT LIST

NAME	COMPANY	ROLE	PHONE	FAX
Owners				
Kathy Thomsen	Breast cancer Centre of Hope	Director	788-8313	
Len Trap	Miserecordia Health Centre	Operations	788-8802	
Consultants				
Monica Macra	Hilderman Thomas Frank Cram	Administrator	944-9907	957-1467
Robert O'Toole	Crosier Kilgour Engineers	Structural Eng	947-7501	943-7507
Barrie Ottenbriet	# 10 Architectural Group	Architect	942-0981	947-9626
KenGreen	MCW /AGE	Electrical Eng	779-7900	779-1119
Contractors				
Dick Penner	J&D Penner	Demolition	895-8602	895-7742
Scott Greig Joe!	Tatra Ornamental Ironworks	S Framing	668-5612	663-9891
Russ Hinds 782-4669	Tri Clad Designs	Cladding	878-3480 (23)	878-2225
Laura Kirk/ Kevin Morril (cell)	Wilmar Windows	Window Supply	668-8230	668-5746
Trevor	Security Glass Services	Window S & I	774-9669	774-9672
Peter Calabria	Calabria Drywall	studs & drywall	792-0707	487-1392
John Shubert	McCaine Electric	electrical	786-2435	783-2180

If any pages are not legible: Phone: (204) 944-9907 / Fax (204) 957-1467

Landscape Architecture • Planning
500-115 Bannatyne Avenue East, Winnipeg, Manitoba R3B 0R3

MEMORANDUM

To:	Of:	Fax:
Kathy Thomson	Breast Cancer Centre of Hope	779-8384
George Petenaude	Miserecordia Health Center	783-6142
Aaron Hirota	Schreimer Nurseries	654-4539
Helen Macra	Precision Metalcraft	694-5123
Dick Penner	J & D Penner	895-7742
Harvey Penner	H. Penner Construction	444-7850
Bob Burns	Skills Unlimited Ltd.	453-3959
Jim Jerome	Belle Fosch Signs	694-5594
Dave K.	Ful-Flo Industries	633-5539

From: Monica Macra Hilderman Thomas Frank Cram
Date: June 15, 2000
Re: Bridges of Hope Courtyard

Hello everybody, we are just about ready to begin construction on the courtyard and I wanted to make sure the coordination between different contractors and donors and the proposed time line would work out for everybody involved.

Attached please find an itemized work list complete with all the parties responsible for materials and labour and the proposed window of time for completing each task.

Should you have any questions or suggestions please feel free to call me, Monica Macra at ph 944-9907, fax 957-1467. All the dates suggested can be finessed except for the **July 29 Planting Day.** This date is non negotiable since it has already been pushed back by two weeks.

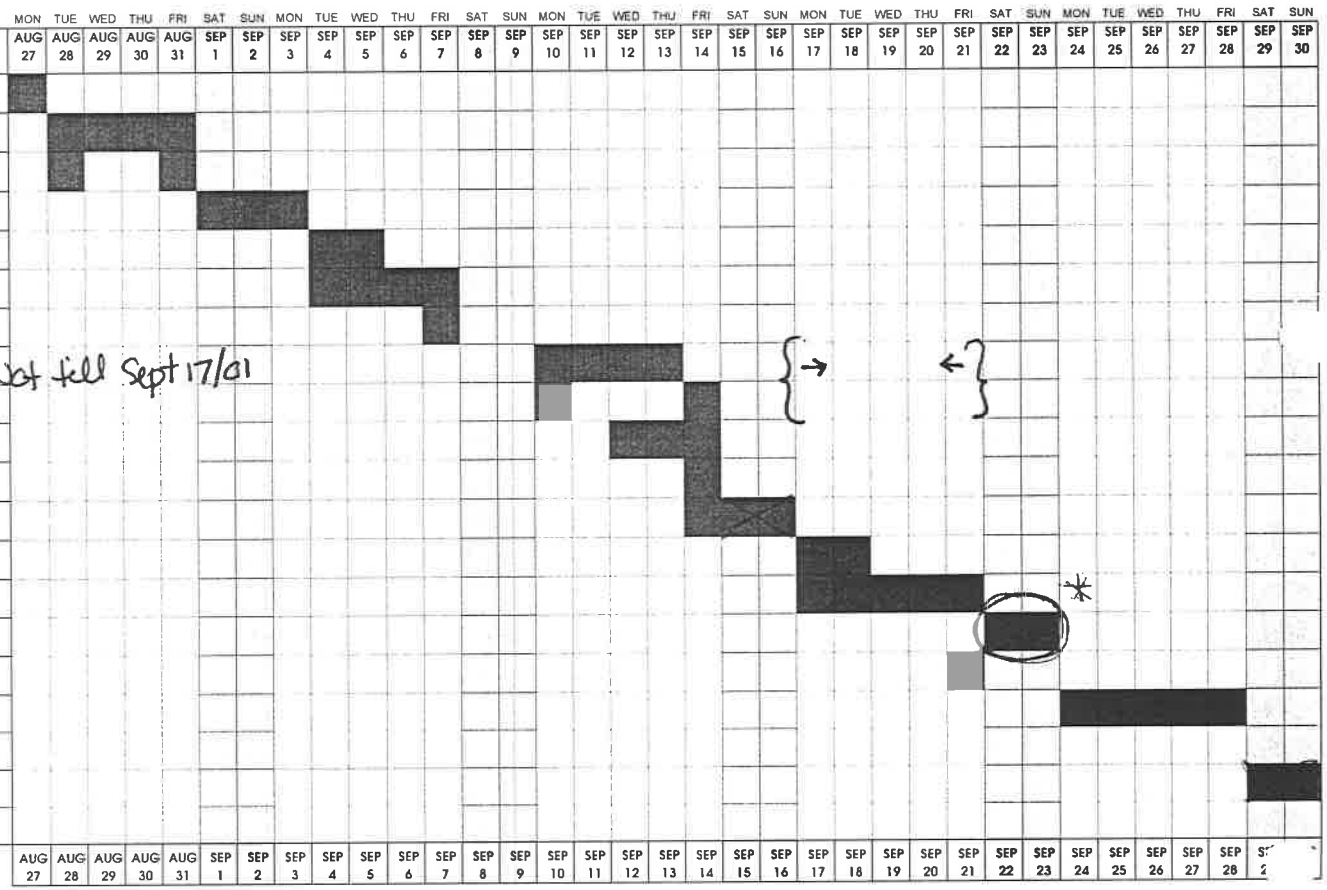
A great thanks to all of you for showing such great enthusiasm and willingness to help the people who will benefit from the therapeutic healing environment we are creating. I hope you realize that it is through people such as yourselves that the world becomes a better place for women fighting a battle much more difficult than building a courtyard.

Just a few words of clarification for some of you listed above. Please find your name on page 3-9, the corresponding page is intended for you. Page 2 is intended for everyone. Disregard the pages not pertaining to you it was just easier to fax everything at once.

PRELIMINARY WORK PLAN & TIMETABLE

BRIDGES OF HOPE COURTYARD PHASE II - SUNROOM DEVELOPMENT

TASK	CONTRACTOR/ CONSULTANT
EXISTING SCREEN DEMOLITION	DICK PENNER- J&D PENNER
SUNROOM STRUCTURAL FRAMING	SCOTT GREIG- TATRA ORNAMENTAL
STRUCTURAL FRAMING INSPECTION	ROB OTOOLE- CROSIER KILGOUR
PAINT EXPOSED FRAMING	VOLUNTEERS
SUNROOM STUD FRAMING	PETER CALEBRA- CALEBRA DRYWALL
SUNRROM ELECTRICAL WIRING	JOHM SHUBERT- MCCAINE ELECTRIC
SUNROOM WIRING INSPECTION	KEN GREEN- MCW/ AGE ENGINEERS
SUNROOM SIDING INSTALLATION	RUSS HINDS- TRI CLAD DESIGNS * Not till Sept 17/01
SUNROOM SIDING INSPECTION	BARRIE OTTENBRIET - NUMBER 10
SUNROOM DRYWALL	PETER CALEBRA- CALEBRA DRYWALL
SUNROOM DRYWALL INSPECTION	BARRIE OTTENBRIET - NUMBER 10
SUNROOM PAINTING	VOLUNTEERS
SUNROOM ELECTRICAL FIXTURES	JOHN SHUBERT- MCCAINE ELECTRIC
SUNROOM WINDOW AND DOORS	TREVOR- SECURITY GLASS SERVICES
SUNROOM ~~TRIM INSTALL~~ PAINT INT	VOLUNTEERS
SUNROOM FINAL INSPECTIONS	ROB O / KEN G / BARRIE O / MONICA M
SUNROOM FINAL INSPECTIONS CITY	CITY OF WPG BUILDING INSPECTOR
SUNROOM OPEN FOR USE	HOPE BREAST CANCER CENTRE



* PLEASE NOTE THAT THESE CONSTRUCTION DATES ARE TENTATIVE AND MAY CHANGE AS THE PROJECT PROGRESSES DUE TO UNFORSEEN DELAYS AND CONSTRUCTION ISSUES.

IF YOU HAVE ANY QUESTIONS OR CONCERNS PLEASE DO NOT HESITATE TO CALL MONICA MACRA, HILDERMAN THOMAS FRANK CRAM, AT 944-9907 OR 261-4718

Mark Botyn. 453 27. ?
291 1192 *779-1119
*Ken Green
ax. 179-7900
pn 779-7400

HOPE PHONE LIST

NAME	ORGANIZATION	PHONE #	FAX #	email
Professors				
Laurie Ringaerst	Barrier Free Inst.	474-6450		ringaert@cc.umanitoba.ca
Charlie Thomsen				
Ted Maclauchlan				
Heather Cram	HTFC	944-9907	957-1467	
• Designers				
Hope				
Hope Genral Line	Hope Breast Cancer	788-8080	779-8384	help@breastcancerhope.mb.ca
Val Grahm	HOPE	489-5315		
Sophie Munro	HOPE	945-5308	w/ 895-9198	
Brenda Prystayko	HOPE	663-2033		
Orest Rosolowich	HOPE	453-0363		
Kathy Thomson	HOPE	788-8313	779-8384	kathy.thomson@cancercare.mb.ca
Barb Shumeley	HOPE	235-3825		
Jill Taylor Brown	HOPE	235-3186		
Plexiglass Panels				
Larry	Speedy Autoglass	452-1907	697-1223	
Jim Jerome	Belle Foshe Signs	633-0738	694-5594	jjarome@bellefosh.ca
Matt Kaufman	Precision	632-3731		precision program@ attcanada.net
Sunroom				
Robert Otoole	Crosier Kilgour	943-7501	943-7507	ckp@ckpeng.com
John Frye	CWP Permits Branch	986-5200		
Brain Cunningham	CWP Permits Branch	986-5205		
Merv Perkins	CWP Permits Branch	986-5238		
Belva London	Weather Wall	284-8633		
Construction				
Barry Ruth	No 10 Arch Group	942-0981		
• Dick Penner	J & D Penner	895-8602		
FRANK BUSSOLI (ROB N)		cell 782-9699	fax 668-6886	
Deck and Paving				
Susan Stratford	HOPE	284-5313	w/ 975-3267	
Paul Coop	Barkman Concrete	667-3310	663-4854	
Plants				
Leslie Sherry	HOPE	774-7562		
Jan Pederson	Shelmerdine	895-3363	895-7203	
Aaaron Hirota	Schrimers Nursuries	668-8357		
Brian Duncan	St. Marys Nursuries	255-7353		
Furniture and Planters				
Bob Burns	Skills LTD Jason	474-2443	453-3959	
Donna Swistun	HOPE	586-2386		
Water Feature				
Jackie Wilkie	MaGowan Russel	956-0396	956-1265	mcgowan @mb.sympatico.ca

GST # 107863847RT0004.

(Darryl) - 584 Pembina.. [$ 350.00]
Larry Jones 697-1222

• deck - apply for permit.
• structural drawings under seal.
* engineers seal a.c rep.

* carpenter -

• THERESA CONTRACTOR DESK

Scotts Power Wash Mobile 889-3291 Miles

Doug.
• Ful Flo 633-4414
cell 791-5365

Davids.
• Contract. 981-2908

2452-2233 Rick Simpson: Mediterranean Pembina & Grant 791-5365

Harvey Penner cell 981-8255
Box 4111 7011

COMMEMORATIVE PLAQUES.

JIM TELLEVIC ZONING.

THE CITY OF WINNIPEG • VILLE DE WINNIPEG

PLANNING, PROPERTY AND DEVELOPMENT DEPARTMENT
SERVICE DE L'URBANISME, DES BIENS ET DE L'AMÉNAGEMENT

100 - 30 FORT STREET
30, RUE FORT, BUR. 100
WINNIPEG, MANITOBA
R3C 4X7

CUSTOMER APPLICATION INFORMATION

Applicant: Monica Macra
Hilderman Thomas Frank Cram
115 Bannatyne AVE E Suite 500
Winnipeg, MB R3B 0R3
Phone: 2049449907

Reception 986-5216
John Frye 986-5200

Date Application Received: June 12, 2000

Perkins
Mew ~~Dirt~~ 986-5238

FILE #: **00 152796 000 00 OP**

Ken F 986-5202
/Franklin

PREMISES AFFECTED: **691 Wolseley AVE**

DESCRIPTION OF WORK: **Office**
Alter Exterior

For information on your application please call the appropriate number listed below:

Commercial Applications: (204) 986-7007
Residential Applications: (204) 986-2726

Zoning
986-5208

* Deck Permit App.

- In Plan examination. 3 a week...

- Bob Nash
8 wks for material ~~Atty~~
Second week

- sprayed w/ fireproofing material
- railing added.

DECK PERMIT APPLICATION

Date: JULY 4, 2000
Location: 691 Wolsley Avenue
File: 00 152796 000 00 OP

Project: Bridges of Hope Courtyard

Distribution: **John Frye City of Winnipeg Plan Examination Branch 942-2008**

Mr Frye:

As we have discussed on the phone, the following measures will be taken to make the proposed deck at 691 Wolsley Avenue as safe as possible.

- Public Access:
  Although the courtyard and the proposed deck are currently accessible from the public lane this situation is temporary. The courtyard will become a fully enclosed, private space designated for the sole use of The Hope Breast Cancer Resource and Information Centre within the next two months. The proposed sunroom, slated for construction in August of this year, spans the existing concrete deck, forming a fourth wall to the courtyard. The sunroom shall be constructed of non-combustible materials and shall be fully equipped with an alarm system, buffering all the components of the lower courtyard level.

- Fire Hazards
  Wood is a combustible material and thus can still pose a fire hazard if left untreated. The contractor shall treat all the wood deck components with a fire retardant spray or paint as noted in the 'Deck Construction Note" on sheet L.04.

