CONTENTS

ACKNOWLEDGMENTS .................................................................................................................. 06

PROJECT TEAM ......................................................................................................................... 07

CURA ........................................................................................................................................... 10

NWRSDP ..................................................................................................................................... 10

CSBR + DCR ............................................................................................................................... 11

CITY OF GARY ............................................................................................................................. 12

EXECUTIVE SUMMARY ............................................................................................................ 14

PROJECT INTRODUCTION ......................................................................................................... 17

SECTION 1 | PRECEDENTS + RESEARCH ..................................................................................... 23

SECTION 2 | COMMUNITY ENGAGEMENT .................................................................................... 33

SECTION 3 | DESIGN PROCESS ..................................................................................................... 43

SECTION 4 | RECOMMENDATIONS + NEXT STEPS ......................................................................... 69

CONCLUSION ............................................................................................................................... 71

REFERENCES ............................................................................................................................... 72
ACKNOWLEDGMENTS

This project was made possible through funding received from the Northwest Regional Sustainable Development Partnership and the Center for Urban and Regional Affairs.

We thank our project team for their participation and contributions and extended project community partners for their support. We also thank the City of Gary staff, City Council, and community members for their valuable input during the community meetings and process.

Project Partners:

City of Gary, Minnesota

University of Minnesota Extension | Northwest Regional Sustainable Development Partnerships (NWRSDP)

Center for Urban and Regional Affairs (CURA)

Center for Sustainable Building Research (CSBR), Design for Community Resilience Program (DCR)
PROJECT TEAM

PLANNING TEAM

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Project Team (left to right) - Virajita Singh, Linda Kingery, Karie Kirschbaum, Maxwell Dickson. Not pictured - Brian Chisholm
# ACKNOWLEDGMENTS

SPECIAL THANKS TO ALL PARTICIPANTS INCLUDING THOSE LISTED HERE . . .

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The Center for Urban and Regional Affairs (CURA) strives to be a nationally recognized model for university community engagement. CURA is founded on the belief that partnership between the University and the community is mutually beneficial. Communities determine issues important to them, provide an understanding of the context of these issues, and contain the wisdom to shape how they can best be addressed to create vital places to live and work. The University contributes extensive knowledge and expertise to understand community issues and discover new approaches to address them. This model of engaged research leads to outcomes that strengthen the community and enrich academic research.

CURA delivers timely and innovative research and technical assistance, offering solutions to critical issues by working to . . .

- Collaborate with communities and agencies to define and address their research and technical assistance needs
- Assist faculty to produce high-quality, applied research on critical issues
- Expand the education and professional experience of students through applied research projects
- Disseminate research results to the community, policy makers, and academics
- Convene public events for the discussion of issues, the exploration of policy alternatives, and the identification of new research opportunities

The Regional Sustainable Development Partnerships (RSDP) connects greater Minnesota communities to the University of Minnesota in order to help solve problems and take advantage of new opportunities. As part of the University of Minnesota Extension, RSDP brings together local talent and resources with University of Minnesota knowledge and seed funding to drive sustainability in four areas: agriculture and food systems, tourism and resilient communities, natural resources, and clean energy.

In northwest Minnesota, NWRSDPs innovative initiatives are community identified and valued, citizen led, University engaged and collaborative, so they are local in many places. The region’s natural history shows up in a diverse landscape shaped by ice and water and representing all four major biomes in Minnesota. Its cultural history traces the stories of indigenous people, voyageurs and fur traders, immigrants from northern Europe, and later from all parts of the world. The Red River of the North and its tributaries drain just over one fifth of Minnesota. The landscape includes remnants of native boreal forest, aspen parkland and maple, basswood forests, and tall grass prairie. The Red River Valley has a strong agricultural identity; it conjures images of deep, rich soils and agricultural productivity.

The Northwest Region in Minnesota is not defined by county boundaries, but for reference, it generally serves Kittson, Roseau, Lake of the Woods, Marshall, Pennington, Red Lake, Clearwater, Beltrami, Polk, Norman, Mahnomen, Clay, and Wilkin counties. Ottertail and Becker counties are often included for food systems projects. Water related projects include the area that drains to the Red River of the North. The region is home to 215,000 people. Median age in the region is 41 compared to 37 in Minnesota. Agricultural production, manufacturing and health care are important economic sectors.
The Center for Sustainable Building Research (CSBR) is a research and outreach center in the College of Design, University of Minnesota-Twin Cities campus. CSBR’s work and research focuses on the following six areas:

**Energy and Climate Change**
Provide tools, expertise and research to support energy independence, security and climate neutrality for the state, nation and planet.

**The Water Cycle**
Understand the water cycle and its relationship to the built environment in the provision, capture, use, reuse and recharging of water in local and regional watersheds and global water cycle.

**Sustainable Materials for a Healthy Environment**
A regenerative built environment will need a renewable source of materials that create healthy long-lasting environments.

**Value and Benefits of Regenerative Designs**
Develop metrics to track the full range of value created by sustainable and regenerative designs.

**Equitable Designs to Provide Sustainability for All**
Investigate building solutions to provide sustainability to all communities.

**Creating Regenerative and Resilient Communities**
Our communities must become regenerative and resilient not only to be sustainable, but also to respond and adapt to stress and change in a dynamic global environment.

**DCR**

Design for Community Resilience (DCR) is a program/service within the Center for Sustainable Building Research that transforms civic challenges into sustainable opportunities through design. DCR works with communities across Minnesota to solve pressing problems (issues that encompass social, economic, and environmental factors) through sustainable place-based solutions.

