

# Final Report and Feasibility Study

## Moville, Iowa



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Program Partners:  
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Trees Forever  
Iowa State University



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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.



### **Eric A. Doll, PLA, ASLA**

Mr. Doll is a registered landscape architect in Iowa and has been involved with Iowa's Living Roadways Community Visioning Program for nine 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. Eric has worked extensively on community planning and facilitation, stormwater green infrastructure, landscape architecture, athletic planning, and sports field design projects across the state and nation. With a passion for digital media, Eric conducts cutting edge graphic representation of design concepts to create a holistic understanding for our clients. Eric is a father of two boys and enjoys camping, biking, gardening, and cooking.



### **David A. Stokes, PLA, ASLA**

Mr. Stokes is a senior project manager with 18 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.

**Rosie Manzo, Intern**

Rosie is entering her third and final year of the Master of Landscape Architecture program at Iowa State University. She grew up in Massachusetts and graduated with a BA in Sociology and minors in Spanish and Renewable Energy Studies in 2012 from Eastern Connecticut State University. After graduating, she worked as a residential counselor for young adults with mental health challenges before serving two years in AmeriCorps programs in Iowa and on Cape Cod. She became interested in landscape architecture during these programs, gaining a great deal of hands on experience in land management and natural resource conservation. She looks forward to combining the design skills she has developed at ISU and as an intern at JBC with her experience in mental health and land management to pursue a fulfilling career in the field of landscape architecture.

**Jeremy Johnson, Intern**

Mr. Johnson is a landscape architecture student at Iowa State University entering his fifth year of study. His interest in travel and camping lead him to explore Italy last spring in a semester abroad in Rome, Italy learning how to design public spaces with respect to layers of history. With a minor in landscape management along with experience working in nursery stock and landscape construction, his interest in developing sites with proper plant material and management practices will one day result in the creation of long-lasting spaces.

# Program Overview

Moville is one of 10 communities selected to participate in the 2018 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 Moville steering committee identified a number of goals and priority areas during the visioning process: circulation and sidewalk improvements, establishment of a trail system, safe pedestrian crossings, traffic calming, and improved way-finding and signage with a unified community identity.

## Capturing the Moville 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.

## Program Overview

The city of Merville is one of 10 communities selected to participate in the 2018 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 with design interns as well as transportation needs and behaviors surveys. The program is sponsored by the Iowa Department of Transportation.

### Community Goals

The Merville steering committee identified a number of goals and priority areas during the visioning process, which include accessibility and sidewalk improvements, trail system enhancements and connectivity, improved way-finding and signage with a unified community identity, and improved aesthetics to downtown and Frontage Road.

# Merville

## Program Overview

## Capturing the Merville 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
5. Goal Setting
6. Concept Overview
- 7a. Recreation: Trails
- 7b. Recreation: Parks
- 7c. Bleil Recreation Area
8. Accessibility/Safety
9. Way-finding/Signage
10. Main Street Revitalization
- 11a. West Frontage Road
- 11b. East Frontage Road #1
- 11c. East Frontage Road #2



The design team presents their ideas to community members.



Jeffrey L. Bruce & Company landscape architect intern, Jeremy Johnson sketches during the design charrette with Trees Forever Field Coordinator Brad Riplinger.



Jeffrey L. Bruce & Company landscape architect Eric Doll presents schematic design concepts to community members.



Sketch during the design workshop by landscape architect Eric Doll showing potential intersection improvements.

**Jeffrey L. Bruce and Company LLC**  
Landscape Architect: Eric Doll, PLA, ASLA

Interns: Jeremy Johnson and Rosie Manzo

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## 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 Mowille 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.

#### **Mowille 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?

SPRING 2018 2a

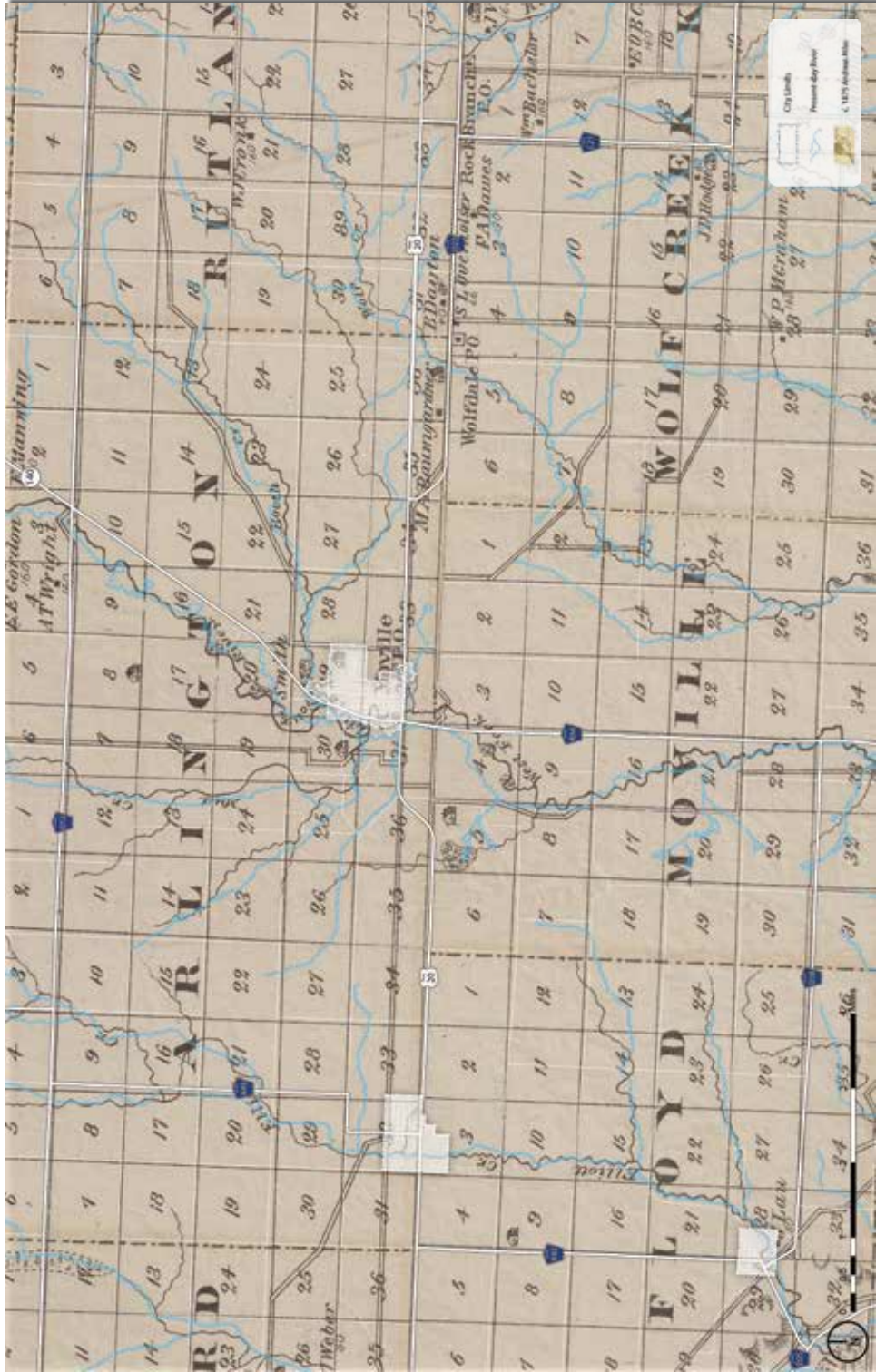
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Map Source Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," <http://www.igsl.iowa.edu/ingislib/>.

