

Final Report and Feasibility Study Varina, Iowa



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About Jeffrey L. Bruce & Company

Jeffrey L. Bruce & Company (JBC) is a national landscape architectural firm. Founded in 1986, JBC provides highly specialized technical support on project profiles including landscape architecture, site analysis and development, urban design, engineered soils, green roof technologies, performance sports turf, irrigation design, campus landscape master planning, and athletic master planning. As one of the few practices that offer both full-service design and technical research, JBC asks forward-looking questions and provides cutting-edge solutions that help their clients today. JBC asks new questions that elevate projects to the "next stage" of green design that moves from simply conserving natural resources to restoring clean water, air and land. JBC's approach to creating restorative landscapes embraces three core philosophies: develop a detailed understanding of human and natural processes through research; create the appropriate solution to ensure sustainability in design; and design to meet the operational and maintenance resources of the client.



David A. Stokes, PLA, ASLA

Mr. Stokes is a senior project manager with 17 years of professional experience in providing clients with urban design, landscape design, comprehensive master planning, integrated green infrastructure, parks-trails-greenways planning/design, and resource based planning on projects of all sizes throughout the country. Mr. Stokes also has professional experience in facilitating public input and stakeholder meetings, cultural/environmental assessments, biological assessment studies, and other various GIS related analysis planning projects. Since joining Jeffrey L. Bruce & Company, Mr. Stokes has also worked extensively with clients on green roof and green infrastructure design, agronomic soils design, subdrainage and stormwater management design, water resource management, construction documentation and construction administration for public and private sector clients.



Eric A. Doll, PLA, ASLA

Mr. Doll has been involved with Iowa's Living Roadways Community Visioning Program for eight years. Eric earned his BLA, along with an Iowa ASLA Merit Award, from Iowa State University in the spring of 2012. Mr. Doll has a minor in horticulture with an emphasis on soil science and this provided him a smooth landing here at JBC. Mr. Doll has worked extensively on green roof and green infrastructure design, agronomic soils design, subdrainage and stormwater management design, water reuse and resource management, and community/client meeting facilitation of various institutional, commercial, and sports field related projects. With a passion for digital media, Eric conducts cutting edge graphic representation of design concepts to create a holistic understanding for our clients.



Carol Joella Ustine, Intern

Ms. Ustine is an architect and artist from Chennai, India. Her innate relationship with natural systems called for the integration of architecture and landscape architecture, which she is currently working on. Her focus lies on sustainability, mud architecture, natural building techniques, therapeutic landscapes, restoration ecology and biodiversity. In short, creating a healing space for both human and non-human nature is her line of thought. She also engages herself in other activities like art, photography, and dance. She graduated from Anna University, India with a Bachelor of Architecture degree in 2015. She is a Master of Landscape Architecture student at Iowa State University, Ames, Iowa, USA and will graduate in 2018. Her beliefs are "Create innovative designs to experience and inspire a positively balanced environment" and "Achieve balance with non-human nature".



Riley Dunn, Intern

Ms. Dunn is a Landscape Architecture student at Iowa State University entering her fourth year of study. Her love of running and the outdoors sparked her interest in the profession and she is always itching to explore the world outside. As a former Iowa Natural Heritage Foundation intern, she loves the ecological side of design and holds Aldo Leopold's Land Ethic as the core value of what she wishes to pursue in her future career. With a double major in Environmental Science and a minor in Sustainability, she is well on her way to fulfill her dream of changing the world...one plant at a time.

Program Overview

Varina is one of 10 communities selected to participate in the 2017 Iowa's Living Roadways Community Visioning Program. The program, which selects communities through a competitive application process, provides professional planning and design assistance along transportation corridors to small Iowa communities (populations of fewer than 10,000).

Goals for the Visioning Program include:

- Developing a conceptual plan and implementation strategies with local communities
- Enhancing the natural, cultural, and visual resources of communities
- Assisting local communities in using external funds as leverage for transportation corridor enhancement

Each visioning community works through a planning process consisting of four phases of concept development:

1. Program initiation
2. Needs assessment and goal setting
3. Development of a concept plan
4. Implementation and sustained action

Each visioning community is represented by a steering committee of local residents and stakeholders who take part in a series of meetings that are facilitated by field coordinators from Trees Forever. Iowa State University organizes design teams of professional landscape architects, design interns, and ISU faculty and staff. The program is sponsored by the Iowa Department of Transportation.

Community Goals

The **Varina** visioning committee identified a number of goals and priority areas during the visioning process, which are included below:

- Improved sidewalk system
- Improved pedestrian safety
- Way-finding and signage
- Economic development

Capturing the **Varina** Vision

Based on the needs and desires of the local residents, as well as a detailed inventory of community resources, the design team developed a conceptual transportation enhancement plan. This plan, as well as the inventory information, is illustrated in the following set of presentation boards. These boards include the Program Overview, Bioregional Assessment, Transportation Assets and Barriers Assessment, Transportation Behavior and Needs Assessment, Transportation Inventory and Analysis, Concept Overview, and Community Design Boards.

Program Overview

The City of Varina is one of 10 communities selected to participate in the 2017 Iowa's Living Roadways Community Visioning Program. The program, which selects communities through a competitive application process, provides professional planning and design assistance along transportation corridors to small Iowa communities (less than 10,000 residents).

Visioning Program Goals:

1. Develop a conceptual plan and implementation strategies alongside local community residents.
2. Enhance natural, cultural, and visual resources existing within communities.
3. Assist local communities in using external funds as leverage for transportation corridor enhancement.

Each visioning community works through a planning process consisting of four phases of concept development:

1. Program initiation
2. Needs assessment and goal setting
3. Development of a concept plan
4. Implementation and sustained action strategies

Each visioning community is represented by a steering committee of local residents and stakeholders who take part in a series of meetings and focus groups that are facilitated by field coordinators from Trees Forever. The Community Visioning Program, as part of Iowa State University's Landscape Architecture Extension, organizes initial focus groups as well as transportation needs and behaviors surveys with design interns. The program is sponsored by the Iowa Department of Transportation.

Community Goals

The Varina Steering Committee identified a number of goals and priority areas during the visioning process: an improved sidewalk system, safety, signage, and economic development.

Capturing the Varina Vision

Based on the needs and desires of the local residents, as well as a detailed inventory of community resources, the design team developed transportation-based community improvement project concepts, which are illustrated in the following set of presentation boards:

1. Program Overview
2. Bioregional Assessments
3. Transportation Assets and Barriers
4. Transportation Inventory and Analysis
5. Goal Setting
6. Concept Overview
7. Walking Trails
8. Recreational Amenities
9. Sidewalk System
10. Signage and Wayfinding
11. Visual Quality
12. Economic Development
- 13a. Timeline: Tracing the Possible Future
- 13b. Timeline: Tracing the Possible Future



Steering committee members Dick and Nancy provide feedback on design graphics.



Even the youngest visionaries get involved during the design workshop.



Preparations are being made for Grandpa's Barn to sow many seeds.



The steering committee highlights important areas for goal setting to the design team.

Bioregional Assessment

Settlement Patterns

This board uses maps from A.T. Andreas' Illustrated Historical Atlas of the State of Iowa, 1875 overlaid with present-day town boundaries and water bodies. Published in 1875, Andreas' Atlas is an extraordinary resource showing the post-Civil War landscape of Iowa including settlement features (towns and villages, churches, schools, roads, railroads, etc. and landscape features (water bodies, vegetated patches such as "timber" and "swamp," and major topographic features.) High-quality scans of the Atlas have been arranged to correspond closely with present-day maps revealing major landscape changes as well as features that have persisted, such as railroad rights-of-way and in some cases remnant vegetation patches.

Varina in Context

Compare the 1875 boundaries of your town to the current boundaries. How much has your town grown?

Compare the course of the rivers in 1875 to their current course, are there major changes in alignment or location? Are there vegetation patches shown in the 1875 map still in existence?

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Compare the 1875 boundaries of your town to the current boundaries. How much has your town grown?
 Compare the course of the rivers in 1875 to their current course, are there major changes in alignment or location? Are there vegetation patches shown in the 1875 map still in existence?



Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," <http://www.gis.iadnr.org/atlbc/>.

Historical Vegetation

The vegetation information shown here is derived from township maps made by the General Land Office (GLO) surveys beginning in 1836 through 1859. The vegetation information was digitized in 1996 as a resource for natural resource management and is useful "...for the study of long term ecological processes and as baseline data for the study of present day communities."¹

The plant communities mapped by the GLO surveyors varied in classification and the terminology from the original maps has been preserved.

The vegetation types are defined²:

1. Field: Cultivated lands of early pioneers.
2. Grove: Isolated dense young stand of trees.
3. Marsh: Perennial wetlands, basins of irregular shape.
4. Prairie: Dominated by prairie grasses with individual or few scattered trees.
5. Thicket: Impenetrable blocks of young trees, often thorny.
6. Timber: Contiguous blocks of trees extending to the horizon in at least one direction.
7. Slough: Like marsh but more linear in shape.

¹ J.E. Ebinger, "Presettlement Vegetation of Coles County, Illinois," Transactions of the Illinois Academy of Science (1987): 15-24, quoted in Michael Charles Miller, "Analysis of historic vegetation patterns in Iowa using Government Land Office surveys and a Geographic Information System" (master's thesis, Iowa State University, 1995), 8.

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The plant communities mapped by the GLO surveyors varied in classification and the terminology from the original maps has been preserved.

The vegetation types are defined²:

1. **Field**: Cultivated lands of early pioneers.
2. **Grass**: Isolated dense young stand of trees.
3. **Marsh**: Perennial wetlands, basins of irregular shape.
4. **Prairie**: Dominated by prairie grasses with individual or few scattered trees.
5. **Thicket**: Impenetrable blocks of young trees, often thorny.
6. **Timber**: Contiguous blocks of trees extending to the horizon in at least one direction.
7. **Sloaghy**: Like marsh but more linear in shape.

¹ U.S. Census, "The Natural Vegetation of Ohio Counties, 1850s," Transactions of the Illinois Academy of Science (1987), 1:1-14, accessed in Michael Charles Miller, "Analysis of historical vegetation patterns in Iowa using Commission General Land Office survey land," *Geographic Information Science* (2007), accessed in Michael Charles Miller, "Analysis of historical vegetation patterns in Iowa using Commission General Land Office surveys and a Geographic Information System," *Journal of Soils and Water Conservation* (2005), 134-135.



Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information System Library," <http://www.gis.iadnr.com/englib/>.



Historical Vegetation

Bioregional Context

Julia Bodenhoppe, Matthew Gordy, Colby Fangman, Sam Thompson

Iowa State University | Trees Forever | Iowa Department of Transportation

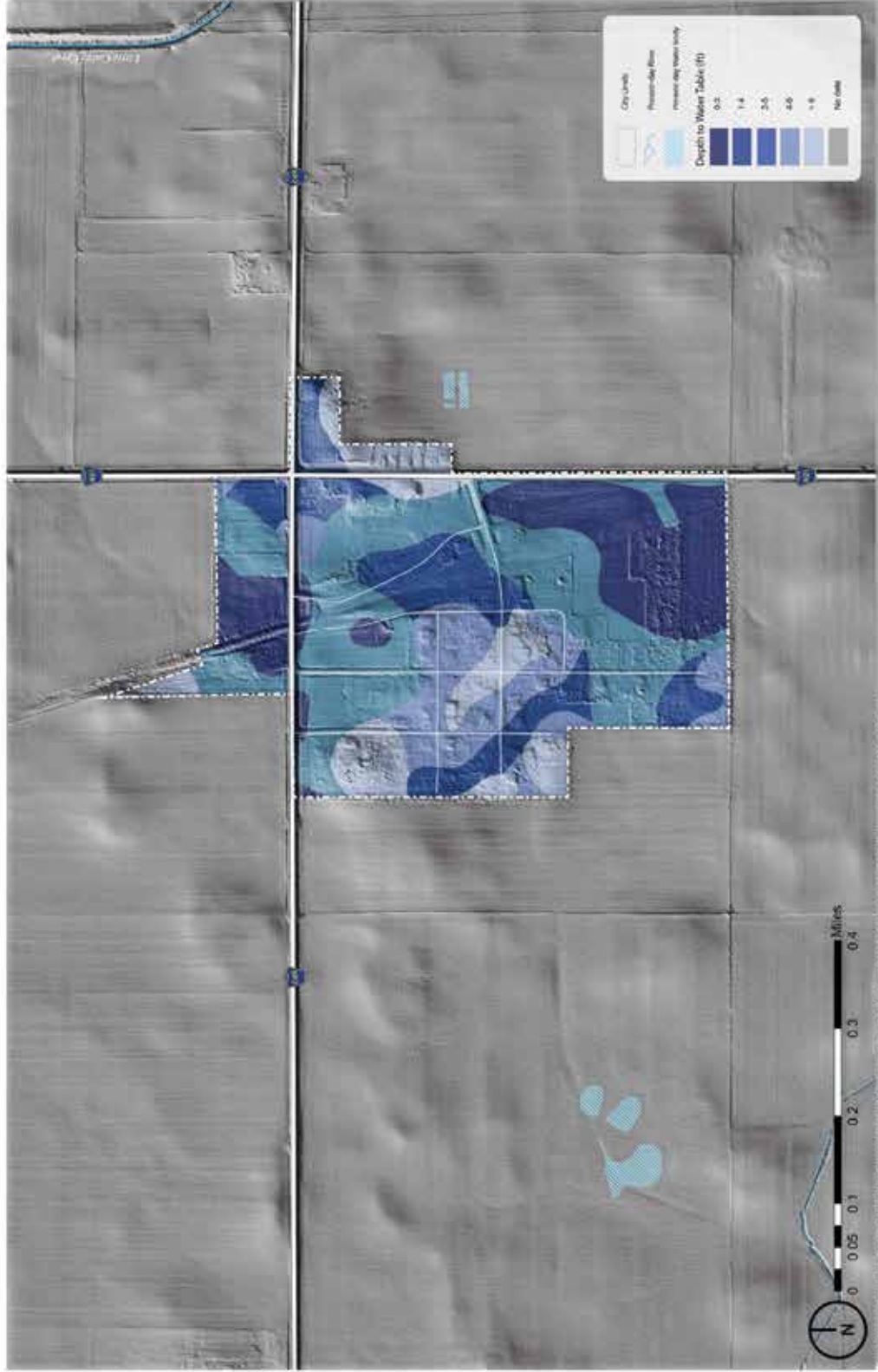


Depth to Water Table

The water table is defined as the level below which the ground is saturated with water. The water table generally mimics surface topography, but there are differences depending on localized conditions such as the permeability and porosity of soils and depth to bedrock. Depth to water table is represented as a range because it varies due to seasonal changes and precipitation volumes. For example, following spring snow-melt an area with a depth to water table ranging from one foot to three feet is likely to be at or near one foot depth. Impermeable layers such as concrete also affect the depth to water table by preventing precipitation from infiltrating into the soil which could result in a lowered water table.

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Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library." <http://www.gis.iastate.edu/igalib/>



Depth to Water Table

Bioregional Context

Julia Bodenhoppe, Matthew Gordy, Colby Fangman, Sam Thompson
 Iowa State University | *Thrive Forever* | Iowa Department of Transportation



Elevation and Flood Risk

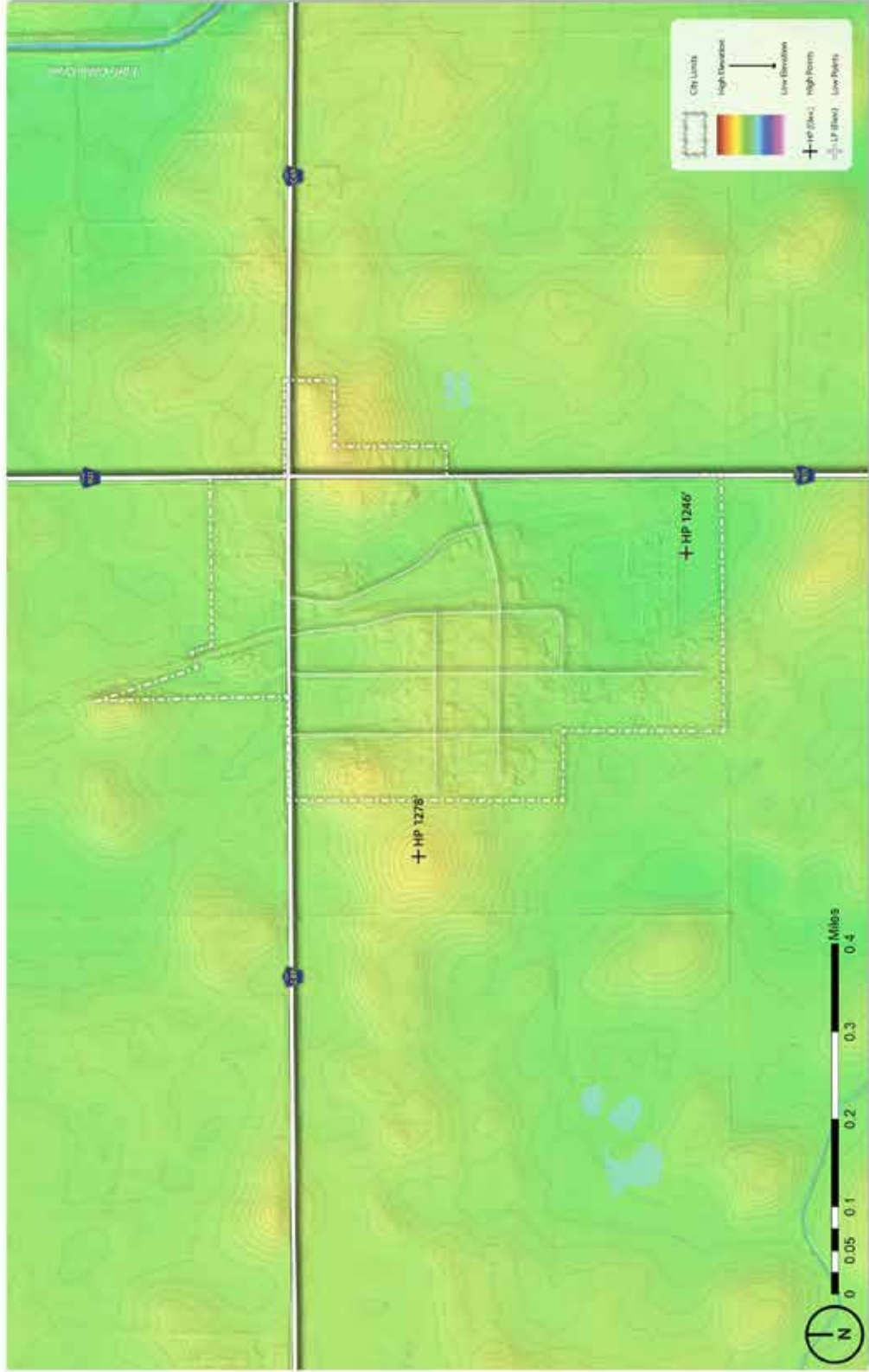
The map to the left displays topographic differences in elevation using a combination of contour lines and the color gradient depicted in the legend. The high points and low points have also been located.

