A Cancer Garden for St. Elizabeth Medical Center in Lafayette, IN

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Comprehensive Thesis Project:
A Cancer Garden for
St. Elizabeth Medical Center
Lafayette, IN

L.A. 404 – Comprehensive Project
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April, 2005
Acknowledgements:

- Thank you to my studio professor and thesis advisor, Ron Spangler for all of his help and guidance on my comprehensive project.

- To my parents, Joe and Lisa Rasmussen, thank you for all of their support and love through not only my college career, but my whole life.

- Thanks go to my brother, Sean Rasmussen, for being there to talk to me on the weekends and for looking up to me as a role model. Good luck in the CAP program in the following years!

- Special thanks goes to my Grandma Rasmussen, for being a strong woman whose battle with cancer was one of my biggest inspirations for this project. I love you Grandma!

- To the rest of my family and friends, thanks for all of the support and love over the years.

- Another special thanks to “the pod”, Mayra and Kate for all of the talks, support, and hugs over the years! You really got me through some rough times, Thanks!!!
Abstract:

A cancer garden would provide a space for patients to go and help heal their mind and body with nature. Cancer patients go through many stressful times and situations. Most of their time is spent in hospitals for treatment or when battling other illnesses that attack their immune system at its weakest point. Hospitals are known for the physical healing of patients while a garden would incorporate the mental and emotional healing for the patients. A cancer garden would allow the patients and caretakers to have access to a space that would include the mental and emotional healing processes for cancer patients. This creates a need for a garden that is full of life and brings hope into the cancer patients’ lives.

The site of this cancer garden would be located at St. Elizabeth Medical Center in Lafayette, Indiana. The problem with the St. Elizabeth medical campus as it is now is that there is not any existing greenspace, or open park space for the patients, visitors, and/or medical staff to go to or utilize while they are on the campus. The design has incorporated a cancer garden into the medical campus to the north of St. Elizabeth Medical Center. The design helps to unify the medical campus with an outdoor destination for the surrounding medical campus.

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**Introduction:**

A cancer garden would provide a space for patients to go and help heal their mind and body with nature. Cancer patients go through many stressful times and situations. Most of their time is spent in hospitals for treatment or when battling other illnesses that attack their immune system at its weakest point. Hospitals are known for the physical healing of patients while a garden would incorporate the mental and emotional healing for the patients. A cancer garden would allow the patients and caretakers to have access to a space that would include the mental and emotional healing processes for cancer patients. This creates a need for a garden that is full of life and brings hope into the cancer patients’ lives. According to Roger S. Ulrich, “Patients, visitors, and staff in healthcare facilities doubtless derive benefits from quite different types of experiences with gardens, including: active experiences such as physical rehabilitation and horticultural therapy; less physically active modes such as sitting and talking; and physically passive contacts such as looking at the garden through a window.” (29, Healing Gardens: Therapeutic Benefits and Design Recommendations). Physical rehabilitation could be incorporated into the gardens to provide a physical aspect of walking through the nature of the garden but also still under the watchful care of their caretakers. Horticultural therapy would be used in the cultivation of the garden itself. These different types of therapies would be integrated into the space by the plant material and the hardscapes. Therapeutic gardens help to relieve stress and make everyone’s life a little better.

**Background:**

Therapeutic gardens are becoming more integrated into the landscapes around us. These gardens can be a part of a hospital grounds or they can be a garden park that is open to everyone to enjoy. When designing a “healing” or therapeutic garden there is the research into what is relevant to everyone that will be affected by this space. The main concentration for a therapeutic garden is the healing elements that are in the space as well as the space itself. Michael Lerner, Ph.D, President and founder of the Commonwealth
Cancer Help Programs describes healing in this way: “Healing is an inner process through which a person becomes whole. Healing can take place at the physical level, as when a wound or broken bone heals. It can also take place at an emotional level, as when we recover from terrible childhood traumas or from a death or a divorce. It can take place at a mental level, as when we learn to reframe or restructure destructive ideas about ourselves and the world that we carried in the past. And healing can take place at what some would call a spiritual level, as when we move toward God, toward a deeper connection with nature, or toward inner peace and a sense of connectedness.” (13, Choices in Healing). This way of looking at healing or therapeutic gardens would help to create a space for the users to come to have inner tranquility and have a place that is designed just for them. A cancer garden is just one type of therapeutic or “healing” garden that could be integrated into the landscape of a hospital.

