

The Spotlight Adventure Gardens at the Minneapolis Children's Hospital

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design narrative

Healing Heights establishes a serene area for the patients, loved ones and staff of the Children's Hospital in Minneapolis, MN. This design creates a place to escape from the hectic environment of the hospital. This space can be shared with both children and adults to help improve the wellbeing of those who use this therapeutic roof garden.

The rooftop at the Minneapolis campus and existing green roof at the Children's St. Paul campus will create an eco-friendly identity for the Children's Hospitals and Clinics of Minnesota. The increased vegetation of Healing Heights will improve the biodiversity and urban heating index of the surrounding area. This green roof allow the participants to have a connection with nature which allows them to enhance their state of mind.



background

- there are currently 6 children's hospitals and clinics in the state of minnesota
- the minneapolis location opened in 1973
- children's treats children from 0-21 years of age. the majority of these patients are between 0-16
- children's provides 381 staffed beds between both the minneapolis and st paul campuses
- located across chicago avenue just south of the west building is an open green space at ground level. this space was noticed to be under used while visiting the site in august & october 2014
- provides care for more than 12,000 inpatient visits and more than 200,000 emergency room visits and other out patient visits each year
- cares for 70% of twin cities children with cancer
- the children's minneapolis emergency department became certified as a level 1 trauma center in 2013
- is the largest neonatal program in the region with 138 beds
- is the first pediatric pain program in the country and the largest pediatric epilepsy center in the country

2012 at children's [both campuses]

12,604 inpatient admissions
23,892 surgical cases
90,987 emergency room visits
259,118 outpatient clinic visits



- green roof site
- 5-stories
Children's specialty center
- 2-stories
emergency department
- 9 floors
mechanical
- floors 5-8
patient rooms
- floors 1-5
patient care & offices
- 6-stories
executive suites & specialties
- four-stories
mother baby center
- floors 2
WIC clinic & NICU follow-up

master plan

size: 7,220 SF
weight: 154,193 lbs
approximate scale:

4' 8' 16'

downtown views
expanding views

group/gathering space

intimate space

personal testimonies

"the addition of the green house will be very beneficial for the patients provide plant therapy, the lack of funding at the st paul campus was a disappointment, but truly adds to this design."
-mollie, development associate

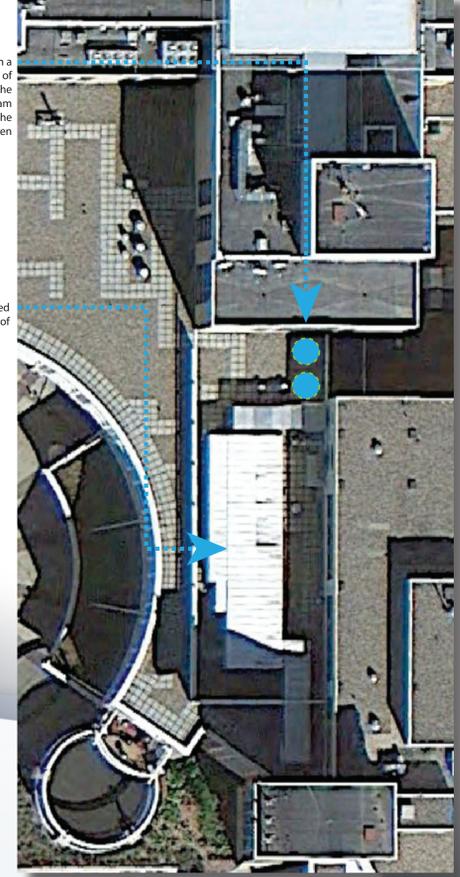
"I think a rooftop garden space would be awesome! I would definitely use it as a place to get away from my desk for breaks and lunch pretty much every day, as for rehab patients, our inpatient therapists would definitely use it with patients as a place to get them away from their room and enjoy the outdoors and get a change of scenery from their room."
-michelle, rehabilitation therapy aide

"I love it [existing meditation garden] but the benches face inward towards a large, open space, sometimes, to feel solitude, I want to be in a corner, or at a small table that would be considered 'mine' in the few minutes spent there."
-amy, star studio program director

different questionnaires were given to the patients, loved ones and staff of children's minneapolis
the most useful feedback came from the hospital staff and helped understand the possible use this design may get, and what elements should be included

On average, Minneapolis receives 30.1 inches of rain a year. This 7,220 SF roof will obtain nearly 900 gallons of water and will need to be collected for watering the vegetation, and water feature present in the design. I am proposing to have two-300 gallon cisterns located in the storage area for the garden

An additional 50 gallons of water can also be retrieved from the air handling unit located directly East of this roof



labyrinth
this area was chosen to allow visitors to be secluded from the rest of the roof so that they can focus completely on themselves

green house
this transition space will allow for visitors to escape from the hospital all year around

artificial trees
these trees will be placed over the sewer exhaust vents to improve the surrounding smell and aesthetics of the garden

water collection

privacy fence
this north building is all patient rooms, this star-shaped fence will protect the privacy of patients

planting focus
the only natural tree is surrounded by lush planters and unique water feature

extensive vegetation
low growing & low maintenance vegetation will be along the boarder of the rooftop

portable green walls
this element allows visitors to do gardening during the spring and summer months

animal water feature
this elongated water feature includes wildlife figures that relates to the adventure of the garden

primary path
this larger path accommodates PT patients for circuit training and curving through the rest of the garden

safety fence
this decorative transparent wall relates to the theme of the gardens while allowing expanding views to the minneapolis core and rolling residential areas

secondary path
a smaller path is included so that visitors can experience different areas of the garden