Moville

## Settlement Patterns

### Bioregional Context

Julia Badenhop, Casey Cox, Riley Dunn, Dominick Florer, Hatvany Gomez-Concepcion, Ngoc Ho, Henry Herman, Alysse Kirkman, Giannis Koutsou, Emma Lorenz, Zoey Mauck, Carol Ustine  
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Iowa's Living Roadways  
community  
visioning

## 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."<sup>1</sup>

The names of plant communities mapped by the GLO surveyors varied. The original terminology used by the surveyors who made maps has been preserved in the original data, but we have renamed these types on this map to reflect names used to describe contemporary ecological vegetation communities.

Not all communities will have all vegetation types, because various conditions that affect vegetation—such as geology, exposure to wind, seasonally high water or groundwater, and frequency of fire—differ from place to place. The following types have been mapped:

1. Forest: Tree dominated, with a mostly closed canopy. Ground vegetation shade tolerant. Developed under infrequent fire.
2. Savanna: Scattered trees, with an open canopy and prairie below. Fire dominated.
3. Marsh: Perennial non-woody plants, water and fire dominated.
4. Prairie: Perennial non-woody plants, fire dominated.
5. Field: Cultivated lands of early pioneers or Native Americans.

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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.

SPRING 2018 2b

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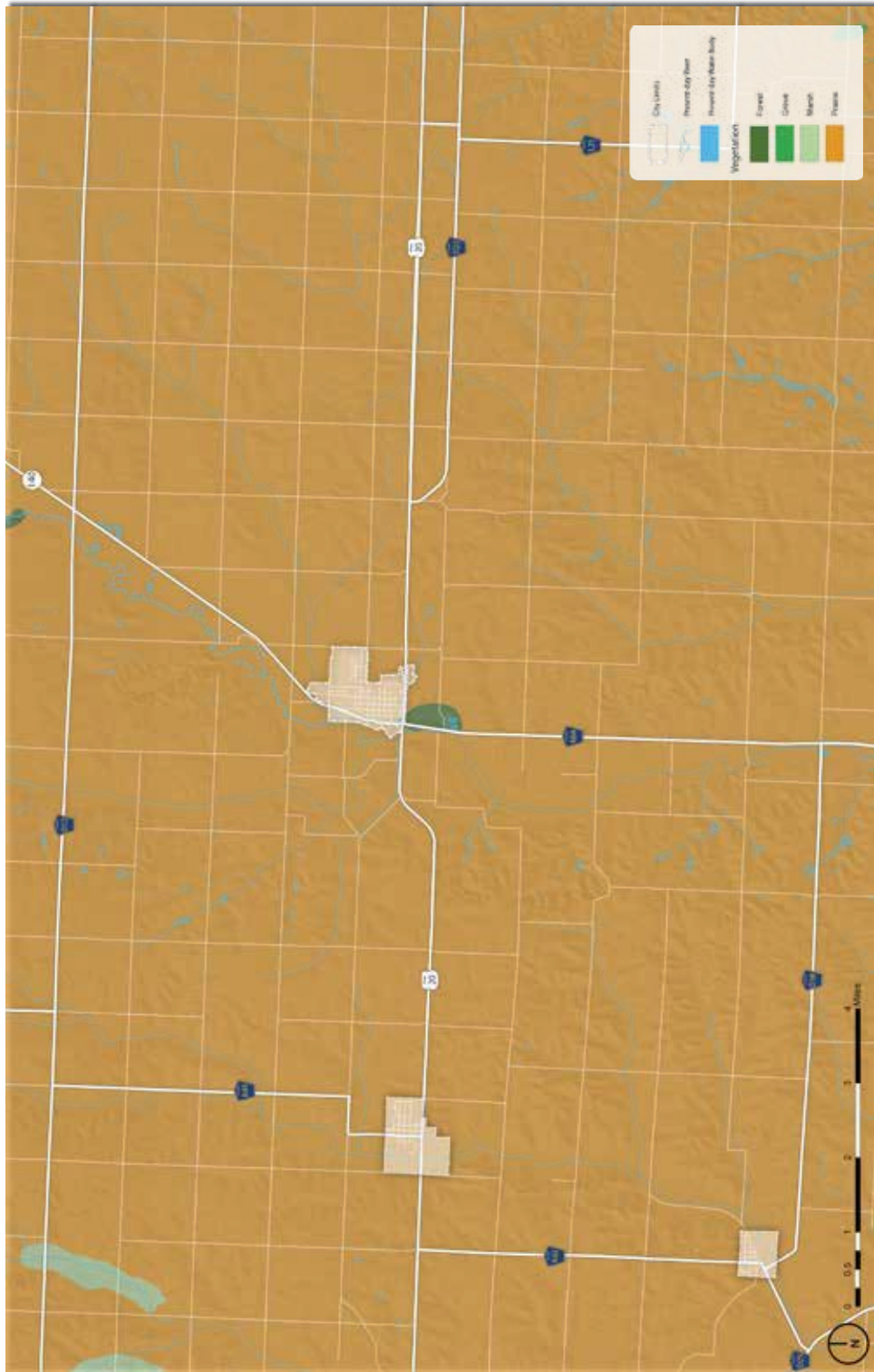
The names of plant communities mapped by the GLO surveyors varied. The original terminology used by the surveyors who made maps has been preserved in the original data, but we have renamed the plant types on this map to reflect names used in contemporary ecological vegetation communities.

Not all communities will show all vegetation types, in part because the people making the maps in the 1800's did not understand and record the subtleties of different plant communities. In addition, landscape conditions that effect vegetation change from place to place. These factors include geology, exposure to wind, seasonal flooding or high ground water, and fire frequency.

The vegetation included in the map may include the following:

1. Forest: Trees with mainly closed canopy; ground vegetation shade tolerant; infrequent fire disturbance.
2. Savanna: Scattered trees with an open canopy and prairie below. Frequent fire disturbance.
3. Marsh: Mainly perennial non-woody plants; water dominated and frequent fires.
4. Prairie: Mainly perennial non-woody plants with frequent fire disturbance.
5. Field: Cultivated lands of early pioneers or Native Americans.