- Safety:
  It has been pointed out that the 18" height planter around the perimeter of the deck does not form a sufficient edge condition for the proposed deck, which is 4' above the courtyard elevation. Drawings 2/L4, 1/L5, 2/L5, and 4/l5 (see attached) have been modified to include a 36" height railing around the outside perimeter of the proposed planter. The 36" height was chosen to match the existing railing height condition on the adjacent concrete deck.

This project is under a tight time line with a public planting day planned for July 29,2000. We respectfully submit these conditions and changes to the deck design and agree to comply with them, in the hope that they will satisfy the requirements for issuing a construction permit. Should you have any further questions or concerns which prevent the approval of this application please call me at 944-9907.

Respectfully:

Monica Macra
BED

HILDERMAN
THOMAS
FRANK
CRAM

FAXED
Pg 4 Date July 5/00
MT

DECK PERMIT APPLICATION

Date: JULY 4, 2000
Location: 691 Wolsley Avenue
File: 00 152796 000 00 OP

This is Page 1 of 4 Pages

Project: Bridges of Hope Courtyard

Distribution: John Frye City of Winnipeg Plan Examination Branch 942-2008

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Respectfully

Monica Macra
BED

Landscape Architecture • Planning
500-115 Bannatyne Avenue East Winnipeg Manitoba R3B 0R3

RECEIVED
Date July 6/00

DECK PERMIT APPLICATION

Date: JULY 6, 2000
Location: 691 Wolsley Avenue
File: 00 152796 000 00 OP

Project: Bridges of Hope Courtyard

Distribution: **Merv Perkins City of Winnipeg Plan Examination Branch**
942-2008

Mr Perkins :

Further to the letter forwarded on July 4,2000 please find attached two notes of clarification

- Fire Hazards
The fire retartardant we will be using is manufactured by The Flamort Company. I have attached (pgs2-4) FLAMORT Fire Retardant, product description and application specifications. The contractor and the building superintendent will be instructed to aplly and maintain said fire retardant or approved equal to manufacturers specifications.

- Safety:
In response to the question of children using the courtyard. The Hope Breast Cancer Resource Centre is predominantly used by adults. In the event that children do visit the centre, their use of the courtyard and the deck is and will always be supervised. Floor to ceiling glass windows facing into the courtyard on 3 sides also ensure that visual supervision of all users is possible at all times.

This project is under a tight time line with a public planting day planned for July 29,2000. We respectfully submit these conditions and changes to the deck design and agree to comply with them, in the hope that they will satisfy the requirements for issuing a construction permit. Should you have any further questions or concerns which prevent the approval of this application please call me at 944-9907.

Respectfully:

Monica Macra
BED

THE CITY OF WINNIPEG • VILLE DE WINNIPEG
PLANNING, PROPERTY AND DEVELOPMENT DEPARTMENT
SERVICE DE L'URBANISME, DES BIENS ET DE L'AMÉNAGEMENT

100 - 30 FORT STREET
30, RUE FORT, BUR. 100
WINNIPEG, MANITOBA
R3C 4X7

In reply please refer to / Référence à rappeler :

RECEIVED
JUL 1 2 2000

K. W. Franklin, P.Eng.
(204) 986-5202
FAX / TÉLÉ : (204) 986-7307

July 7, 2000

Mr. R.J. O'Toole, P. Eng.
Crosier Kilgour & Partners Ltd.
207 Donald ST Unit 300
Winnipeg, MB R3C 1M5

Dear Sir:

RE: BRIDGES OF HOPE COURTYARD - 691 WOLSELEY AVE
FILE: 00 152796 000 00 OP (PLEASE QUOTE WHEN REPLYING)

WORK BEING DONE: CONSTRUCT NEW DECK

Structural drawings for the above noted project have been reviewed for compliance with respect to **Part 4, Structural Design** of the Manitoba Building Code (MBC) as adopted by the Winnipeg Building By-law No. 4555/87.

Please note the following:

1. In accordance with Article 2.3.4.4. of the MBC, please submit fabricator's shop drawings for the following structural components:

   - guardrail

   IMPORTANT NOTE: The above noted shop drawings must bear the **seal** of the Professional Engineer responsible for the design and the **review stamp** of the Professional Engineer taking responsibility for the overall structural design of the project.

2. All welding must be done by Canadian Welding Bureau (CWB) certified welders supervised by a CWB approved firm.

3. The ***designer*** is responsible to inspect the structural aspects of construction including foundations as required by Subsection 6.1 of the City of Winnipeg Building By-law No. 4555/87 and Subsection 2.6.2. of the MBC.

4. Upon completion of the work and prior to issuance of a Building Occupancy Permit, the ***designer*** must submit a letter bearing his/her seal and signature and stating:

   "The construction has been reviewed under my supervision in accordance with recognized professional inspection standards, and to the best of my knowledge the structure was constructed in accordance with the accepted drawings and specifications and requirements of the applicable By-laws."

Yours truly,

K. W. Franklin, P.Eng.
Structural Plan Examination Engineer

KWF/fz

cc: CFS
Commercial Building Inspections

M. Macra
Hilderman Thomas Frank Cram
115 Bannatyne Avenue East, Suite 500
Winnipeg, MB R3B 0R3

Misericordia General Hospital
99 Cornish Avenue
Winnipeg, MB R3C 1A2

Mr. Doug Holmes
Manager of Development and Inspections
Planning, Property and Development Department
City of Winnipeg

March 19, 2001

Project: *BRIDGES OF HOPE COURTYARD*
The Breast Cancer Centre of HOPE, 691 Wolesely Avenue
Regarding: *Phase II Construction: Three Season Sunroom*
Permit No.:

Dear Mr. Holmes:

Hello, my name is Monica Macra and I am writing to you on behalf of The Breast Cancer Centre Of Hope. Hope is a nonprofit organization operating under the umbrella of Cancer Care Manitoba. As a resource facility, The Centre's main focus is devoted to providing a full spectrum of information and support to women experiencing all stages of breast cancer. Hope's services include counseling, professional referrals, exam bookings, prosthetic aid delivery, library resources and support groups for women, their friends and their families. The Breast Cancer Centre Of Hope is located in a space donated by the Misericordia Health Centre on the first floor of the former Nursing Residence (691 Wolseley Ave. See Dwg SP-1). The 900ft^2 centre, is currently comprised of meeting areas and office spaces. The continued success of this facility has created increased spatial and programming needs. As a result, a holistic healthcare environment and its relationship to human well being recently became the focus for the physical expansion of The Centre.

I am writing to you today in the hope that the City of Winnipeg will help us to continue the exemplary journey of collaboration already underway at Hope, by processing our building permit application for Phase Two of construction as soon as possible. This letter only comprises one aspect of our permit application. The application package includes the following materials for your review:

Item	**Author**	**Copies**	
Letter Of Intent (this letter)	Monica Macra (HTFC)	2	8.5x11
Letter of Authorization	Len Trap (MHC)	2	8.5x11
Certificate Of Title	Len Trap (MHC)	2	8.5x11
Surveyors Bldg. Location Certificate	Len Trap (MHC)	2	8.5x11
Site Plan w/Proposed Addition	Monica Macra (HTFC)	4	11x17
Phase One Landscape Plan (for ref)	Monica Macra (HTFC)	4	11x17
Architectural Drawings (A-1 to A-3)	Monica Macra (HTFC)	4	11x17
Structural Drawings (S-1 to S-2)	Rob Otoole (CK)	4	11x17
Electrical Drawings (E-1)	Ken Green (MCW AGE)	4	11 x17

BRIDGES OF HOPE COURTYARD PROJECT HISTORY

In June of 1999, Hope administrators organized a committee to explore the idea of developing the abandoned exterior courtyard space immediately adjacent to the centre. The Hope Courtyard Committee is entirely volunteer based. Committee members include users and staff as well as healthcare and design professionals, who have donated over a year of their time and expertise on this project. The committee members you may need to contact regarding this particular application are listed bellow:

Name	Position	Organization	Phone #
Kathy Thomson	Director	The Breast Cancer Centre OF Hope	788-8080
Len Trap	Development	Misericordia Health Centre	788-8802
Heather Cram	Principal	HTFC Landscape Architects	944-9907
Monica Macra	Designer	HTFC Landscape Architects	944-9907
Robert Otoole	Principal	Crozier Kilgour Engineers	943-7501
Ken Green	Principal	AGE Engineering	779-1119

Over the past year this committee has designed two phases of development for The Breast Cancer Centre Of Hope. Phase One, a healing garden in the existing ground level courtyard space, was implemented during the summer of 2000 (See Phase I Plan L.03 Included). As a result the courtyard has been transformed into a place many visitors seek for contemplation, gardening and meeting.

Phase One was built with funds raised by the Pink Ribbon Golf Classic Golf Tournament, and with the kind support of community businesses such as J&D Penner, Barkman Concrete, Shelmerdine Nurseries and Skills Manufacturing to name but a few.

This year The Centre hopes to implement Phase II, The Bridges of Hope Sunroom as a new resource facility. In the continuing spirit of community effort, funding and donations for the sunroom have already been arranged, with many new suppliers such as Abesco Industries, Wilmar Windows, Tri-Cladd Systems and Dufresne Furniture already committed to the project.

BRIDGES OF HOPE COURTYARD PHASE TWO – THE BRIDGES OF HOPE SUNROOM

Early in the courtyard planning process it became evident that in order to allow all users the positive benefits of the therapeutic garden, a semi enclosed, transition space was required between the existing interior and the new garden exterior. Phase Two proposes the construction of a three season sunroom addition on the existing structural concrete slab that currently connects the east and west wings of the building at the first floor level (see drawings Sp-1 and A.01-A.03). Sunroom size specifications are as follows:

Total Usable Floor Area	= 350	square feet
North Wall Total Area	= 372	square feet
North Wall Glazing	= 38	square feet
South Wall Total Area	= 190	square feet
South Wall Glazing	= 148	square feet
Roof Area	= 370	square feet

***The Bridges Of Hope Sunroom is a very necessary resource for three key reasons*:**

1. Cancer and cancer treatments such as chemotherapy cause many side effects and sensitivities to environmental conditions. Some of the most common symptoms prohibiting some cancer patients from the full use of outdoor spaces are direct sunlight, extreme temperatures, pollens, bacteria and allergens. The flexible nature of the sunroom allows users of The Centre that are too weak for direct exposure outdoors, to participate in the healing garden experience. Indoor garden activities, a direct view of the garden, and positive sensory experiences such as sound and scent are provided to all users through the sunroom.

2. The sunroom meets Hope's growing need for additional space. During 7-9 months of the year, Hope will have an additional 350ft^2 of resource space. This space is being planned to house an additional counseling area and a tabletop workspace for occupational group therapy. In addition the sunroom provides storage on a year round basis.

3. As it stands today, the therapeutic garden space already designed for these women and their families, is accessible to the public through the raised concrete deck and rear exit. As a result the courtyard has already been subject to vandalism. The proposed sunroom would enclose the Phase One Garden, creating an appropriate barrier between the public lane and this very private place. The new north facing sunroom wall would also provide a more secure exterior facade to The Centre rather than the curtain glass walls that currently face the raised deck.

BUILDING CODES AND ZONING

During the development of these construction plans it became evident that certain building and zoning regulations must be addressed prior to construction. The remainder of this letter explains the special conditions created by the sunroom addition and presents our requests for the resolution of these issues on an item by item basis.

MANITOBA BUILDING CODE

Part 3 - Use and Occupancy:

3.1.2.1.1 Building Occupancy Classification

The Nursing Residence at 691 Wolseley Avenue is currently classified as a B-2 Occupancy (institutional). This building is no longer used as a nursing residence or patient care facility. All the building floors have been converted into office and meeting facilities for a wide variety of organizations affiliated with The Misericordia Health Centre. The main users of the building are independent individuals, with all their faculties. Although children and the elderly may visit and use the building, these visits are supervised and accompanied by appropriate care givers. In light of the changing use for this building, we respectfully request that the classification be changed to Group D Occupancy –Business and Personal Services.

3.2.2.42 Business and Personal Service Buildings, Up to 6 Storeys.

Clause 2a) and 2d)

The Former Nursing Residence is a 6 storey unsprinklered building with a floor area of 23,682 ft^2 facing two streets. Based on this calculation, the new sunroom construction shall be of noncombustible construction with a fire rating of one hour. The existing building is a concrete and masonry construction. The north sunroom wall addition and the existing concrete structural slab have been designed to meet these fire rating requirements (see architectural and structural).

Clause 2c)

The Nursing Residence is composed of two separate building wings connected by a south corridor. The west wing is s 6 storey structure while the remainder of the building is 1 storey (see SP-1). The sunroom is a separate, seasonal, one storey volume that will be situated between the west and east wings of the building along the existing north deck. The sunroom roof consists of an open beam and purlin construction clad with a metal decking material (see structural). The sunroom roof is not located adjacent to any combustible materials or building surfaces. We request that the sunroom be treated as a separate 1 storey building for the purposes of evaluating roof assembly, thus eliminating the 1 hour fire rating requirement in this area.

3.2.3.1 Limiting Distance and Area of Unprotected Openings

Limiting Distance equals Wall length divided by wall height. For the sunroom this is (27.9' / 9.5') = 2.9 feet or less than a 3:1 ratio. The area of the north sunroom wall is 269 ft^2, therefore using table 3.2.3.A the maximum area of unprotected openings allowable along this wall is 23%. The area of unprotected openings equals window area north wall divided by north wall area *100. For the sunroom this is (37.67 ft^2 / 269 ft^2 * 100). The percentage of unprotected openings meets the requirements at 14%.

3.2.3.13 Protection of Exit Facilities

The clearastory windows along the north wall of the sunroom are within 30 feet horizontally and 6.5 feet vertically of the new fire exit door. As a result these windows shall be constructed of georgian polished wire glass in a fixed steel frame as per article 3.1.8.14 of the code.

3.2.4 Electrical Components, Fire Alarms and Detection Systems

Ken Green of MCW AGE Consulting Professional Engineers is the electrical engineer for the sunroom. He has forwarded the following comments to be inserted into this section of the letter.

Electrical Specification points:

• Provide complete installation to conform to Canadian Electrical Code and local amendments.

• Provide new simplex fire alarm devices and tie into existing alarm and signal zone. New devices to be verified and certificate provided.

• Provide specification grade wiring devices throughout, colour to suit décor.

• All wiring to be concealed where possible. Any exposed wiring to be wiremold.

• Provide 3, 120 volt 15 ampere circuits to the space from existing panels in the building which are not controlled by timers.

•MCW/AGE Professional Engineers will be reviewing and approving the installation.

3.3 Requirements for Emergency Exits

The proposed sunroom location does not impede egress for building users that are not using Hope's main floor facility. Users of the 5 upper floors in the west wing have exit access through two separate stairwells, while users of the first floor level have main egress routes through the front of the building. However since the sunroom is located on fire exit routes for Hope and the storage area in the east wing, a new exterior firedoor complete with the appropriate hardware as per sections 3.4.6.10 to 3.4.6.12 will be installed on the north face of the sunroom. This exterior doorway leads onto the existing concrete deck and connects to the established pattern of egress from Hope.