Working with communities, local governments, non-profits and other organizations research staff from CSBR and students from the College of Design work to address pressing problems while turning them into opportunities to make sustainable decisions for the community’s, organization's and the planet's future. Our guiding principles for this work are . . .

- Integrated solutions that address a variety of issues and scales based in the state-of-the art sustainability research
- Holistic and dynamic problem solving
- Broad-based definition of sustainability that includes economic, social and environmental dimensions
- Grassroots, user-focused approach
- Working within our client's economic constraints
- An approach that goes from big picture to carefully addressing the details
Gary is located in Norman County, Minnesota. Gary, a city in Sections 16 and 21 of Strand Township, founded in 1883, received this name in compliment to Garrett L. Thorpe, its first merchant, who came here from Manchester, Iowa, became an extensive landowner in Norman county, and settled at Ada. The village was incorporated on February 21, 1901 and a number of businesses, including a creamery, developed in 1886 with the Northern Pacific Railroad's coming. The post office was established in 1887. Today, Gary describes itself as 'a warm, welcoming farming community with progressive schools, growing businesses and active living.'

According to the United States Census Bureau, the city has a total area of 0.3 square miles (0.8 km²), all of it land. The elevation is 1,099 ft (335 m) above sea level.

As of the census of 2000, there were 215 people, 83 households, and 54 families residing in the city. The population density was 259.4/km² (669.0/mi²). There were 93 housing units at an average density of 112.2/km² (289.4/mi²). The racial makeup of the city was 99.07% White, and 0.93% from two or more races. Hispanic or Latino of any race were 0.93% of the population. There were 83 households out of which 33.7% had children under the age of 18 living with them, 59.0% were married couples living together, 3.6% had a female householder with no husband present, and 34.9% were non-families. 31.3% of all households were made up of individuals and 14.5% had someone living alone who was 65 years of age or older. The average household size was 2.55 and the average family size was 3.30. In the city the population was spread out with 30.7% under the age of 18, 3.3% from 18 to 24, 30.7% from 25 to 44, 18.6% from 45 to 64, and 16.7% who were 65 years of age or older. The median age was 36 years.

The median income for a household in the city was $36,875, and the median income for a family was $47,250. Males had a median income of $29,844 versus $15,938 for females. The per capita income for the city was $15,683. About 6.8% of families and 14.8% of the population were below the poverty line, including 12.3% of those under the age of eighteen and 26.5% of those sixty five or over.
EXECUTIVE SUMMARY

The Gary Pines project, described in this report, is a unique project for three reasons. First, it exemplifies development of place and the possibilities generated when a community has a strong connection and commitment to place that spans generations. Historically, the site of Gary Pines was a dusty area that was worked on by members of the community back in 1942. A historical photo that is part of the community’s record shows a 1938 tractor and three farmers from the community working on the land. This thoughtful development was an East Agassiz Soil Conservation service project done in partnership with the City of Gary then developed further by subsequent generations of community members with local school children planting batches of plantings that became ‘The Pines.’ Stories in memories of elders in the community tell of the many ways the Gary community enjoyed the Pines.

Second, this interest and use of the Pines is still current. Community members use it for hiking, riding ATVs and horseback riding as well as holding events in the picnic shelter that was built there in the 1990s. In addition community members from the City of Gary proper that is located a mile or so southeast of the Pines, the Pines are well known by the many visitors using Highway 32 when they stop there for a simple rest stop including use of the bathrooms on the way.

Third, it continues to be a place for which the community has an active vision including the development of a memorial garden by the Gary Lions Club and other organizations.

This project facilitated as a Design for Community Resilience project of the Center for Sustainable Building Research sought to engage the community in the design for the future phases of the site based on input they gave of current use and aspirations for the site.

This project helped establish a new relationship between community of Gary and the University of Minnesota through its units University of Minnesota Extension’s Northwest Regional Sustainable Development Partnerships, and the Center for Sustainable Building Research and its Design for Community Resilience program. Funding for this project came from multiple sources including the University of Minnesota’s Northwest Regional Sustainable Development Partnerships and the Center for Urban and Regional Affairs (CURA)’s Community Assistance Program (CAP).

Regenerative design is a process-oriented systems theory based approach to design. The term ‘regenerative’ describes the processes that restore, renew, or revitalize their own sources of energy and materials, creating sustainable systems that integrate the needs of society with the integrity of nature, humans, and other species. It is about a relationship between ‘people’ and ‘place’ including nature.

Gary Pines is an example of people connecting to place, having a vision of nature, planting and nurturing it over time, and then interacting and enjoying the relationship with that site and its benefits over multiple generations since the 1940s. Two principles of regenerative design, from the series of principles outlined by John Tillman Lyle in his seminal work ‘Regenerative Design for Sustainable Development’, are relevant to the project:

- Letting nature do the work
- Nature as model and mentor

The intended outcomes of the project and process are the following:

- The development of a master plan to inform the fundraising and future development of Gary Pines
- Engagement of the Gary community in the design/input process
- Integration of recreational activity, arts and environmental education in the master plan
Section 1 on precedents and research has examples that were relevant to the Gary Pines project including Narrabeen Lagoon trail, Sydney, Australia; Giant Cedar Boardwalk, Mt. Revelstoke National Park; York County Rail Trail, Seven Valleys, Pennsylvania; Lover's Lane, San Francisco, California; Ridges Sanctuary, Baileys Harbor, Wisconsin; Nine Mile, Wausau, Wisconsin; Wetland Boardwalk, Eloise Butler Wildflower Garden; FDL - CFC trail, Cloquet, Minnesota; Teardrop Park, New York; Blanchie Carter Discovery Park, Southern Pines, North Carolina and regional projects such as Castle Park in Crookston, Minnesota and Ellen Hopkins Elementary School Nature Play Space in Moorhead, Minnesota.