<sup>1</sup> "The Vegetation of Cedar County, Illinois," Transactions of the Illinois Academy of Science (1877), 15-24, accessed Michael Charles Miller, "Analysis of historic vegetation patterns in Iowa using Government Land Office surveys," *Journal of Geographic Information Systems* (master's thesis, Iowa State University, 1993), 8.



Moville

## Historical Vegetation

### Bioregional Context

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## Change Over Time

In the images to the left, you can observe how land use has changed over time from the observed landscape patterns in the 1800s Andreas Atlas to the present day. By looking at landscape development patterns over time, one can begin to understand how technology, infrastructure, economic forces, and desired lifestyles have interacted with landform, climate, and processes to create present-day development patterns.

For example, consider how agricultural land use has changed land cover patterns. In general, one can see impacts of technology in larger field sizes, the reduction in wetlands and sloughs, and the elimination of fence lines as diverse farm crops and livestock production has given way to monoculture field-crop production.

New roads have been developed, usually cutting across the landscape topography on compacted roadbeds. Highways usually have low slopes and more gentle curves to facilitate high-speed movement, while roads targeted to more localized traffic can have steeper slopes and tighter curves. The result of these differences can be seen in the earthwork used to flatten the roadbeds near highways and the creation of "borrow pits" that sometimes appear as geometric ponds alongside highways.

Other observable changes are development that responds to floodplains. In many cases, development will avoid floodplains because of the risks of property damage. Between the 1940s and 1960s, development was placed in floodplains with the protection of levees. These earthworks are less effective with today's intense summer rainfall patterns, and in the most recent image, this floodplain development may have moved as a result.

SPRING 2018 2c

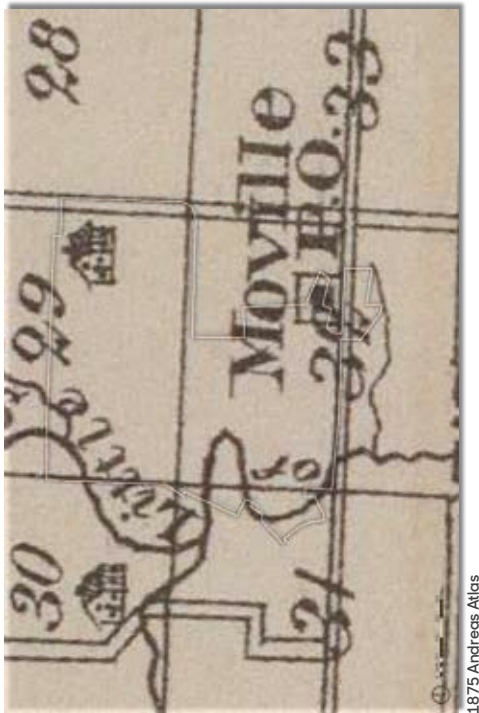
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**Moville**  
Change Over Time

1970s  
Map Source: ISU GIS Facility, "Iowa Geographic Map Server," <http://www.http://ortho.gis.iastate.edu/>

## 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 determine 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 is composed of a dozen smaller watersheds, and the Iowa River watershed is a sub-basin of the Mississippi River watershed.

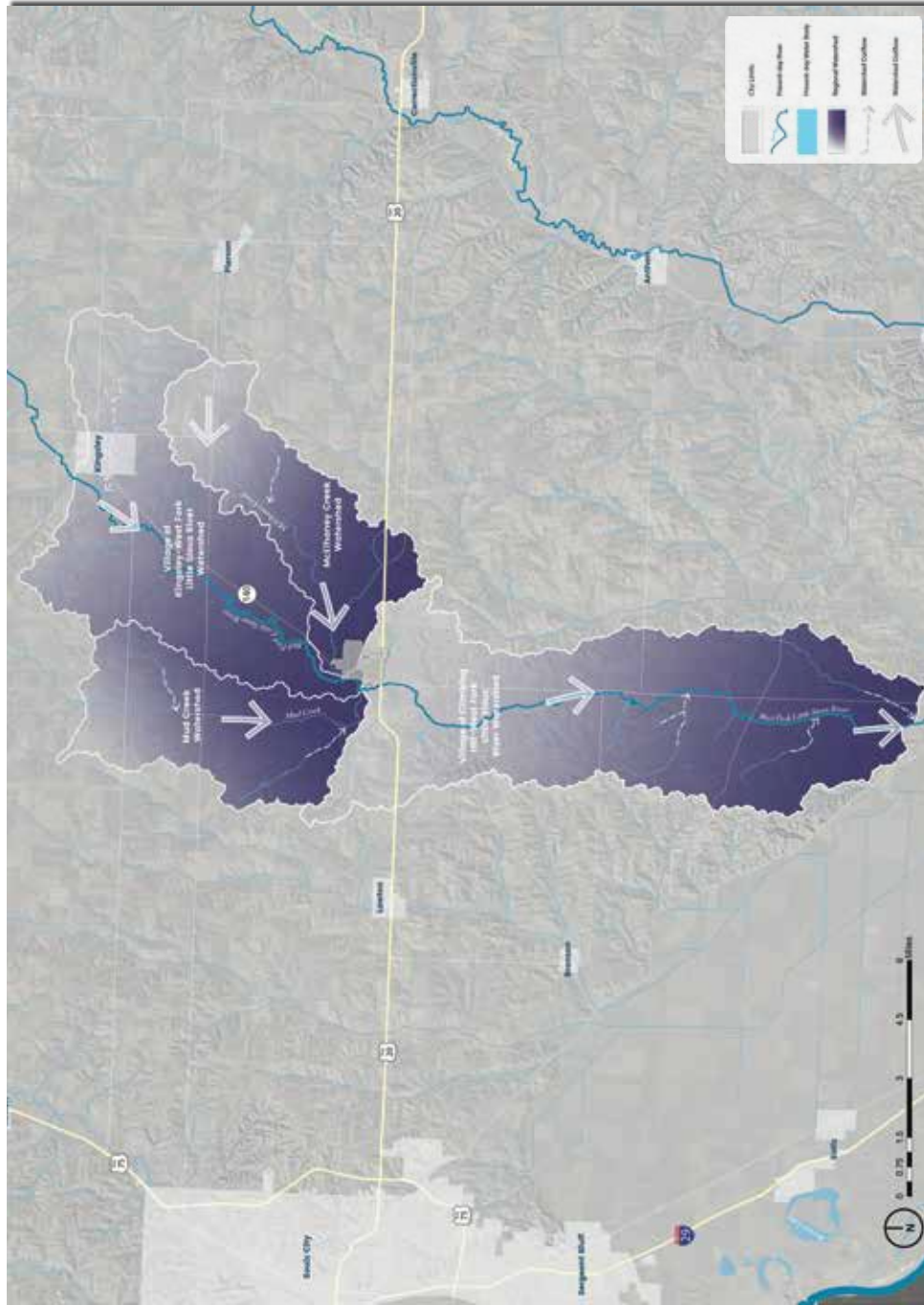
Where a community is located in relation to its surrounding watershed(s) determines its capacity to manage regional watershed issues such as flooding. For example, a community located near the end of a watershed (close to the outlet point) will have little capacity to reduce the amount of water draining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

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

**Moville**

# Regional Watershed

## Bioregional Context

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## Depth to Water Table

The water table is defined as the level below which the ground is saturated with water. Depth to water table is represented as a range because it varies due to seasonal changes and precipitation volumes. For example, following a spring snowmelt, 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.