The sunroom addition fully encloses the ground level courtyard space that has been developed as a healing garden. Under building occupancy D, the maximum distance to a means of egress from an enclosed space is 80 feet. The distance of the exit path from the south wall of the courtyard is 68 feet. In addition the south door of the sunroom has been equipped with non-locking hardware as per section 3.2.1.12d) in order to prevent accidental trapping in case of an emergency.

Part 4- Structural Design:

Robert Otoole of Crosier Kilgour & Partners, is the structural designer for the sunroom. He has forwarded the following comments to be inserted into this section of the letter.

The construction of the sunroom involves introducing additional loads to the pre-existing reinforced concrete deck and existing cast in place concrete pile foundations. Crosier Kilgour completed an analysis of the existing structure, revealing the existing building to be adequate for supporting the additional sunroom loads. In terms of additional loads, the snow-loading pattern is unchanged from the original design with only the only significant increase being the self-weight of the steel shell.

In turn, Crosier Kilgour & Partners has been committed to providing periodic on site inspections of the construction of the sunroom in order to certify that the structural portion of the work is in general conference with contract documents and applicable by-laws.

ZONING REQUIREMENTS

1.0 Schedule "A" – Application To Daz 202/83 (B/L 4016/85) "C1-5" or "OI" Zoning District

2.0 Rear Yard Requirements:
The building at 691 Wolseley Avenue was constructed in 1966. Due to its age and surrounding development the building does not meet the current 25 foot rear yard setback requirements for this area. The existing rear yard distance is 0' consistent with the two existing building wings (see SP-1). The proposed sunroom would be constructed on the existing concrete deck that runs along the north property line. As proposed, the north wall of the sunroom will be constructed 7'-0" from the property line and 11'–4" from the adjacent building face. In light of existing conditions we respectfully request that the minimum setback requirement be waived in this situation.

3.0 Floor Area Ratio Requirements:
The minimum allowable F.A.R. ratio is 2.0

F.A.R.	= Building Floor Areas/Lot Area	
F.A.R. 691 Wolesely	= 8,150 ft^2 / 11,945 ft^2	= 0.68

Due to the age of the building and subsequent developments in this area, this lot no longer meets floor area ratio requirements. In light of the fact that the sunroom is only 350 ft^2 of additional space and is being built on an existing structural slab already considered an exterior extension of the building, we respectfully request that the FAR requirement be waived in this situation.

4.0 Maximum Lot Coverage

The maximum allowable Lot Coverage for this building is 60%

Lot Coverage = (Total Building Floor Areas / Lot Area) *100

Lot Coverage 691 Wolesely = (3,37~~5~~6 ft^2 / 11,945 ft^2) *100 =282%

At 282%, 691 Wolesely Avenue does not meet the current maximum lot coverage zoning requirements. In light of the urban context of the Misericordia Health Centre and the minimal additional floor space of the seasonal sunroom, we respectfully request that the maximum allowable lot coverage requirement be waived in this case.

5.0 Zoning for this building requires 1 parking stall for every 250 ft^2 of development. 691 Wolesely currently has no designated or integrated parking on site. Parking is available at Misericordia Health Centre Parkade, located half a block south of this building on Sherbrook Street. No significant increases in the number of facility users are expected as a result of the sunroom addition. In light of these existing conditions we respectfully request that the parking requirements for this addition be waived.

IN CONCLUSION

We have submitted the following information in order to begin the process of acquiring the necessary approvals for Phase Two- Sunroom Construction. We hope that we can begin construction by May 28, 2001. We look forward to working with you in the process of making this worthwhile project a reality.

Should you have any questions or additional requests for information please feel free to contact me at 944-9907.

Sincerely

Monica Macra,

Bed. / MLarch Pending University of Manitoba
Designer, Hilderman Thomas Frank Cram, Landscape Architects and Planners
Breast Cancer Centre of Hope, Hope Courtyard Committee Design Team

MISERICORDIA
Health · Centre

· 99 Cornish Avenue · Winnipeg, MB R3C 1A2 ·

April 6, 2001

Ms Kathy Thompson, Director
Breast Cancer Centre of Hope
691 Wolseley Avenue
Winnipeg, MB R3G 1C3

Dear Kathy:

Re: Courtyard Project

As you requested, please accept this letter as our authorization for you to proceed with the final phase of construction. This phase involves the construction of a three-season sunroom in the courtyard of the Misericordia Education & Resource Centre (MERC).

With this approval, it is Misericordia Health Centre's understanding that a City of Winnipeg Building Permit will be obtained and all zoning requirements will be met and all financial obligations with regard to this project will be the responsibility of the Breast Cancer Centre of Hope.

If you require anything further please contact Len Trapp, our Project Officer, who will be happy to assist you. Good luck to you and your committee in this final phase.

Yours truly,

Allen R. Rance
President & C.E.O.

/jsm

THE CITY OF WINNIPEG • PLANNING, PROPERTY AND DEVELOPMENT DEPARTMENT

100 – 30 Fort Street, Winnipeg, Manitoba R3C 4X7

CUSTOMER APPLICATION INFORMATION

Applicant: Monica Macra
Hilderman Thomas Frank Cram
115 Bannatyne AVE E Suite 500
Winnipeg, MB R3B 0R3
Phone: (204)944-9907

Date Application Received: April 23, 2001

FILE #: **01 156329 000 00 PI**

PREMISES AFFECTED: **691 Wolseley AVE**

DESCRIPTION OF WORK: **Institutional Bldg**
Construct Addition
The Breast Cancer Centre of Hope - Construct a one storey, 350 square foot sunroom addition for an existing tenant on to an existing institution building. The sunroom will connect the east and west wings of the facility. Your District Inspector is Randy Michalkow. Office Hours are between 8:30 AM - 9:30 AM Monday thru Friday at 986-5193

For information on your application please call the appropriate number listed below:

Commercial Applications: (204) 986-7007 *
Residential Applications: (204) 986-2726

officer who dealt w/ me changed

INVOICE

Planning, Property and Development Department

30 Fort Street Unit 100
Winnipeg, Manitoba

INVOICE TO: Monica Macra
Hilderman Thomas Frank Cram
115 Bannatyne AVE E Suite 500
Winnipeg MB R3B 0R3

INVOICE NO.: 95154
INVOICE DATE: Apr 23, 2001
PERMIT #: 01 156329 PI

PROJECT LOCATION: 691 Wolseley AVE

PROJECT DESCRIPTION: Bridges of Hope - Construct a one storey, 350 square foot sunroom addition on to an existing ins

FEE DESCRIPTION	AMOUNT
Building Permit Plan Deposit Fee	$135.00
TOTAL:	$135.00
PAYMENT RECEIVED:	$0.00
BALANCE:	**$135.00**

REPEAT VALIDATION #1
ERROR CORRECT
98 AMANDA ONE STOP 135.00-
FOLDER # 156329
4485 48 01 APR 23 4:35 PM

98 AMANDA ONE STOP 135.00
FOLDER # 156329
4485 48 01 APR 23 4:34 PM

98 AMANDA ONE STOP 135.
FOLDER # 156329
4495 48 01 APR 24 9:04 AM

DATE: 2001/04/24
TIME: 08:37
POST

MANITOBA

STATUS OF TITLE

TITLE NO: 1477488
PAGE: 1

STATUS OF TITLE..... ACCEPTED
ORIGINATING OFFICE..... WINNIPEG
REGISTERING OFFICE..... WINNIPEG
REGISTRATION DATE..... 1996/12/04
COMPLETION DATE..... 1997/01/02

PRODUCED FOR: C
BY: D.NEGUSIE
LTO BOX NO:

LEGAL DESCRIPTION:

MISERICORDIA GENERAL HOSPITAL

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON IN THE FOLLOWING DESCRIBED LAND:

SP LOT 27 AND 28 PLAN 34199 WLTO
IN RL 79 PARISH OF ST JAMES

ACTIVE TITLE CHARGES:

85-43561	WPG ACCEPTED	CAVEAT	REG'D: 1985/05/23
	FROM/BY:	THE CITY OF WINNIPEG	
	TO:		
	CONSIDERATION:	NOTES:	

ACCEPTED THIS 4TH DAY OF DECEMBER, 1996
BY W.KNIGHT FOR THE DISTRICT REGISTRAR OF
THE LAND TITLES DISTRICT OF WINNIPEG.

UNCERTIFIED EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE SYSTEM ON 2001/04/24 OF TITLE NUMBER 1477488 .

********** END OF STATUS OF TITLE FOR TITLE 1477488 WPG **********

HILDERMAN
THOMAS
FRANK
CRAM

FAXED
Pg 19 Date 04/24/01

FAX MEMORANDUM

PROJECT: **Bridges of Hope Courtyard Phase II**
Sunroom Consruction
(Our File No. Volunteer)

Fax No.
957-4236

To: Mr. Charles Chappell

cc:

From: Heather Cram and Monica Macra
Hilderman Thomas Frank Cram

Date: April 24, 2001

Re: Sunroom Permit Approvals

Mr. Chappell

Thank you very much for taking the time to help this special project. We have all been working hard to make this a reality for the growing number of women who are finding The Breast Cancer Centre Of Hope a very valuable resource.

I have attached the application package we forwarded to the city on April 24, 2001. The permit application number is 01 156329 000 00 PI, and the address of the proposed construction is 691 Wolseley Avenue.

The people at the city permits office that I have been in contact with are, Merv Perkins (Plan Examiner), Brian Cunningham (retired now I believe), and Randy Vanvliet (Zoning Officer). The letter of intent attached was addressed to Doug Holmes, however I was told the package did not need to go to him.

Should you require an original, full size copy of this package I can arrange to bring it to you by hand. Please call if you have any questions or concerns.

Sincerely

Monica Macra

If any pages are not legible: Phone: (204) 944-9907 / Fax (204) 957-1467

Landscape Architecture • Planning

#10

Winnipeg

Planning, Property & Development Department • Service de l'urbanisme, des biens et de l'aménagement

Planning and Land Use Division • Division de l'urbanisme et de l'usage des sols

In reply please refer to / Référence à rappeler :

P. Kasper
(204) 986-5222
Fax / Téléc. : (204) 986-3684

File No. DAV 275/01C
CCA – City Centre
Our c/f CP 500 (.103)

May 22, 2001

TO THE CHAIRMAN AND
MEMBERS OF THE BOARD OF ADJUSTMENT

PREMISES: 691 Wolseley Avenue
APPLICANT: Hilderman Thomas Frank Cram
SUBJECT: To vary the "C1.5" district regulations of Zoning By-law No. 6400/94 for the construction of an addition (sunroom) to an existing institutional building as follows:
1) to permit a floor area ratio (F.A.R.) of 2.87 instead of 2.0;
2) to permit a lot coverage of 71.5% (8500 square feet/789.65 square metres) instead of 60% (7,135 square feet/662.89 square metres).

The subject property is located at the northwest corner of Sherbrook Street and Wolseley Avenue. The site is zoned "C1.5" commercial district. Located on the property is a building with a west wing of six (6) storeys (offices) joined in the middle by a corridor then a one storey east wing. On the south side of Wolseley Avenue is the Misericordia General Hospital. Adjacent to the north is a building that is utilized for commercial purposes. Within the immediate neighbourhood along Sherbrook are restaurants and retail businesses. The proposed building addition provides approximately 350 square feet of additional floor area. The building addition will be occupied by the Hope Centre. The addition will establish a floral courtyard. The subject variance application concerns the construction of an addition with variances on floor area ratio and lot coverage.

The floor area ratio of the building is presently 2.84 and the addition will increase the floor area ratio by .03. The lot coverage of the building at present is 68.5% and the addition will increase the coverage to 71.5% or 3% greater. The variances can be considered minimal. The existing building on the site was constructed in 1961. The previous City of Winnipeg Zoning By-law No. 16502 did not have maximum floor area ratio and site coverage maximums on the then zoned "C2" site.

It should be noted that plan approval under "Schedule A" for site development and building elevations are required under Part 8 of the Zoning Agreement registered as Caveat No. 85-43561 (DAZ 202/83, By-law No. 4016/85).

Considering the above-noted application in the context of Section 608(1) of The City of Winnipeg Act, it is the opinion of this Department that the variance should be approved, with conditions, because of the following:

a) The proposed order is consistent with Plan Winnipeg, a secondary plan or development by-law.

b) The proposed order does not create a substantial adverse effect on the amenities, use, safety and convenience of the adjoining property and adjacent area.

c) The proposed order is the minimum variation of a development by-law required to relieve the injurious effect of the development by-law on the applicant's property.

Since this proposed order does meet all three of the statutory requirements, it is recommended that the application be GRANTED, subject to the following conditions which are considered to be necessary to ensure that the proposed development conforms with Subsection 608(1):

1) that, if any variance granted by this order is not established within two (2) years of the date hereof, this order, in respect of that variance, shall terminate.

Yours truly,

V. Buckley
Manager of Planning and Land Use

Per: Pat Kasper, Planning Assistant,
986-5222

Address of applicant:
500-115 Bannatyne Avenue
Winnipeg, Manitoba
R3B 0R3

3. Upon completion of the work and prior to issuance of a Building Occupancy Permit, the ***designer*** must submit a letter bearing his/her seal and signature and stating:

   "The construction has been reviewed under my supervision in accordance with recognized professional inspection standards, and to the best of my knowledge the structure was constructed in accordance with the accepted drawings and specifications and requirements of the applicable By-laws."

Yours truly,

K. W. Franklin, P.Eng.
Structural Plan Examination Engineer

KWF/fz

cc: CFS
Commercial Building Inspections

M. Macra
Hilderman Thomas Frank Cram
115 Bannatyne Avenue East, Suite 500
Winnipeg, MB R3B 0R3

Misericordia General Hospital
99 Cornish Avenue
Winnipeg, MB R3C 1A2

RECEIVED
AUG 1 0 2001

Winnipeg

Planning, Property & Development Department • Service de l'urbanisme, des biens et de l'aménagement

Development and Inspections Division • Division de l'aménagement et des inspections

In reply please refer to / Référence à rappeler :

Merv Perkins
(204) 986-5238
Fax / Téléc : (204) 986-7307

August 8, 2001

Barrie J. Ottenbreit, MAA, MRAIC
Number Ten Architectural Group
115 Bannatyne AVE Unit 310
Winnipeg MB R3B 0R3

Dear Sir:

RE: PROPOSED SUNROOM ADDITION – PHASE 11 - 691 WOLSELEY AVE
FILE: 01 156329 000 00 PI, PX 481/01 (PLEASE QUOTE WHEN REPLYING)

The plans of the above noted project have been examined for a building permit and the following requirements of the Winnipeg Building By-law No. 4555/87 and the Manitoba Building Code 6th Edition are directed to your attention:

The building is classified as a Group D, major occupancy and is regulated under Article 3.2.2.50. of the Manitoba Building Code.