Section 2 on community engagement highlights each of the three site visits and workshops held for the community. The team met the community, presented ideas, and received design input. Many of the elements within the Master Plan are a result of ideas received from community members, including children from Gary.

Section 3 on the design process includes Site Inventories, Design Concepts, and Final Master Plan. The Design Concepts included ideas related to Active Pines, Generational Pines and Artful Pines, with Active Pines being the final driving design concept that also integrated Natural Play Space, and an Obstacle Course.

Section 4 on recommendations proposes a focus on implementation and related considerations to be used to guide the project moving forward. The recommendations prioritize phased development, volunteer effort, shared stakeholder team approach, documentation, evolving maintenance, integration of curriculum content and arts and environmental education.

- Recommendation 1 - Create ‘Pines Team’
- Recommendation 2 - Continue fundraising efforts
- Recommendation 3 - Explore artists and selection process
- Recommendation 4 - Continue managing the Pines in a sustainable way
- Recommendation 5 - Review nature-based play guidelines
- Recommendation 6 - Connect the nature play space strongly to curriculum content
- Recommendation 7 – Develop Nature Play and Learning Places
- Recommendation 8 - Apply for Arts Legacy Funding

In conclusion, the Gary Pines project embodies a participatory effort to develop a master plan that includes input from Gary community members, research and funding organizations.

The master plan shows a comprehensive vision that integrates a natural landscape and nature space design, art, environmental education, and regenerative design principles. The recommendations prioritize phased development, volunteer effort, shared stakeholder team approach, documentation and communications, evolving maintenance, integration of curriculum content and arts and environmental education. As with the development of this project from September 2016 to January 2017, the next steps will benefit from the enthusiastic commitment of the City of Gary and community members in fundraising and implementing the ideas as a team.
PROJECT INTRODUCTION

Gary Pines embodies the notion of ‘place’ from the quote above. The Gary Pines project, described in this report, is a unique project for three reasons. First, it exemplifies development of place and the possibilities generated when a community has a strong connection and commitment to place that spans generations. Historically, the site of Gary Pines was a dusty area that was worked on by members of the community back in 1942. A historical photo that is part of the community’s record shows a 1938 tractor and three farmers from the community working on the land. This thoughtful development was an East Agassiz Soil Conservation service project done in partnership with the City of Gary then developed further by subsequent generations of community members with local school children planting batches of plantings that became ‘The Pines.’ Stories in memories of elders in the community tell of the many ways the Gary community enjoyed the Pines.

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This project facilitated as a Design for Community Resilience project of the Center for Sustainable Building Research sought to engage the community in the design for the future phases of the site based on input they gave of current use and aspirations for the site.

Through the process that is detailed in the upcoming sections of the report, the planning team, the research and design team with the community envisioned the design for the Pines to accommodate the needs and future vision. The three aspects explored were the Pines as a site of nature-based recreational activity, a site for nature-based art installation and a site for environmental education.

The project is intended to benefit community of Gary Minnesota and nearby communities as well as all visitors on Highway 32 who choose to use the site as they travel by it. The project is particularly intended to support the reconnection of people with nature and place including children with nature and become a thriving place where children and community members have unique experiences. It is also intended to engage the same community in the care and tending of the nature based project, thus continuing environmental stewardship practices and learning from these practices while teaching future generations.
This project helped establish a new relationship between the community of Gary and the University of Minnesota through its units University of Minnesota Extension’s Northwest Regional Sustainable Development Partnership, and the Center for Sustainable Building Research and its Design for Community Resilience program. Funding for this project came from multiple sources including the University of Minnesota’s Northwest Regional Sustainable Development Partnerships, the Center for Urban and Regional Affairs (CURA)’s Community Assistance Program (CAP).

Regenerative design is a process-oriented systems theory based approach to design. The term ‘regenerative’ describes the processes that restore, renew, or revitalize their own sources of energy and materials, creating sustainable systems that integrate the needs of society with the integrity of nature, humans, and other species. It is about a relationship between ‘people’ and ‘place’ including nature. As Mang, Reed and others describe it:

‘Advocates of a regenerative approach to the built environment believe a much more deeply integrated, whole systems approach to the design and construction of buildings and human settlements (and nearly all other human activities) is needed. Regenerative approaches seek not only to reverse the degeneration of the earth’s natural systems, but also to design human systems that can coevolve with natural systems—evolve in a way that generates mutual benefits and greater overall expression of life and resilience. The field of regenerative development and design, which draws inspiration from the self-healing and self-organizing capacities of natural living systems, is increasingly seen as a source for achieving this end.’

Gary Pines is an example of people connecting to place, having a vision of nature, planting and nurturing it over time, and then interacting and enjoying the relationship with that site and its benefits over multiple generations since the 1940s. Two principles of regenerative design, from the series of principles outlined by John Lillman Tyle in his seminal work ‘Regenerative Design for Sustainable Development’, are relevant to the project:

• Letting nature do the work
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The intended outcomes of the project and process are the following:

• The development of a master plan to inform the fundraising and future development of Gary Pines
• Engagement of the Gary community in the design/input process
• Integration of recreational activity, arts and environmental education in the process

HISTORY OF THE PINES

In the late 1930s, the state of Minnesota donated 160 acres of land to the City of Gary. Originally nothing but sand and dirt, local community members planted and cultivated several varieties of pine trees and after 1942 the area was transformed into a flourishing young forest.