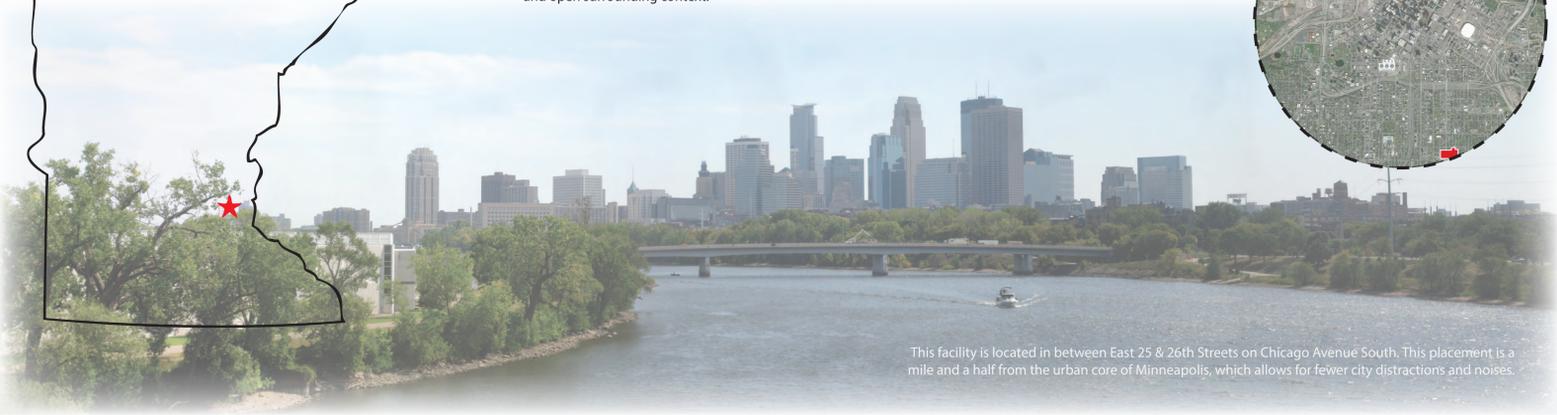
amphitheater
a gathering space for the in house actor and staff meetings

adult/staff intimate space
this space is located away from the business of the rest of the garden



LOCATION

The children's hospital was chosen over Shriners pediatric orthopedics Hospital because of the views and open surrounding context.



This facility is located in between East 25 & 26th Streets on Chicago Avenue South. This placement is a mile and a half from the urban core of Minneapolis, which allows for fewer city distractions and noises.

design details

There are five sewage exhaust vents coming from the roof. These areas will be covered by artificial trees where the trunk will release the exhaust from higher up, reducing unpleasant odors.

Tie-offs for maintenance purposes are located around the roof. These are used about once a month, but still need to have constant direct access between the tie-offs and the edge of the roof.



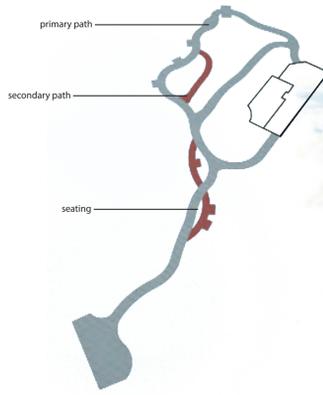
The StoryLand Play Garden at the St. Paul campus did not receive enough funding from sponsors to include a green house for their vegetated roof.

This location at the Minneapolis will be a great candidate for a green house to offer plant therapy for patients and a place to escape to during the winter months while the rest of the rooftop is closed.



The path systems focuses on curving and meandering features to allow for visitors to the roof to have a sense of an ongoing journey. There are areas that branch off of the main path so that they can escape to a more intimate space in the garden. These paths are a different color, but still the same foam paving material.

The places where you find seating were chosen because of the views that these areas provide to the user. These placements either have expansive views to Downtown Minneapolis and down Chicago Avenue, or inward to focal points of the garden.



an element of surprise

Light details triggered by a person's footstep will be included in a few of the planters throughout the garden. The artificial trees will also have colorful twinkling lights that add a unique technology characteristic to this naturally calming space

night PERSPECTIVE

although the garden is closed during the late evening hours, colorful illuminations as well as lush vegetation allow viewers to still experience something unique