1. Wired glass in window types D, E, F to comply to Article 3.1.8.14. and Appendix D. – maximum pane 0.84 m² - maximum dimension 1.4 m.
2. Items of letter dated July 3, 2001, (B. Ottenbreit, MAA) to be included with accepted plans as applicable.
3. Section 3.8. Barrier Free Design applies to this building. Please note that access to the building shall be by means of an entrance intended for general use by the public or the building occupants.
4. Exit doors shall be openable from the inside without requiring keys, special devices or specialized knowledge of the door opening mechanism. Minimum door size 2' 8" x 6' 8". Glass doors/sidelights to comply 3.3.1.18.
5. The flame spread ratings for interior finishes shall comply with the requirements of Subsection 3.1.13. – maximum 150 on walls and ceilings.

6. The design architect and/or engineer will be required to provide inspection over all aspects of construction regulated by Part 3. of the Manitoba Building Code as required by Subsection 6.3 of the By-law, and prior to issuance of a Building Occupancy Permit, the responsible architect and/or engineer must submit a letter bearing his seal and signature and stating:

   "The construction has been reviewed under my supervision in accordance with recognized professional inspection standards, and that to the best of my/our knowledge the structure was constructed in accordance with the accepted drawings and specifications and requirements of the applicable By-Laws."

7. The granting of a permit, the approval of the drawings and specifications or inspections made by the authority having jurisdiction shall not in any way relieve the owner of a building from full responsibility for carrying out the work or having the work carried out, and for maintaining the building in accordance with the requirements of the Code, including ensuring that the occupancy of the building, or any part thereof is in accordance with the terms of the Building Occupancy Permit.

8. Every owner shall obtain a Building Occupancy Permit from the Authority having Jurisdiction prior to any

   (a) Occupancy of a building or part thereof after construction, partial demolition or alteration of that building, or

   (b) Change in the major occupancy of any building or part thereof.

Yours truly,

Merv Perkins
Fire Protection Plan Examiner

cc: CFS
Commercial Building Inspections Branch

Hilderman Thomas Frank Cram
115 Bannatyne Avenue E, Suite 500
Winnipeg, MB R3B 0R3
Att: Monica Macra

The Breast Cancer Centre of Hope
691 Wolseley Avenue
Winnipeg, MB R3G 1C3
Att: Ms. K. Thompson, Director

CROSIER KILGOUR & PARTNERS LTD.

Consulting
Structural Engineers

July 30, 2001

Our File No. 2000-325

The City of Winnipeg
Plans Examination Department
100 - 30 Fort Street
Winnipeg, Manitoba
R3C 4X5

Attention: Mr. K. Franklin

Dear Sir:

Re: Bridges of Hope Courtyard, The Breast Cancer Centre of HOPE
691 Wolseley Avenue - File No. 01 156329 000 00 PI

This is to confirm that our office has reviewed the south facing windows of the above mentioned project and found that they meet the handrail loading requirements. The windows were assessed in accordance with sections 4.1.10.3 "Loads On Walls Acting As Guards" and 4.1.10.1.1(c) "Loads on Guards" of the 1995 National Building Code of Canada. The stresses induced by these loading conditions did not exceed those produced by a standard uniform wind pressure test, as per the attached window test report.

Yours truly,

PROVINCE OF MANITOBA
July 30
S. L. GRIEEF
REGISTERED PROFESSIONAL ENGINEER

Susan Grieef, P. Eng.

/SLG

Enclosure

cc: Hilderman Thomas Frank Cram - Monica Macra
Number Ten Architectural Group - Barrie Ottenbreit

APEGM
Certificate of Authorization
No. 235
Expires April 30 2002
signature
July 30 01
date

F:\2000\300_399\2000-325\corres\letter\2000-325Let#2.wpd

Partners
K.J. Hearson, P.Eng.
J.D. Miller, P.Eng.
G. Graham, C.E.T.
R.J. O'Toole, P.Eng.
J.A. Wells, M.Sc., P.Eng.
T.K. Malkiewicz, C.I.M., P.Eng.

300-207 Donald Street
Winnipeg, Manitoba
R3C 1M5

Tel: (204) 943-7501

INSPECTION REPORT

CROSIER KILGOUR & PARTNERS LTD.

Consulting
Structural Engineers

Project Name:	Bridges of Hope Courtyard	**Report No.:**	1
Location:	691 Wolseley Avenue, Wpg.	**File No.:**	2000-325
Architect:	Number Ten Architectural Group	**Time:**	8:20 - 11:00 a.m.
Contractor:		**Weather:**	16°C
Inspection Date:	August 31, 2001	**By:**	Greg Yakubovich

The project site was visited for a site meeting and a general review of the work in progress.

During this visit, installation of the structural steel framing was in progress.

To date, approximately 95%± of the structural steel installation was completed.

The following observations were made during this visit:

- Underside of all column base plates are still to be grouted.
- Roof channel to weld plate connections located in the southeast and southwest corners of the courtyard were modified to allow for the existing door operation and the modifications were found to be acceptable.
- Vertical cross bracing located on the northeast and northwest sides of the courtyard can be removed to allow stud wall installation. All other braces to remain in place, as shown on drawing S.1.

Greg Yakubovich, C.E.T.

GY/td

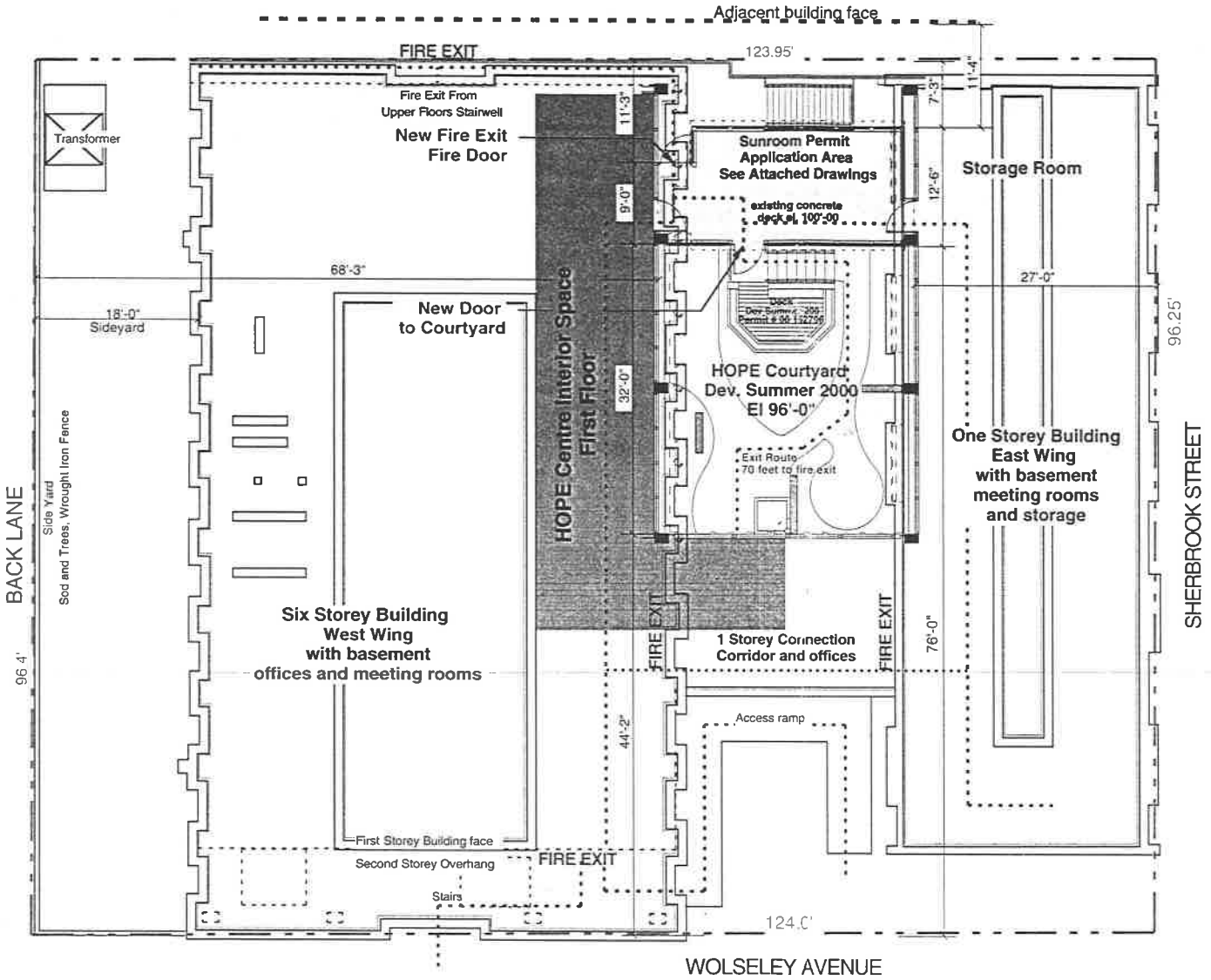
cc: Number Ten Architectural Group
Hilderman Thomas Frank Cram

F:\2000\300_399\2000-325\insp\2000-325Insp.#1.wpd

Partners
K.J. Hearson, P.Eng.
J.D. Miller, P.Eng.
G. Graham, C.E.T.
R.J. O'Toole, P.Eng.
J.A. Wells, M.Sc., P.Eng.
T.K. Malkiewicz, C.I.M., P.Eng

300-207 Donald Street
Winnipeg, Manitoba
R3C 1M5

Tel: (204) 943-7501
Fax: (204) 943-7507
e-mail: ckp@ckpeng.com



NORTH

No.	Revision	Date

BRIDGES OF HOPE
COURTYARD
641 Wolseley Avenue
Winnipeg Manitoba

Project Title

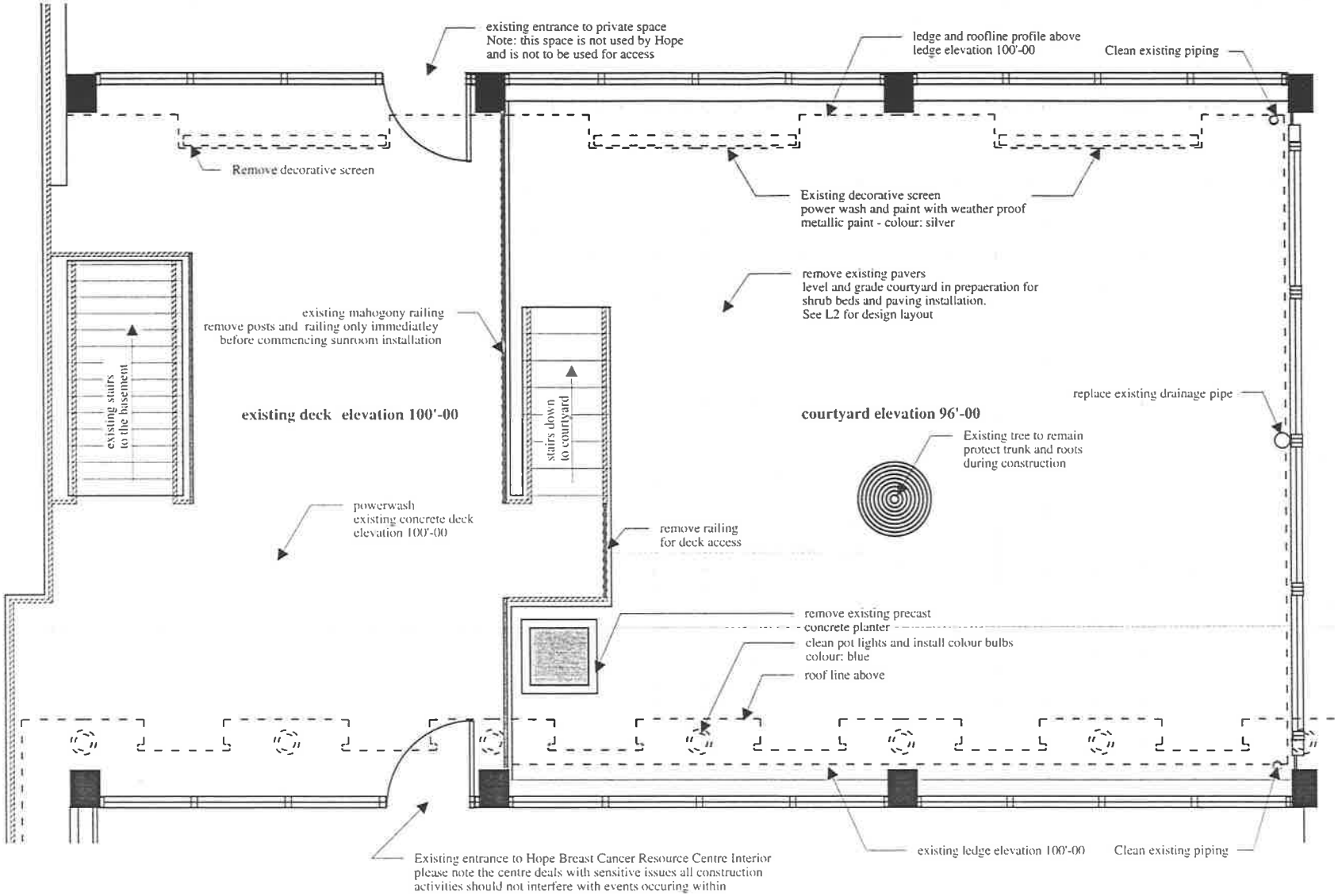
Site Plan
Existing and Proposed Structures
For Permit Purposes

Drawing Title

Hope
Breast
Cancer
Information
and
Resource
Centre

Drawn: m.a.m | Date: Nov 22/00

Scale: 1/12" = 1'-0" or 1:144 | Drawing: SP -1



NOTE:

Powerwash all surfaces before construction begins. Especially,

- Concrete Deck
- Courtyard Walls and Windows
- Decorative Screens

No. Revision Date

BRIDGES OF HOPE
COURTYARD
PHASE I

Project Title

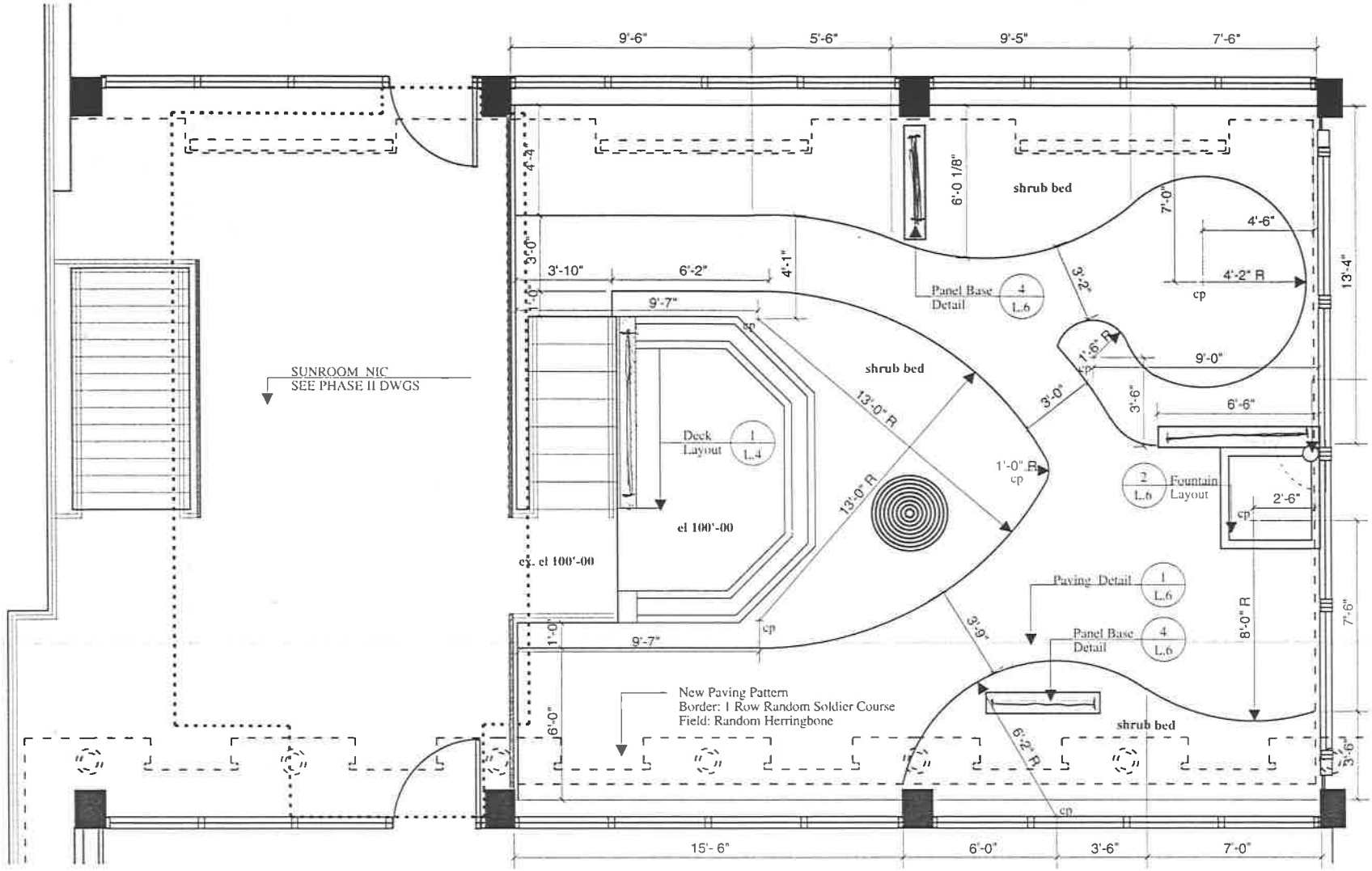
Existing Conditions and
Demolition Plan

Drawing Title

Hope
Breast
Cancer
Information
and
Resource
Centre

Drawn BB/JB Date 20/07/00

Scale 1/4" = 1'-0" Drawing L.01



Note:

1. New Courtyard Elevation shall be 96'-0". Paving and shrub beds shoud slope gently (1% or less) towrds the centre of the courtyard and the tree.

2. All areas indicated as shrub bed shall be prepared by contractor as specified. Planting by others.

New Drainage Pipe

BRIDGES OF HOPE
COURTYARD
PHASE I

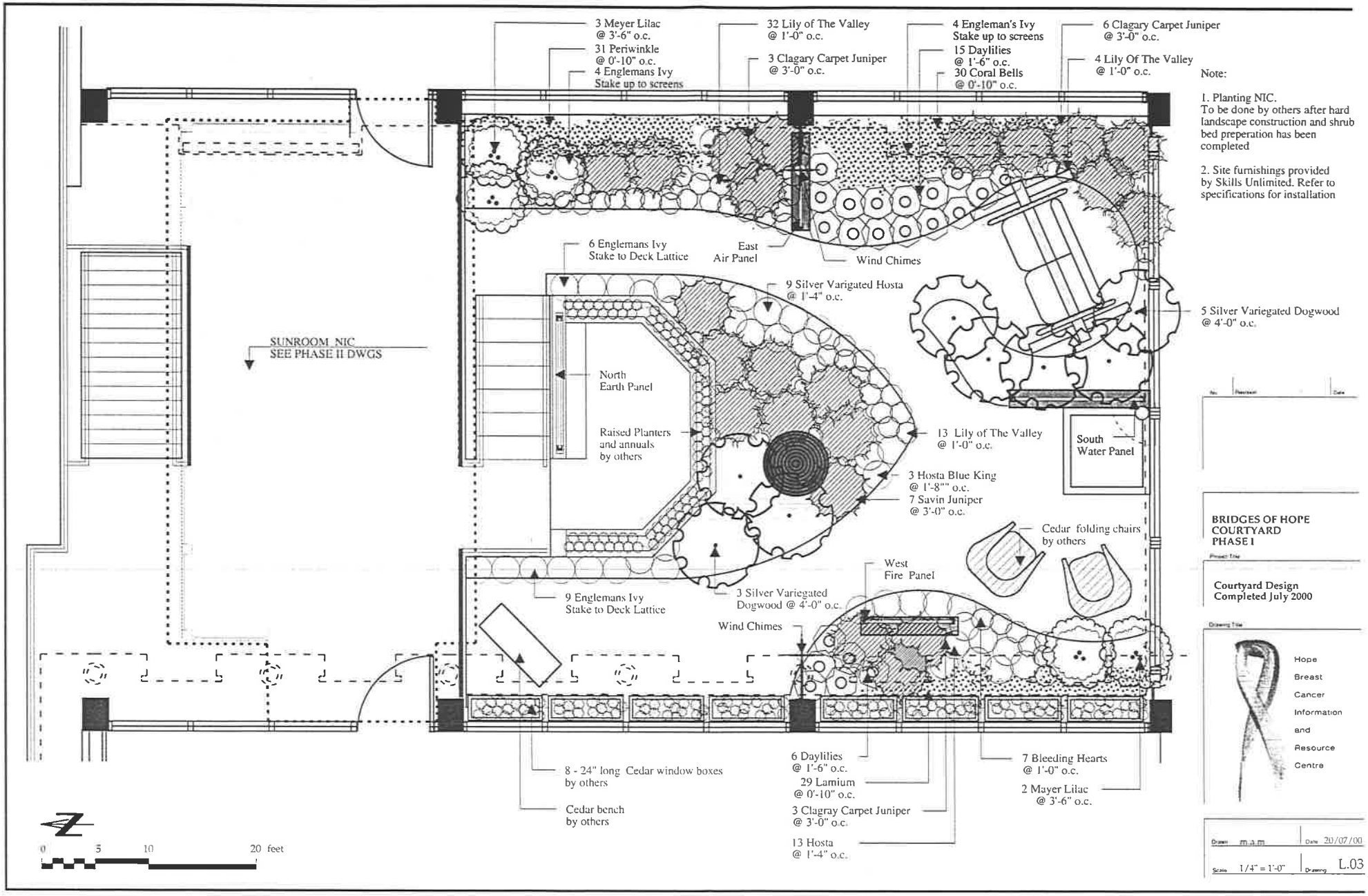
Landscape Layout and Grading Plan

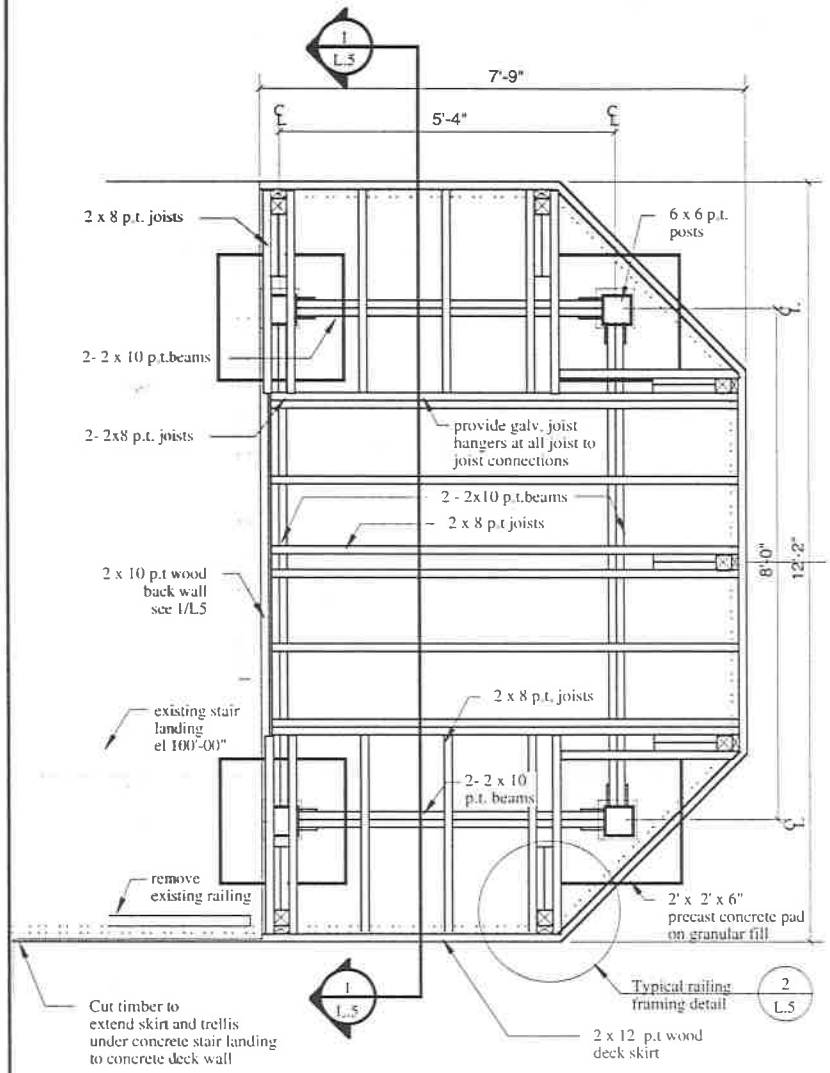
Hope Breast Cancer Information and Resource Centre

Date 20/07/00

Scale 1/4" = 1'-0"

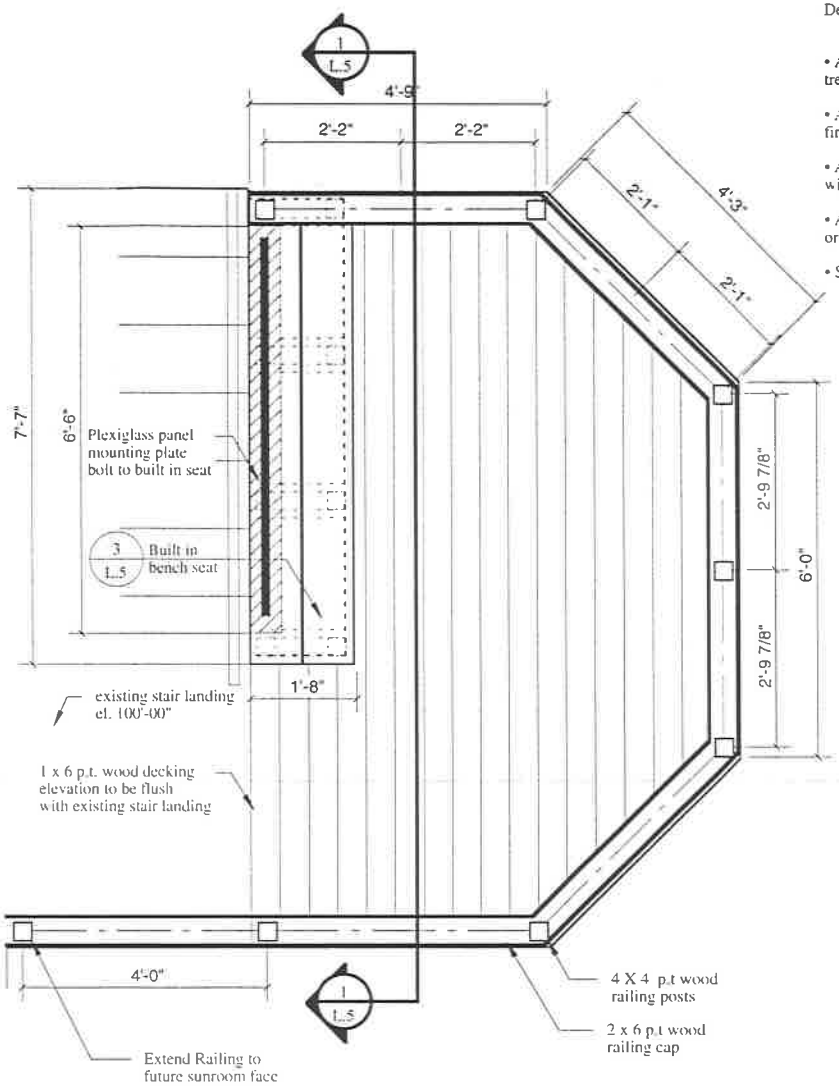
L.02


3 Meyer Lilac
@ 3'-6" o.c.
31 Periwinkle
@ 0'-10" o.c.
4 Englemans Ivy
Stake up to screens
32 Lily of The Valley
@ 1'-0" o.c.
3 Clagary Carpet Juniper
@ 3'-0" o.c.
4 Engleman's Ivy
Stake up to screens
15 Daylilies
@ 1'-6" o.c.
30 Coral Bells
@ 0'-10" o.c.
6 Clagary Carpet Juniper
@ 3'-0" o.c.
4 Lily Of The Valley
@ 1'-0" o.c.
6 Englemans Ivy
Stake to Deck Lattice
East
Air Panel
Wind Chimes
9 Silver Varigated Hosta
@ 1'-4" o.c.
5 Silver Variegated Dogwood
@ 4'-0" o.c.
SUNROOM NIC
SEE PHASE II DWGS
North
Earth Panel
Raised Planters
and annuals
by others
13 Lily of The Valley
@ 1'-0" o.c.
South
Water Panel
3 Hosta Blue King
@ 1'-8"" o.c.
7 Savin Juniper
@ 3'-0" o.c.
Cedar folding chairs
by others
West
Fire Panel
9 Englemans Ivy
Stake to Deck Lattice
3 Silver Variegated
Dogwood @ 4'-0" o.c.
Wind Chimes
8 - 24" long Cedar window boxes
by others
Cedar bench
by others
6 Daylilies
@ 1'-6" o.c.
29 Lamium
@ 0'-10" o.c.
3 Clagray Carpet Juniper
@ 3'-0" o.c.
13 Hosta
@ 1'-4" o.c.
7 Bleeding Hearts
@ 1'-0" o.c.
2 Mayer Lilac
@ 3'-6" o.c.
0 5 10 20 feet
Note:
1. Planting NIC.
To be done by others after hard landscape construction and shrub bed preperation has been completed
2. Site furnishings provided by Skills Unlimited. Refer to specifications for installation
No. Revision Date
BRIDGES OF HOPE
COURTYARD
PHASE I
Project Title
Courtyard Design
Completed July 2000
Drawing Title
Hope
Breast
Cancer
Information
and
Resource
Centre
Drawn m.a.m
Date 20/07/00
Scale 1/4" = 1'-0"
Drawing L.03