In 1963, Merlyn Meyer took his 7th and 8th grade class to the Pines to plant 3,000 trees. In 1971, Merlyn again took his class out to plant 1,500 norway pines as a part of the continuing planting. Periodically, classes continued the tradition of planting trees in the Pines with the last class going out and planting in 2008.

Today, the Pines are sustainably managed and hold a variety of events, including the state FFA forestry competition.
PLANTING TREES IN 1942

The south end of the Gary Pines has some beautiful trees thanks to some industrious people living in the area back in 1942. On the F-20-1938 Model Farmall tractor is Alvin A. Anderson, whose farm was just northwest of the Gary Pines. On the planter are Norman A. Eid (left) and Tony Klimp who farmed just west of Alvin Anderson. In the background was the Otto Eichler farm (now Mel Servine's). This is an East Agassiz Soil Conservation service file photo.
To fund the community’s vision, grant requests for finances have been or are in the works. Grant awards currently secured for the Get Out & Play in the Pines project is $60,763.

Current cash funds include:

**Phase One**

$8,400 Fire Wise grant from MN Natural Resources Division of Forestry

**Phase Two**

$8,000 University of Minnesota Community Assistantship Program (CAP) grant for a masters candidate in landscape architecture

$30,000 Dekko Foundation of Indiana grant to develop a natural play space, trails, and overall family experience in nature

$2,000 Shock & Awe youth philanthropy grant toward a natural play space

$12,363 Northwest Regional Sustainable Development Partnerships grant toward the overall project

If you or your family would like to support the project, or a specific item in the project, tax deductible donations can be sent to:

Gary Cares c/o Audrey Felske
301 Strand Street, Gary, MN 56545
## PROJECT TIMELINE

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Existing trail network in the Gary Pines
This section highlights precedents that were relevant to the Gary Pines trail network and natural play space. We draw inspiration from global, national, regional, and local projects. These projects vary in size, use, and context, but all help to inform the design of the Gary Pines.
**NARRABEEN LAGOON TRAIL**
**SYDNEY, AUSTRALIA**

**CONTEXT** Urban  
**LENGTH** 5 Mile Loop  
**TRAIL TYPE** Recreational Trail (Bike, Walk)

"The Narrabeen Lagoon trail is a multi-layered recreational shared trail for pedestrians and cyclists. Material selection was sustainable, low maintenance, durable and appropriate for its bushland setting. The lookouts and the walkway itself were sensitively designed to minimize impact on the threatened vegetation fringing the lagoon foreshore, and to provide a unique design outcome which is specific to this place." (ASPECT Studios)

Narrabeen Lagoon trail is a great example of a multi-use trail that is sensitive to surrounding habitats and ecosystems. Gary Pines has the opportunity to create a similar balance between humans and nature.

**GIANT CEDAR BOARDWALK**
**MT. REVELSTOKE NATIONAL PARK**

**CONTEXT** National Park  
**LENGTH** 1/2 Mile Trail  
**TRAIL TYPE** Hiking Trail

"A half-mile boardwalk takes you into the heart of the park’s old-growth forest, among cedar trees that may be more than half a millennium old. Signs along the way relate the importance of functioning ecosystems. Benches are provided so you can relax and breathe in the serene forest atmosphere." (Parks Canada)

The Giant Cedar Boardwalk’s use of signage about the park’s functioning ecosystems is a great way to incorporate education into recreational activities, like hiking. Signage identifying plants and the various types of pine trees could be used in the Pines.
YORK COUNTY RAIL TRAIL
SEVEN VALLEYS, PENNSYLVANIA

CONTEXT Residential Neighborhood
LENGTH 27 Miles
TRAIL TYPE Recreational Trail (Bike, Walk, Horse)

"The rail-trail provides for a variety of activities all year. Various amenities are provided along the trails for the convenience of the public, like picnic tables, benches, drinking water, info boards, parking areas, and bathrooms. Rail-trails support the needs of the community by providing natural surroundings for regular exercise and helping to safeguard the environment and improve the quality of air and water. The trails are virtual laboratories for learning about our natural environment, cultural places, and historic past." (York County Rail Trail Authority)

York County Rail Trail is a great example of how to successfully mix multiple uses all on one trail system.

LOVER’S LANE
SAN FRANCISCO, CALIFORNIA

CONTEXT Urban National Park
LENGTH 1 Mile Trail
TRAIL TYPE Hiking Trail

"Lover’s Lane invites you to contemplate where the life of a tree begins...the fertile earth. On this very site in the late 1800s, the Army planted eucalyptus with rows of Monterey cypress interspersed. Conditions did not favor the cypress and they died out, leaving open gaps. Lover’s Lane fills one of these gaps with a quiet, graceful, sinuous sculpture that, in the artist’s words, ‘draws the place.’ The project is made up of eucalyptus branches sourced from various park projects that required tree removal.” (Presidio)

Lover’s Lane illustrates how found, natural materials from the park can be repurposed into art installations or other site amenities.
RIDGES SANCTUARY
BAILEYS HARBOR, WISCONSIN

CONTEXT Nature Preserve / Land Trust
LENGTH 5 Miles of Trails
TRAIL TYPE Hiking Trail

“Stretching nearly a third of a mile, the boardwalk welcomes visitors right from the doors of the welcome center to the ridges, swales, flora and fauna of the sanctuary. The boardwalk has given those with vision and hearing impairments a level of comfort while walking the sanctuary. With the installation of several observation platforms along the boardwalk, the goal is to install interpretative panels. These panels will feature specific areas and points of interest along the way. However, they will be not only for those who can see and hear, they will be able to be fully interpreted for those with visual and hearing impairments.” (The Ridges)