Note the relationship of your community to the surrounding elevation; is it located in a valley or on high ground, or is it split between the two? Flood risk is correlated to low-lying land, this map also shows your community's flood risk as defined by the Federal Emergency Management Agency (FEMA) Flood Map Service Center. This map shows the two most important flood zones, the Base Flood and the Regulatory Floodway (consult legend.) Base Flood is the zone having a one percent chance of being equaled or exceeded in any given year, also referred to as the "100-year floodplain." The Regulatory Floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% flood discharge can be accommodated without increasing the base flood elevation.

Elevation and Topographic Features

The map to the left displays topographic differences in elevation using a combination of contour lines and the color gradient depicted in the legend. The high points and low points have also been located.

Note the relationship of your community to the surrounding elevatory; is it located in a valley or on high ground, or is it split between the two?



Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information System Library," <http://www.gis.iaww.edu/englib/>.

Bioregional Context

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Regional Watershed

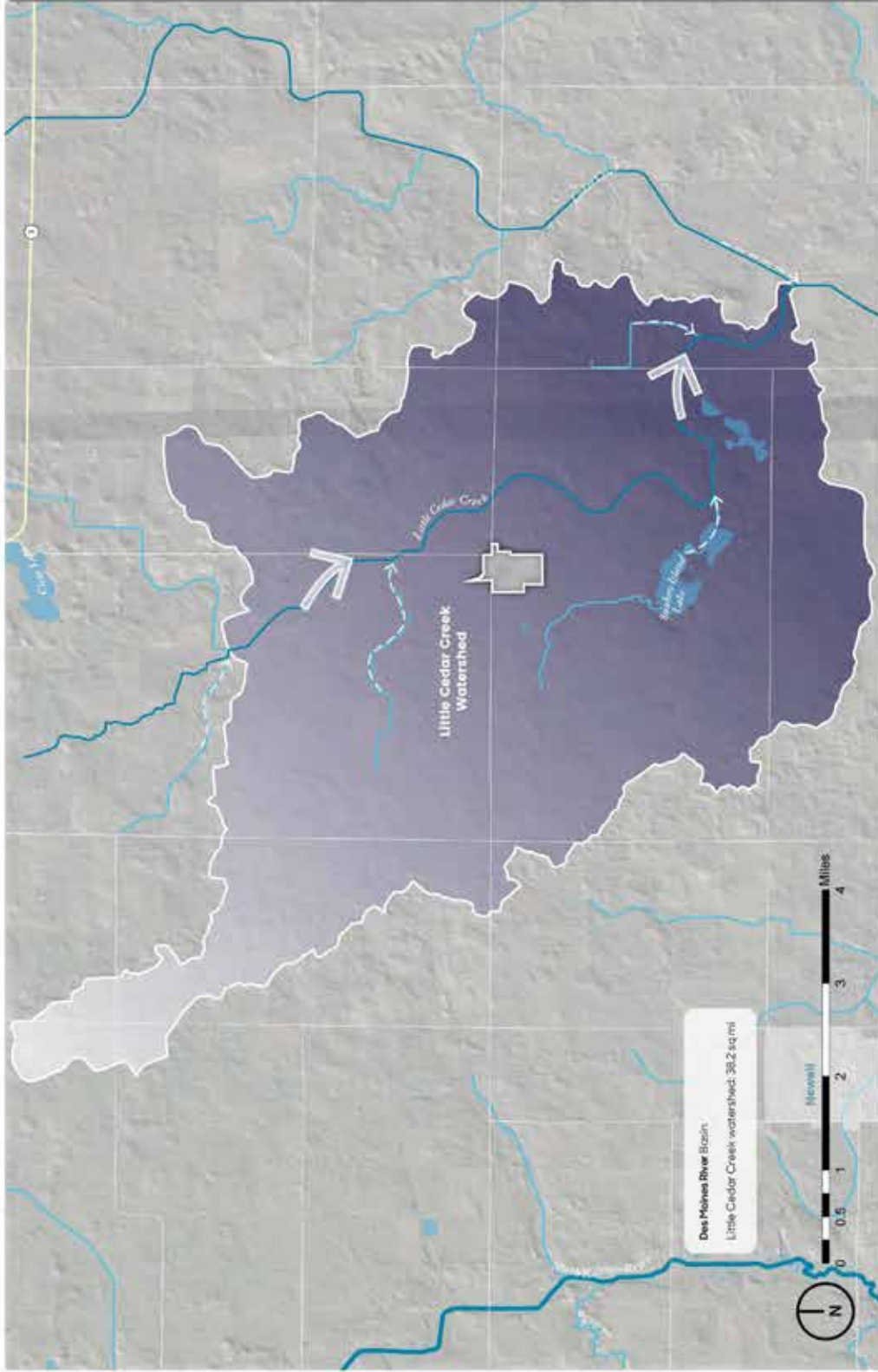
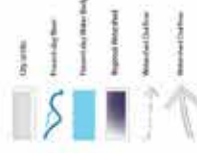
A watershed is a defined area or ridge of land with a boundary that separates waters flowing to different rivers, creeks, or basins. Watershed boundaries show the extent of a drainage area flowing to a single outlet point, and determines whether precipitation is directed into one watershed or an adjacent watershed. It is important to note that there are multiple levels of watersheds, for instance the Iowa River watershed has a dozen smaller watersheds, and the Iowa River watershed is a sub-basin of the Mississippi River watershed.

Where a community is located in relation to its surrounding watershed(s) determines its capacity to manage regional watershed issues such as flooding. For example, a community located near the end of a watershed (close to the outlet point) will have little capacity to reduce the amount of water draining toward it from upland areas.

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Where a community is located in relation to its surrounding watershed(s) determines its capacity to manage regional watershed issues such as flooding. For example, a community located near the end of a watershed (close to the outlet point) will have little capacity to reduce the amount of water draining toward it from upstream areas.



Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information System Library." <http://www.idnr.com/wh/igslib/>



Regional Watershed

Bioregional Context

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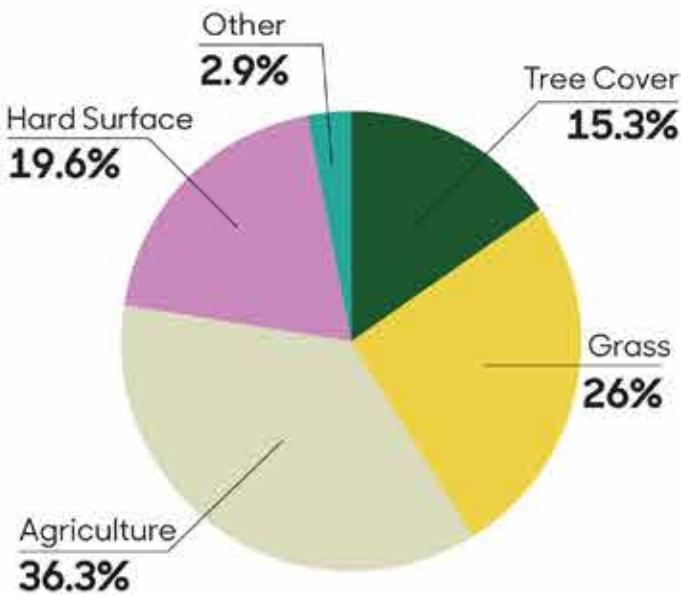


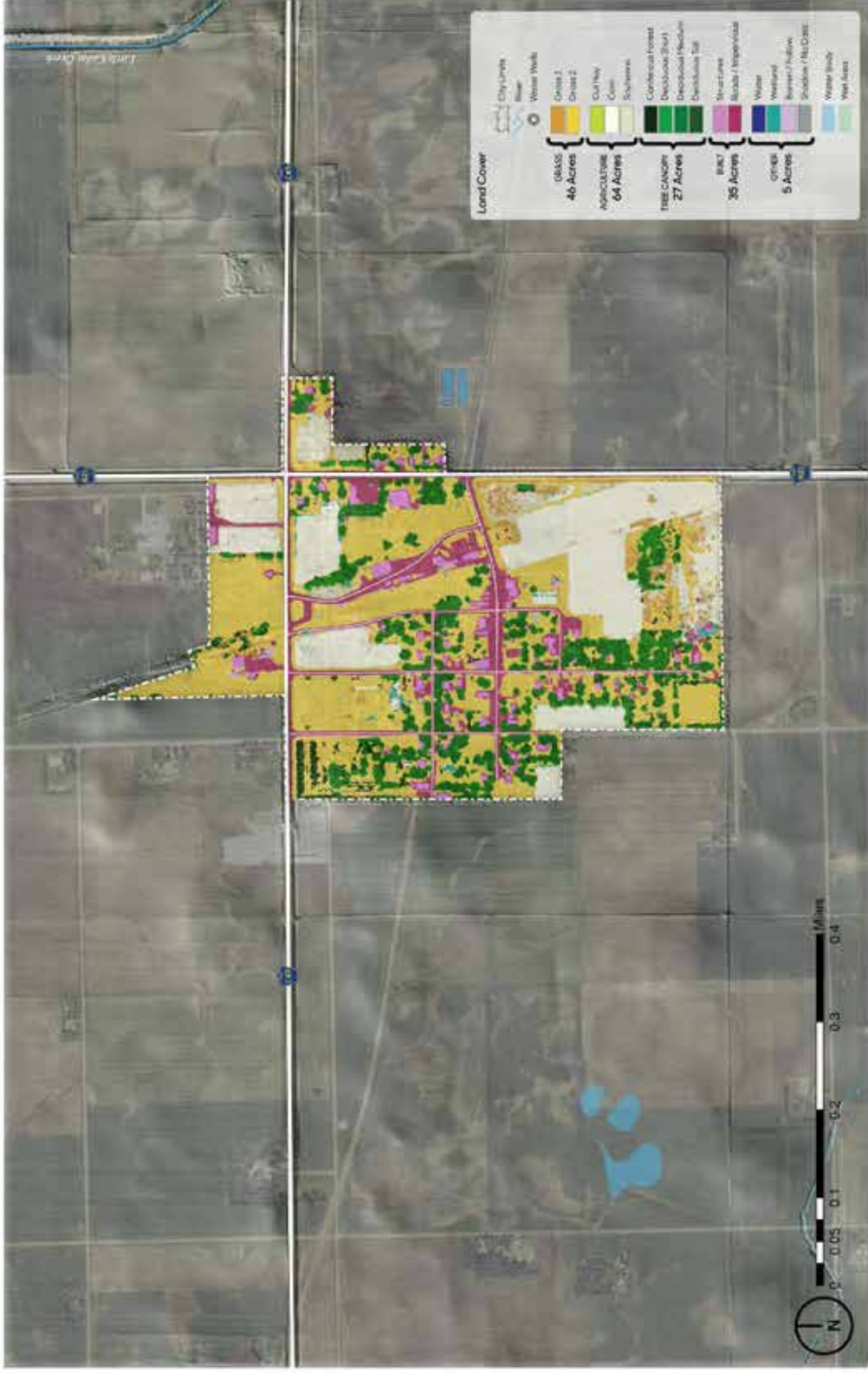
Present Day Land Cover

The land cover map depicts both natural and man-made land cover types with aerial imagery. The Iowa DNR created 15 unique classes for this dataset to differentiate land covers. Refer to the legend for a breakdown of land cover types.

What do you observe about the dominant land cover types in your community? Where is the tree canopy most concentrated? Compare the amount of impervious surfaces (e.g., parking lots, roads, buildings) to the other surfaces (e.g., water, grass, and agriculture.) What parts of town are covered with the most impervious surfaces and what patterns do you observe about these locations?

Percent Land Cover Type





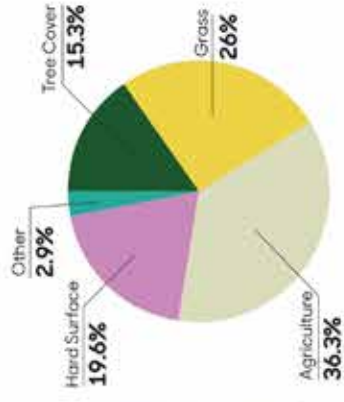
Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information System Library." <http://www.gis.iaww.us/ungislib/>

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Percent Land Cover



Present Day Land Cover

Bioregional Context

Julia Bodenhoppe, Matthew Gandy, Colby Fangman, Sam Thompson
Iowa State University | Trees Forever | Iowa Department of Transportation



Present Day Vegetation

Overlaying a present-day aerial image on the historic, 1875 Andreas Atlas shows how management of the land over several decades has changed the locations of trees and other native vegetation in the landscape.



Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," <http://www.gis.iowa.dnr.gov/gislib/>.

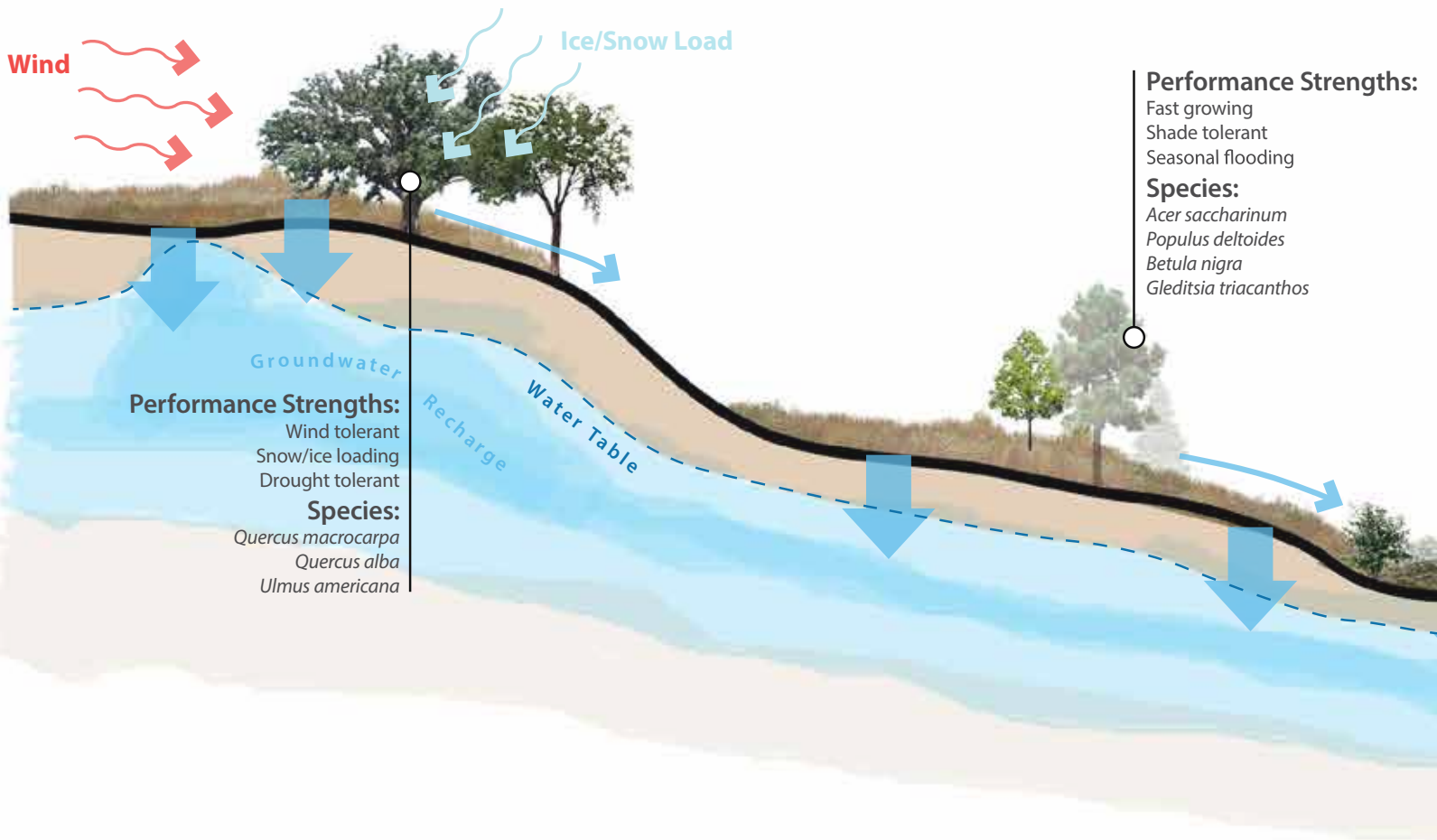
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Bioregional Context

Julia Badenhop, Matthew Gordy, Colby Fangman, Sam Thompson
Iowa State University | Trees Forever | Iowa Department of Transportation

Using Native Plants



Performance Strengths:

- Wind tolerant
- Snow/ice loading
- Drought tolerant

Species:

- Quercus macrocarpa*
- Quercus alba*
- Ulmus americana*

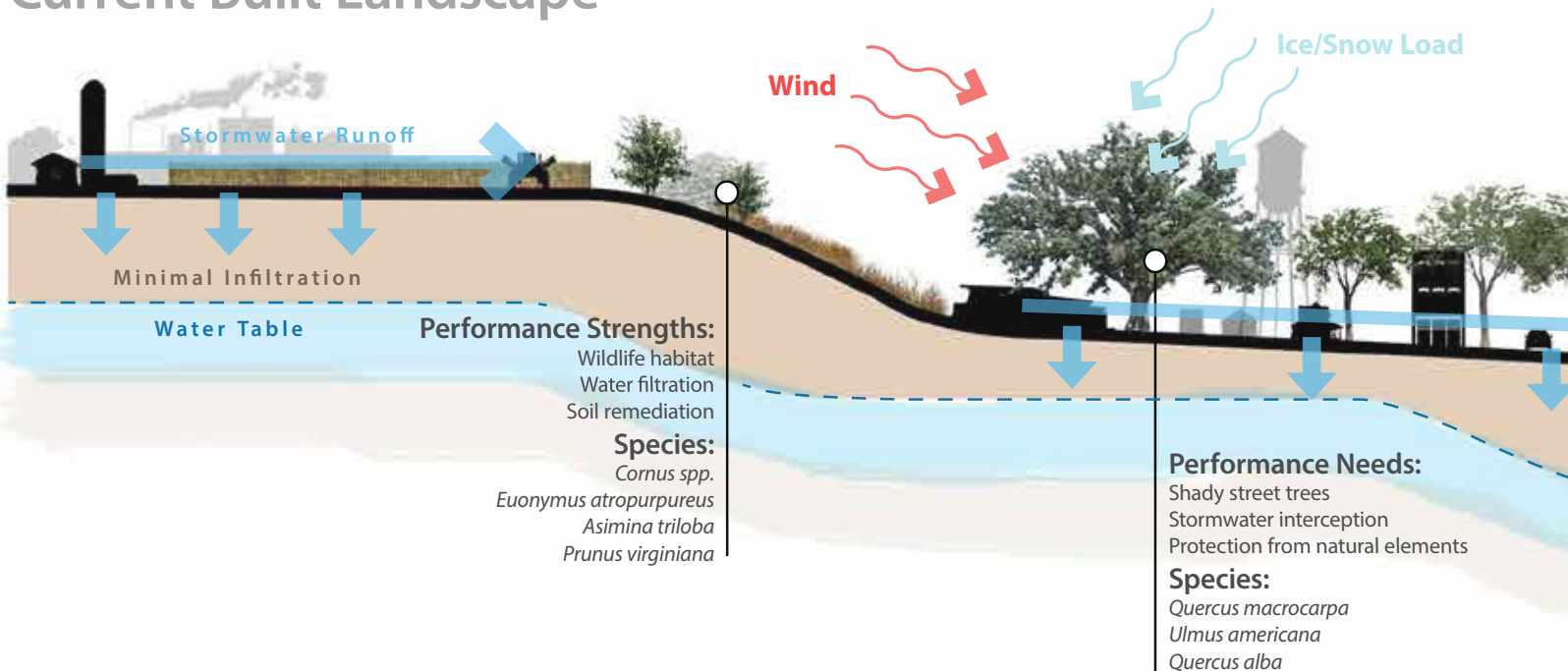
Performance Strengths:

- Fast growing
- Shade tolerant
- Seasonal flooding

Species:

- Acer saccharinum*
- Populus deltoides*
- Betula nigra*
- Gleditsia triacanthos*

Current Built Landscape



Performance Strengths:

- Wildlife habitat
- Water filtration
- Soil remediation

Species:

- Cornus spp.*
- Euonymus atropurpureus*
- Asimina triloba*
- Prunus virginiana*

Performance Needs:

- Shady street trees
- Stormwater interception
- Protection from natural elements

Species:

- Quercus macrocarpa*
- Ulmus americana*
- Quercus alba*

Pre-Settlement Landscape

Performance Strengths:

Wildlife habitat
Water filtration
Soil remediation

Species:

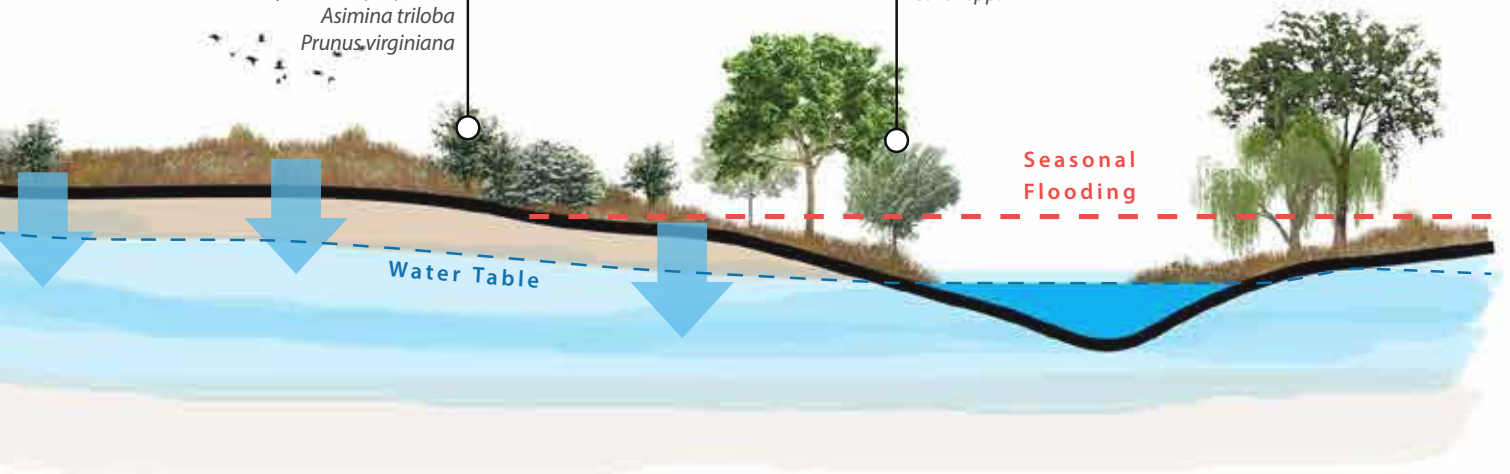
Cornus spp.
Euonymus atropurpureus
Asimina triloba
Prunus virginiana

Performance Strengths:

Flood tolerant
Fast growing
Soil stabilization
Humus production

Species:

Salix spp.
Ulmus spp.
Carex spp.



Performance Needs:

Fast growing
Shade tolerant
Seasonal flooding

Species:

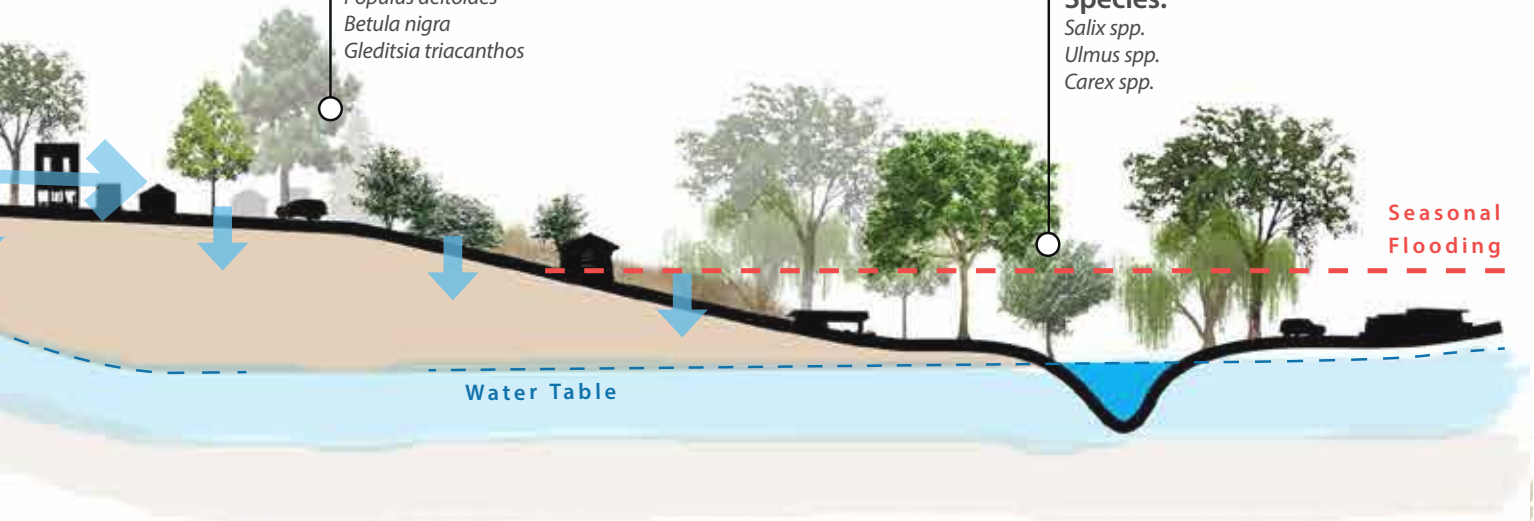
Acer saccharinum
Populus deltoides
Betula nigra
Gleditsia triacanthos

Performance Needs:

Bank stabilization
Vegetated buffers
Flood resilience

Species:

Salix spp.
Ulmus spp.
Carex spp.



Transportation Assets and Barriers

Overview

Transportation is integral to small-town life and a vibrant economy. In the context of the Community Visioning Program, we recognize walking, biking, and driving as quintessential modes of travel to various destinations important to residents and visitors. Access to these destinations is crucial for many everyday activities—getting to work and school, participating in community events, and providing for basic needs such as food, health care, and healthy activity.

In this participatory assessment, we want to find out which factors and conditions affect transportation use in **Varina**, where these factors and conditions are most prevalent, and how they influence route and transportation choices locally. Because residents have the best knowledge of how **Varina's** transportation system works, we use focused, small-group conversations, mapping, and photos of the best and worst places taken by residents to understand local transportation.

Different Users = Different Needs

To capture insights about transportation from a variety of perspectives, we invited **Varina** residents with different transportation needs to participate in focus groups. A total of **28** residents attended **Varina's** workshop. Participants were separated into five user groups and the **Varina** steering committee.



Actives

This user group represents those in the community who engage in outdoor recreation, including cycling, walking, running, swimming, skiing, etc. The availability of multiple venues for outdoor recreation matters to this group.



Older Adults

Accessibility—both in terms of physical access and proximity—is a major concern for this user group. Because some people in this user group do not or are unable to drive, having goods and services within walking distance is important.



Youth

This group uses primarily non-motorized modes of transportation, so pedestrian- and bike-friendly streets and sidewalks are important. These users value the ability to get to destinations on foot or via bicycle and having goods and services within walking distance.



Parents

Safety of their children is a primary concern of this user group. Access to safe and easy routes to school activities is another significant factor to this group. Parents of young children desire smooth, wide surfaces for strollers.



Steering Committee

The common denominator for this user group is that their observations are influenced by special knowledge of the transportation system acquired during the Community Visioning assessment process. As a result, this group is more representative of decision makers.

What Factors Affect Transportation in Varina?

Transportation is integral to small-town life and a vibrant economy. In the context of the Community Visioning Program, we recognize walking, biking, and driving as quintessential modes of travel to various destinations important to residents and visitors. Access to these destinations is crucial for many everyday activities—getting to work and school, participating in community events, and providing for basic needs such as food, health care, and healthy activity.

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Actives

(6 participants): This user group represents those in the community who engage in outdoor recreation, including cycling, walking, running, swimming, skiing, etc. The availability of multiple venues for outdoor recreation matters to this group.



Older Adults

(7 participants): Accessibility—both in terms of physical access and proximity—is a major concern for this user group. Because some people in this user group do not or are unable to drive, having goods and services within walking distance is important.



Youth

(4 participants): This group uses primarily non-motorized modes of transportation, so pedestrian- and bike-friendly streets and sidewalks are important. These users value the ability to get to destinations on foot or via bicycle and having goods and services within walking distance.



Parents

(5 participants): Safety of their children is a primary concern of this user group. Access to safe and easy routes to school activities is another significant factor to this group. Parents of young children desire smooth, wide surfaces for strollers.



Steering Committee

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Barrier: Bad Sidewalks on Main Street



Barrier: No Sidewalks or Bike Lanes on County Road C-49



Barrier: Poor Drainage from the Lawn on Main Street



Asset: Kids Sledding behind St. Columbkille Catholic Church and the Parish Hall



Asset: Library is a Popular Spot in Town



Asset: City Park is Widely Used

Varina Overview

Transportation Assets and Barriers

Julia Badenhop, Sandra Oberbroeckling, Matthew Gordy, Miao Fangzhou

Iowa State University | Trees Forever | Iowa Department of Transportation

What People Said



"Sometimes I go over into the park—not very often—but I go and take my acoustic guitar and I sit out there and play."

"There [aren't] many sidewalks that are really accessible to use...a lot of them are crumbled or bent or have been raised up."

"I find it hard to skateboard in this town because going back and forth on a street just gets kind of old."

"[My family and I], we just run on [County Road] C49."

"[Sunken Grove] is a nice place to hang around in the winter, just walk in the woods and take the dog and let it loose."

Actives



"I do have a motor scooter, but I usually have to go out in the street because the sidewalks aren't good enough to drive on."

"We'd like new sidewalks over at the park."

"The sidewalks are really bad."

"You don't have to worry about the kids when they go outside in Varina."

"[On the highway] when you want to turn east [or west] if they don't keep the vegetation down, it's hard to see."

Older Adults

"One thing I would like to see [is] a sidewalk or some way of looping to stay off the highway, because we don't get [vehicles] to slow down much because you're a small town and they choose not to slow down."

"A lot of kids play over here next to the pump house; they play soccer and stuff in between the church and the pump house; it's an open lot."

"The park is a good draw...to bring our kids together. It's a safe place for them to play. It's quiet."

"Kids usually go up [to the hill by the parish hall for] sledding in the wintertime."

"There's a lot of farm equipment on 1st Street coming into town."



Parents

"I feel like we have good streets."

"I like...how you can go ride your bike in the middle of the road and not have to worry about moving for a car."

"We can sled in town. They make really big snow piles in certain parts of town where you can sled down them."

"Sometimes I like to [bike] on the hills to have a fun ride down."

"I think the best place to rollerblade is in the [park] shelter, isn't it? It's got the nicest cement."



Youth

"[Vehicles] are supposed to be slowing down to 35 [mph on County Road C49], but they don't slow down."

"We would probably ride bikes in town more...if we could safely. Some days it's not real safe to be out on [County Road] C49."

"At night I don't like to walk [on the north end of 4th Street] because of the different critters."

"I have an idea of making a walking path on the south side of [County Road] C49."

"Most of the sidewalks are not in good shape."



Steering Committee

Emerging Themes

Discovering themes and consistencies among user groups helps the steering committee to identify solutions to address the needs of all. The chart on the opposite page displays each user group's collective thoughts on particular issues in comparison with the other user groups in the community.

Actives walk, drive, bike, and run. They also skateboard and drive four-wheelers. This group would like better sidewalks as well as somewhere to skateboard other than on the street.

Older adults primarily drive and walk to destinations. They also drive motorized scooters. This group is interested in having smooth, safe, and accessible sidewalks.

Youth mainly walk and bike to get around the community. Older youth drive. This group would like a better sidewalk system.

Parents drive, and walk. They are concerned about their children's safety as they travel throughout town. Of particular concern is the truck traffic that flows through town on County Roads C49 and N21 (1st Street).

Steering committee members walk, drive, and bike. This group is interested in creating a safe walking loop around town.

User Types	Destinations and Activities				Desirable Qualities and Features				Undesirable Qualities and Features				Most Desired Improvements and Activities			
	City Park	Sledding Hill	CRP Land	Safe Environment	Sense of Community	Natural Areas	Good Streets	Poor, Incomplete Sidewalks	Elevator Street	Intersection of 1st Street and C49	Lack of Destination Status	Better, Completed Sidewalks	Community Trail	Clean Up Elevator	Entrance Signage	
Actives	●	●	●	●	●	●	●	●	●	●	●					
Older Adults	●	●	●	●	●	●	●	●	●	●	●					
Youth	●	●	●	●	●	●	●	●	●	●	●					
Parents	●	●	●	●	●	●	●	●	●	●	●		●	●		
Steering Committee	●	●	●	●	●	●	●	●	●	●	●		●	●	●	

Actives walk, drive, bike, and run. They also skateboard and drive four-wheelers. They are interested in better sidewalks as well as somewhere to skateboard other than on the street.

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Steering committee members walk, drive, and bike. This group is interested in creating a safe walking loop around town.

Although privately owned, the CRP land in the northwest corner of town is enjoyed by both adults and youth. One active participant likes the area because you feel nature all around.

All users appreciate the safe environment that the Varina provides. Parents feel safe letting their children go outside because everyone knows each other and looks out for one another.

Active older adults, youth and parent groups value the walk-town atmosphere.

Residents appreciate the natural areas in and around Varina such as the CRP and the Forest at the south end of 3rd Street, and Surnen Grove State Game Management Area south of town.

Older adults, youth, and active recreationists consider the streets in Varina as an asset because they are in good condition and problem areas are fixed in a timely manner.

All groups noted that the sidewalk system in Varina is incomplete, and that some of the existing sidewalks are in poor condition. Specific areas they are in attention are Van Street, near the park, and in front of the Methodist Church.

Focus-group participants identified Elevator Street as a barrier in town because it is unattractive. The CRP and 1st Street as unsafe because traffic on the county road doesn't slow and the hill to the east blocks the view of oncoming traffic.

Some residents feel that Varina lacks a "destination" school, which in the 2011 tornado destroyed the street and on the south side of Main Street. The steering committee would like sidewalks to the park shelter to make it more accessible.

Parents and steering committee members would like a walking/riding path on the south side of County Road C49 so that people can more safely walk a loop around town.

Youth and steering committee members would like cleaning up the elevator that was damaged during the 2011 tornado to make the Elevator Street area more attractive and safer.

Participants in the parents group proposed installing entrance signage on County Road C49 coming from the north.

Analysis of Barriers

The analysis of barriers is a synthesis of the feedback we received from the five transportation user groups. Although not summarized below, input from the steering committee is incorporated into the map of all five user types.

Participants in all groups identified the broken and disconnected sidewalks throughout town as a barrier. Another common barrier cited by both adults and youth is poor visibility on 3rd Street, specifically at the intersection with Main Street and in the south part of town. Visibility is also an issue at the intersection of 1st Street and County Road C49 because of excess vegetation.



Active recreationists pointed out that the pea gravel in the streets makes it difficult to bike or rollerblade. They also mentioned poor visibility caused by insufficient lighting in neighborhoods and by parked cars at intersections.