The map shows how close to the surface groundwater can be. Pavement and foundations are affected by groundwater near the surface. Freezing and thawing and upward pressure of rising groundwater can cause cracks or "frost boils" in pavement. Foundations can be wet and require "dewatering," which can be expensive.

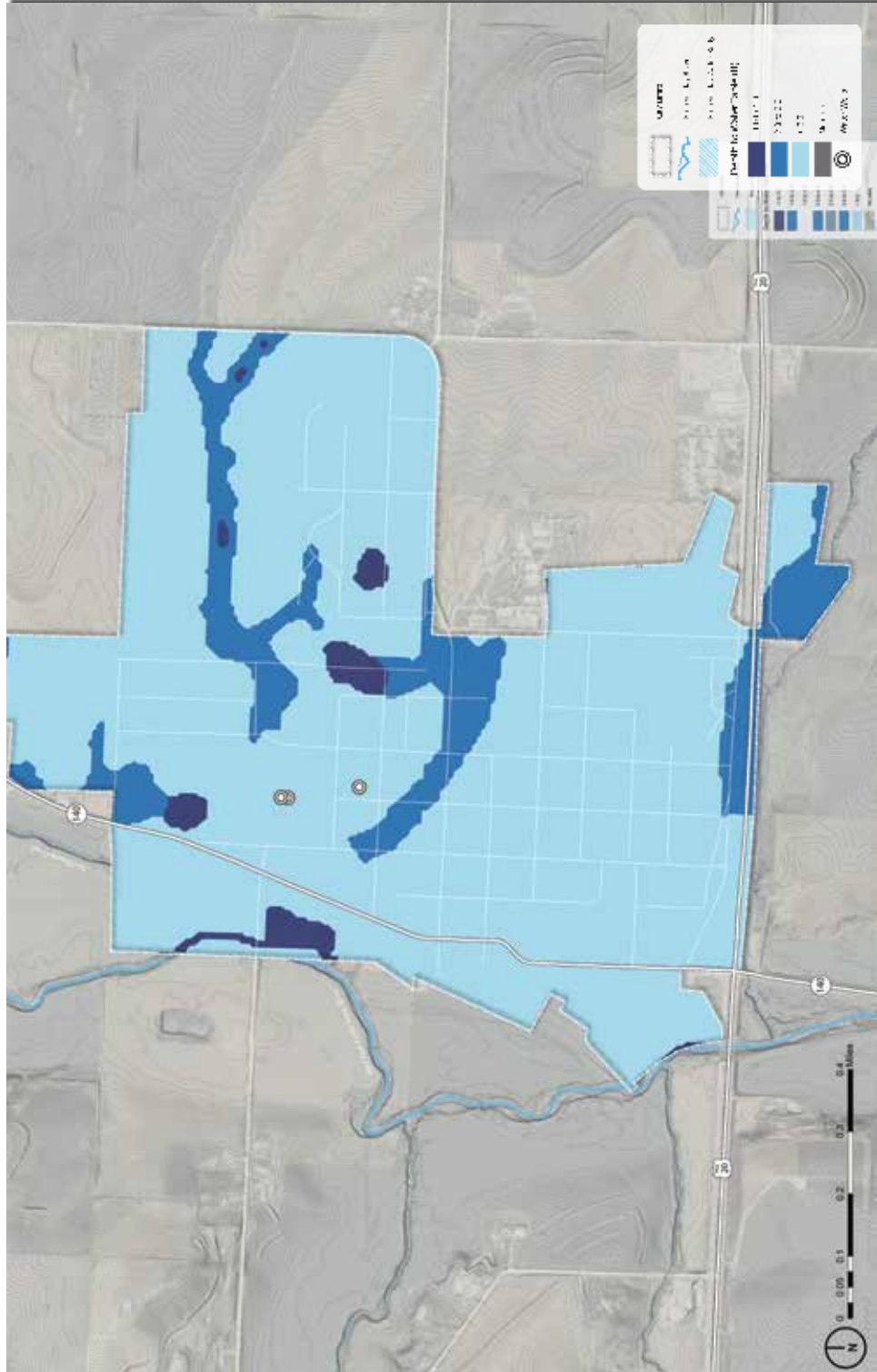
Where the value is less than 0 feet, water can well up out of the ground. This causes localized flooding, even if there is no surface water draining to the area.

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## Elevation and Flow

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?

If your community lies within or near a floodplain or floodway, the map will reflect these features. Not all communities will have these elements; their absence on this map indicates that none are present.

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. If your community has these features, this map will show 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 objects so that the floodwater can move freely, keeping the base flood elevation from rising.