This type of garden could be utilized by the patients while they are at the hospital for treatments. One such place that a cancer garden could exist is at St. Elizabeth Medical Center in Lafayette, IN. The Medical Center includes an Oncology Center for the treatments of the different types of cancer and is also located close to Purdue University where cancer research is being conducted. These two factors combine to make St. Elizabeth Medical Center a very promising location for a cancer garden for the patients.

Definitions of Therapy of Nature:

The use of nature and its elements as therapy is not as common as we might think. With the definitions of Therapy, Nature, Alternative, and Garden, I hope that you, the reader of this work can have a better understanding of what I am trying to design for St. Elizabeth Medical Center. This garden would incorporate nature into a space where patients, visitors, and staff can go outside and interact with the nature around them and “heal” them mentally through their mind and through their spirit.

Therapy:

- Treatment Psychotherapy.
- Healing power or quality: the therapy of fresh air and sun.
• of illness or disability.

Nature:
• The material world and its phenomena.
• The forces and processes that produce and control all the phenomena of the material world: the laws of nature.
• The world of living things and the outdoors: the beauties of nature.
• A primitive state of existence, untouched and uninfluenced by civilization or artificiality: couldn't tolerate city life anymore and went back to nature.
• Theology. Humankind's natural state as distinguished from the state of grace.
• A kind or sort: confidences of a personal nature.
• The essential characteristics and qualities of a person or thing: “She was only strong and sweet and in her nature when she was really deep in trouble” (Gertrude Stein).
• The fundamental character or disposition of a person; temperament: “Strange natures made a brotherhood of ill” (Percy Bysshe Shelley).
• The natural or real aspect of a person, place, or thing. See Synonyms at disposition.
• The processes and functions of the body.

Alternative:
Noun:
• The choice between two mutually exclusive possibilities.
• A situation presenting such a choice.
• Either of these possibilities. See Synonyms at choice.
• Usage Problem. One of a number of things from which one must be chosen.
adj.
• Allowing or necessitating a choice between two or more things.
• Existing outside traditional or established institutions or systems: an alternative lifestyle.
• Espousing or reflecting values that are different from those of the establishment or mainstream: an alternative newspaper; alternative greeting cards.
• Usage Problem. Substitute or different; other.

Garden:

• A plot of land used for the cultivation of flowers, vegetables, herbs, or fruit.
• Grounds laid out with flowers, trees, and ornamental shrubs and used for recreation or display. Often used in the plural: public gardens; a botanical garden.
• A yard or lawn.
• A fertile, well-cultivated region.
• An open-air establishment where refreshments are served.
• A large public auditorium or arena.

All of these definitions combine to create Therapy of Nature through a Garden
Case Studies:
The Rusk Institute
Herbert L. Hanna Center for Oncology Care
Marin Cancer Institute
Community Health Partners Cancer Center
Case Studies:

1. Rusk Institute
New York University Radiation Oncology Services

The Rusk Institute began incorporating horticultural elements into the reception and treatment areas in 1994. The Oncology Unit of the Rusk Institute is located in the basement of the hospital creating a negative outlook for patients as they went down into the space that was enclosed and without windows. The therapeutic garden was designed to create symbols of life and hope for patients. This garden incorporates open spaces, running water, skylights, and living plants. There is a southwestern desert garden incorporated in one of the waiting areas to create a sense of warmth and safety. Another reception area is designed as a tropical garden that incorporates re-circulating waterfalls and murals. Besides these garden oasis and waiting areas, the treatment areas have been redesigned to create a sense of safety and security by having homey feeling decor.

“According to Dr. Jay Cooper, there have been many “unexpected virtues,” that have arisen from this. Patients reported they are much more comfortable in the setting, and find it much easier to talk and express their concerns, as well as absorb information.”

(www.cancer.org, Profile of a Therapeutic Garden, 1998/08/26)