Older adults identified the intersection of Highway 9 and Clinton as the site of many accidents. They mentioned that stopped trains block traffic and can be an issue for the fire and rescue service. This group would like to see the park shelter updated and cleaned.



Youth perceive vehicular traffic on Main Street as a barrier and that the bus stop on Main Street is too far away. They wish that people would clean up after their pets.



Parents noted that drivers do not obey the speed limit on Dove Avenue/K30 as they are entering Lester. They pointed out that the railroad tracks are a barrier to accessing Ball Diamond Park, which is sometimes flooded by Mud Creek.

Varina's Barriers: Common Factors

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Actives

Active Recreationists pointed out that the pea gravel in the streets makes it difficult to bike or rollerblade. They also mentioned poor visibility caused by insufficient lighting in neighborhoods and by parked cars at intersections.



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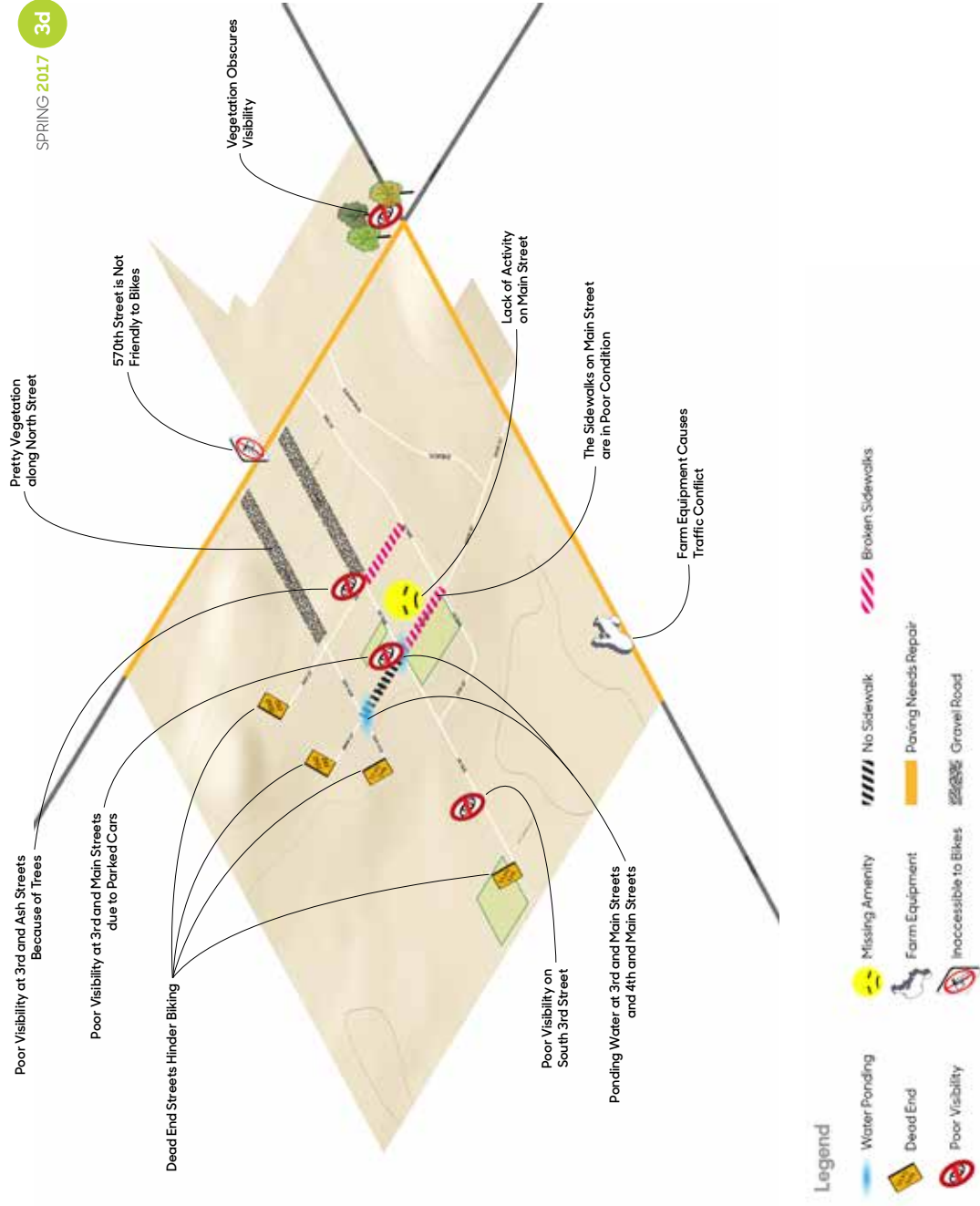
Youth

Youth perceive vehicular traffic on Main Street as a barrier and that the bus stop on Main Street is too far away. They wish that people would clean up after their pets.



Parents

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Analysis of Assets

The analysis of assets synthesizes the feedback we received from the five transportation user groups. Although not summarized below, input from the steering committee is incorporated into the maps of all five user types.

City Park is the most popular destination in Varina for a variety of reasons. Youth enjoy the basketball court, the play equipment; youth and older adults appreciate the shelter and the benches; parents like the fact that it is centrally located, away from the highways. The library and the two churches are also community assets. Both adult and youth users enjoy "The Hill" for sledding during winter. Varina residents often visit Sunken Grove Wildlife Management Area just south of town.



Actives

Active recreationists appreciate the fire department in town. They also like the fact that there are three Pokeman GO stops in town. This group values natural areas such as the vegetation along North Street, Sunken Grove, and Little Clear Lake Park north of town.



Older Adults

Like the active group, older adults like the vegetation along North Street. This group values the peaceful, small-town atmosphere that Varina offers.



Youth

Outdoor recreation opportunities are important to youth. In addition to "The Hill," youth sled on the snow pile in the field. They enjoy biking on Main and First Streets. This group likes the cats on the south part of 3rd Street.



Parents


Parents like the fact that Varina is easy to drive, bike, and walk around and that it is quiet and safe. This group enjoys the wildlife in the area, which includes ducks, deer, squirrels, and rabbits.

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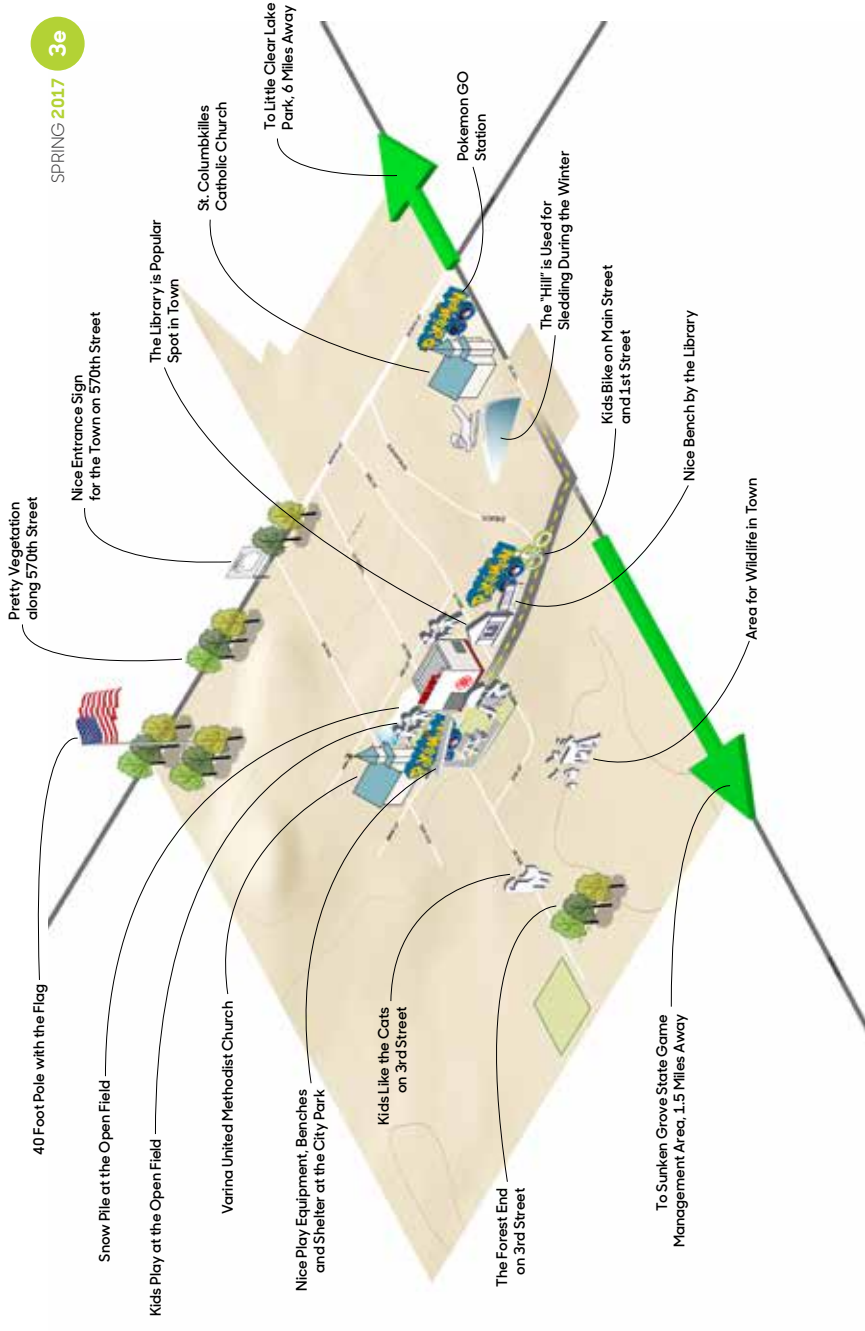


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SPRING 2017 3e

Desired Improvements

The analysis of desired improvements synthesizes the feedback we received from the five transportation user groups. Although not summarized below, input from the steering committee is incorporated into the maps of all five user types.

Desired improvements among Varina focus-group participants are concentrated on the sidewalk system. People would like sidewalks either installed or replaced particularly along Main Street, by the park, and by the Methodist Church.



Active recreationists would like the ball park at the south end of 3rd Street to be better maintained.



Older adults are primarily interested in having a complete sidewalk system that is accessible to people who use motorized scooters. They are interested in having sidewalks to the park.



Like older adults, the youth are most concerned with the sidewalk system, specifying Main Street as a problem area.



Parents would like a loop trail around town so that people wouldn't have to walk and bike on the highways. They are also interested in improving entrance signage, creating a permanent recycling center in the park, updating the Legion Hall, and making the Cardtrol gas station open for public use.

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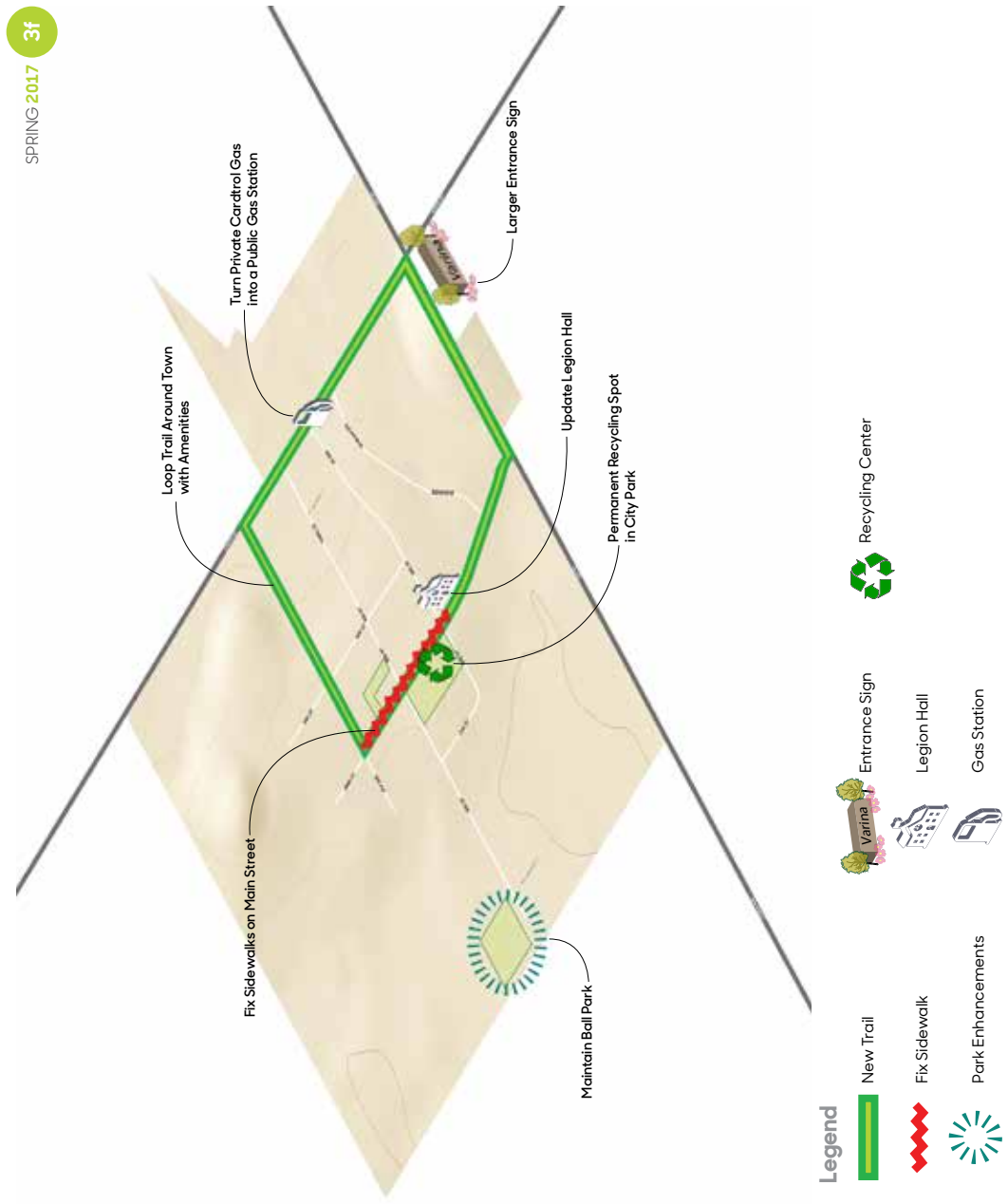
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Transportation Inventory and Analysis

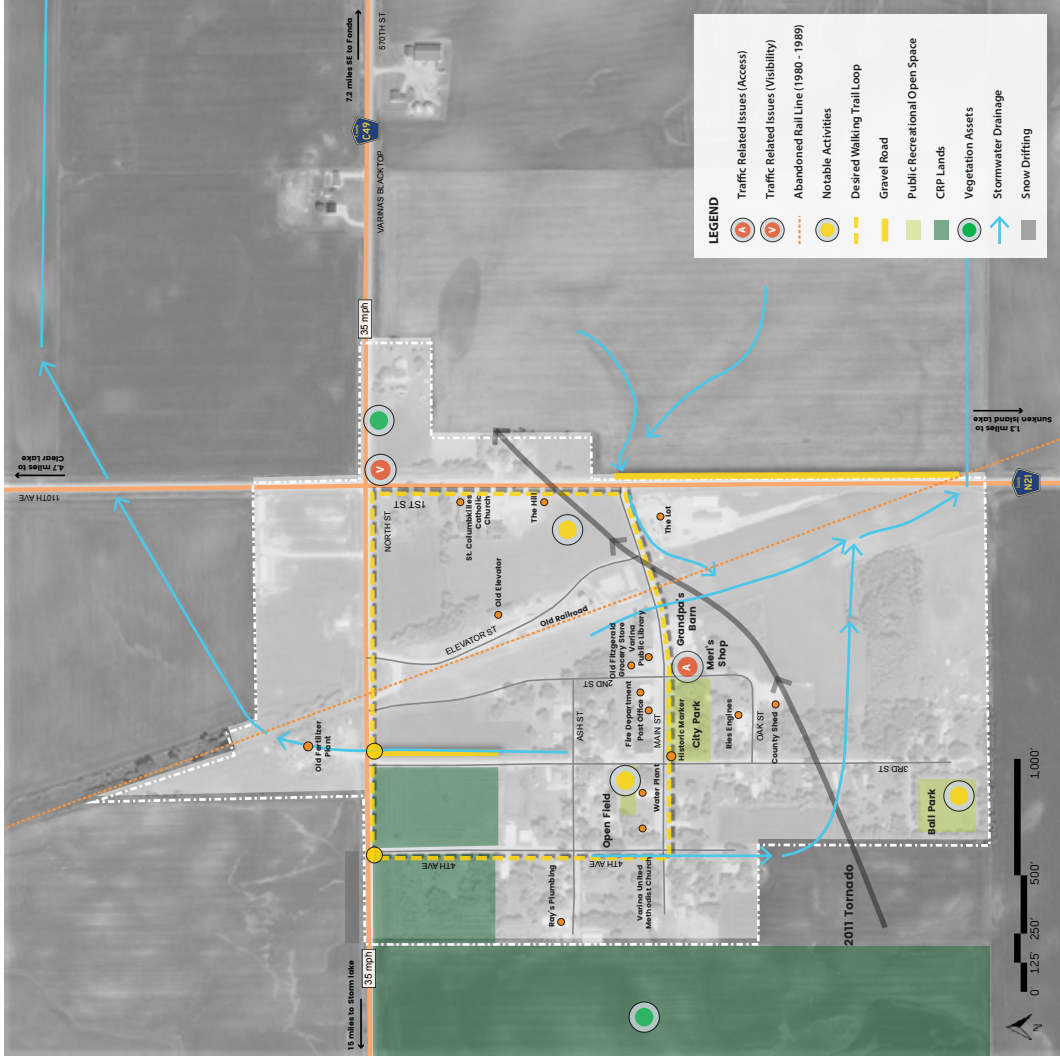
Knowledge of the transportation systems in and around a community is critical for sustainable transportation enhancement planning. Varina's transportation systems include roadways, pedestrian and snowmobile routes.

Varina is at the intersection of two primary roadways, County Road C49 (570th Street) running east to west and County Road N21 (110th Avenue) running north and south. There was an abandoned rail line (1980 - 1989) traversing the community from the northwest to the southeast.