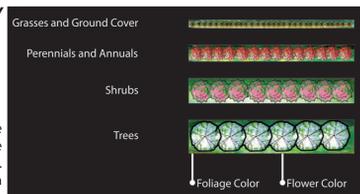
these metal artificial trees will glisten with a variety of colors to enhance the user's experience

while in the eating area, users will be surrounded by nature and have an opening view looking down Chicago avenue

the animals add a sense of adventure to the garden

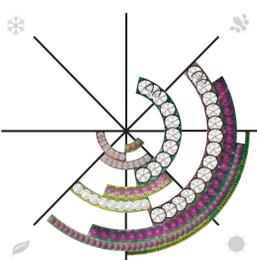
planting for the senses

KEY

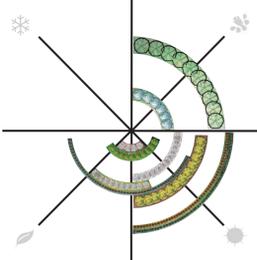


The planting plan for this garden will focus on plantings that focus on people's 5 senses. From this infographic you can see ten different plants for each sense that grow in the Minneapolis climate. The natural vegetation will have a variety of colors, while also having evergreens that will keep a green foliage during the winter months.

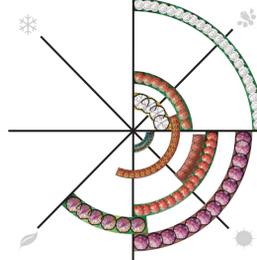
different size bars are used to differentiate the different types of plants. within these bars, the textures are also used to separate the plants. These graphs show both the flower color of each plant, as well as the foliage color.



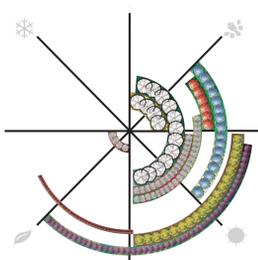
Scientific Name	Common Name
Achillea millefolium	'Terracotta'
Actaea simplex	Autumn Bugbane
Actaea simplex	'Hillside Black Beauty'
Cnidaristis lutea	Yellowwood
Clethra alnifolia	Sweet Pepperbush
Cestria alnifolia	'Hummingbird'
Robinia pseudacacia	'Frisia'
Rosa Charles Allen'	Meadow Clay
Salvia pratensis	Prairie Droopseed
Sporobolus heterolepis	Prairie Droopseed



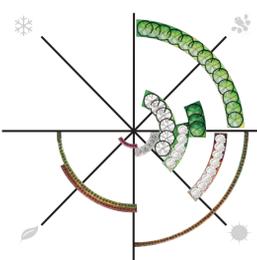
Scientific Name	Common Name
Actaea simplex	'Hillside Black Beauty'
Alchemilla mollis	Lady's Mantle
Aronia tatarica	Blackberry
Artemisia ludoviciana	Western Mugwort
Clethra alnifolia	'Hummingbird'
Eragrostis pectinacea	'Blue Hobbit'
Rhus typhina	'Tiger Eye Balltiger'
Salix babingtonii	Salix
Sporobolus heterolepis	Prairie Droopseed
Stachys byzantina	Lamb's Ears



Scientific Name	Common Name
Allium schoenoprasum	Chives
Allium schoenoprasum	Round Headed Garlic
Amelanchier x grandiflora	'Autumn Brilliance'
Beta vulgaris	'Ruby Red'
Gooseberry	Gooseberry
Heuchera	'Blackberry Jam'
Heuchera	'Blackberry Jam'
Jewel	Jewel
Malus domestica	Whitney Crabapple
Prunus virginiana	Schubert Choke Cherry
Rubus strigosus	American Red Raspberry



Scientific Name	Common Name
Actaea simplex	Autumn Bugbane
Amelanchier x grandiflora	'Autumn Brilliance'
Clethra lutea	Yellowwood
Heuchera	'Coral Bell'
Houttuynia cordata	Chameleon
Iris	'Big City'
Nigella damascena	and cvs.
Panicum virgatum	'Ruby Ribbons'
Rhus typhina	'Tiger Eye Balltiger'
Salvia pratensis	Meadow Clay



Scientific Name	Common Name
Andropogon gerardi	'Pawnee'
Artemisia ludoviciana	Western Mugwort
Catalpa bignonioides	Northern Catalpa
Cornus alba	'elegantissima'
Gymnocladus dioica	Kentucky Coffeetree
Miscanthus oryzaoides	'Nanus Variegatus'
Panicum virgatum	'Ruby Ribbons'
Physocarpus opulifolius	'Center Glow'
Salix babingtonii	Ninebark
Sporobolus heterolepis	Weeping Willow



a

a'

- drain
- 4" styrofoam
- 2" system filter & moisture mat
- 4" light top extensive growing media
- assorted plantings
- roof deck
- 2" insulation
- 2" protection board
- .125" membrane
- 2.5" screwjack pedestal
- 18"x 18"x 3" limestone hanover architectural pavers
- 3" gravel
- .125 filter fabric
- 3" water
- .125 impervious liner
- .125 cushion layer
- 2" system filter & moisture mat
- .125 filter fabric
- 4" synthetic turf & rubber infill
- .5" separation layer
- 2" insulation
- 3" moisture barrier
- .5" waterproofing
- 1" protection layer
- 3" gravel

PERSPECTIVE

The Spotlight Adventure Gardens has many different activities for groups, individuals and people of all ages

South