2. Herbert L. Hanna Center for Oncology Care
Indiana

The Herbert L. Hanna Center for Oncology Care opened a new state-of-the-art cancer treatment center in the Medical Arts Building adjacent to the Indiana Regional Medical Center on August 25, 2003. The Cancer Garden was implemented in October of 2003. The Cancer Garden emphasizes the healing power of horticultural elements. The garden was designed to provide the patients and their families with a tranquil spot to meditate, relax and actually stop and smell the roses. The design incorporates flowers, shrubs, trees, ornamental grasses and an ever-blooming rose bush. There have also been sensory elements incorporated into the garden. These sensory elements include herb
lemon balm and lavender. There are visually appealing elements in the garden as well. These visual elements include yellow mums, mauve sedum, and bright purple butterfly bushes. The center piece of the garden is an urn-type fountain. This incorporates the gentle sound of water into the garden. The focus of the garden design was to create a healing garden by filling the planting beds and borders with perennials that create a colorful display for upcoming years and require a minimum amount of maintenance. The Cancer Garden design works in with the new holistic approach to wellness. “‘Cancer care has been the leader in looking at incorporating these (non-traditional types of therapies into their treatment,’’ says Nancy Smith, a Kiwanis member, the hospital’s community services director, and a registered nurse.” (http://pittsburghlive.com/, Cancer Garden emphasizes healing power of horticulture, 09/10/2004). The Cancer Garden is working in conjunction with the Herbert L. Hanna Center for Oncology Care has created “a place of solace” for patients and their families. This view of different types of cancer treatment working together is showing how there is a greater comprehensive cancer care out there. “Charlie Shoemaker, administrative director of radiation oncology at the Hanna center noted it’s appropriate that the healing garden is situated outside the center’s medical oncology area and can be viewed through the windows by patients there.” (http://pittsburghlive.com/, Cancer Garden emphasizes healing power of horticulture, 09/10/2004)

3. Marin Cancer Institute
Greenbrae, California

“Healing Garden: Located in the patient waiting area in Oncology, the garden contains plants used to create medicines used in chemotherapy as well as other plants and flowers known for their healing powers. The lush green plants and natural stone fountain inspire a contemplative, uplifting atmosphere.” (http://www.maringeneral.sutterhealth.org/ The Institute for Health and Healing). This Cancer Garden was designed by Topher Delaney. The garden was funded by donations that were raised by a committee of patients and their families who wanted a healing environment. The garden is located in the atrium space in the center of the radiation
oncology therapy department. This is next to the patient waiting area. The garden incorporates a water fountain, plants and glass paneled walls around the garden to allow the patients to be able to see into the space. “No one really expected how positive an effect the garden would have on our patients and the staff,” said Francine Halberg, MD, a radiation oncologist. “It offers a visual solace, a connection to nature, and a sense of peace. The spirit of the garden is growth and renewal, where one can feel connected instead of isolated.” (www.cancer.org, Healing Gardens Nurture the Spirit While Patients Get Treatments, Nature Nurtures, 2002/07/24). The Cancer Garden design incorporates plants that are the source of the drugs used in the treatment in the various types of cancer. There is a brochure that teaches patients about the healing plants that are used in the Healing Garden.

4. Community Health Partners Cancer Center
Elyria, Ohio

This healing garden is a part of the Supportive Care wing for the new Cancer Center in Loraine County, Ohio. The Cancer Center is known as the Phoenix Center. The Cancer Center provides both Oncology and Radiation therapy for cancer patients. The Phoenix Center will provide support services through a library, art therapy, reiki, tai chi, a wig salon, and mediation classes to the community. The cancer garden was designed to respond to all the services provided by the Phoenix Center. The garden includes small and large social areas, a labyrinth for walking meditation. This labyrinth acknowledges the cardinal directions and the elements of the earth. The garden utilizes natural walking paths through the existing woods. The garden also incorporates sculptures, water features, and various seating arrangements. This garden was built in the spring of 2002. The landscape and the healing garden have created a space for cancer patients to go interact with nature and sculptural elements. “One of our volunteers, a cancer survivor, seeing the garden for the first time this morning became tearful, as she tried to express to me her joy in all the beauty. Clearly overwhelmed after walking through the garden she said, ‘This is so beautiful, I have no words.’ Sister Joy Frarianne, HM, Supportive Services, Community Health Partners.”
(http://www.spirithealinggardens.com/commhealthpartners.htm, Community Health Partners Cancer Center, Elyria, Ohio).

Case Studies Images:
Site Location:
St. Elizabeth Medical Center
located in Lafayette, IN
**Site Location:**

In Figure 1, the map shows where the hospital is located within the state of Indiana.

Figure 2 indicates where St. Elizabeth is located within the boundaries of West Lafayette and Lafayette. The third figure shows how the streets in the downtown area work around the medical center. In Figure 4, the map shows in more detail the downtown streets.

Figure 5 identifies the immediate streets around St. Elizabeth Medical Center. The aerial photographs (figures 6-7 on page 5) show how the hospital and associated buildings are arranged.

Figure 1. The location of Lafayette within the state of Indiana.
Figure 2. The location of Lafayette and West Lafayette, within Indiana.

Figure 3. The location of St. Elizabeth Medical Center in the streets of downtown Lafayette.
Figure 4. The surrounding streets of St. Elizabeth Medical Center within the downtown area of Lafayette.