The visioning design team met with Iowa Department of Transportation (DOT) personnel, the Pocahontas County Engineer, and local officials to identify existing, past, and future transportation system improvements, maintenance, and other transportation-related constraints and opportunities in the Varina area.

Several assets and opportunities include the desired walking trail loop with notable activities along its path like the sledding hill, the library, the future Merl's shop, the city park and the soccer field. The prairie wetland to the west is a vegetation asset to the community. The community also identified a few neighborhood assets which provide visual interest such as Clear Lake (4.7 miles, North), Fonda (7.2 miles Southeast), the Storm Lake (15 miles, West) and the Sunken Island Lake (1.3 miles, South). These assets have the potential to become neighborhood community connections and areas of passive recreation.

The items of concern related to the transportation systems include a variety of vehicular and pedestrian interactions such as street access, poor visibility, and ADA accessibility. Parts of the desired walking trail loop are made up of gravel roads and have sidewalk safety issues.



Map of Varina highlighting and analyzing existing transportation infrastructure.

Transportation Inventory and Analysis

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Steering Committee

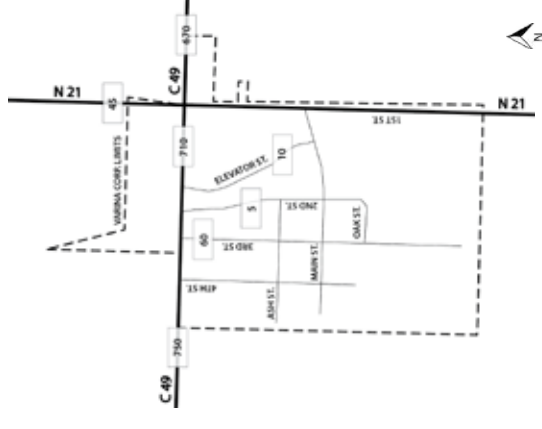


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"One thing I would like to see is a sidewalk or some way of looping to stay off the highway, because we don't get vehicles to slow down much because you're a small town and they choose not to slow down."






























Annual Average Daily Traffic - 2015

Goal Setting and Programming

The steering committee presented what they learned from the TAB assessment, survey and bio-regional information to the landscape architects. The committee, then completed a worksheet (combined results to the right) identifying goals and values. The goals are based off of the information from the assessments. Each committee member also included reasoning for improvements and highlighted specific programming needs for areas of concern to them.

The landscape architects created programming themes for the City of Varina using the goals identified by the steering committee. Greater importance was given to goals that

Community Values/Themes Based on Assessments	Broad-Based Outcomes/ Goals
<p>Economic Development</p> 	<ul style="list-style-type: none">  Getting people into town  "Show off" the amenities
<p>Sidewalks</p> 	<ul style="list-style-type: none">  Complete sidewalk system  Increase safety and usability  Connect the community  ADA accessible routes
<p>Sport/Recreation</p> 	<ul style="list-style-type: none">  Multi purpose field in the existing ball field  Increased traffic and tourism  Connectivity between city park and sports field  Compliment area for sport teams  Place for sports and festivals
<p>Signs and Way-finding</p> 	<ul style="list-style-type: none">  Beautify entrances to town  Signs to a specific goal/destination  Signs to attract people to the local businesses in town  Signs for safety
<p>Visual Quality</p> 	<ul style="list-style-type: none">  Entry signs  General cleaning of public spaces  Planting
<p>Trails</p> 	<ul style="list-style-type: none">  Safe recreation  Ready to connect  More options

Goal Setting Process

The steering committee presented what they learned from the TAB assessment, survey and bio-regional information to the landscape architects. The committee then completed a worksheet (combined results to the right) identifying goals and values. The goals are based off of the information from the assessments. Each committee member also included reasoning for improvements and highlighted specific programming needs for areas of concern to them.



Members of the community work with the landscape architects to identify trail route options.



Landscape architects document the discussion of goals on a poster.

The landscape architects created programming themes for the City of Varina using the goals identified by the steering committee. Greater importance was given to goals that were highlighted in discussions and/or repeated by individuals on the worksheet.

Varina

Goal Setting

Combined Results from the Goal Setting and Programming Worksheets

Community Values/Themes Based on Assessments	Broad-Based Outcomes/Goals	Why Change Anything?	What Exactly and Where?
Economic Development 	<ul style="list-style-type: none"> Getting people into town "Show off" the amenities 	<ul style="list-style-type: none"> Revitalization Increase tax base and "community" (Increase household sizes - families) 	
Sidewalks 	<ul style="list-style-type: none"> Complete sidewalk system Increase safety and usability Connect the community ADA accessible routes 	<ul style="list-style-type: none"> Attract people/draw attention So people can find/locate spaces within the community - themes/visuals Population is getting older and falls are a worry 	<ul style="list-style-type: none"> Main between 2nd and 3rd (north & south side) In front of park from 2nd to 3rd North side of Main street from city hall to Methodist Church From 1st to 4th street
Sport/Recreation 	<ul style="list-style-type: none"> Multi purpose field in the existing ball field Increased traffic and tourism Connectivity between city park and sports field Compliment area for sport teams Place for sports and festivals 	<ul style="list-style-type: none"> Resource available - existing field - why waste? Place for kids to go Place to hold festivals Need for Newell-Fonda schools 	<ul style="list-style-type: none"> Ball field (Ball diamond) South end of 3rd street
Signs and Way-finding 	<ul style="list-style-type: none"> Beautify entrances to town Signs to a specific goal/destination Signs to attract people to the local businesses in town Signs for safety 	<ul style="list-style-type: none"> Makes town feel and look like one The need to be more than just a bedroom community Safety/accessibility for the elderly 	<ul style="list-style-type: none"> SW corner of C 49 and 1st street Pointing to "danger" - muddy section of 2nd Street
Visual Quality 	<ul style="list-style-type: none"> Entry signs General cleaning of public spaces Planting 	<ul style="list-style-type: none"> Attracting visitors 	<ul style="list-style-type: none"> Planting around entry signs "Love your town" sign to encourage cleanliness
Trails 	<ul style="list-style-type: none"> Safe recreation Ready to connect More options 	<ul style="list-style-type: none"> To connect the 1 mile loop with the "County Trails Initiative" Smoother surfaces to walk on 	<ul style="list-style-type: none"> C 49, 4th street to 1st street

Represents individuals who voiced the same goal.

Jeffrey L. Bruce and Company LLC

Landscape Architects: Eric Doll, PLA, ASLA and David Stokes, PLA, ASLA

Interns: Riley Dunn and Carol Joella Ustine

Iowa State University | Trees Forever | Iowa Department of Transportation



Concept Overview

After meetings with the steering committee and other members of the community, the design team has proposed several concepts for Varina based on the goals identified. Below is an outline of the proposed concepts which correspond to the map:

Trail System

The design calls for the proposal of a new trail system for recreation, connections within the community and a possible future connection with the Pocahontas county trail system.

Parks and Recreation

Varina is poised to renovate an existing park to accommodate school district base ball games as well provide more accommodate park features such as ADA accessibility and organized parking.

Sidewalk System

There are very few existing sidewalks in town. Varina is looking to prioritize new sidewalks in particular areas of the community to provide safe and comfortable access to various resources.

Way-finding and Signage

An attractive and cohesive signage palette incorporates elements of existing community signage and enhance Varina's visual appearance and legibility, inviting travelers to stop in town.

Economic Development

Varina as of now is a "Bedroom community". "Grandpa's Barn" is soon to be a new local business contributing to Varina's growth. Encouraging the startup of local businesses helps Varina gain outside attention for further economic development.

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Way-finding and Signage

Improve community navigation and the community identity.

Sidewalk System

Addition of sidewalks in town to enhance safe mobility.

Trail System

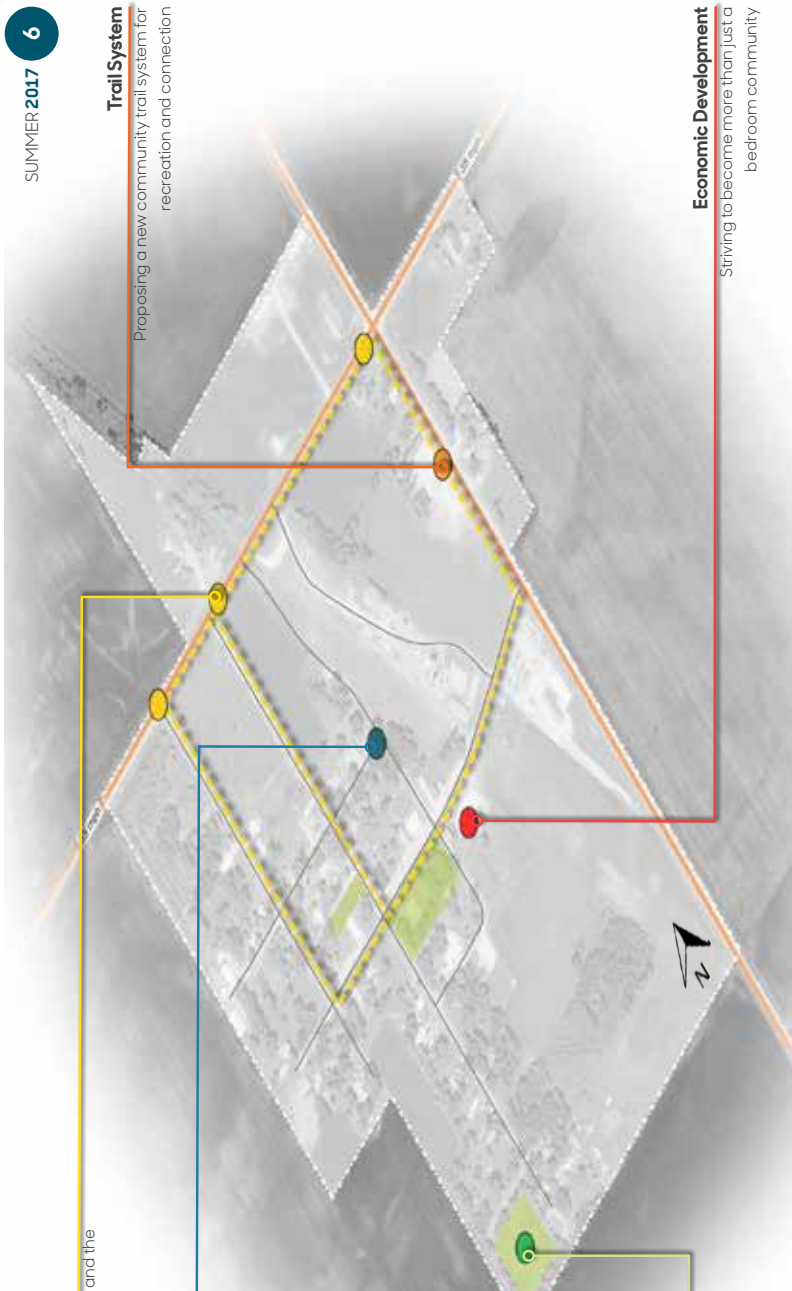
Proposing a new community trail system for recreation and connection

Parks and Recreation

Enhance and improve the outdoor recreation spaces.

Economic Development

Striving to become more than just a bedroom community



Board 7



Board 8



Board 9



Board 10



Board 11



Board 12

Cost Opinion Summary

The projects and their estimated budgets are discussed in more detail in the following pages. Cost opinions presented here are based on industry sources, previous project bid tabulations, and research. Costs are presented in 2017 dollars and is forecasted to escalate in subsequent years. Local site conditions, labor, and material costs may affect actual construction costs differently than presented in estimate. Area takeoffs, square footages, and linear footages used to calculate and quantify amounts are approximate. A site survey should be provided prior to the design and construction of the following projects to validate and verify the design assumptions and quantities shown in these cost opinions.

Walking Trail	
8' Crushed Rock Trail	
Base Bid Total	\$66,380.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$15,931.00
Total	\$82,311.00
6' Concrete Trail	
Base Bid Total	\$145,531.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$34,927.00
Total	\$180,458.00
8' Concrete Trail - South Side of Main From 3rd To 2nd	
Base Bid Total	\$67,200.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$16,128.00
Total	\$83,328.00
Walking Trail Total	\$346,097.00
Recreational Amenities	
Ball Field	
Base Bid Total	\$331,098.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$79,464.00
Total	\$410,562.00
U-12 Soccer Field	
Base Bid Total	\$96,000.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$23,040.00
Total	\$119,040.00
Commons Area Improvements	
Base Bid Total	\$97,027.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$23,286.00
Total	\$120,313.00
Recreational Amenities Total	\$649,915.00

Sidewalk Improvements	
Main Street Improvements	
Base Bid Total	\$155,100.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$37,224.00
Total	\$192,324.00
Sidewalk Improvements Total	\$192,324.00
Visual Quality	
Main Entry Sign/Trail Rest Area	
Base Bid Total	\$30,870.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$7,409.00
Total	\$38,279.00
Visual Quality Total	\$38,279.00
Economic Development	
Solar Panels and Community Garden	
Base Bid Total	\$17,400.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$4,176.00
Total	\$21,576.00
Economic Development Total	\$21,576.00
Grand Total	\$1,248,191.00

Walking Trail

This trail system offers opportunities for running, walking, skating, cycling and a possible connection with the Pocahontas County future trail system. Trails, in general, promote a healthy lifestyle by encouraging activities like refreshing morning exercise or a scenic walk on a family outing. Trails help the community grow as well. Connecting to the future trail system helps Varina have higher traffic which in turn benefits the local businesses. The town gains recognition, which invites people to settle.

Design Expertise Recommended

Projects may require help beyond the capability of the Varina Visioning Steering Committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a Landscape Architect.

Project Scope and Cost Opinion

The following cost opinion is based on contracted material and installation of improvements. These costs may be reduced with materials donated or provided at reduced cost and volunteer labor for appropriate projects. Area takeoffs, square footages, and linear footages used to calculate and quantify amounts are approximate. A site survey should be provided prior to the design and construction of the following projects to validate and verify the quantities shown in these cost opinions.

Abbreviations used in the following opinions of probable cost include:

ac = acre cf = cubic foot cy = cubic yard ea = each
 lf = linear foot ls = lump sum sf = square foot sy = square yard

Walking Trail					
8' Crushed Rock Trail					
<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
Site Demolition					
SWPPP Preparation/Documentation	1	ls	\$4,000.00	\$4,000.00	\$5,000.00
Mobilization	1	ls	\$5,000.00	\$5,000.00	
Site Survey	1	ls	\$8,000.00	\$8,000.00	
Clearing and Grubbing	1	ls	\$5,000.00	\$5,000.00	
Site Utilities					\$5,000.00
Electrical Service (Outlet and Circuiting)	1	ls	\$5,000.00	\$5,000.00	
Site Sedimentation and Erosion Control					\$2,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$2,000.00	\$2,000.00	
Site Earthwork					\$15,000.00
Rough Grading	1	ls	\$15,000.00	\$15,000.00	
Trails					\$26,880.00
8' Wide Crushed Gravel Walking Trail (3,024 lf @ 4" Depth)	299	cy	\$50.00	\$14,933.00	
Aggregate Base Course (3,024 lf @ 4" Depth)	299	cy	\$40.00	\$11,947.00	
Site Plant Material					\$12,500.00
Shade Trees	5	ea	\$500.00	\$2,500.00	
Planting Bed Preparation	1	ls	\$3,500.00	\$3,500.00	
Native Prairie and Wildflower Mix	1	ls	\$6,500.00	\$6,500.00	
Sub-Total					\$66,380.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$15,931.00
Total					\$82,311.00

6' Concrete Trail					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
Site Demolition					\$15,000.00
Clearing and Grubbing	1	ls	\$15,000.00	\$15,000.00	
Site Utilities					\$10,000.00
Electrical Service (Outlet and Circuiting)	1	ls	\$5,000.00	\$5,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$5,000.00	\$5,000.00	
Site Sedimentation and Erosion Control					\$2,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$2,000.00	\$2,000.00	
Site Earthwork					\$10,000.00
Rough Grading	1	ls	\$10,000.00	\$10,000.00	
Trails					\$102,531.00
6' Wide Reinforced Concrete Sidewalk (2,629 lf @ 5" Depth)	15,774	sf	\$6.50	\$102,531.00	
Site Plant Material					\$6,000.00
Shade Trees	5	ea	\$500.00	\$2,500.00	
Planting Bed Preparation	1	ls	\$3,500.00	\$3,500.00	
Sub-Total					\$145,531.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$34,927.00
Total					\$180,458.00

8' Concrete Trail - South Side of Main From 3rd To 2nd					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
Site Demolition					\$22,000.00
SWPPP Preparation/Documentation	1	ls	\$4,000.00	\$4,000.00	
Mobilization	1	ls	\$5,000.00	\$5,000.00	
Site Survey	1	ls	\$8,000.00	\$8,000.00	
Clearing and Grubbing	1	ls	\$5,000.00	\$5,000.00	
Site Utilities					\$10,000.00
Electrical Service (Outlet and Circuiting)	1	ls	\$5,000.00	\$5,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$5,000.00	\$5,000.00	
Site Sedimentation and Erosion Control					\$2,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$2,000.00	\$2,000.00	
Site Earthwork					\$5,000.00
Rough Grading	1	ls	\$5,000.00	\$5,000.00	
Trails					\$18,200.00
8' Wide Reinforced Concrete Sidewalk (350 lf @ 5" Depth)	2,800	sf	\$6.50	\$18,200.00	
Site Amenities					\$10,000.00
Retrofit Pedestrian Lighting	1	ls	\$10,000.00	\$10,000.00	
Sub-Total					\$67,200.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$16,128.00
Total					\$83,328.00



Proposed trail plan. Scale: 0' - 87.5' - 175' - 350' - 700'. North arrow pointing up.