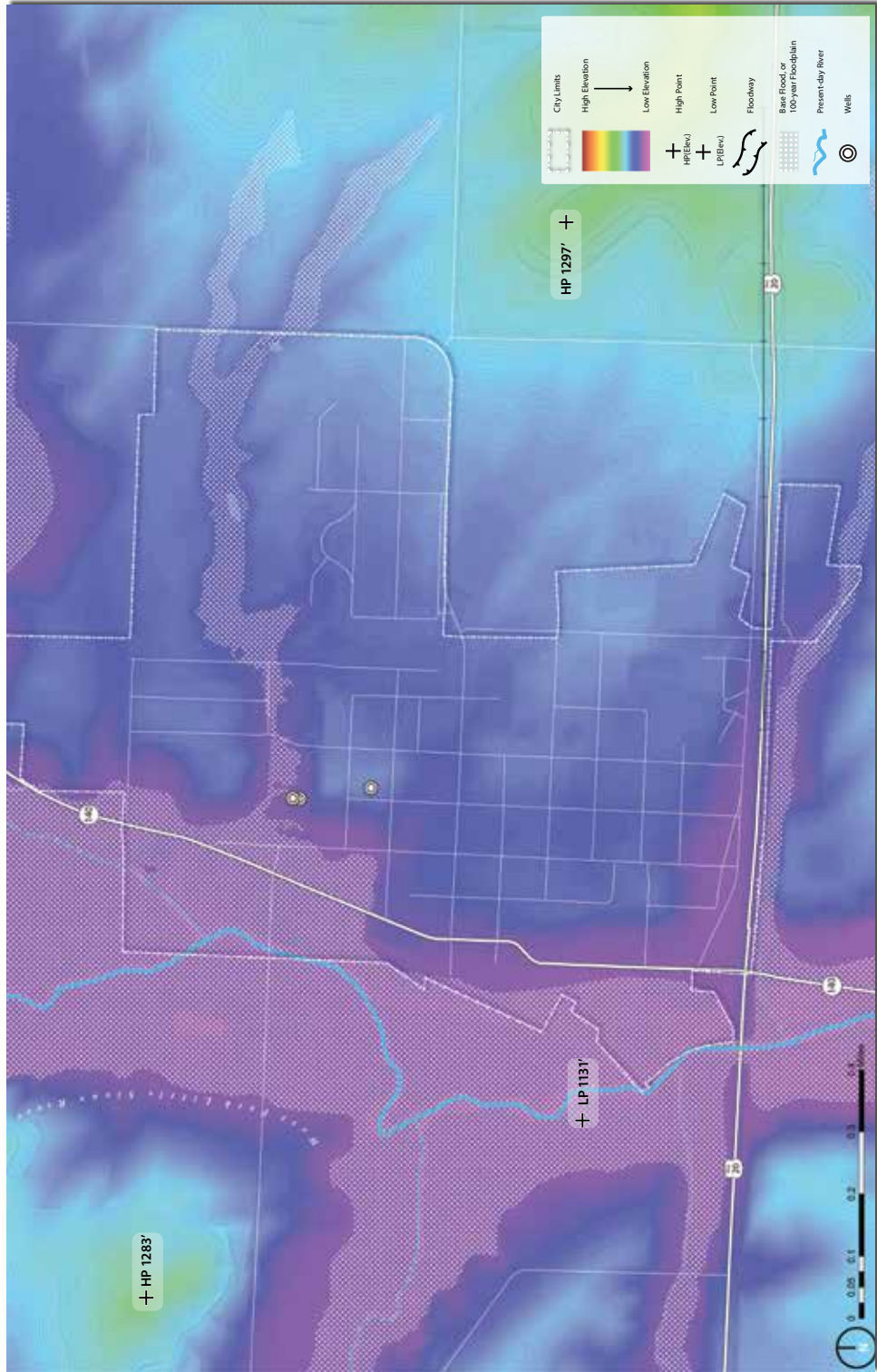
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### Bioregional Context

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## Present Day Land Cover

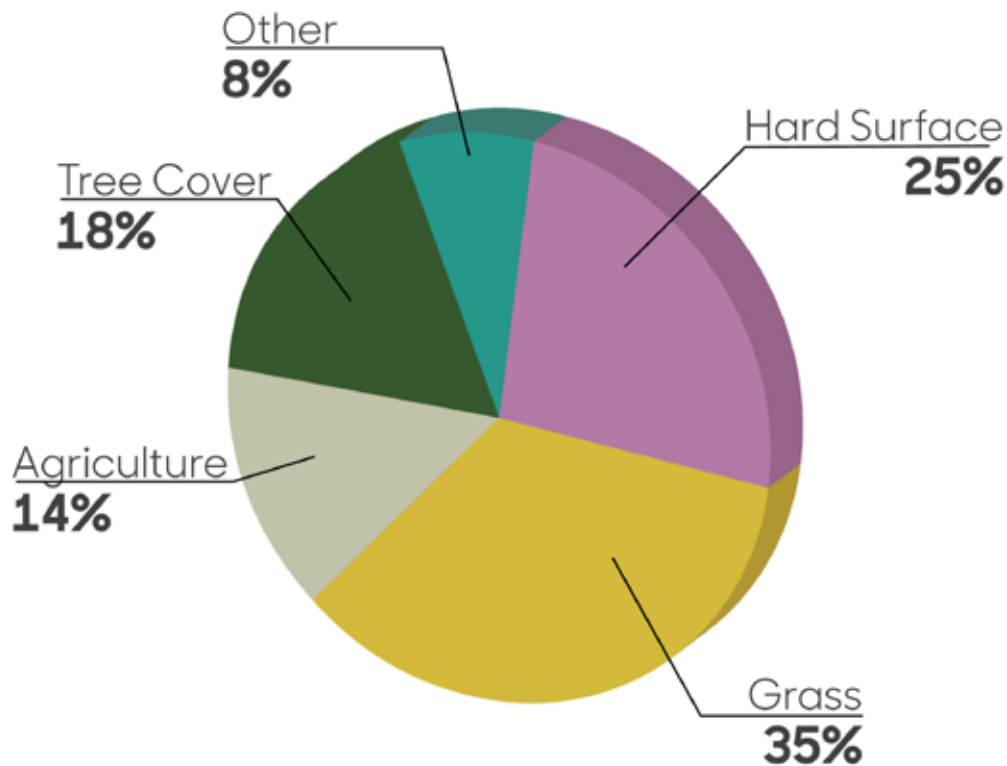
The land cover map depicts both natural and man-made land cover types with aerial imagery. The Iowa DNR created 15 unique classes for this dataset to differentiate land covers. Refer to the legend for a breakdown of land cover types within your community boundaries.

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 does this mean for surface water movement?

Tree cover affects microclimate. Are places surrounded by canopy more pleasant in the summer? How do these places feel in the winter?

Percent Land Cover Type



## Present Day Land Cover

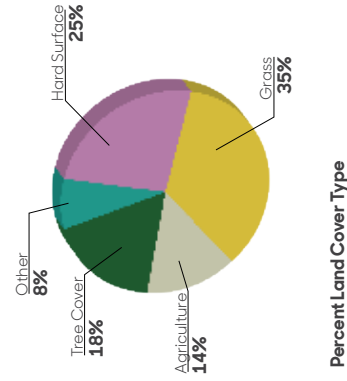
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## Bioregional Context

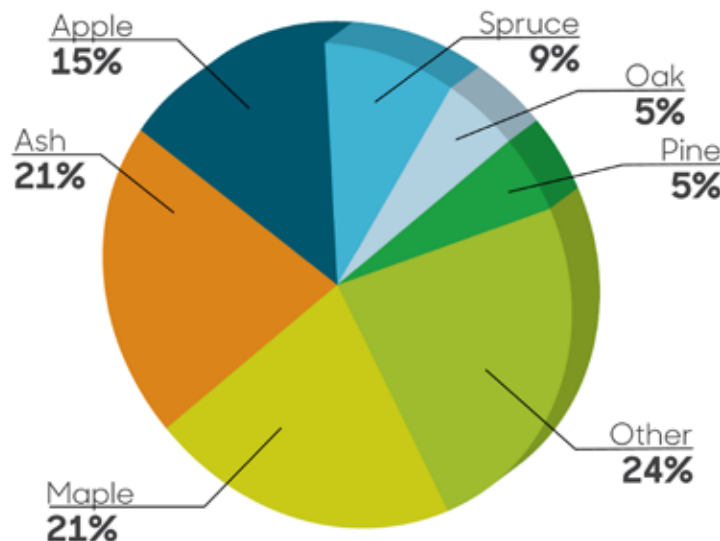
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## The Urban Forest

The map on the left depicts public right-of-way trees that have been surveyed by the Iowa Department of Natural Resources (Iowa DNR).<sup>1</sup> The trees are divided into three categories: healthy trees, hazard trees, and ash trees.