Figure 5. The exact location of St. Elizabeth Medical Center.
Figure 6. This aerial photograph shows the surrounding context and the campus for St. Elizabeth Medical Center. The image shows how the medical center campus is self inclusive, with St. Elizabeth Medical Center in the central location with the offices and other medical facilities surrounding the hospital. Those offices make the transition to the residential neighborhoods that surround the site.
Figure 7. This aerial photograph shows a more detailed look into the campus of St. Elizabeth Medical Center and directly adjacent areas.
Site Inventory & Analysis:
St. Elizabeth Medical Center
and surrounding campus
Site Inventory & Analysis:

Site Inventory:

This shows the traffic moves around the site along the roadways and with the use of the skywalk from the parking garage. There would be utilization of the space between N. 14th Street and N. 15th Street located on Hartford Street for the cancer garden. The area to be designed as the cancer garden is currently a staff parking lot, which will be relocated around the site. This location allows for the patient to walk directly out of the hospital into the therapeutic or “healing” cancer garden.

Site Inventory

Analysis:

The major vehicular traffic is along Hartford Street and Tippecanoe Street going East and West. In the North and South directions, the major vehicular traffic flows along
N. 14th Street, N. 16th Street, and 17th Street. A few streets that are not heavily traveled by vehicles is N. 15th Street and Hartford Street between N. 14th Street and N. 15th Street.

The major pedestrian traffic is along N. 16th Street from the Patient and Visitor Parking lots and parking garage. There is a skywalk located above N. 16th Street that allows pedestrians to cross N. 16th Street without having to deal with the vehicular traffic. The nursing students cross N. 16th Street from St. Elizabeth Medical Center to St. Francis School of Nursing.

The major intersections are Hartford Street and N. 14th Street, Tippecanoe Street and N. 14th Street, Tippecanoe Street and N. 16th Street, and Hartford Street and N. 16th Street. These are major intersections due to the amount of vehicular traffic that moves around the site.
Goals & Design Program:
for the Cancer Garden
Goals of the Project:

The goals of my comprehensive project are to design a cancer garden for the patients, visitors, and staff. Medical data shows how nature can be a therapeutic healing process for many different types of patients. Cancer patients can utilize a garden in numerous ways. There are antioxidants that are occurring in nature, such as cranberries are an antioxidant for cancer patients. Cancer patients can look at the vegetation of the garden and see that there is life around them, and that they can lead a life with cancer and also after cancer. There is a need for a cancer garden that is designed just for the patients themselves. The overall goals of my comprehensive project is to do the following: Design a Cancer Garden for the Patients, Families, and Employees of St. Elizabeth Campus, Create a sense of LIFE, allow the patients to see that life is going on around them and that they should not give up to their illness, and continue to live their life, and to create a place for the patients to interact with nature.

Design Program:

In order to be a successful design, a Cancer Garden should include the following:

- Small gathering spaces within the site
  - Small spaces allow for intimate space for an individual and/or their family or caretakers (5-10 people)
- Large gathering spaces within the site
  - Large spaces used for gathering areas activities for the users of the garden (25-30 people)
- Sensitive use of vegetation
  - Visually pleasing to the patients during the different seasons (certain colors or textures could cause nausea)
  - Careful use of sensory elements (faint smells of certain plants could be used, but being careful not to use too much smell that could cause nausea for the patients)
• Vegetation to have positive psychological effects on patients, have a feeling that life is going on around them, and they have something to live for.

• Educational Features
  o Plant labels for users education.

• Pathways
  o A pathway system to connect the small plaza spaces to the large plaza spaces as well as the connections to the entryways.
  o To allow the patients to be exposed to the educational signage around the site.
  o To provide privacy for users.

• Use of plants for psychological health purposes
  o Vegetation to show patients that life is going on around them, and they should not give up and let the illness take over, they should go on and live their lives.
  o Change out seasonal plantings within the garden. Different spaces for annuals, containers, etc.

• Water in the garden
  o The main gathering spaces in the both of the concepts would have a central fountain(s).
  o This would also create a soothing sound of running water in the space.

• Benches and Seating areas
  o Benches and seating areas surrounding plaza spaces.
  o The benches and seating areas would be sitting walls or actual benches.
  o All of the benches and seating areas would have backs and arms to create the sense of comfort for the users.
  o Provide sun or the shade areas in appropriate spaces within the garden

• Use of locally available materials
  o All of the material used in the site would incorporate as many natural elements as is feasible.
o The materials to include: pavers for pathways and the small and large plaza spaces, the central water fountain.

o Use of native plant material to Indiana and Lafayette to be used within the garden.

• Accessibility
  o Multiple entries into the garden from the surroundings.
  o The garden to be viewed from inside the building at the oncology department.