NINE MILE
WAUSAU, WISCONSIN

CONTEXT Rural
LENGTH 30 Miles of Trails
SITE TYPE Adventure (Hike, Bike, Horse, ATV)

“Nine Mile is intensively managed for multiple uses including sustainable timber harvests, mountain biking, cross-country skiing, horseback riding, hiking, snowmobiling, and snowshoeing. Cross-country skiers have more than 18 miles of one-way trails over a variety of terrain with loops suitable for the novice to expert skier. In the summer, the ski trails become an excellent mountain biking trail system. Blackberries and blueberries are eagerly sought by berry pickers in the late summer and fall.” (Marathon County)

Nine Mile’s focus on adventure creates a space of play for visitors of all ages - something that can be applied to the Pines master plan.
WETLAND BOARDWALK
ELOISE BUTLER WILDFLOWER GARDEN

CONTEXT Urban Park
SIZE 15 Acres
TRAIL TYPE Walking Trail

"The Eloise Butler Wildflower Garden was the first public wildflower garden in the US. The newly designed boardwalk features a unique curved modular system that allows for ease of assembly and quick directional changes. Additional pieces include benches, bridge railings, camera posts, and interpretive signage, all designed for easy assemblage into the boardwalk frame. The entire assembly rests easy on the land, as to not disturb the gentle ecosystem embedded within the Garden." (Cuningham Group)

Pieces like benches, railings, camera posts, and interpretive signage help make a visitor’s time more enjoyable.

FDL - CFC TRAIL
CLOQUET, MINNESOTA

CONTEXT Tribe Reservation / Research Forest
LENGTH 2 Mile Trail
SITE TYPE Interpretive Trail (Walk, Bike)

Working with the Fond du Lac Band of Ojibwe and the Cloquet Forestry Center the studio assisted in the process of linking the two together. The studio led three community workshops to gather ideas and inspiration from students, elders, and the trail planning group. The designs were inspired by the wigwam and the process of building it - birch sheets are tied together by spruce roots. The main trail represents the birch sheets, while the spur trail weaves around it, reinterpreting the tying of spruce roots.

Following a similar engagement process and design approach, the Pines master plan will reflect community values and desires.
Children exploring ‘the marsh’ in Teardrop Park

SOURCE: elizabeth felicella
**TEARDROP PARK**
NEW YORK CITY, NEW YORK

**CONTEXT** Dense Urban

**SIZE** 1.75 acres

**SITE TYPE** Public Park

Teardrop Park is a small park located in the very dense urban context of Manhattan. The 1.75 acre park is surrounded by tall buildings and concrete but offers children an exceptional opportunity to interact and learn in nature. The mission of the park was to create a space in lower Manhattan that embraces its surroundings and context through bold topography, complex irregular space, and robust plantings. Sustainability within the park was used as an organizing principal. Organic soils, maintenance programs, and captured stormwater for irrigation were all part of the design philosophy. (Moore)

**BLANCHIE CARTER DISCOVERY PARK**
SOUTHERN PINES, NORTH CAROLINA

**CONTEXT** Small, Historic Town

**SIZE** 5 acres

**SITE TYPE** School Park

Blanchie Carter Discovery Park is located at a large elementary school site. The site was renovated to serve both the school and surrounding neighborhood. The park was installed through a phased approach that took several years to complete. The mission of the park was to create a space for healthy development, outdoor learning, and enjoyment for school and community. Themes within the park include a diverse range of settings that contain multiple textures and emphasize ecorestoration. Eco-restoration was emphasized through the installation of elements over time as resources became available. (Moore)
DISCOVERY HOLLOW
WHITE BEAR LAKE, MINNESOTA

CONTEXT Residential Neighborhood
SIZE 320 Acre
SITE TYPE Nature Conservancy

Discovery Hollow is located in White Bear Lake, MN. This children’s play park was designed with logs to balance on, sticks to build forts, water and sand pits, and an engineered stone wall for realistic rock climbing. The space was created to offer an alternative to traditional playground equipment while keeping children entertained for hours on end. Main programmatic elements within the park include: The Wood, build a tree fort; The Overlook, climb the cliffs; The Stream, make a dam and learn about water flow; The Garden, help grow plants, pull weeds and water; The Mud Table, play with mud; The Hobbit House, crawl in and over the house. (Moore)

CASTLE PARK
CROOKSTON, MINNESOTA

CONTEXT Rural Neighborhood
SIZE Undetermined
SITE TYPE Public Park

Castle Park was chosen for initial implementation of a nature play space because of community interest, available park space, and likelihood of successful partnerships. The park was conceived to help create more physically active communities by getting children and families outdoors and exploring nature. Castle Park provides safe and convenient opportunities to be active, explore and expand an innate desire to learn. The park consists of many natural elements such as willow stick nest construction, hay bale maze, stump and log climbing areas and multiple sand/gravel areas. All of these areas provide hours of fun for children of all ages and allow them to be creative and to explore their own imagination. (CSBR)
EHES NATURE PLAY SPACE
MOORHEAD, MINNESOTA

CONTEXT Residential Neighborhood
SIZE 53,000 Square Feet
SITE TYPE School Park

Nature play spaces include stones and logs for balancing and climbing on. Other areas of the nature play space include a hobbit hole that utilizes culverts and a hill to create an escape within a relatively flat landscape. Sand pits with large stones help to create different textured environments within the space and allow kids to bury, dig and build. As part of the Master Plan, an expanded community garden is suggested to help make this a place within the community where members of all ages can participate and rejuvenate. The community garden would be focused on sustainable gardening practices such as square foot gardening, accessible planting beds and rain water harvesting for irrigation of crops. To collect water a 15' by 15' pergola shelter is proposed to help fill artist-created rain barrels. In an effort to invite access for persons of all abilities, concrete surfacing has been proposed for much of the path material. For a path to be complaint with Americans with Disabilities Act (ADA) the material must be stable and nonshifting. Every zone is accessible from stable pathways so all can access the play space. In addition, the Red River Path, and many other paths are integrated into the play areas, so that even while on the path, many aspects of the nature play can be enjoyed. For example, the Red River Path is conceived as a play river in itself. (CSBR)

EHES Nature Play Space was a projected completed by CSBR and RSDP in the spring of 2016
Community engagement is the foundation of Design for Community Resilience projects. At each of the three site visits the team met with community members, presented project materials, and gathered feedback in an open house format.