Hazard trees are distinguished with a yellow triangle symbol. The hazard designation reflects tree condition using the Iowa DNR's priority rating. Trees highlighted on this map are "dangerous, dead, or dying, and no amount of maintenance will increase longevity or safety," or are infected by "insects, pathogens, or parasites."

Ash trees are distinguished with a purple cross. They are under imminent threat from the Emerald Ash Borer (EAB),\* an invasive highly destructive beetle that has already killed tens of millions of ash trees in North America.<sup>2</sup> EAB was first discovered in Iowa in 2010 and was confirmed in 30 Iowa counties as of 2016.<sup>3</sup>



The graphic above shows how many of the city's trees are of the same species. There is a strong possibility that 21% (Ash trees) of Merville's city owned trees will die once EAB is carried to the area. With proper planning and management, the city's canopy can be improved by planting suitable trees that can gradually replace hazard trees and Ash trees. Improving species diversity will create a more resilient urban forest.

<sup>1</sup> Iowa Department of Natural Resources Community Tree Inventories, <http://www.iowadnr.gov/Conservation/Forestry/Urban-Forestry/Community-Tree-Inventories>

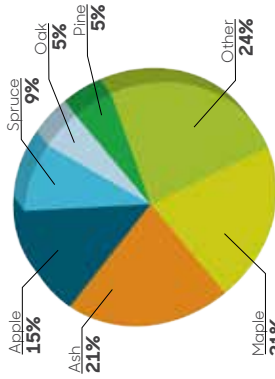
<sup>2</sup> EAB is a significant threat to our urban, suburban, and rural forests because it kills stressed and healthy ash trees. EAB is so aggressive that ash trees may die within two or three years after they become infested. Ash trees are as important ecologically as they are economically in the forests of the eastern United States. Emerald Ash Borer the Green Menace, USDA Program Aid No. 1769, 2008, [https://www.aphis.usda.gov/publications/plant\\_health/content/printable\\_version/EAB-GreenMenace-reprint\\_June09.pdf](https://www.aphis.usda.gov/publications/plant_health/content/printable_version/EAB-GreenMenace-reprint_June09.pdf).

<sup>3</sup> "Iowa Tree Pests website," Entomology and Plant Science Bureau of the Iowa Department of Agriculture and Land Stewardship (IDALS), last updated February 9, 2016, [http://www.iowatreepests.com/eab\\_home.html](http://www.iowatreepests.com/eab_home.html).

### The Urban Forest

The map on the left depicts city owned trees that have been surveyed by the Iowa Department of Natural Resources (Iowa DNR).<sup>1</sup> The trees are divided into three categories: healthy trees, hazard trees, and ash trees. "Hazard" trees are distinguished with a yellow triangle symbol. The hazard designation reflects tree condition using the Iowa DNR's priority rating. Trees highlighted on this map are "dangerous, dead or dying, and no amount of maintenance will increase longevity or safety," or are infected by "insects, pathogens, or parasites."

"Ash" trees are distinguished with a purple cross. They are under imminent threat from the Emerald Ash Borer (EAB), "an invasive beetle that disrupts circulation in the tree resulting in the loss of tens of millions of ash trees in North America."<sup>2</sup> EAB was first discovered in Iowa in 2010 and was confirmed in 30 Iowa counties as of 2016.<sup>3</sup>



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**Bioregional Context**  
Julia Badenhop, Casey Cox, Riley Dunn, Dominick Florer, Hatvany Gomez-Concepcion, Ngoc Ho, Henry Herman, Alysse Kirkman, Giannis Koutsou, Emma Lorenz, Zoey Mauck, Carol Ustine  
Iowa State University | Trees Forever | Iowa Department of Transportation

# 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 Merville, 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 Merville'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 Merville residents with different transportation needs to participate in focus groups. A total of 68 residents attended Merville's workshop. Participants were separated into five user groups and the Merville 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.



Mobility Impaired

This user group is directly affected by accessibility barriers such as high curbing and uneven sidewalks that make it difficult to operate mobility-aiding equipment effectively. Handicapped parking, curb ramps, and smooth surfaces are critical transportation features.



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 Moville?

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 Moville, 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 Moville's transportation system works, we use focused, small-group conversations, mapping, and photos of the best and worst to understand local transportation.

## Different Users = Different Needs

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**(19 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.



**(1 participant):** This user group is directly affected by accessibility barriers such as high curbing and uneven sidewalks that make it difficult to operate mobility-aiding equipment effectively. Handicapped parking, curb ramps, and smooth surfaces are critical transportation features.



**(14 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.



**(16 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.



**(11 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.



**(7 participants):** 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.

## Transportation Assets and Barriers Analysis

Julia Badenhope, Sandra Oberbroeckling, Hatvany Gomez—Concepcion, Saina Shayanjoo, and Timothy Kerkhove

Iowa State University | Trees Forever | Iowa Department of Transportation



Asset: Many residents use the walking/biking trail.



Asset: A ramp at the end of Main Street allows access to businesses.



Asset: The shaded playground is fun, accessible, and entertaining.

# Moville Overview



Barrier: No sidewalks and heavy traffic make accessing Casey's a challenge.

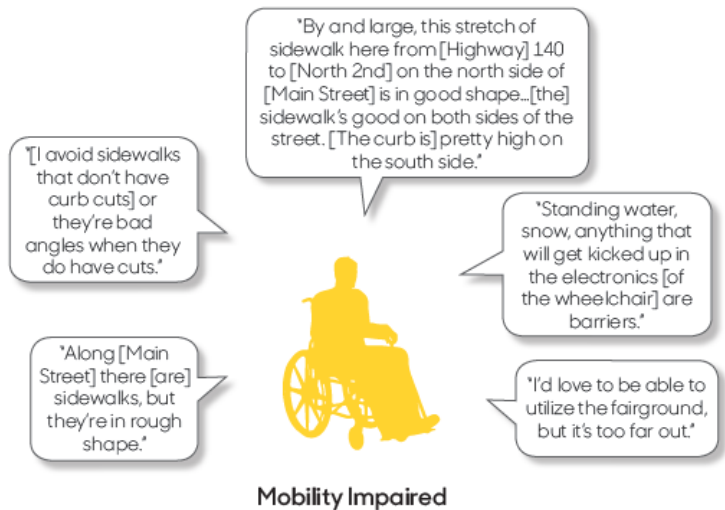
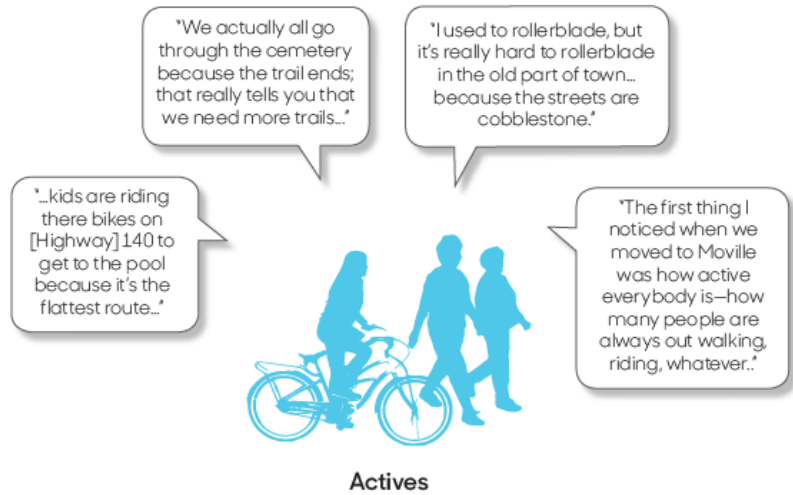