Images of Materials for a Cancer Gardens:

Examples of Benches & Seating Areas

Examples of Informational Signage
Examples of Central Fountains

Examples of Plazas & Pathways

Examples of Vegetation
Design Concepts:
Concept 1: Bubble Diagram
Concept 1: Naturalistic Garden
Concept 2: Bubble Diagram
Concept 2: Formal Garden
Concepts for St. Elizabeth Medical Center in Lafayette, IN:

Concept 1 Bubble Diagram

Opportunities:
- Many Entrances
- Use of existing vegetation
- Use of strategically placed berms
- Different size spaces

Constraints:
- Relocated helipad
- Road Closures
- Spaces are a little too large in size for the expected groups
Concept 1: Naturalistic Garden

**Naturalistic Garden Concept:**

Opportunities:
- Many Entrances
- More Greenspace
- Reduced noise level
- More interaction with Nature

Constraints:
- Relocated helipad
- Road Closures
Opportunities:

- Many Entrances
- Use of existing vegetation
- Use of strategically placed berms
- Different size spaces
- More Spaces

Constraints:

- Relocated helipad
- Road Closures
- Spaces are a little too large in size for the expected groups
Concept 2: Formal Garden

**Formal Garden Concept:**

**Opportunities:**
- Incorporation of sound of Water
- Many different spaces
- Allows for greater number of users

**Constraints:**
- Location of Helipad
- Too much Hardscape
- Very Rigid Paths
- Limited interaction with Vegetation/Nature
**Schematic Designs:**

Schematic Design:
Naturalistic Garden Design (revised)
Garden of Hope Schematic Master Plan Design:
Naturalistic Garden Schematic Design (revised)
Schematic Design: Naturalistic Garden

Naturalistic Garden Design:

Elements of the Cancer Garden:

- Large, Medium, and Small Gathering Spaces
- Difference in Private and Public Spaces
- Interaction with Nature
- Winding Paths for interaction with all of the elements.
- Greenspace for all of St. Elizabeth Medical Center Campus to enjoy.
- Use of bermed earth to buffer noise from entering the garden.
- View of garden from above for patients that are inside
Reworked Schematic Design: Naturalistic Garden

Garden of Hope Schematic Master Plan Design:

Elements of the Cancer Garden:

- Large, Medium, and Small Gathering Spaces
- Difference in Private and Public Spaces
- Interaction with Nature
- Winding Paths for interaction with all of the elements.
- Greenspace for all of St. Elizabeth Medical Center Campus to enjoy.
- Use of bermed earth to buffer noise from entering the garden.
- View of garden from above for patients that are inside
- Garden expands all the way to the surrounding buildings.
- More interaction between garden and surrounding buildings and medical campus.
Detailed Elements of the
Garden of Hope:
Bird’s Eye View (from the Northwest)
Bird’s Eye View (from the West)
Large Gathering Space
Medium Gathering Space
Small Gathering Space
View from 3rd Floor, West
View from 3rd Floor, Center
View from 3rd Floor, East
Detail Elements of the Garden of Hope:
The following images show the Cancer Garden for St. Elizabeth Medical Center in 3-D for a better understanding of the site. There are two images of bird’s eye views that help to show different spaces within the site as well as the actual garden. Then there are the different views throughout the garden in a large gathering space, a medium gathering space, and there are two (2) small gathering spaces within the Garden of Hope. The view of a large gathering space helps to illustrate an area which would allow for a large group of people to use the space of for smaller groups within the larger space. The medium gathering space is similar to the large gathering space, but it has three (3) smaller areas within the space instead of the four (4) that the large gathering space has. The small gathering space is designed more for the patients that need to have time and space to themselves. Then there are the images of the garden through the windows of St. Elizabeth. This allows everyone to be able to see what the patients that can not get out of their room would be able to see from their hospital rooms. That allows the patients to be involved with the garden when they are inside as well as when they are actually outside in the garden.

*Bird’s Eye View (from the Northwest)*:
Bird’s Eye View (from the West):

Large Gathering Space:
Medium Gathering Space:

Small Gathering Space:
View from 3rd West:

View from 3rd Center:
Conclusion:
The text and images throughout this book have been a look into my design for a cancer garden for St. Elizabeth Medical Center in Lafayette, Indiana. The design for the Garden of Hope incorporates natural and built elements for cancer patients, visitors and medical staff to interact with and enjoy from both inside the building through views into the garden, as well as from the outside while actually being in the garden. This garden would allow for a greenspace area for everyone to help heal their minds, bodies, and souls through therapy of nature. The elements of the garden create a space that is full of life and brings hope into the cancer patients’ lives.