Many of the elements within the Gary Pines Master Plan are a result of the events and feedback the research team gathered while visiting Gary and the Pines. Community members were asked to give ideas of what they would like to see in the design of this new space. By incorporating children, teens, adults, and elders into the design of the space, it begins to bring ownership that will help carry the momentum of the project forward.

Raw data from each of our three site visits are included in the following pages.
Site visits and meetings with community members were first held on September 30, 2016 to identify needs for the Gary Pine's trail network and nature play space. On the first visit, the design team met with community members to introduce the project, share goals, and present initial precedent projects. We then asked the community members three questions and recorded the answers as listed.

The following data are the comments gathered for each question asked at the first community meeting.
GARY PINES PAST
WHAT ARE ASPECTS OF GARY PINES HISTORY THAT ARE IMPORTANT AND SHOULD BE PRESERVED?

Wildlife
Classes planting
Trees - Norways, more spruce / pine trees
Keep family / community feel
Incorporate fallen trees
Natural setting - more nature than man
Wildlife - keep current, attract more

GARY PINES PRESENT
WHAT ACTIVITIES ARE HELD AND SPACES USED IN GARY PINES TODAY? WHAT IS WORKING WELL? WHAT IS MISSING OR MIGHT BE CHANGED?

Meetings
Minimum ATV
Paintball
Picnics
Pick plums
Snowmobile
Occasional church functions
Min. hiking
Running
Shed hunt
Horseback riding
Wildfire prevention
Rest during long trips
Bird watching
Dog walking
Bathroom breaks drivers
Host state FFA forestry contest
<table>
<thead>
<tr>
<th>What Activities Would You Like to See Happen in Gary Pines in the Future? Where Should These Be Located?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garden (southside)</td>
</tr>
<tr>
<td>America Ninja Gary - log obstacle course</td>
</tr>
<tr>
<td>Skateboard ramp</td>
</tr>
<tr>
<td>Variety of trails - ATV, etc</td>
</tr>
<tr>
<td>Basketball</td>
</tr>
<tr>
<td>Field Trips</td>
</tr>
<tr>
<td>Zipline</td>
</tr>
<tr>
<td>Paintball</td>
</tr>
<tr>
<td>Camping - need fire policy</td>
</tr>
<tr>
<td>Parking (for campers)</td>
</tr>
<tr>
<td>Bridge</td>
</tr>
<tr>
<td>Dinosaur statues</td>
</tr>
<tr>
<td>Fort</td>
</tr>
<tr>
<td>Musical instruments outdoor</td>
</tr>
<tr>
<td>Tire swing</td>
</tr>
<tr>
<td>Hitching post</td>
</tr>
<tr>
<td>Haunted Trails</td>
</tr>
<tr>
<td>Rock wall</td>
</tr>
<tr>
<td>Turtle shell</td>
</tr>
<tr>
<td>Slide</td>
</tr>
<tr>
<td>Go-Cart trails</td>
</tr>
<tr>
<td>Too steep ATV access from ART</td>
</tr>
<tr>
<td>Horseshoe pit</td>
</tr>
<tr>
<td>Forest management to keep mixed age</td>
</tr>
<tr>
<td>Water</td>
</tr>
<tr>
<td>Water development</td>
</tr>
<tr>
<td>Firepit</td>
</tr>
<tr>
<td>Educational building w/ history of pines, wildlife, and forestry</td>
</tr>
<tr>
<td>Bike rack</td>
</tr>
<tr>
<td>What kind of grass to plant? (Lions Memorial Forest)</td>
</tr>
</tbody>
</table>
Similarly to the first visit, the design team met with community members to present three design concepts and get feedback on their favorite design and design elements. Community members were asked to place dots next to their favorite designs and add any comments on post-it notes. After the meeting, the boards were displayed at the elementary school for a week where students were able to add additional ideas and comments.

The following data are the comments and votes gathered at the second community meeting.

**ACTIVE PINES**

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>VOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>We should get swings for the kids</td>
<td>Log cabins</td>
</tr>
<tr>
<td>We should get a trampoline</td>
<td>Paintball course in the pines</td>
</tr>
<tr>
<td>We should get a zipline for kids like me</td>
<td>Art installations and art walk</td>
</tr>
<tr>
<td>We should get monkey bars</td>
<td>Balance beams</td>
</tr>
<tr>
<td>We should get a rope swing</td>
<td>Waterfall</td>
</tr>
<tr>
<td>App with map</td>
<td>More stuff for the ninja course</td>
</tr>
<tr>
<td>Playhouses</td>
<td></td>
</tr>
</tbody>
</table>

**GENERATIONAL PINES**

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>VOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Observation Tower 5</td>
</tr>
</tbody>
</table>

**ARTFUL PINES**

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>VOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
On December 15th the design and planning team took one final trip up to Gary, MN to present findings and the final master plan for the Gary Pines. The team met with community members to discuss the design and what it entailed. Community members were excited to see the results and quickly conversation moved to how they were going to implement it.
The design process for the master plan began with gathering site inventory data and observing site conditions. Input received from community members also informed the design of the Gary Pines.