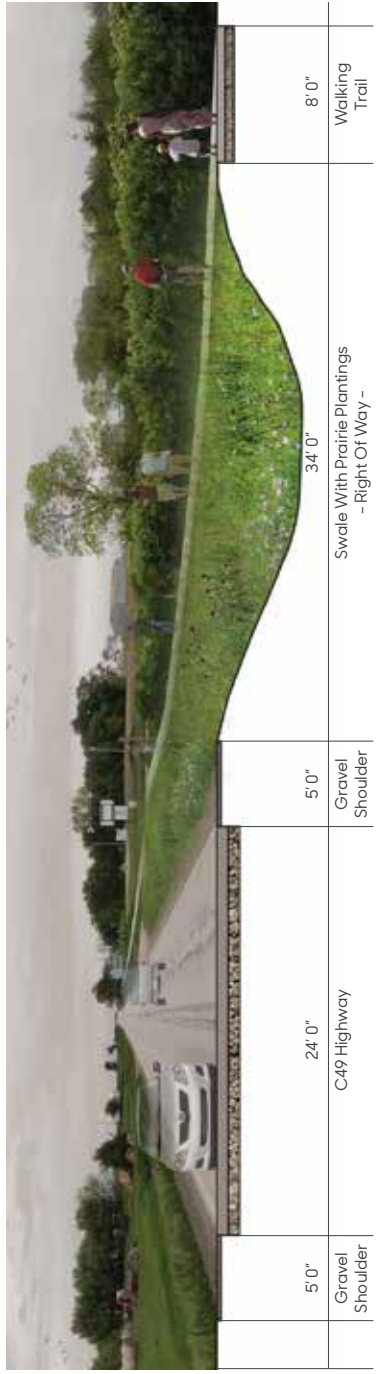
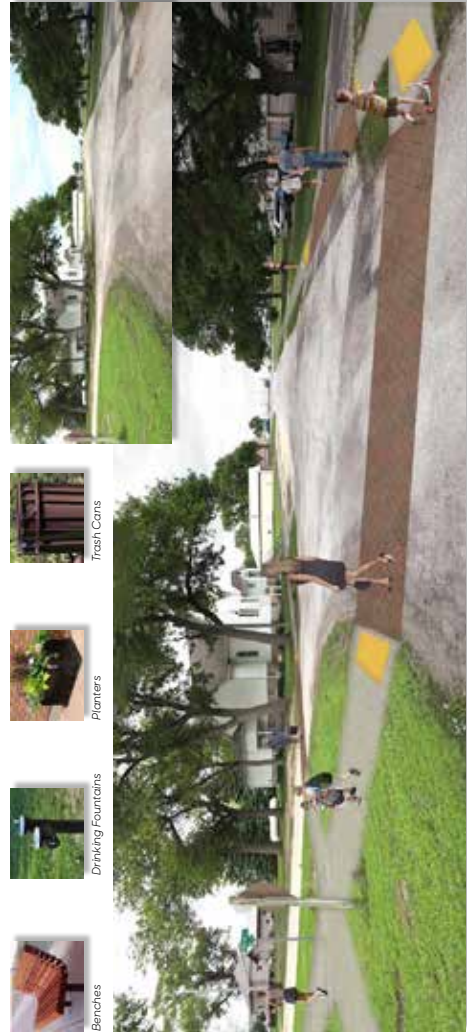
- LEGEND**
- Existing Sign
 - Points of Interest
 - 8' Crushed Rock Trail
 - 6' Sidewalk
 - 8' Sidewalk
 - Public Open Space
 - CRP Lands
 - Right Of Way

Community Walking Trail

This trail system offers opportunities for running, walking, skating, cycling and a possible connection with the Pocahontas County future trail system. Trails, in general, promote a healthy lifestyle by encouraging activities like refreshing morning exercise or a scenic walk on a family outing. Trails help the community grow as well. Connecting to the future trail system helps Varina have higher traffic which in turn benefits the local businesses. The town gains recognition, which invites people to settle.



Varina
Walking Trails



Jeffrey L. Bruce and Company LLC
Landscape Architects: Eric Doll, PLA, ASLA and David Stokes, PLA, ASLA
Interns: Riley Dunn and Carol Joella Ustine
Iowa State University | Trees Forever | Iowa Department of Transportation



Recreational Amenities

Varina has a large tract of land at the southwestern edge of the community that was once home to a baseball field. After many years of inactivity, the field fell into a state of disrepair and this land is no longer in use.

During the Focus Group Workshops Varina identified the desire to reestablish athletic facilities in town. Currently, Varina is in communications with regional school officials to validate the potential to rebuild a baseball field in town. This baseball field has a "skinned" infield to accommodate nearly every age group. Other elements to be incorporated into the park include a small concession stand, soccer field, organized parking, and a memorial.

Design Expertise Recommended

Projects may require help beyond the capability of the Varina Visioning Steering Committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a Landscape Architect, Electrical Engineer, and Civil Engineer.

Project Scope and Cost Opinion

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lf = linear foot	ls = lump sum	sf = square foot	sy = square yard

Recreational Amenities

Ball Field					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
Site Demolition					\$32,000.00
Clearing and Grubbing	1	ls	\$5,000.00	\$5,000.00	
SWPPP Preparation/Documentation	1	ls	\$4,000.00	\$4,000.00	
Mobilization	1	ls	\$5,000.00	\$5,000.00	
Site Survey	1	ls	\$8,000.00	\$8,000.00	
Tree Removal	1	ls	\$10,000.00	\$10,000.00	
Site Utilities					\$120,000.00
Electrical Service (Outlet and Circuiting)	1	ls	\$5,000.00	\$20,000.00	
Field Light Renovation	1	ls	\$100,000.00	\$100,000.00	
Site Sedimentation and Erosion Control					\$2,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$2,000.00	\$2,000.00	
Site Earthwork					\$10,000.00
Rough Grading	1	ls	\$5,000.00	\$5,000.00	
Fine Grading	1	ls	\$5,000.00	\$5,000.00	
Site Hardscape					\$7,800.00
Reinforced Concrete Area behind Backstop (1,200 sf @ 5" Depth)	1,200	sf	\$6.50	\$7,800.00	
Fencing					\$28,000.00
6' Ht. Double Swing Gate 12' Wide	720	lf	\$25.00	\$18,000.00	
Backstop Fencing	1	ls	\$10,000.00	\$10,000.00	
Ball Field					\$68,531.00
New Dugouts with Roofs and Benches	2	ea	\$10,000.00	\$20,000.00	
Infield Red Ball Diamond Material (15,000 sf @ 6" Depth)	417	ton	\$75.00	\$31,250.00	
New Bullpens	2	ea	\$2,000.00	\$4,000.00	
Crushed Brick Warning Track Material (5,000 sf at 3" Depth)	46	cy	\$140.00	\$6,481.00	
Bases, Anchors, Plugs, Home Plates & Pitching Rubber (Field and Bullpens)	1	ls	\$1,500.00	\$1,500.00	
Foul Poles	1	ls	\$3,000.00	\$3,000.00	
Portable Pitching Mound	1	ea	\$800.00	\$800.00	
Jox Box - High School Deluxe	1	ea	\$1,500.00	\$1,500.00	
Site Plant Material					\$59,167.00
Playing Field Sod (28,000 sf)	3111	sy	\$15.00	\$46,667.00	
Basic Irrigation System: Mainline with Quick Couplers	1	ls	\$5,000.00	\$5,000.00	
Planting Bed Preparation	1	ls	\$5,000.00	\$5,000.00	
Fertility Amendments	1	ls	\$2,500.00	\$2,500.00	
Site Amenities					\$3,600.00
Bleachers	3	ea	\$1,200.00	\$3,600.00	
Sub-Total					\$ 331,098.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$ 79,464.00
Total					\$ 410,562.00

U-12 Soccer Field					
<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
Site Demolition					\$29,000.00
Clearing and Grubbing	1	ls	\$5,000.00	\$5,000.00	
Site Survey	1	ls	\$5,000.00	\$5,000.00	
SWPPP Preparation/Documentation	1	ls	\$4,000.00	\$4,000.00	
Mobilization	1	ls	\$5,000.00	\$5,000.00	
Tree Removal	1	ls	\$10,000.00	\$10,000.00	
Site Sedimentation and Erosion Control					\$1,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$1,000.00	\$1,000.00	
Site Earthwork					\$10,000.00
Rough Grading	1	ls	\$5,000.00	\$5,000.00	
Fine Grading	1	ls	\$5,000.00	\$5,000.00	
Site Hardscape					\$5,200.00
6' Wide Reinforced Concrete Walkway (800 sf @ 5" Depth)	800	sf	\$6.50	\$5,200.00	
U-12 Soccer Field					\$50,800.00
Field Markings	1	ls	\$500.00	\$500.00	
Basic Irrigation System: Mainline with Quick Couplers	1	ls	\$5,000.00	\$5,000.00	
Soccer Goals	2	ea	\$150.00	\$300.00	
Playing Field Sod (27,000 sf)	3000	sy	\$15.00	\$45,000.00	
Sub-Total					\$ 96,000.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$ 23,040.00
Total					\$ 119,040.00

Commons Area Improvements					
<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
Site Demolition					\$12,500.00
Clearing and Grubbing	1	ls	\$2,500.00	\$2,500.00	
Tree Removal	1	ls	\$10,000.00	\$10,000.00	
Memorial Space					\$9,363.00
Reinforced Concrete Gathering Area (425 sf @ 5" Depth)	425	sf	\$6.50	\$2,763.00	
Benches	2	ea	\$1,000.00	\$2,000.00	
Ornamental Trees	6	ea	\$350.00	\$2,100.00	
Memorial Flag	1	ea	\$2,500.00	\$2,500.00	
Parking and Circulation Improvements					\$34,664.00
Reinforced Concrete Walkways (3,500 sf @ 5" Depth)	3,500	sf	\$6.50	\$22,750.00	
Clearing and Grubbing	1	ls	\$5,000.00	\$5,000.00	
Gravel for Redefined Parking Areas and Roadway (14,000 sf @ 4" Depth)	173	cy	\$40.00	\$6,914.00	
New Equipment Storage Shed					\$4,000.00
10' x 12'	1	ls	\$4,000.00	\$4,000.00	
Concessions					\$5,000.00
7 x 16' Concession Trailer with Serving Window	1	ls	\$5,000.00	\$5,000.00	
Nature Play Area					\$23,500.00
Site Preparation	1	ls	\$500.00	\$500.00	
Play Equipment	1	ls	\$5,000.00	\$5,000.00	
Benches	2	ea	\$1,000.00	\$2,000.00	
Pedestrian Lighting	2	ea	\$8,000.00	\$16,000.00	
Site Plant Material					\$8,000.00
General Site Seeding	1	ls	\$4,000.00	\$4,000.00	
Shade Trees	8	ea	\$500.00	\$4,000.00	
Sub-Total					\$97,027.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$ 23,286.00
Total					\$ 120,313.00

Recreational Amenities

Varina has a large tract of land at the southwestern edge of the community that was once home to a baseball field. After many years of inactivity, the field fell into a state of disrepair and this land is no longer in use.

During the Focus Group Workshops Varina identified the desire to reestablish athletic facilities in town. Currently, Varina is in communications with regional school officials to validate the potential to rebuild a baseball field in town. This baseball field has a "skinned" infield to accommodate nearly every age group. Other elements to be incorporated into the park include a small concession stand, soccer field, organized parking, and a memorial.



Perspective A: Near the concessions and play area looking west toward the baseball field.



Bird's eye Perspective B: Showing improved vehicular and pedestrian circulation within the park.

Varina Recreational Amenities

Jeffrey L. Bruce and Company LLC
 Landscape Architects: Eric Doll, PLA, ASLA and David Stokes, PLA, ASLA
 Interns: Riley Dunn and Carol Joella Ustine
 Iowa State University | Trees Forever | Iowa Department of Transportation



Overall plan for a renovated baseball field and adjoining soccer field.

Sidewalk System

There are no existing sidewalks on most streets in town. The most ones that are present are cracked covered with soil or grass. Sidewalks need to be replaced on Main Street as it holds the public buildings and spaces (library, post office, fire dept. and city park). A new business (Grandpa's Barn) is also coming up on that street. Good sidewalks support the local businesses which is important for Varina's recognition and growth.

Design Expertise Recommended

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Project Scope and Cost Opinion

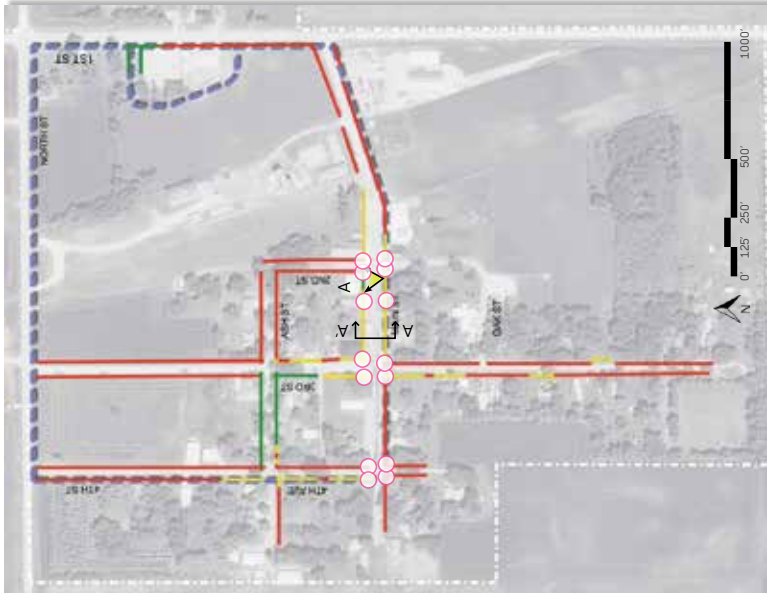
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Sidewalk Improvements						
Pavement Removal						
Description	Quantity	Unit	Unit Cost	Line Total	Totals	
Sidewalk						
Sidewalk (100 lf @ 4" Depth - 4' width)	44	sy	\$15.00	\$667.00	\$667.00	
Curb and Gutter						
Remove Curb and Gutter (100 lf)	100	lf	\$15.00	\$1,500.00	\$1,500.00	
Sidewalk Installation Per 100 lf						
Description	Quantity	Unit	Unit Cost	Line Total	Totals	
4' Wide Sidewalk						
New Concrete Sidewalk (100 lf @ 5" Depth)	400	sf	\$6.50	\$2,600.00	\$2,600.00	
6' Wide Sidewalk						
New Concrete Sidewalk (100 lf @ 5" Depth)	600	sf	\$6.50	\$3,900.00	\$3,900.00	
8' Wide Sidewalk						
New Concrete Sidewalk (100 lf @ 5" Depth)	800	sf	\$6.50	\$5,200.00	\$5,200.00	
Curb Ramps at Intersections						
ADA Curb Ramps w/ Truncated Domes	1	ea	\$950.00	\$950.00	\$950.00	

Main Street Improvements					
<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
Site Demolition					
Clearing and Grubbing	1	ls	\$1,500.00	\$1,500.00	
Site Survey	1	ls	\$8,000.00	\$8,000.00	
SWPPP Preparation/Documentation	1	ls	\$4,000.00	\$4,000.00	
Mobilization	1	ls	\$5,000.00	\$5,000.00	
Main Street Pavement Removal for Bump-outs (4,000 sf)	444	sy	\$25.00	\$11,100.00	
Site Utilities					
Electrical Service (Outlet and Circuiting)	1	ls	\$10,000.00	\$10,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$7,500.00	\$7,500.00	
Site Sedimentation and Erosion Control					
Inlet Protection and Erosion Mitigation	1	ls	\$2,500.00	\$2,500.00	
Site Earthwork					
Rough Grading	1	ls	\$2,000.00	\$2,000.00	
Fine Grading	1	ls	\$4,000.00	\$4,000.00	
Site Hardscape					
Main Street North Side 8' Wide Sidewalk (300 lf @ 4" Depth)	2,400	sf	\$6.50	\$15,600.00	
ADA Curb Ramps	14	ea	\$950.00	\$13,300.00	
New Colored Pavement Crosswalks	3	ea	\$7,500.00	\$22,500.00	
Curb and Gutter	300	lf	\$25.00	\$7,500.00	
Site Amenities					
Pedestrian Lighting (LED lighting)	4	ea	\$8,000.00	\$32,000.00	
Parking Line Markings	1	ls	\$1,000.00	\$1,000.00	
Custom Pedestrian Benches (6-foot)	2	ea	\$1,200.00	\$2,400.00	
Trash/Recycling Receptacle	1	ea	\$600.00	\$600.00	
Custom Street Light Banners	4	ea	\$400.00	\$1,600.00	
Bump-outs					
Planting Bed Preparation	1	ls	\$1,000.00	\$1,000.00	
Overstory Trees	4	ea	\$500.00	\$2,000.00	
Sub-Total					\$155,100.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$37,224.00
Total					\$192,324.00



Plan - existing condition of sidewalks around town.

No Sidewalks: No Sidewalks: No Sidewalks!



Cracked Sidewalks - Covered With Soil/Grass



Sidewalks In Good Condition



○ ADA Curb Ramps Are Needed

Sidewalks

There are no existing sidewalks on most streets in town. The most ones that are present are cracked covered with soil or grass. Sidewalks need to be replaced on Main Street as it holds the public buildings and spaces (library, post office, fire dept. and city park). A new business (Grandpa's Barn) is also coming up on that street. Good sidewalks support the local businesses which is important for Varina's recognition and growth.



ADA accessibility - curb ramp on 2nd and Main Street.

Section A-A - Main Street Looking East Towards 2nd Street



Plan view showing proposed layout of Main Street at Varina City Park. Not to Scale.

Signage and Way-finding

Varina currently has two community entry signs along Highway C49. The community is lacking an overall identity with no additional way-finding or city signage. The existing signage along C49 is unique and introduces the slogan that Varina is “a small town with a big heart”. As increased business develops in Varina, additional signage is installed in town as well as at the intersection of N28 and C49 east of town.

Design Expertise Recommended

Projects may require help beyond the capability of the Varina Visioning Steering Committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a Landscape Architect.