1 L.4 Deck Framing Plan

1/2" = 1'-0"



2 L.4 Deck Surface and Planter Plan

1/2" = 1'-0"

Deck Construction Notes

- All deck components to be pressure treated wood.
- All wood components to be treated wi fire retartant spray.
- All beams to be fastened to posts with heavy duty steel joist hangers
- All hardware to be hot dipped galvani or approved for outdoor use and durabil
- See detail 1/L5 for deck cross bracing

No. Revision Date

BRIDGES OF HOPE COURTYARD PHASE I

Project Title

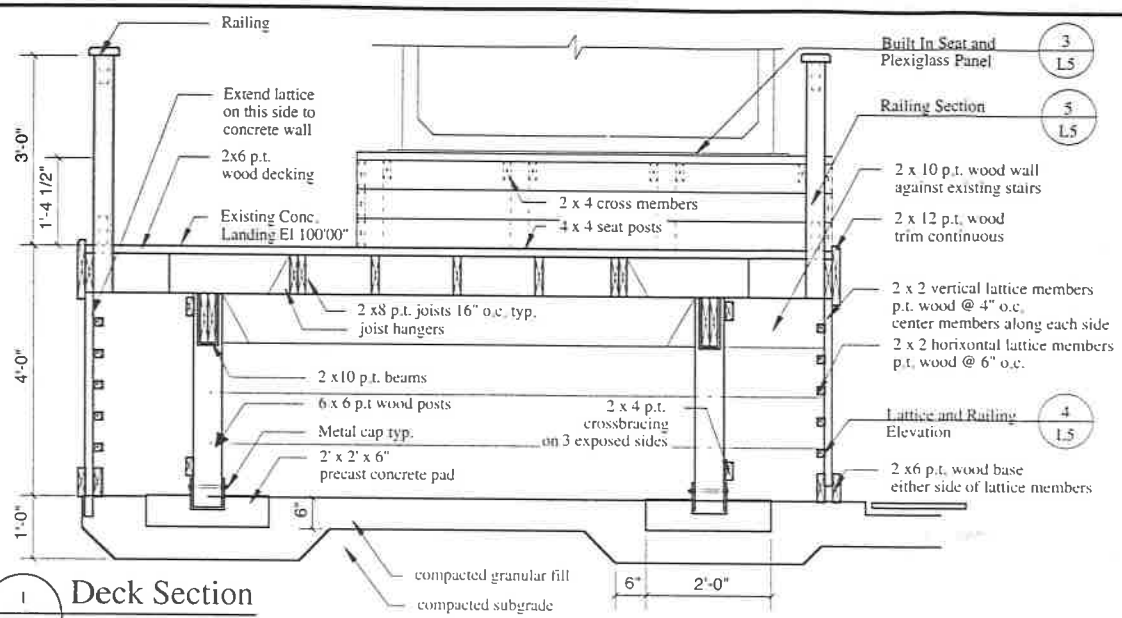
Deck Framing Plan

Drawing Title

Hope Breast Cancer Information and Resource Centre

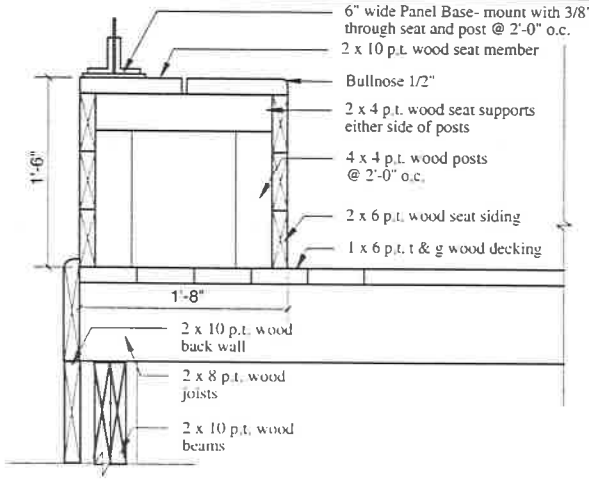
Drawn: m.a.m Date: 20/07/00

Scale: 1/2" = 1'-0" Drawing: L.04



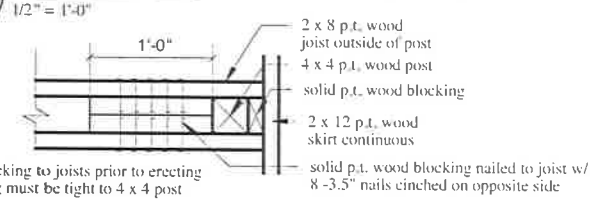
1 L5 Deck Section

1/2" = 1'-0"



3 L5 Built In Seat and Panel Base

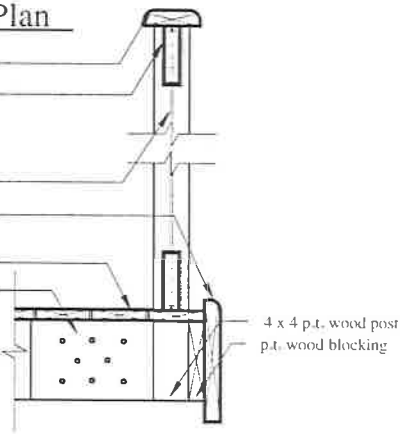
1" = 1'-0"



Note:
Nail blocking to joists prior to erecting
Blocking must be tight to 4 x 4 post

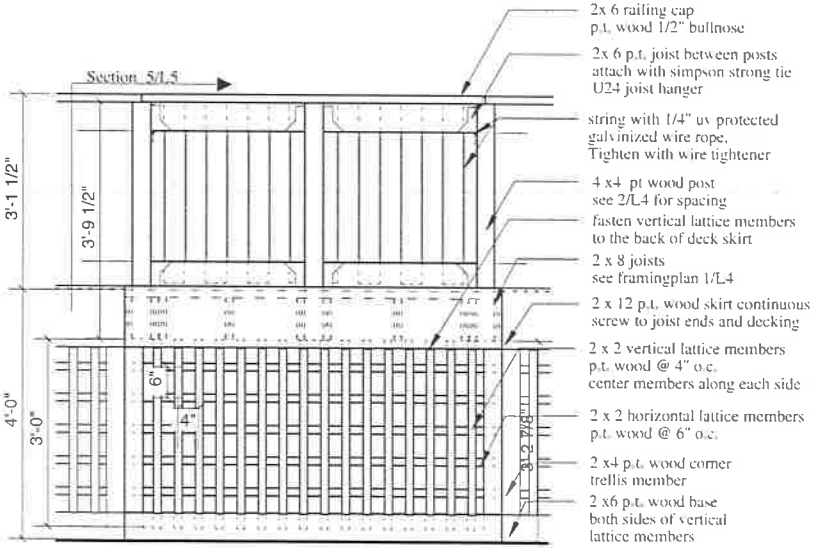
2 L5 Railing Post Framing Plan

1" = 1'-0"



5 L5 Railing Cross Section

1" = 1'-0"



4 L5 Lattice and Railing Elevation

1/2" = 1'-0"

No. Revision Date

BRIDGES OF HOPE COURTYARD PHASE I

Project Title

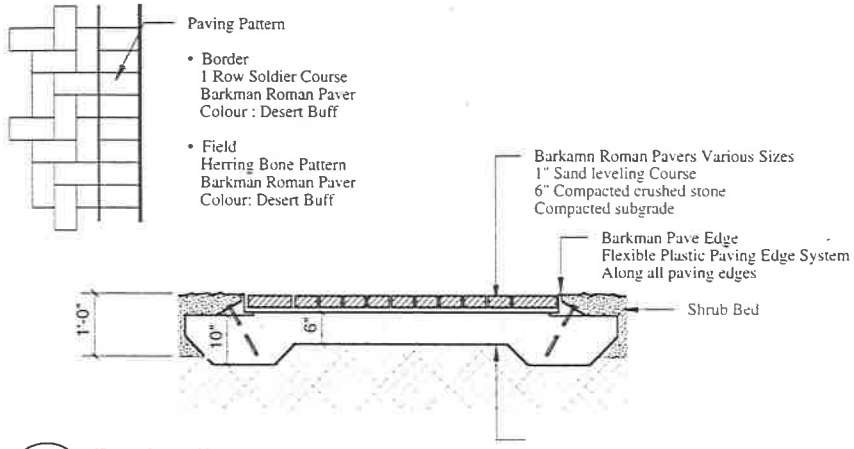
Landscape Details

Drawing Title

Hope Breast Cancer Information and Resource Centre

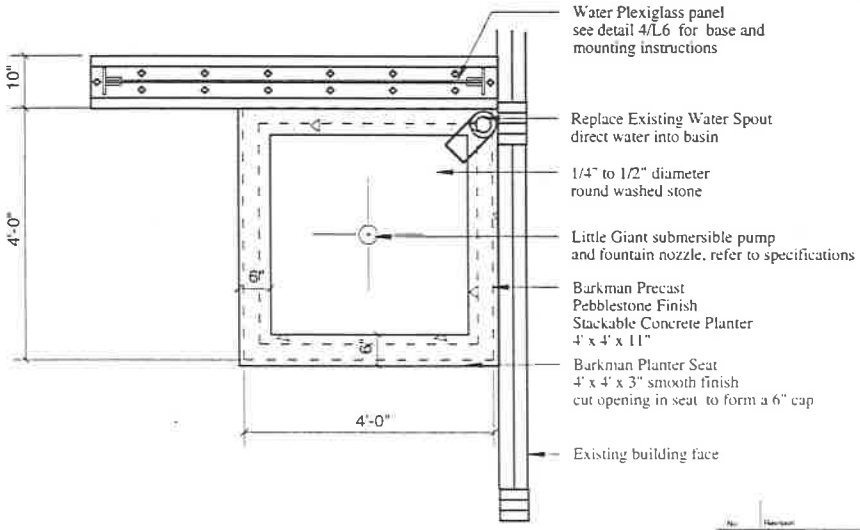
Draw m.a.m Date 20/07/00

Scale Varies Drawing L.05



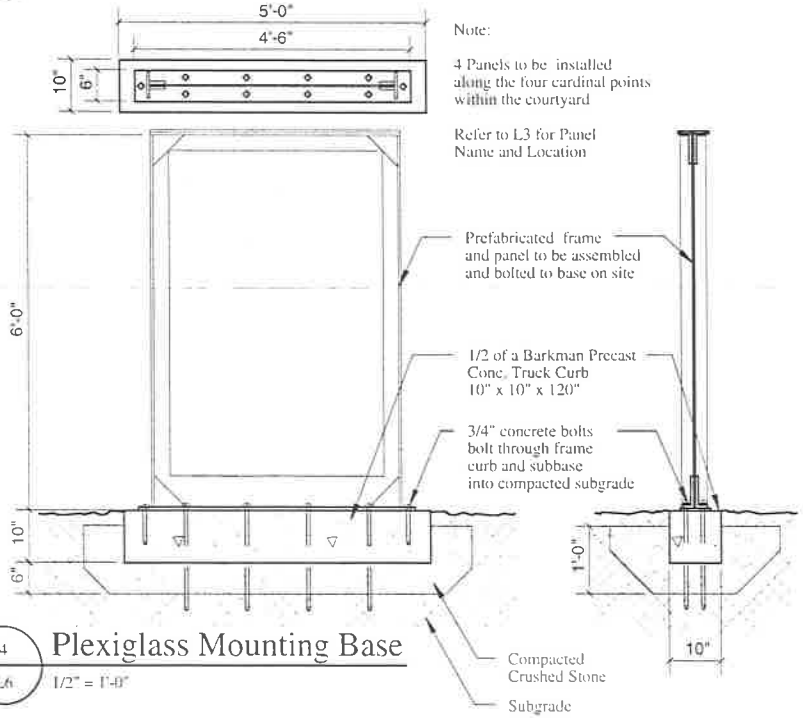
1 / L6 **Paving Detail**

1/2" = 1'-0"



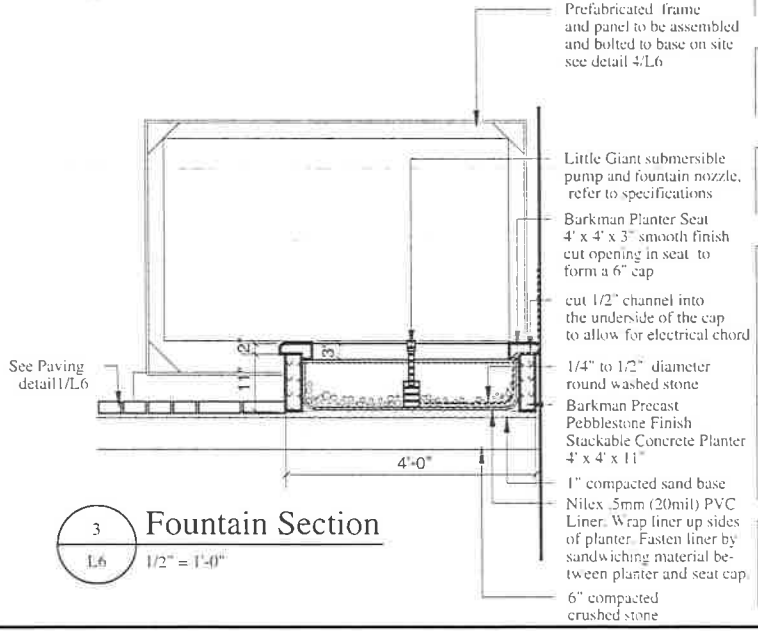
2 / L6 **Fountain Plan**

1/2" = 1'-0"



4 / L6 **Plexiglass Mounting Base**

1/2" = 1'-0"



3 / L6 **Fountain Section**

1/2" = 1'-0"