Barrier: Steps along all of Main Street force mobility-impaired residents to travel long distances just to get inside a store.



Barrier: There is no parking or sidewalks near the sports fields, making game days inconvenient.

## What People Said




"It is pretty to drive down Main Street on your bike by the Main Street Park when you have...the fall trees and all that. That is good and shaded and everything, but there's so much traffic along there with cars, that kind of takes away from it."

"Frontage Road—they're starting to put businesses down there—you can't just walk down there and ride a bike. The roads aren't wide enough."

"I feel like there's no sidewalk, especially in high-traffic areas, like Frontage Road or Fair Street..."

"The sidewalks, some of them have the handicap[ped] entrance, but for biking it's terrible for kids to be able to jump up on that curb."

"Having kids in Little League baseball—there's no sidewalk down there, or when you park, there's no parking lot."



Parents


"Some of the sidewalks have—they're really old, so there[are] a lot of... holes in them, and it's hard to walk, and you'll trip."

"[The park has] really nice sidewalks; they're really fun to rollerblade on or bike."

"If you're going down to Main Street...there's this giant curb so when I'm trying to go back I have to walk my bike up it."

"[I like] walking on the sidewalks on hot sunny days."

"When you walk on Fair Street, there's no sidewalk there so you have to walk on the grass or on the street."



Youth

"I would love to be able to walk easier—further distances with our kids and bike, but it's...not necessarily easy to bike and walk around town [because of] lack of sidewalks."

"I just know that when I'm coming from [the Logan Addition on Main Street], and I am pushing a stroller and I've got a kid on a bike, it's all treacherous."

"And if you can make it to the park, this sidewalk is actually nice—the sidewalk at the park is nice."

"It'd be really great if there was a sidewalk path to the school, to the ball fields, and to the pool."

"I like that on Main Street there are a lot of trees. So if it's a really hot summer day during a walk, it's kind of a good spot..."



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:** Actives walk, drive, bike, and drive golf carts to get around town. They are interested in traffic control at the Little League complex, better parking at the soccer field, and better lighting in town.

**Mobility-impaired individuals:** Those who are mobility-impaired primarily use wheelchairs; therefore, smooth surfaces and curb ramps are important. Desired improvements include a safe crossing over Highway 140 and more flowers in Main Street Park.

**Older adults:** Older adults walk, drive, bike, drive golf carts, and use scooters. This group is interested in paving Humboldt all the way to Highway 20, as well as having a stop sign at the entrance to Dollar General.

**Youth:** Youth walk, bike, and run. Older youth drive and drive golf carts. This group would like more businesses and services in town, and would like better padding at the parks.

**Parents:** Parents walk, drive, bike, and use golf carts. They are concerned about their children's safety as they move around the community. Parents want sidewalks to the ball fields, more recreation opportunities, and better padding in the parks.

**Steering committee:** The steering committee primarily drives to local destinations. Committee members want to update the Main Street infrastructure, make more trail connections, and add way-finding signage.



# Transportation Inventory and Analysis

Knowledge of the transportation systems in and around a community is critical for sustainable transportation enhancement planning. Merville's transportation systems include state highways, roadways, pedestrian walking and biking routes, and a river.

US Highway 20 and State Highway 140 intersect at the southwest corner of the city and the West Fork Little Sioux River runs along the western side of the city.

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

Several transportation-related assets and opportunities include access to outdoor recreation venues such as the city pool and parks, bike trail, golf course, soccer fields, baseball fields, and disc golf course. The Woodbury County Fairgrounds also attract many people to town throughout the year.

Items of concern related to the transportation systems include incomplete, narrow, and missing sidewalks, tiered and inaccessible sidewalks on Main Street, and high curbs and a lack of curb cuts throughout town. Community members also noted poor visibility at intersections such as Fair Street and Main Street, and poor conditions on roads such as Frontage Road, Jackson Street, and Pearl Street. There is also a need for safe access to community amenities such as the city pool, the soccer fields, and the medical center.

## Transportation Inventory and Analysis

Knowledge of the transportation systems in and around a community is critical for sustainable transportation enhancement planning. Moline's transportation systems include state highways, roadways, pedestrian walking and biking routes, and a river.

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### Steering Committee



"I would love to be able to walk easier—further distances with our kids and bike, but it's not necessarily easy to bike and walk around town [because of] lack of sidewalks."