Project Scope and Cost Opinion

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Community Signage					
Signage					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
Entry Signs					
Concrete Iowa State Entry Sign	1	ea	\$5,000.00	\$5,000.00	
Two-Post Large Modern Entry Sign	1	ea	\$2,500.00	\$2,500.00	
Custom Entry Sign Topper The Iowa DOT Directional Sign	1	ea	\$800.00	\$800.00	
Suspended Modern Entry Sign	1	ea	\$1,200.00	\$1,200.00	
Vertical Modern Entry Sign	1	ea	\$2,000.00	\$2,000.00	
Brick Entry Sign with Block Lettering	1	ea	\$3,500.00	\$3,500.00	
Business Signs					
Custom Grandpa's Barn Sign (Single Post)	1	ea	\$600.00	\$600.00	
Custom Grandpa's Barn Sign (Black Frame)	1	ea	\$400.00	\$400.00	
Safety Signs					
City Safety Sign	1	ea	\$100.00	\$100.00	

Entry and Way-finding Signage

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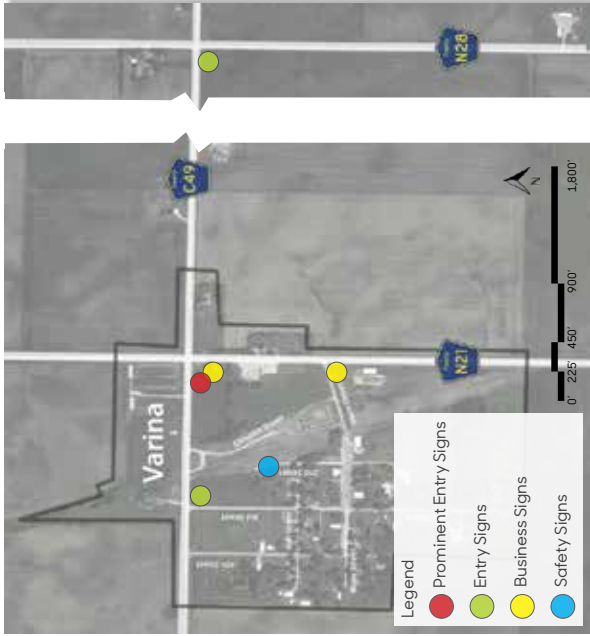
small town with a big heart. As increased business develops in Varina, additional signage is installed in town as well as at the intersection of N28 and C49 east of town. Below is an assortment of signage options for Varina to implement.



Varina's existing entry sign.



Varina's existing centennial sign.



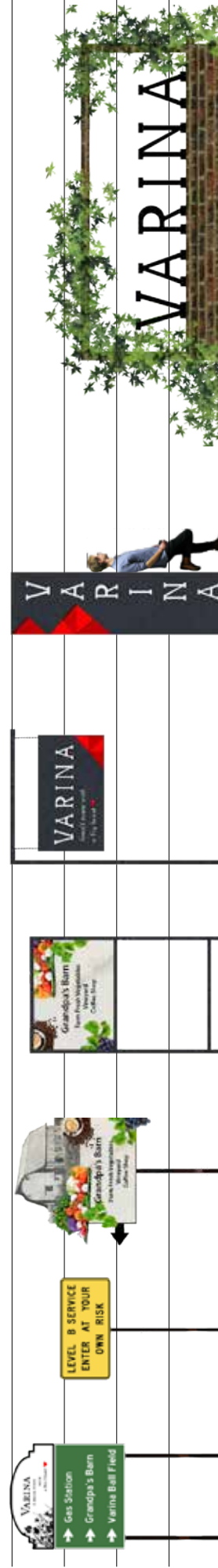
Plan showing the location of all signs.



Prominent Entry Sign



Entry Sign



Entry Sign

Safety Sign

Business sign

Business sign

Entry Sign

Entry Sign

Prominent Entry Sign



Signage and Way-finding

Jeffrey L. Bruce and Company LLC

Landscape Architects: Eric Doll, P.L.A., ASLA and David Stokes, P.L.A., ASLA

Interns: Riley Dunn and Carol Joella Ustine

Iowa State University | Trees Forever | Iowa Department of Transportation



Visual Quality

The primary entrance sign leading people into Varina is located at the corner of C49 and N21/1st Street. Utilizing this area for signage, highlights the proposed loop trail and entices the passerby to inquire about Varina and stop through town. Next to the entry sign, the walking trail is widened creating an area with benches and plantings to give walkers a place to sit and relax. Fragrant and seasonal plantings around the sign and seating area enhance the senses.

Parallel to C49, native prairie and wetland species are planted to assist in stormwater management, wildlife habitat, and create a sense of visual quality as desired by the community during the focus groups process. Prairie plants attract many birds and butterflies, and their deep roots help to stabilize slopes to decrease erosion. Taking several years to establish, Varina is the beneficiary of the long-term benefits of these species for years to come.

Design Expertise Recommended

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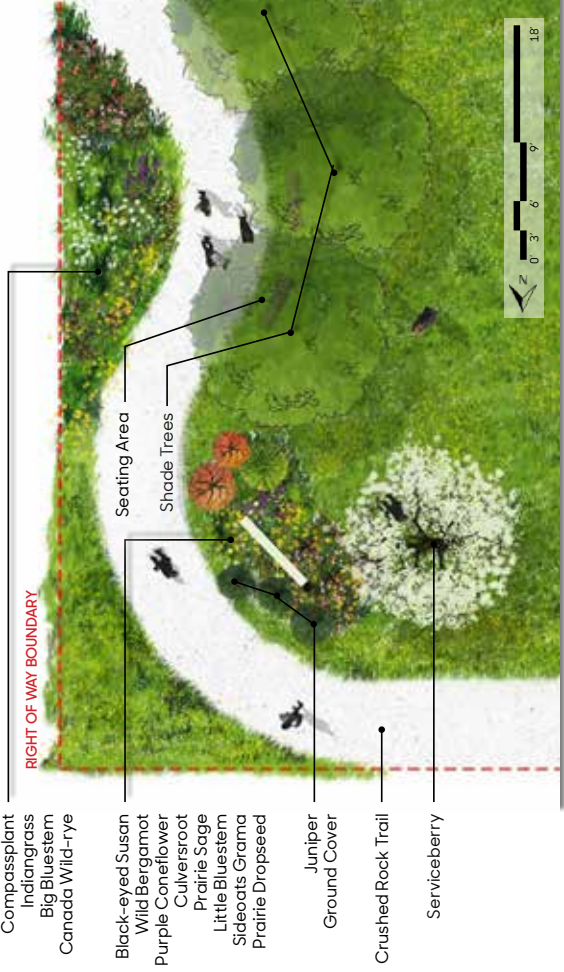
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Visual Quality					
Main Entry Sign/Trail Rest Area					
<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
Demolition/Site Preparation					\$3,500.00
Clearing and Grubbing	1	ls	\$1,500.00	\$1,500.00	
Mobilization	1	ls	\$2,000.00	\$2,000.00	
Site Sedimentation and Erosion Control					\$1,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$1,000.00	\$1,000.00	
Site Utilities					\$10,000.00
Electrical Service (Outlet and Circuiting)	1	ls	\$5,000.00	\$5,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$5,000.00	\$5,000.00	
Site Earthwork					\$1,500.00
Rough Grading	1	ls	\$1,500.00	\$1,500.00	
Plantings					\$5,470.00
Planting Bed Preparation	1	ls	\$1,000.00	\$1,000.00	
Native Trees	3	ea	\$500.00	\$1,500.00	
Ornamental Trees	1	ea	\$400.00	\$400.00	
Ground Cover	6	ea	\$120.00	\$720.00	
Wild Flower Perennials	100	ea	\$5.00	\$500.00	
Native Prairie Seeding	1	ls	\$100.00	\$100.00	
Mulch	50	sy	\$5.00	\$250.00	
Landscape Boulders	1	ls	\$1,000.00	\$1,000.00	
Site Amenities					\$9,400.00
Entry Sign Lighting	1	ea	\$400.00	\$400.00	
Pedestrian Lighting (12' LED lighting)	1	ea	\$6,000.00	\$6,000.00	
Pedestrian Benches (6-foot)	2	ea	\$1,200.00	\$2,400.00	
Trash/Recycling Receptacle	1	ea	\$600.00	\$600.00	
Sub-Total					\$30,870.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$7,409.00
Total					\$38,279.00



Detail plan of entry sign at C49/N21 intersection with specified plants.



Before And After - Looking west on C49, added trail and prairie plantings within the ditch for beautification and stormwater management.

Entry Sign

The primary entrance sign leading people into Varina is located at the corner of C49 and N21/1st Street. Utilizing this area for signage, highlights the proposed loop trail and entices the passerby to inquire about Varina and stop through town. Next to the entry sign, the walking trail is widened creating an area with benches and plantings to give walkers a place to sit and relax. Fragrant and seasonal plantings around the sign and seating area enhance the senses.

Parallel to C49, native prairie and wetland species are planted to assist in stormwater management, wildlife habitat, and create a sense of visual quality as desired by the community during the focus groups process. Prairie plants attract many birds and butterflies, and their deep roots help to stabilize slopes to decrease erosion. Taking several years to establish, Varina is the beneficiary of the long-term benefits of these species for years to come.



Before and after - Proposed main entry sign at C49/N21 intersection with walking trail.



Visual Quality

Jeffrey L. Bruce and Company LLC
 Landscape Architects: Eric Doll, PLA, ASLA and David Stokes, PLA, ASLA
 Interns: Riley Dunn and Carol Joella Ustine
 Iowa State University | Trees Forever | Iowa Department of Transportation



Economic Development

One of Varina’s number one goals as expressed at the programming and goal setting meeting is to boost their economy and draw younger families into their community. A major driver for economic development is local investment from the residents. Varina is looking to reestablish a business called Grandpa’s Barn. As this business takes off, Varina will work as a community to distribute their efforts in creating a more self-sustaining community.

Design Expertise Recommended

Projects may require help beyond the capability of the Varina Visioning Steering Committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a Landscape Architect and Electrical Engineer.

Project Scope and Cost Opinion

The following cost opinion is based on contracted material and installation of improvements. These costs may be reduced with materials donated or provided at reduced cost and volunteer labor for appropriate projects. Area takeoffs, square footages, and linear footages used to calculate and quantify amounts are approximate. A site survey should be provided prior to the design and construction of the following projects to validate and verify the quantities shown in these cost opinions.

Abbreviations used in the following opinions of probable cost include:

ac = acre cf = cubic foot cy = cubic yard ea = each
 lf = linear foot ls = lump sum sf = square foot sy = square yard

Economic Development					
Solar Panels and Community Garden					
<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
Solar Panels on Mail Box Structure					\$11,400.00
5kW Solar Panel System (Includes Installation and 30% Rebate)	1	ls	\$11,400.00	\$11,400.00	
Community Gardens					\$6,000.00
Water Access/Hose	1	ls	\$500.00	\$500.00	
Tools	1	ls	\$200.00	\$200.00	
Wood-Framed Raised Bed	9	ea	\$300.00	\$2,700.00	
Storage Shed	1	ea	\$2,500.00	\$2,500.00	
Compost/Starter Soil	1	ls	\$100.00	\$100.00	
Convert Gas Station to be Public					Unknown
Check with Local Owner and Fuel Provider	1	ls	Unknown	Unknown	
Sub-Total					\$17,400.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$4,176.00
Total					\$21,576.00

- 1 Grandpa's Barn (New Local Business)

Encourages the startup of other local businesses

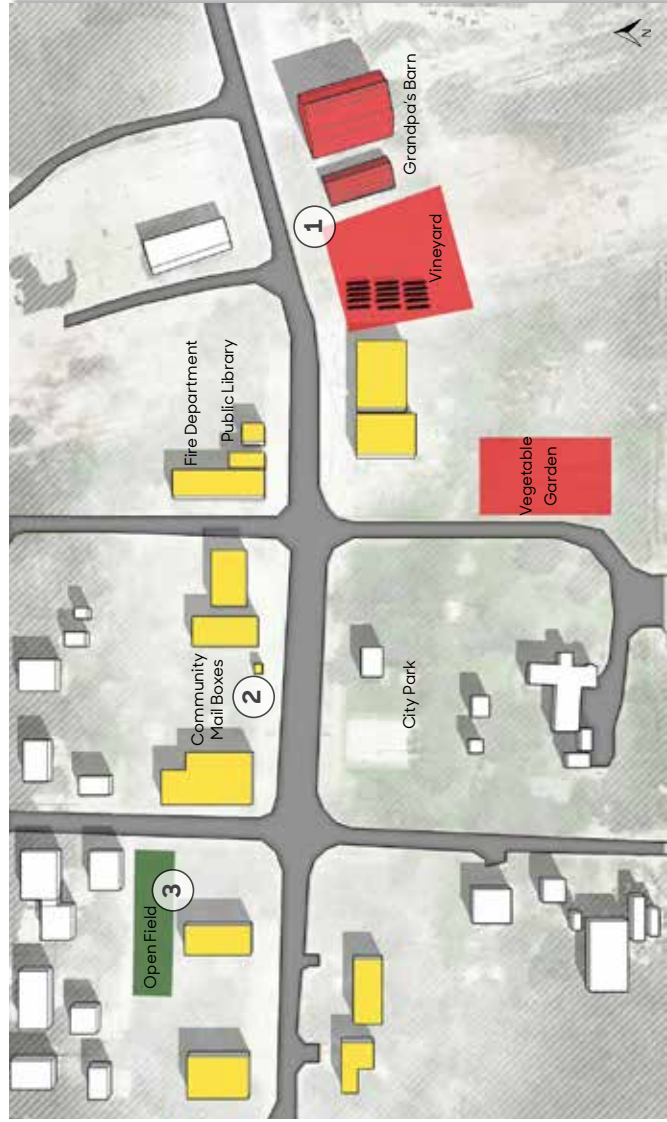
Varina transitions to becoming more than just a bedroom community. It gains recognition, leading to a self-sufficient community



Grandpa's Barn - an economic driver.



One of Varina's number one goals as expressed at the programming and goal setting meeting is to boost their economy and draw younger families into their community. A major driver for economic development is local investment from the residents. Varina is looking to reestablish a business called Grandpa's Barn. As this business takes off, Varina will work as a community to distribute their efforts in creating a more self-sustaining community.



Schematic plan highlighting ways to attain progress in the economy. Not to scale.



Public Gas Station



Varina Ball Field



Solar Panels



Community Garden



Economic Development

Jeffrey L. Bruce and Company LLC

Landscape Architects: Eric Doll, PLA, ASLA and David Stokes, PLA, ASLA
Interns: Riley Dunn and Carol Joella Ustine

Iowa State University | Trees Forever | Iowa Department of Transportation



Timeline: Tracing the Possible Future

One of Varina's number one goals as expressed at the programming and goal setting meeting is to boost their economy and draw younger families into their community. The design team took a in-depth look at some of the factors related to their population and economy from the past few decades to greater understand how community activities affect community vitality. Understanding the recent past can help create a framework to shape Varina's future.

Design Expertise Recommended

The proposals identified on Board 13b are found throughout the set of design boards. Please refer to the "design expertise recommended" section for those specific projects.

Project Scope and Cost Opinion

The proposals identified on Board 13b are found throughout the set of design boards. Please refer to the "project scope and cost opinion" section for those specific projects.

POPULATION

Data = Number Of People



POPULATION BY AGE

Data = Number Of People



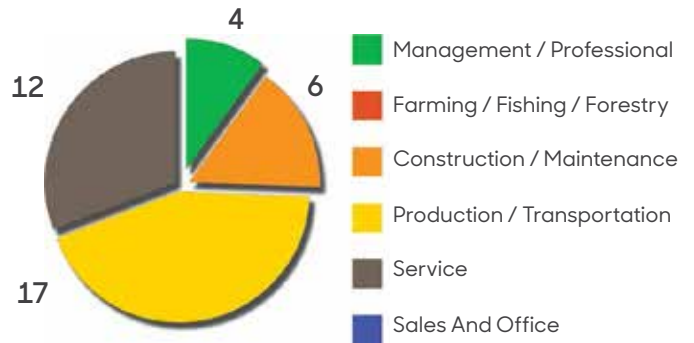
HOUSEHOLD AND FAMILY DATA

Data = Number Of People



OCCUPATION

Data = Number Of People



COMMUTING TO WORK

Data = Number Of People



TORNADO



US Census 2000 data



Enhanced Fujita Rating - EF 4

Strongest tornado of the outbreak with 170 miles/hour winds. One home was completely leveled and swept off its foundation. Trees nearby were snapped and debarked.

2011 U.S. Tornado and Weather Extremes database of 2011. **2014** ACS Census 2010-2014 data **2017** Refer Board 13b

POPULATION

Population Fluctuation



- The community is small and so even a small-scaled impact is leading to a population increase or decrease.
- The city is losing it's focus as it is small and is getting lost among the bigger communities.
- The population is being controlled by the occurrences in the community. Introducing a small project such as a ball field or a local business impacts the community in various positive ways.

POPULATION BY AGE

Higher Younger Population



- Younger population leaves after completing high school if the community remains a bedroom community and uninteresting with no recreational activities.
- This scenario calls for more activity, safety and accessibility within the community.

HOUSEHOLD AND FAMILY DATA

Family Household Decline



- City loses it's focus because of decreased utility usage and tax income.
- People move closer to their jobs leading to abandonment of houses and lots in the community.
- Increase in aging population
- Potential loss of culture and history over time.

OCCUPATION

Working Outside Varina



- Bedroom community (No jobs within the community)
- Discourages new people from moving into the community
- There is less chance for outsiders to enter the community as there are no jobs or shops in the community

COMMUTING TO WORK

Travel Time, Cost & Energy



- Tiresome
- Loss of income, energy and time
- Less activity in Varina and more activity elsewhere.

TORNADO

Property Loss & Damage



- Less optimism about rebuilding and recovering what was lost. The Tornado of 2011, caused a lot of damage that disturbed the community.
- Loss of trees and infrastructure

Refer to Board 13a

STATE OF CHANGE

ANALYSIS OF THE CHANGE

Based on the timeline on Board 13a.



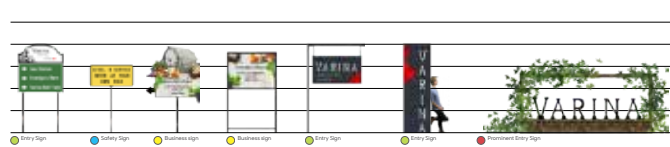
WALKING TRAILS



BALL FIELDS



SIDEWALKS



WAY-FINDING



VISUAL QUALITY



GRANDPA'S BARN



SOLAR PANELS



PUBLIC GAS STATION



COMMUNITY GARDEN

PROPOSALS

VISION

Increase in Population and Family Households



New recreation and community amenities in Varina provide interest for younger families.