No	Revision	Date

BRIDGES OF HOPE COURTYARD PHASE I

Project Title

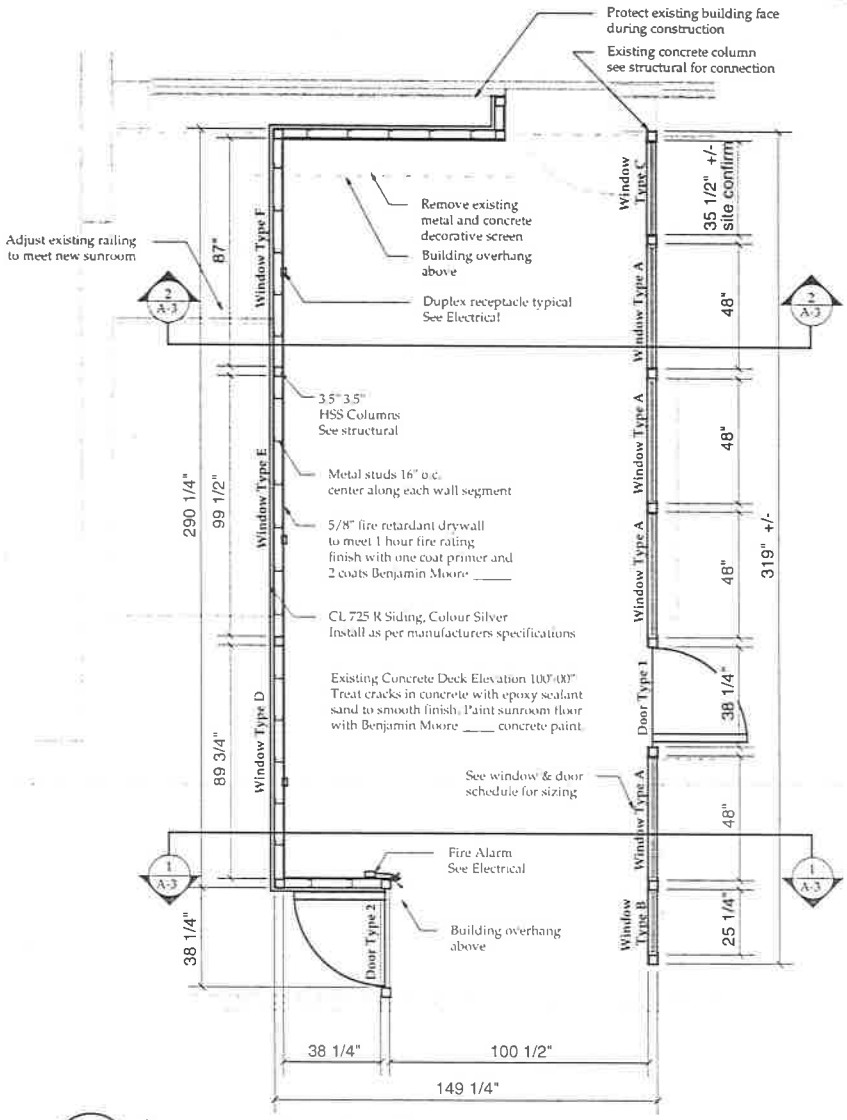
Landscape Details

Drawing Title

Hope Breast Cancer Information and Resource Centre

Draw m.a.m | Date 20/07/00

Scale Varies | Drawing L.06



1 A-1 Sunroom Framing Plan

1/4" = 1'-0"

NORTH

CONSTRUCTION NOTES:

DEMOLITION	Remove and dispose of existing concrete lattice screen and all corresponding framing components.
FRAMING	Install steel framing as per structural specifications. All framing components shall be inspected by the structural engineer prior to cladding, window and wall installation
CLADDING	Install metal cladding as per manufacturers specifications. All wall cladding to be silver. All roof cladding to be forest green.
GLAZING	Install all windows plumb and square as per manufacturers specifications. Seal all exterior window joints with clear waterproof sealant.
DOORS	Install all doors plumb and square as per manufacturers specifications. All door hardware shall be tested for proper operation.
HARDWARE	All hardware shall be as specified by the manufacturer. If hardware is not specified it shall be submitted for approval prior to construction.
INTERIOR CLADDING	All drywall components to be 5/8" fire retardant panels. Install panels true and square finish top and bottom edges with the appropriate trim.
FINISHES	All paint shall be applied to walls and floors as per manufacturer specifications. Walls shall be treated with two coats of primer and two coats of paint. The floor shall be treated with as many coats as necessary for full and saturated coverage.

WINDOW AND DOOR SCHEDULE

NAME	WIDTH	HEIGHT
WINDOW TYPE A Awning Window	48"	71 5/8"
WINDOW TYPE B Awning Window	24 1/4"	71 5/8"
WINDOW TYPE C Awning Window	35 1/2'	71 5/8"
WINDOW TYPE D Georgian Polished Wire Glass	89 3/4"	24 3/4"
WINDOW TYPE E Georgian Polished Wire Glass	99 1/2"	24 3/4"
WINDOW TYPE F Georgian Polished Wire Glass	87"	24 3/4"
DOOR TYPE 1 Glass Patio Door	38 1/4"	79 5/8"
DOOR TYPE 2 Exterior Wall Fire Door	38 1/4"	79 5/8"

NB:

- Dimensions are from inside of post to inside of post unless otherwise indicat
- Refer to structural drawings for centre line to centre line dimensions

PROVINCE OF MANITOBA
BARRIE OTTENBREIT
04/07/01
REGISTERED ARCHITECT

No	Revision	Date

BRIDGES OF HOPE COURTYARD

Project Title

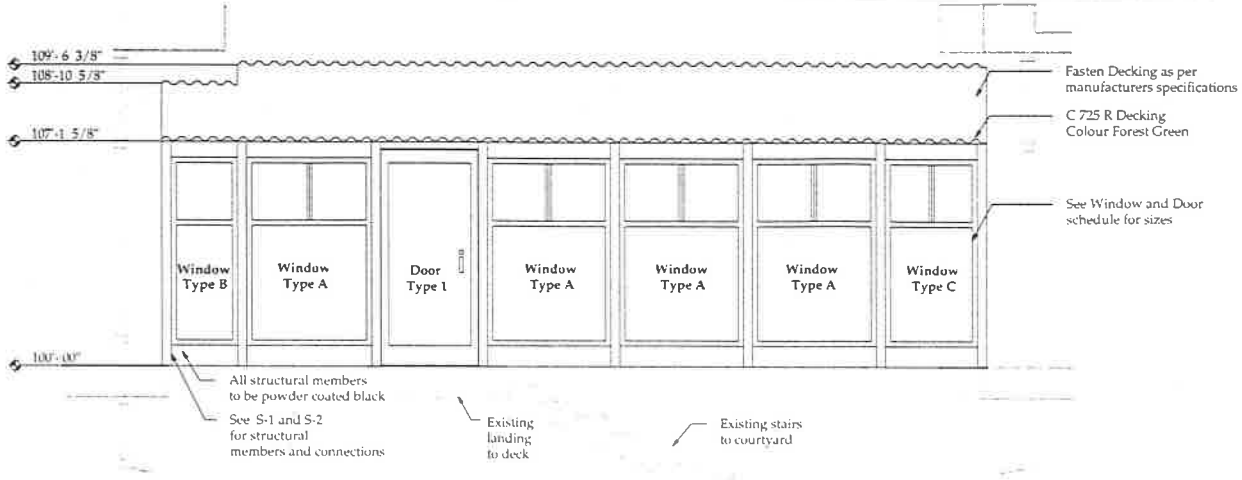
Sunroom Construction Framing Plan and Notes

Drawing Title

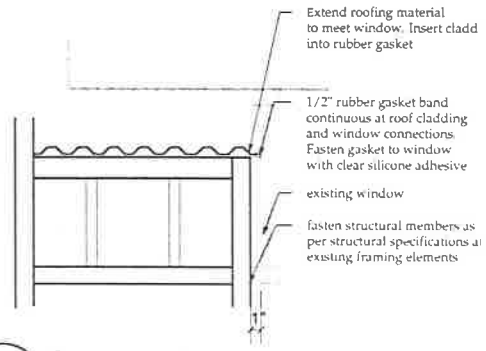
Hope Breast Cancer Information and Resource Centre

Drawn: [illegible] Date: 7/3/01

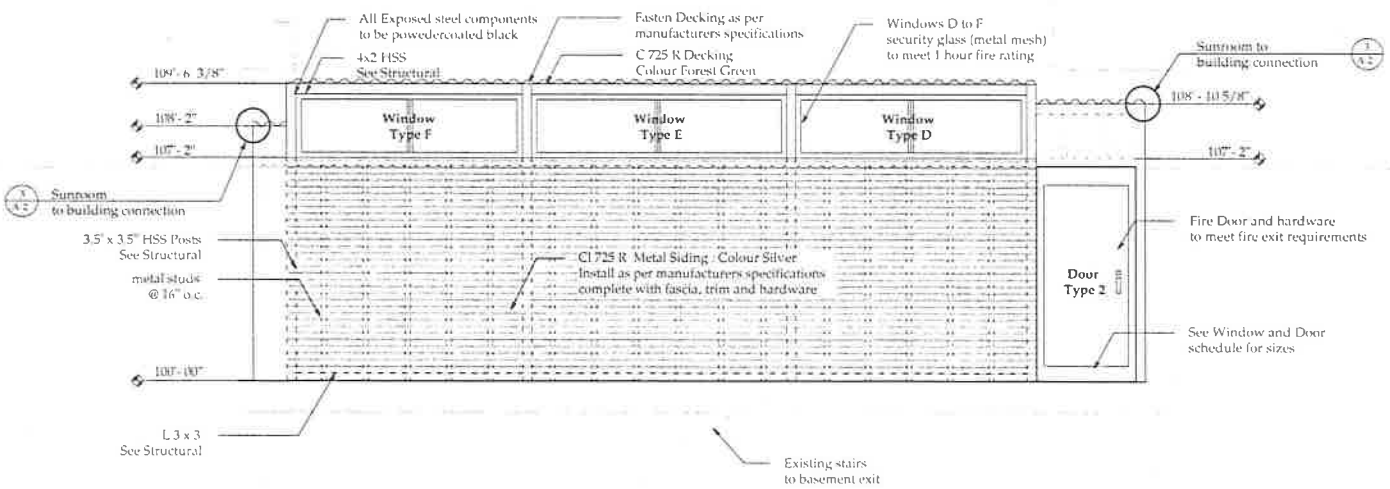
Scale: 1/4" = 1'-0" Drawing: A-1



1 / A-2 Sunroom South Elevation
1/4" = 1'-0"



3 / A-2 Sunroom to Building Connection
1" = 1'-0"



2 / A-2 Sunroom North Elevation
1/4" = 1'-0"