This section includes site inventories, design concepts, master plan, and design elements.
The Gary Pines is located about two miles northeast of Gary, Minnesota along Highway 32. The Pines are surrounded by agricultural land on all sides. About a half mile to the east of the Pines is the Agassiz Recreational Trail (ART), an abandoned railroad transformed to a multi-use trail. ART runs between Ulen and Fertile, Minnesota passing through Gary and by the Pines.
The Gary Pines are made up of a variety of pine species including norway, white, and spruce. Because the soil of the area is mostly sand, tree growth is sporadic and patchy leaving large clearings. The 160-acre forest includes old growth pines, new growth, popples, and plum trees. In the summer of 2016, a strong wind storm hit Gary and blew over many trees in the Pines. There are a few existing trails that can be accessed by hikers, bikers, horseback riders, and ATVs.
SITE INVENTORIES

The maps that follow depict six of the biggest site drivers in the design of the project: Trails + access, topography, soil survey, solar + wind, vegetation, and activities.

Trails + Access

The Gary Pines are accessed mostly via car along highway 32. Visitors park in front of the picnic shelter and enter the Pines on the existing trail, which loops through the forest and can be accessed via ATV, on horse, foot, and bike. Proposed fire breaks can be utilized to expand the trail network by doubling as trails. There is an opportunity to connect the Agassiz Recreational Trail (located 1/2 mile to the east) to the Pines along 260th Avenue.

Topography

The lowest point on the site is 1086 in the southwestern corner and the highest point is 1102 on the eastern side - an overall difference of 16 feet. The northeastern corner of the site has more change in elevation providing more opportunities to use topography in the design. Overall, there are no steep slopes in the Pines.

Soil Survey

71% of the site is a Hecla-Garborg-Arveson complex. All of the soils on the site are sandy and highly permeable, meaning they drain relatively quickly. The sandy soils make tree growth difficult.
SITE INVENTORIES

Solar + Wind

In the summer we want afternoon shade and to feel the cool breeze, while in the winter we want as much exposure to the sun as possible and to be shielded from the freezing wind. The winter winds come from the NNW, while the summer winds come from the SSE.

Vegetation

The Pines were last logged in 2014. There is a variety of age in the forest from old growth to new saplings. With this diversity in age, there are opportunities for ecological education on forest life cycles. There are also opportunities to use existing clearings as sites for gathering, play, and exploration.

Activities

Currently, most of the activity on site occurs around the picnic shelter and the bathrooms. As one goes further into the Pines, the amount of activity decreases. Traffic from highway 32 creates noise that can be heard when you are at the shelter and bathrooms, but softens the further you go into the forest. We want to group heavy activities and noise together near the front of the forest so that we can preserve the majority of the Pines' natural habitat and ecosystems.
Each design scenario shows ideas with one particular focus for community input. The Active Pines Design Scenario reflects the potential of Gary Pines to become a site of active recreation in a natural setting. Key elements proposed are a mountain bike circuit, a ninja obstacle course and a pine climb to foster physical activity in a natural setting. Some elements such as warming house, bird hide and memorial garden are common to all design scenarios.
warming house

mountain bike circuit

bird hide

gathering space

obstacle course

pine climb

SOURCE: malcom lee

SOURCE: unknown

SOURCE: centre for alternative technology

SOURCE: transsolar + tetsuo kondo architects
Each design scenario shows ideas with one particular focus for community input. The Generational Pines Design Scenario reflects the potential of Gary Pines to become a site of teaching and learning of the history of the pines and the unique ecological development and transitions of the natural environment in the pines. Key elements proposed are an outdoor classroom, an observation tower and succession plots and signage. Some elements such as warming house, bird blind and memorial garden are common to all design scenarios.
Each design scenario shows ideas with one particular focus for community input. The **Artful Pines Design Scenario** reflects the potential of Gary Pines to become a site of public art that integrates the work of local and other artists that fosters the imagination and creative discovery. Key elements proposed are an **art walk**, and **art installations** integrated strategically throughout the landscape. Some elements such as warming house, bird blind and memorial garden are common to all design scenarios.
warmng house

art walk

art installations

outdoor classroom

bird hide

art installations
The trail network in Gary Pines includes three types of trails, creating a hierarchy of trail type and use. The first two, a foot path (1-3 feet wide) and a natural trail (6 feet wide) are for hikers, bikers and horse riders. The third, a wider multi-use trail (10 feet wide) will accommodate users of ATVs/snowmobiles in addition to horse riders, hikers, and bikers at the same time. As use of these trails grows, it will be important to consider frequency of use and safety of all users, and apply restrictions as needed.
The multi-use trail is the main trail throughout the forest. It accommodates all user types on a wide ten foot trail. The material of the trail is wood chips, which can be made from fallen or logged trees collected on site. The multi-use trail follows the proposed fire breaks as close as possible to minimize impact on and to preserve as much of the forest as possible. Multiple loops are available on the multi-use trail creating different options for people to choose from. Shorter loops may appeal to older people and children, while longer loops may appeal to bikers, horseback riders, and cross country skiers.
The natural trail is the secondary trail throughout the forest. It accommodates hikers, horseback riders, bikers, and cross country skiers on a comfortable six foot trail. The material of the trail is sawdust, which can be made from fallen or logged trees collected on site. Sawdust dampens noise made from users, keeping the trail quiet as people enjoy nature. The natural trail connects main points of the multi-use trail, creating short-cuts and smaller loops in between.
The foot path sneaks throughout the forest. It accommodates hikers and snowshoers on a narrow foot path wide enough for just one. The material of the path is the forest floor. The foot path winds through the pine trees accommodating existing vegetation, making sure not to displace any trees. While foot paths are marked on the trail master plan, exact locations will vary based on vegetation and best route through the trees. It will be important to keep these foot paths natural, narrow, and low impact.
Informed by the participatory design process described in the prior section, the design team incorporated community input into a final master plan. The master plan includes elements from all three design concepts presented at the second community meeting, but ultimately reflects the community’s preference for **Active Pines** - exploring the forest through adventure and play for all ages.