Self-Sufficient Community



A business like Grandpa's Barn provides a basis for community uplift and encouragement of being more sustainable while providing more services within the community.

Health And Well Being



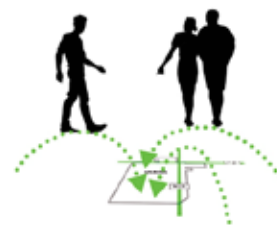
With the addition of a looped walking trail, residents improve their health and social well-being.

Increase In The Economy



Varina residents are working towards grassroots efforts to provide services from within the community, ultimately decreasing the money spent outside the community, increasing their own economy.

Increase In Visitor Population



Over time, various improvements lead to Varina making a name for themselves outside of the community, drawing new and recurring visitors in more often.

Implementation Strategies

The Iowa's Living Roadways Community Visioning Program is just the beginning of the planning process for implementation of projects that contribute to an enhanced quality of life in Varina. Although there is much value in data gathering, analysis, conclusions, and recommendations, the greatest value is providing residents of Varina with the opportunity to look at their community from different perspectives and to motivate future positive change. It is the design team's intent to provide the community with a framework for significant future development and enhancement of community resources.

Design expertise from several different backgrounds is required to successfully implement the improvements and enhancements of Varina. A professional Landscape Architecture firm is necessary to make adjustments to these schematic design concepts and to provide construction documents for the project being built. A Civil Engineer is recommended to review the design of storm overflow infrastructure and hydrology calculations. Electrical Engineer expertise is required to design street and athletic field lighting and foot candle requirements. A Structural Engineer is needed to provide support with paving reinforcement. A Traffic Engineer is needed for changes to parking, streets and crosswalks.

Recommendations are based on motivations for economic return and increased quality of life. It is recommended that projects be approached in the following order, keeping in mind that some may run concurrently and others may call for further phasing:

Available Resources

There are many creative ways that communities can raise the resources necessary to fund and implement projects. The following list is a compilation of various sources and opportunities for funding the projects conceptualized during the visioning process. This list is not all-inclusive; it is meant to serve as a tool to assist in brainstorming ideas.

Funding Opportunities

- Grants
- Partnerships (private and public)
- Trusts and endowments
- Fund-raising and donations
- Memorials
- Volunteer labor
- Low-interest loans
- Implementation of project in phases

Funding Sources

- Iowa Department of Transportation
- Iowa Department of Natural Resources
- Iowa Department of Education
- Iowa Department of Economic Development
- Utility companies
- Trees Forever

Grant Programs

- Alliant Energy and Trees Forever Branching Out Program
- Federal Surface Transportation Program (STP)
- Iowa Clean Air Attainment Program (ICAAP)
- Iowa DOT/DNR Fund Iowa
- Iowa DOT Iowa's Living Roadways Projects Program
- Iowa DOT Living Roadways Trust Fund Program
- Iowa DOT Pedestrian Curb Ramp Construction Program
- Iowa DOT Statewide Transportation Enhancement Funding
- Iowa DNR Recreation Infrastructure Program
- Land and Water Conservation Fund
- National Recreational Trails Program
- Pheasants Forever
- Revitalization Assistance for Community Improvement (RACI) Grant Program
- State Recreational Trails Program
- Transportation Alternatives Program (TAP)

Community Project Funding Options

Environmental Protection Agency (EPA)

FUNDING PROGRAM	PROGRAM DESCRIPTION	CONTACT	SUBMISSION DEADLINE	WEBSITE
Environmental Education	Funding mechanism for projects to help the public make informed decisions that affect environmental quality.	Kathleen Fenton U.S. EPA Region 7 11201 Renner Blvd. Mail Code REGADOPA Lenexa, Kansas 66219 fenton.kathleen@epa.gov	Early April	http://www.epa.gov/enviroed/grants.html
2017 National Environmental Information Exchange Network Grant	Funding mechanism to develop an Internet-- based secure network that supports the electronic Collection, exchange, and integration of high-quality data.	Salena Reynolds (202) 566-0466 reynolds.salena@epa.gov	Mid November	https://www.epa.gov/exchangenetwork/fiscal-year-2017-national-environmental-information-exchange-network-grant
Pollution Prevention	Provides matching funds to state and tribal programs to support pollution prevention and to develop State-based programs	Marcus Rivas (913) 551-7669 rivas.marcus@epa.gov	Early May	http://www.epa.gov/p2/pubs/grants/index.htm#p2grant
Science to Achieve Results (STAR)	Funding mechanism research grants in numerous environmental science and engineering disciplines through a competitive solicitation process and independent peer review.		(Multiple Dates)	http://www.epa.gov/ncer
Small Business Innovation Research (SBIR)	Competitive funding through environmental technology research at small businesses.		(Multiple Dates)	http://www.epa.gov/ncer/sbir/
Water Grants	Includes funding through the state revolving funds for drinking water and wastewater, grants for water pollution prevention and wetlands protection, and tribal grants.		(Multiple Dates)	http://www.epa.gov/water/funding.html

MidAmerican Energy

Small Community Projects	Communities with a population of less than 5,000 may have unique projects as they work to retain or expand a balanced business mix. Components may include converting underused or unused commercial space within a district, enhancing a district's physical appearance, or long-term planning.	Craig Van Meeteren Business and Community Development Manager 2103 Park Street Sheldon, Iowa 51201 712-277-7670 cavanmeeteran@midamerican.com		https://www.midamericanenergy.com/bcd/local-partners-program.aspx
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Department of Cultural Affairs

Iowa Historical Society	Historical Resources Development Program Grants are available to private individuals and businesses as well as to non-profit organizations and agencies of Certified Local Governments. HRDP grants under this program support a wide variety of projects.	Kristen Vander Molen State Historical Society of Iowa 600 East Locust Des Moines, IA 50319 (515) 281-4228 Kristen.VanderMolen@iowa.gov	First Quarter of Year	http://iowaculture.gov/about-us/about/grants/historical-resource-development-program
Iowa Arts Council Project Grant	Project established to positively affect towns through arts.	Veronica O'Hern (515) 281-3293 600 E. Locust Des Moines, IA 50319 Veronica.ohern@iowa.gov	November May	http://iowaculture.gov/about-us/about/grants/art-project-grant

Iowa Department of Transportation (IDOT)

FUNDING PROGRAM	PROGRAM DESCRIPTION	CONTACT	SUBMISSION DEADLINE	WEBSITE
Revitalize Iowa's Sound Economy (RISE)	Created by the Iowa legislature to assist in promoting economic development in Iowa through the construction or improvement of Iowa roads. City or county governments as well as the Iowa Department of Transportation may apply for funding, imitate projects, and receive money. The applicant (city or county) involved must assure the dedication of the road to public use and ensure adequate future maintenance	Jennifer Kolacia (515) 239-1738 Jennifer.Kolacia	February 1 and September 1	http://www.iowadot.gov/systems_planning/rise.htm
Pedestrian Curb Ramp Construction Program	Assist cities in complying with the Americans with Disabilities Act (ADA) on primary roads in Iowa cities	Tony Lararowicz, P.E. District Engineer, Iowa DOT 2800 Gordon Drive, P.O. Box 987 Sioux City, IA 51102-0987 (712) 276-1451	Ongoing	(Use Contact Information)
Iowa DOT/DNR Fund	Roadside beautification of primary system corridors with plant materials	Iowa Department of Transportation Office of Design 800 Lincoln Way Ames, Iowa 50010 (515) 239-1424	Ongoing	(Use Contact Information)
Iowa's Living Roadway Projects Program	Aid Iowa's small communities in funding enhancements to transportation related landscape corridors. Goals include: · Beautification of transportation corridors (including trails) and entryways · Promoting environmental stewardship · Encouraging the use of professional design services to enhance the quality of projects · Promoting the use of native species	Leslie Berckes Trees Forever 770 7th Avenue Marion, Iowa 52302 (515) 681 - 2295 lberckes@treesforever.org	(Multiple Dates)	http://www.treesforever.org/ILR_Projects
Living Roadway Trust Fund	Implement Integrated Roadside Vegetation Management programs (IRVM) on city, county, or state right-of-way or publicly owned areas adjacent to traveled roadways.	Troy Siefert, PLA Living Roadway Trust Fund 800 Lincoln Way Ames, IA 50010 (515) 239 - 1768 troy.siefert@dot.iowa.gov	Early June	http://www.iowadot.gov/lrtf/grants.html
Keep Iowa Beautiful Community Beautification Grants	This Grant Program is intended to leverage local dollars, support volunteer efforts and encourage the work of communities with the desire for improving the image and appearance of their areas.	Gary Schnepf 300 E. Locust St. Ste 100 Des Moines, Iowa 50309 (515) 323 - 6507 gschnepf@keepiowabeautiful.com	Mid March	http://www.keepiowabeautiful.com/grants-beautification-grant
Paint Iowa Beautiful	Keeping up the appearance of our buildings and facilities is an important component of viable communities. Well-maintained and painted buildings reflect pride in our communities. Through a partnership with diamond Vogel Paint of Orange City, Iowa.	Bill Jackson 300 E. Locust St. Ste 100 Des Moines, Iowa 50309 (515) 323 - 6507 bjackson@keepiowabeautiful.com	Mid-February	http://www.keepiowabeautiful.com/grants/paint-iowa-beautiful
Recreational Trails Program (State)	Program established to provide trail systems for public use.	Yvonne Diller (515)239-1252 800 Lincoln Way Ames, IA 50010 yvonne.diller@dot.iowa.gov	July	http://www.iowadot.gov/systems_planning/fedstate_rectrails.htm
Recreational Trails Program (Federal)	Program established to provide trail systems for public use.	Yvonne Diller (515)239-1252 800 Lincoln Way Ames, IA 50010 yvonne.diller@dot.iowa.gov	December	http://www.iowadot.gov/systems_planning/fedstate_rectrails.htm

Iowa Department of Natural Resources (IDNR)

FUNDING PROGRAM	PROGRAM DESCRIPTION	CONTACT	SUBMISSION DEADLINE	WEBSITE
Land and Water Conservation Fund (LWCF)	The LWCF Program is federally funded grant program that provides match funds of 50% for outdoor recreation area development and acquisition. Iowa's cities and counties are eligible to participate.	Jessica Manken (515) 725 - 8488 jessica.manken@dnr.iowa.gov	Mid-March	http://www.iowadnr.gov/About-DNR/Grants-Other-Funding/Land-Water-Conservation-Fund
REAP City Parks and Open Spaces	The grants are 100% meaning local matching funds are not required. This grant program is very competitive. Funds are not available for single or multipurpose athletic fields. Parkland expansion and multi-purpose recreation developments are typical projects funded under this REAP Program.	Tammie Krausman (515) 725 - 8443 Wallace State Office Building 502 E. 9th St. Des Moines, IA 50319 tammie.krausman@dnr.iowa.gov	Mid August	http://www.iowadnr.gov/Environment/REAP/REAPFuningwork/CityParksOpenSpaces.aspx
Trees For Kids and Trees for Teens	This competitive grants awards between \$1,000 and \$5,000 to qualified tree planting projects on publicly owned property. Applicants must show an educational component of the planting as well.	Laura Wagner (515) 725 - 8456 laura.wagner@dnr.iowa.gov	(Multiple Dates)	http://www.iowadnr.gov/Conservation/Forestry
Solid Waste Alternatives Program	This program is set up to reduce the amount of solid waste generated and landfilled in Iowa. Funds can be used for waste reduction equipment, recycling equipment, production of educational materials and salaries related to implementation and operation of the project	Tom Anderson (515) 725-8323 502 E. 9th St. Des Moines, IA 50319 tom.anderson@dnr.iowa.gov	January 2 April 1 July 1 October 1	http://www.iowadnr.gov/environment/landstewardship/wastemanagement/swap.aspx
State Revolving Fund (SRF)	The State Revolving Fund (SRF) is the best choice to finance the design and construction of Iowa water and wastewater infrastructure. The Clean Water SRF funds wastewater treatment, sewer rehabilitation, and stormwater quality improvements, as well as non-point source projects. The Drinking Water SRF funds water treatment plants or improvements to existing facilities, water line extensions to existing unserved properties, water storage facilities, wells, and source water protection efforts.	Patti Cale-Finnegan (515) 725-0498 SRF Coordinator Iowa Department of Natural Resources Patti.cale-finnegan@dnr.iowa.gov	September 1	http://www.iowasrf.com/about_srf/sponsored_projects_home_page.cfm
Derelict Building Grant Program	Funding made available to assist communities and rural counties address derelict buildings.	Scott Flagg (515)725-8318 502 E. 9th St. Des Moines, IA 50319 scott.flagg@dnr.iowa.gov	February	http://www.iowadnr.gov/environment/landstewardship/wastemanagement/derelictbuildingprogram.aspx

Non-Government Grants

Scotts Miracle-Gro Gro 1000 Grassroots Grant	This funding source is for the creation of community and green spaces. The focus is on projects that incorporate the involvement of neighborhoods and help to create a sense of community.	Crystal Swann, (202) 861-6707 cswann@usmayors.org	November	http://scottsmiraclegro.com/responsibility/gro1000/
People for Bikes	Program is established to provide a funding source for bicycling, active transportation and community development.	Zoe Kircos (303) 449-4893 x 106 Zoe@peopleforbikes.org	Late May Early December	http://www.peopleforbikes.org/pages/grants-guidelines
Build with Bags Grant	Funding made available to be used for the purchase of outdoor furniture or equipment that is made from recycled plastic grocery bags.	Iowa Grocery Industry (515) 270-2628 2540 106th St. Ste. 102 Des Moines, IA 50322 info@iowagrocers.com	End of March	www.keepiowabeautiful.com/grants/build-with-bags

Department of Commerce (DOC)

FUNDING PROGRAM	PROGRAM DESCRIPTION	CONTACT	SUBMISSION DEADLINE	WEBSITE
Public Works and Economic Adjustment Assistance Programs Opportunity	Grants will leverage regional assets to support the implementation of regional economic development strategies designed to create jobs, leverage private capital, and encourage economic development. EDA solicits applications from communities to develop initiatives that advance new ideas and creative approaches to address rapidly evolving economic conditions	Steve Castaner 1244 Speer Blvd. Suite 431 Denver, CO 80204 (573) 590-1194 scastaner@eda.gov	(Multiple Dates)	http://www.eda.gov/how-to-apply/

Iowa Economic Development Authority (IEDA)

Community Development Block Grant (CDGB)	As outlined in Title 1 of the Housing and Community Development Act, the primary goal of the CDBG program is "the development of viable communities, by providing decent housing and suitable living environment and expanding economic opportunities, principally for persons of low and moderate incomes"	Iowa Economic Development Authority 200 East Grand Avenue Des Moines, Iowa 50309 (515) 725-3100	Ongoing	http://www.iowaeconomicdevelopment.com/Community/CDBG
Vision Iowa/ Community Attraction and Tourism Program (CAT) and Community Attraction and Tourism Program (RECAT)	The Community Attraction and Tourism Program (CAT) is designed to assist communities in the development and creation of multiple purpose attraction or tourism facilities. This Program can help position a community to take advantage of economic development opportunities in tourism, and strengthen a community's competitiveness as a place to work and live.	Nicole Shalla Vision Iowa/ CAT Program Manager (515) 725 - 3100	Ongoing	http://www.iowaeconomicdevelopment.com/Community/VisionIowa
Iowa Reinvestment Districts	The Iowa Reinvestment District Program is designed to assist communities in developing transformative projects that will improve the quality of life, create and enhance unique opportunities and substantially benefit the community, region and state	Alaina Santizo@iowa.gov (515) 725-3197	March	http://www.iowaeconomicdevelopment.com/Community/ReinvestmentDistrict
Main Street Iowa	Programs goal is to improve the social and economic well being of Iowa towns. Hinging on the unique identity of a town and the assets that are already in place. The program puts a premium on historic preservation.	Michael Wagler (515) 725-3051 200 E. Grand Avenue Des Moines, IA 50309 mainstreet@iowa.gov	Contact for Application Cycle	http://www.iowaeconomicdevelopment.com/mainstreetiowa

County Grants

Pocahontas County Foundation	The Pocahontas County Foundation will provide grants to improve life in Pocahontas County, Iowa. We want to support development of all our communities into places where people want to live, as well as to benefit rural areas of the county. Areas of Foundation giving are: arts & culture, human services, education, environmental/animals, public and society benefit, and health.	Pocahontas County Foundation PO Box 86 Pocahontas IA 50574	October	http://pocahontas-county.com/visitors/foundation
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United States Department of Agriculture (USDA)

FUNDING PROGRAM	PROGRAM DESCRIPTION	CONTACT	SUBMISSION DEADLINE	WEBSITE
Natural Resources Conservation Service (NRCS)	Conservation Innovation Grants (CIG) is a voluntary program intended to stimulate the development and adoption of innovative conservation approaches and technologies while leveraging Federal investment in environmental enhancement and protection, in conjunction with agricultural production. Under CIG, Environmental Quality Incentives Program funds are used to award competitive grants to non-Federal governmental or non-governmental organizations, Tribes, or individuals	Melleny Cotton, Program Analyst (202) 720-7412 melleny.cotton@wdc.usda.gov	First Quarter of Year	http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/cig/
Sustainable Agriculture Research and Education in Iowa (SARE)	A competitive grants program providing grants to researchers, agricultural educators, framers, and ranchers, and students in the United State	Linda Naeve (515) 294- 8946 lnaeve@iastate.edu	(Multiple Dates)	http://www.northcentralsare.org/State-Programs/Iowa
Sustainable Agriculture Research and Education	Research and Education Grants	Beth nelson (612) 626-4436 bethnelson@umn.edu	Late October	http://www.northcentralsare.org/Grants/Our-Grant-Programs/Research-and-Education
Sustainable Agriculture Research and Education	Partnership Grant Program	Rob Meyers (573) 882-1547 meyersrob@missouri.edu	Late October	http://www.northcentralsare.org/Grants/Our-Grant-Programs/Research-and-Education
Sustainable Agriculture Research and Education	Youth Educator Grant Program	Joan Benjamin (573) 681-5545 BenjaminJ@lincolnu.edu	Early-December	http://www.northcentralsare.org/Grants/Our-Grant-Programs/Youth-Educator-Grant-Program