PROVINCE OF MANITOBA
BARRIE OTTENBREIT
07/07/01
REGISTERED ARCHITECT

No.	Revision	Date

BRIDGES OF HOPE COURTYARD

Project Title

Sunroom Construction North and South Elevations and Details

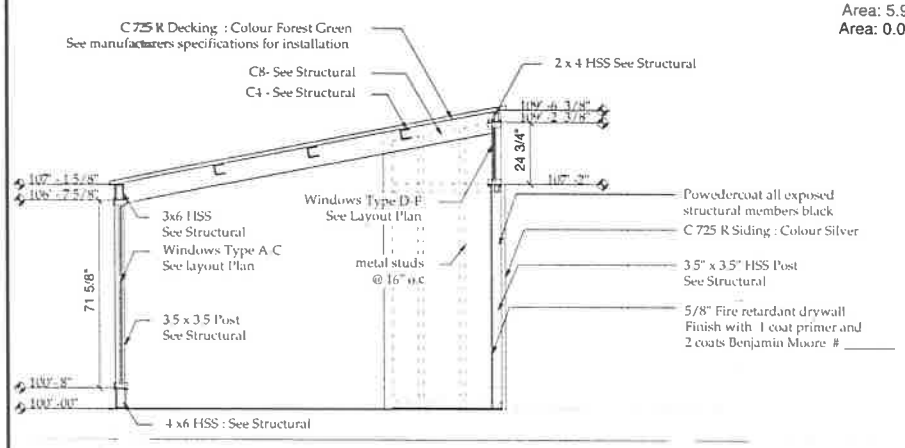
Drawing Title

Hope Breast Cancer Information and Resource Centre

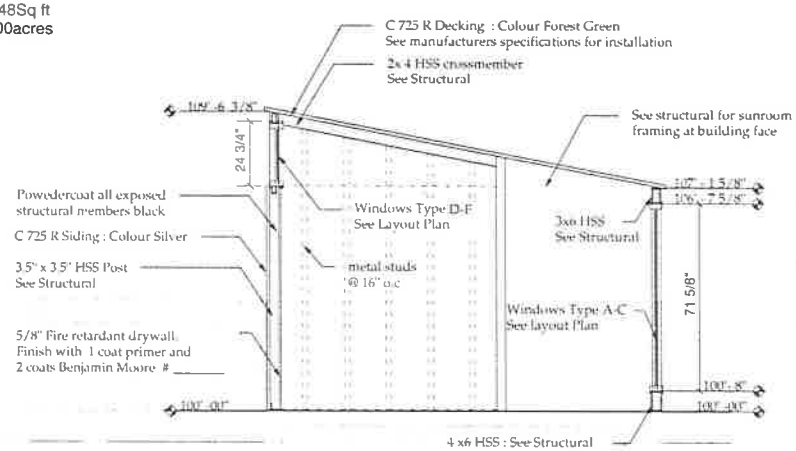
Drawn m.a.m | Date 7/3/01

Scale 1/4" = 1'-0" | Drawing A-2

Area: 5.948Sq ft
Area: 0.000acres



1 A-3 Sunroom West Section
1/4"= 1'-0"



2 A-3 Sunroom East Section
1/4"= 1'-0"

PROVINCE OF MANITOBA
BARRIE OTTENBREIT
04/07/01
REGISTERED ARCHITECT

No.	Revision	Date

BRIDGES OF HOPE COURTYARD

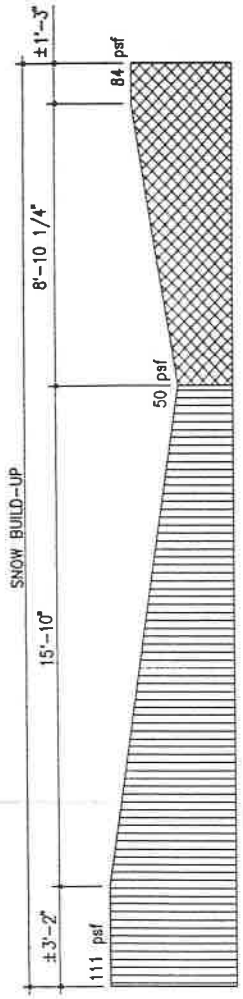
Project Title

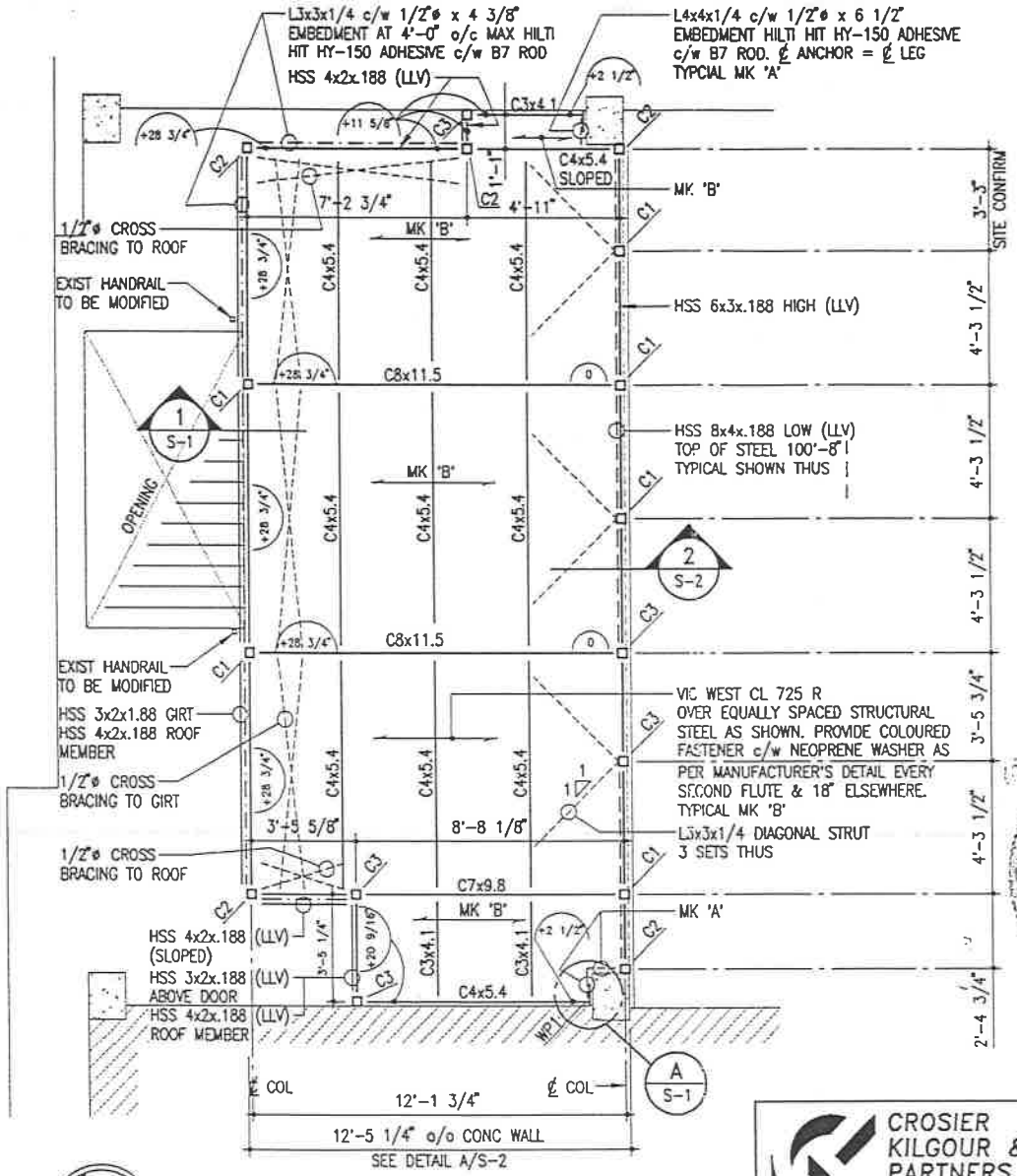
Sunroom Construction East and West Sections and Details

Drawing Title

Hope Breast Cancer Information and Resource Centre

Drawn m.a.m Date 7/3/01
Scale 1" = 4'-0" Drawing A-3

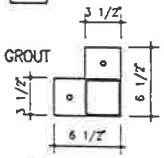




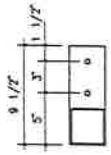
COLUMN SCHEDULE

C1: HSS 3 1/2x3 1/2x.188
3 1/2"x9 1/2"x5/8" BASE PLATE ON 1" GROUT
2-1/2"ø x 4 3/8" EMBEDDED HILTI HIT HY-150 ADHESIVE c/w B7 ROD
U/S BASE PLATE EL 100'-1"

C2: HSS 3 1/2x3 1/2x.188
3 1/2"x6 1/2"x6 1/2"x5/8" BASE PLATE ON 1" GROUT
2-1/2"ø x 4 3/8" EMBEDDED HILTI HIT HY-150 ADHESIVE c/w B7 ROD
U/S BASE PLATE EL 100'-1"

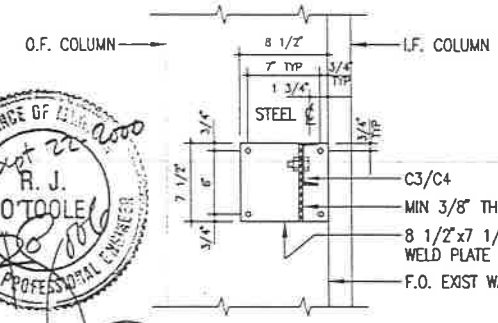


C3: HSS 3 1/2x3 1/2x.188
3 1/2"x9 1/2"x5/8" BASE PLATE ON 1" GROUT
2-1/2"ø x 4 3/8" EMBEDDED HILTI HIT HY-150 ADHESIVE c/w B7 ROD
U/S BASE PLATE EL 100'-1"



WELD PLATE SCHEDULE

WP1: 8 1/2"x7 1/2"x1/2" WELD PLATE
4-1/2"ø x 6" EMBEDDED HILTI KWIK BOLTS (SPACED AS SHOWN)
PROVIDE MIN 3/8" THICK STIFFENER FULL HEIGHT OF PLATE

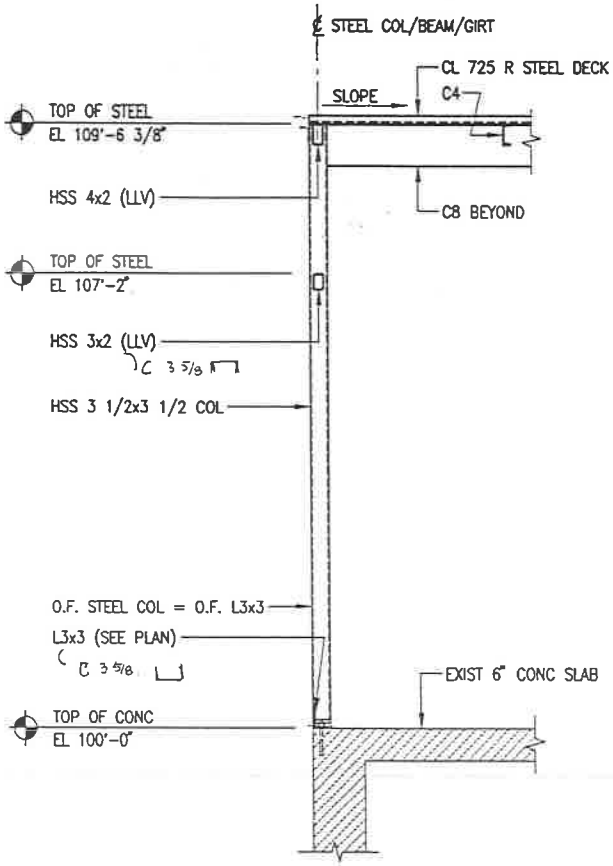


A / S-1 DETAIL (WP1)
1" = 1'-0"

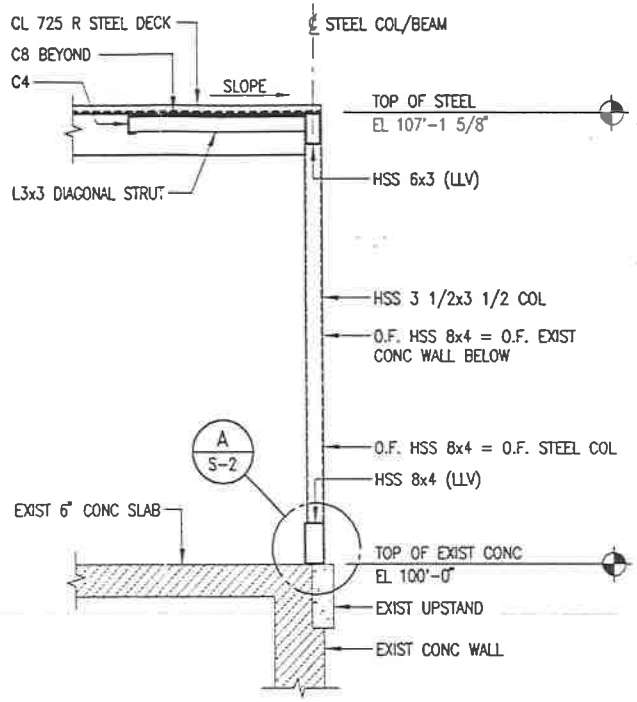
ROOF FRAMING PLAN
1/4" = 1'-0"
•TOP OF STEEL EL 107'-1 5/8" U/N ±

CROSIER KILGOUR & PARTNERS LTD.
Consulting Structural Engineers
300 – 207 Donald Street,
Winnipeg, Manitoba R3C 1M5
TELEPHONE: (204)943-7501 FAX: (204)943-7507

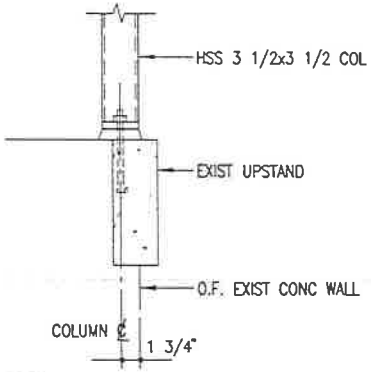
Project: BRIDGES OF HOPE COURTYARD, WINNIPEG, MANITOBA			
Sheet Title: SUNROOM FRAMING PLAN			Sheet No. S-1
Design: ARA	Drawn By: TW	Date: SEPT 05, 2000	File: 2000-325



1 S-2 SECTION
1/2" = 1'-0"



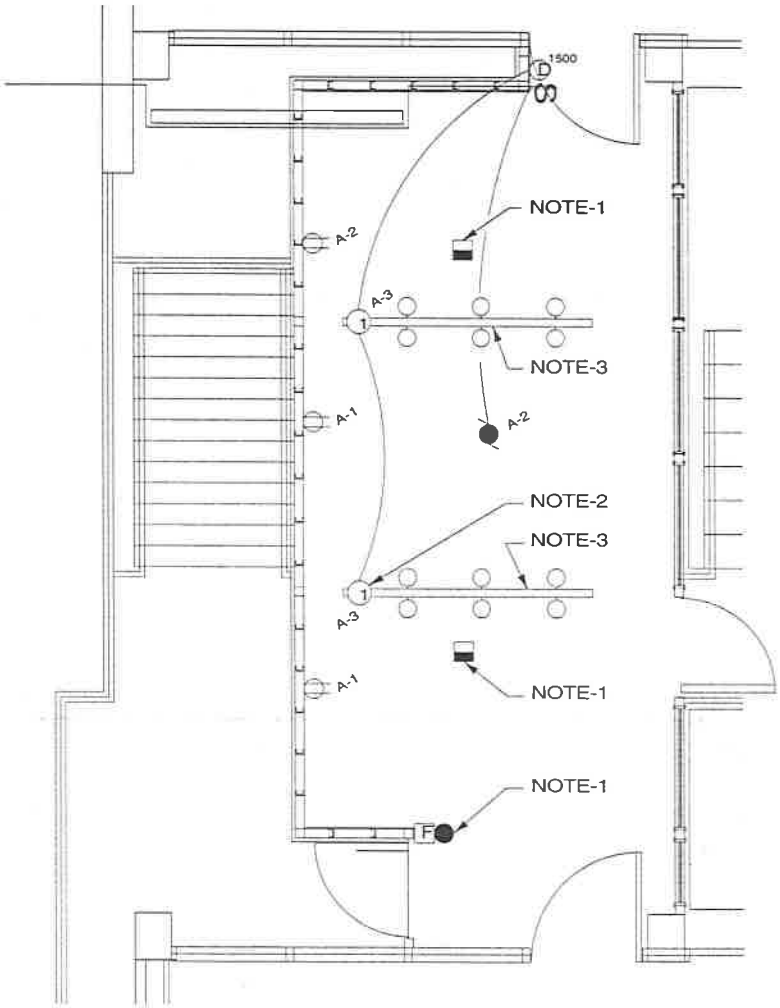
2 S-2 SECTION
1/2" = 1'-0"



A S-2 DETAIL
1" = 1'-0"

CROSIER KILGOUR & PARTNERS LTD.
Consulting Structural Engineers
300 – 207 Donald Street,
Winnipeg, Manitoba R3C 1M5
TELEPHONE: (204)943-7501 FAX: (204)943-7507

Project BRIDGES OF HOPE COURTYARD WINNIPEG MANITOBA				
Sheet Title SUNROOM SECTIONS				Sheet No. S-2
Design ARA	Drawn By TW	Date SEPT 05, 2000	File 2000-325	



SYMBOL SCHEDULE

	TRACK LIGHTING
S	SINGLE POLE SWITCH
1000W	DIMMER SWITCH ("1000W" DENOTES WATTAGE)
	MOTOR CONNECTION
DM	SMOKE DETECTOR ("DM" DENOTES DUCT MTD.)
F	FIRE ALARM MANUAL PULL STATION
10"	FIRE ALARM BELL (10" DENOTES SIZE)

NOTES:

1. PROVIDE NEW SIMPLEX FIRE ALARM EQUIPMENT TO MATCH EXISTING AND CONNECT TO EXISTING ZONE.

2. CONNECT NEW EQUIPMENT TO NEAREST PANELS IN AREA. COORDINATE LOCATION WITH OWNERS REPRESENTATIVE 3 - 15 AMPERE CIRCUITS.

3. PROVIDE TRACK LIGHTING ON TOP OF STRUCTURAL MEMBER. PROVIDE TOTAL OF 12 LUMINAIRES TO ILLUMINATE THE SPACE.

4. PROVIDE SPECIFICATION GRADE WIRING DEVICES THROUGHOUT, COLOUR TO SUIT DECOR.

5. ALL WIRING TO BE CONCEALED WHERE POSSIBLE. ANY EXPOSED WIRING TO BE IN WIREMOLD PAINTED TO MATCH DECOR.

6. PROVIDE COMPLETE INSTALLATION TO CONFIRM TO CANADIAN ELECTRICAL CODE AND LOCAL AMENDMENTS.

1 / E-1 Sunroom Plan - Electrical Layout

1/4"= 1'-0"

No. Revision Date

MCW / AGE

BRIDGES OF HOPE COURTYARD

Project Title

Sunroom Construction Electrical Layout

Drawing Title

Hope Breast Cancer Information and Resource Centre

Drawn J.L. Date 05/22/200

Scale 1/4" = 1'-0" Drawing E-1