Key design elements include the **natural play space**, **ninja obstacle course**, **mountain bike circuit**, and the **observation tower**. Environmental education and learning is incorporated into the Pines through the **outdoor classroom**, **bird hide**, **integrated interpretive signage** and **plant ID**, as well as strategically placed **environmental learning plots**. The learning plots will be marked areas that track the growth of the forest over time, revealing the forest’s natural transformation from saplings to old growth. Throughout the community meetings, incorporation of art was consistently desired. The **small gathering spaces** are opportunities for **art installations**.
warming house

bird hide

mtn bike circuit

small gathering

art installation

outdoor classroom

observation tower

env. learning plot

camp sites
The natural play space is located behind the picnic shelter between two ridges. The picnic shelter is the most visible element of the Pines and acts as a gateway to the rest of the forest. By placing the natural play space in close proximity to the shelter, visitors have easy access to the play space, while also drawing them further into the forest, where they previously may not have gone.

Key elements of the natural play spaces include the pine walk located on the edge of the forest that allows children to navigate the pines a few feet off the ground and includes rope swings and hammocks for resting; willow houses inspired by artist Patrick Dougherty; log lean, climb, and forest which utilize fallen logs from the forest and encourage children to engage with the material in creative ways; creek cross is located in the swale of the two ridges where water collects and provides a fun way to cross the creek, while the boardwalk offers an elevated view of the scene; on the far ridge are mounds created from sand, soil, gravel, or other naturally found material.
The obstacle course was inspired by the television show ‘American Ninja Warrior’ and was discussed as something the community would like to have incorporated into the design during the first community meeting. The course is located on the multi-use trail just to the east of the camp sites, in close proximity to the natural play space. The course begins at a small gathering space and follows the trail with six obstacles until it reaches the observation tower.

Throughout the community meetings a desire to climb, jump, crawl, and balance was consistently heard. The course creates the opportunity to do these actions through six obstacles. These obstacles can be created from natural materials like logs and mounded earth. Created for a variety of ages, the obstacles appeal to both young and old in friendly competition. Users can complete the obstacles individually or compete in timed circuits with others. Over time additional obstacles can be added and the course can expand as needed.
CLIMB

CRAWL

LEAP

SCALE

HOP

BALANCE
PHASING

Implementation of the master plan should occur in phases. We propose three phases of development prioritizing major design elements first and then as resources become available completing the other elements.

**Phase 1**

Natural play space  
Obstacle course  
Warming house  
Artist selection process  
Campsite preparation  
Small gathering spaces - phase 1

**Phase 2**

Environmental learning plots  
Outdoor classroom  
Bird hide  
Art installation  
Campsite development  
Small gathering spaces - phase 2

**Phase 3**

Observation tower  
Mountain bike circuit
ARTS IN THE PINES

Possible Grants

Northwest Minnesota Arts Council - Arts Legacy Grants (regular)
Arts organizations should apply in the main Arts Legacy Grant category if they requesting between $3,000 and $10,000 in grant funds. This category is best suited for a series of projects and equipment expenditures that arts organizations will need to make. Grants are for up to $10,000 with a minimum 10% cash match. We encourage one larger grant rather than several small grants for arts organizations. Main deadlines are Aug 1, Nov 1, and Feb 1; then ongoing 1st of the month deadlines as funds remain. This is also the main category to fund public art projects within communities such as murals and sculptures. There are many ideas for public art. We have worked with Forecast Public Art to develop a toolkit related to conducting a public art project in your community.

Arts + Cultural Heritage Grant - Legacy Grant

Possible Art / Artist Contacts

Forecast Public Art
Jack Becker, Founder + Director of Community Services

Springboard for the Arts
Laura Zabel

Minnesota Landscape Arboretum
Wendy DePaolis, Curator Art + Sculpture
SECTION 4 | RECOMMENDATIONS + NEXT STEPS

Recommendation 1
Create ‘Pines Team’

Recommendation 2
Continue fundraising efforts

Recommendation 3
Explore artists + selection process

Recommendation 4
Continue managing the Pines in a sustainable way

Recommendation 5
Review nature-based play guidelines from Nature Play and Learning Places

Recommendation 6
Connect the nature play space strongly to curriculum content

Recommendation 7
Develop Nature Play and Learning Places

Recommendation 8
Apply for Arts Legacy Funding
In conclusion, the Gary Pines project embodies a participatory effort to develop a master plan that includes input from Gary community members, research and funding organizations.

The master plan shows a comprehensive vision that integrates a natural landscape and nature space design, art, environmental education, and regenerative design principles. The recommendations prioritize phased development, volunteer effort, shared stakeholder team approach, documentation and communications, evolving maintenance, integration of curriculum content and design education.

As with the development of this project from September 2016 – January 2017, the next steps will benefit from the enthusiastic commitment of the City of Gary and community members in fundraising and implementing the ideas as a team.
REFERENCES

Project Introduction


Section 1 | Precedents + Research