### Older Adults



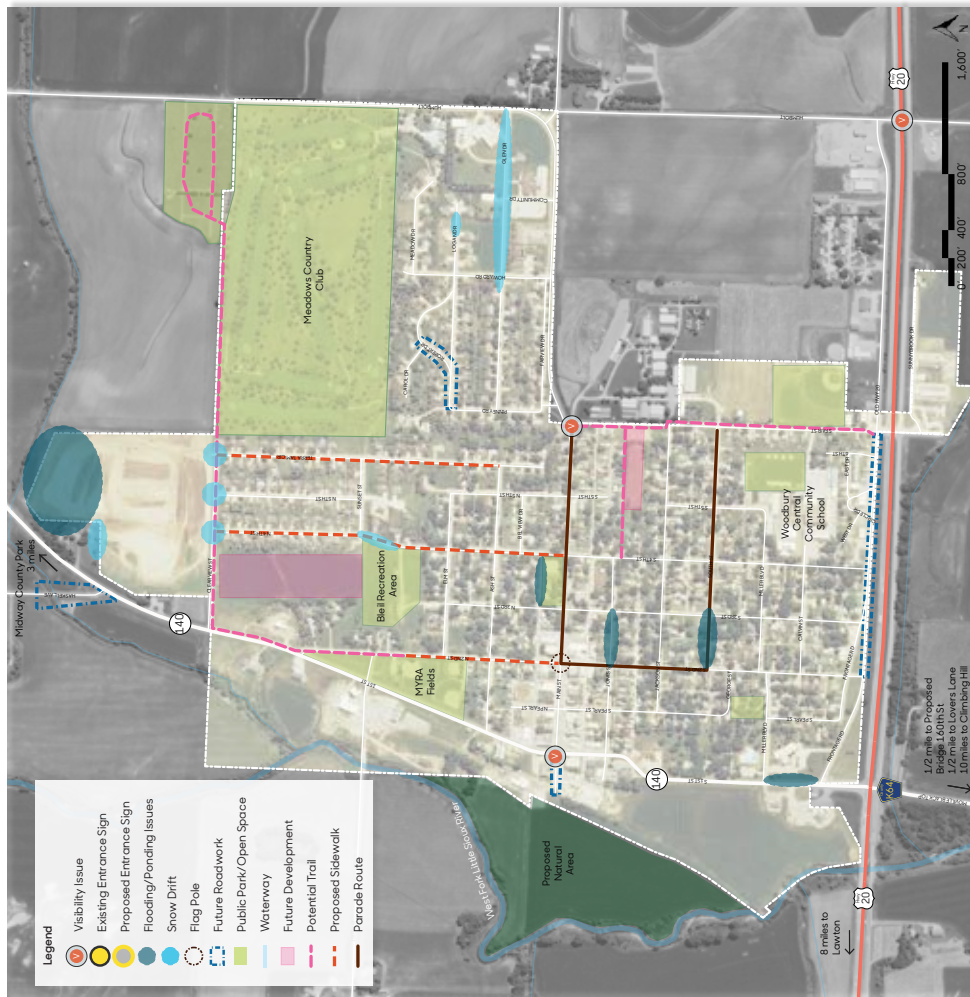
"The Main Street business district...especially on the south side, is tiered, and...it's really difficult for anyone, whether you're mobility challenged or not, and there's not really any good railings or anything."

### Mobility Impaired



"Along [Main Street] there [are] sidewalks, but they're in rough shape"  
Standing water, snow, anything that will get kicked up in the electronics [of the wheelchair] are barriers."

People's concerns about aspects of Moline's transportation system.



Map of Moline highlighting and analyzing existing transportation infrastructure.

**Moline**

# Transportation Inventory

**Jeffrey L. Bruce and Company LLC**

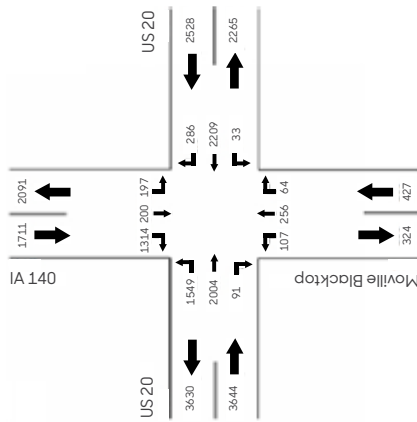
Landscape Architect: Eric Doll, PLA, ASLA

Interns: Jeremy Johnson and Rosie Manzo

Iowa State University | Trees Forever | Iowa Department of Transportation

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Turning Movement Traffic Count Summary - 2017 Annualized Daily Traffic For All Vehicles.



# Goal Setting

The Moville steering committee presented what they learned from the TAB assessment and bioregional information to the landscape architects. The committee identified goals and values. The goals are based on the information from the assessments. Each committee member also included reasoning for improvements around town and highlighted specific programming needs for areas of concern to them.

Community Values/Themes Based on Assessments	Broad-Based Outcomes & Goals
Accessibility/Safety 	 Improve lighting  Improve way-finding and signage   Add, fix, and complete sidewalk system   Connect parks, school, soccer, and baseball fields   Increase safety and accessibility
Way-finding/Signage 	  Increase visibility of downtown and town center   Help visitors get around    Improve signage for school, parks, ball fields, library
Trails/Recreation 	  Continue to improve parks   Improve health and encourage healthy lifestyles    Increase number of trails and trail connections
Community Connections/Pride 	 Continue "Moville Days"   Build relationships and "community"
Main Street/Business District 	 Building enhancements to Main St.  Encourage community/business growth
Housing Development 	 Provide more housing opportunities for families  Provide a range of housing: starter houses, multifamily, single family, assisted living, etc.

 Represents individuals who voiced the same goal

## Goal Setting Process

The Moville steering committee presented what they learned from the TAB assessment and bioregional information to the landscape architects. The committee identified goals and values. The goals are based on the information from the assessments. Each committee member also included reasoning for improvements around town and highlighted specific programming needs for areas of concern to them.



The landscape architects organized programming themes for the city of Moville using the goals identified by the steering committee. Greater importance was given to goals that were highlighted in discussions and/or repeated by individuals during the goal setting meeting.



## Goal Setting

### Combined Results from Goal Setting and Programming Worksheets

SUMMER 2018 5

Community Values/Themes Based on Assessments	Broad-Based Outcomes & Goals	Why Change Anything?	What Exactly and Where?
Accessibility/Safety 	Improve lighting Improve way-finding and signage Add, fix, and complete sidewalk system Connect parks, school, soccer, and baseball fields Increase safety and accessibility	Connect to existing trail to expand recreation and encourage tourism Enhance the quality of recreation Increase safety for pedestrians Enhance accessibility for those with disabilities	2nd Street to MYRA Memorial Park to the school, soccer field, and pool Handicapped accessibility at pavilion, on Main St., and at city parks 4th St. Intersection of Main St. and 1st St.
Way-finding/Signage 	Increase visibility of downtown and town center Help visitors get around Improve signage for school, parks, ball fields, library	Encourage the enhancement of downtown Bring people to/through Moville Increase accessibility to areas of interest for tourists and those unfamiliar with the area	Downtown/Main St. Along Highway 20 and Frontage Rd. Near parks, school, and public buildings Fair Street Highway 140
Trails/Recreation 	Continue to improve parks Improve health and encourage healthy lifestyles Increase number of trails and trail connections	Promote healthy lifestyles and attitudes of residents Enhance safe routes to school Encourage walking and biking	Humbolt to "The Ridge" Loop existing trail to "The Ridge" Connect trail into the city through the cemetery and golf course Highway 140 to Midway Park
Community Connections/Pride 	Continue "Moville Days" Build relationships and "community"	Increase community pride and maintain welcoming and "small-town feel" Increase connections between community members, local business owners, and school	Moville as a whole Focusing in on areas with upcoming planned improvements
Main Street/Business District 	Building enhancements to Main St. Encourage community/business growth	Increase community pride and maintain Moville's "small-town feel"	Main St. Frontage Rd.
Housing Development 	Provide more housing opportunities for families Provide a range of housing: starter houses, multifamily, single family, assisted living, etc.	Meet the demand for housing in the community	Moville as a whole East of Fair St. and south of S 5th St. South of Clearview Street and north of new disc golf course

Represents individuals who voiced the same goal

**Jeffrey L. Bruce and Company LLC**

Landscape Architect: Eric Doll, PLA, ASLA

Interns: Jeremy Johnson and Rosie Manzo

Iowa State University | Trees Forever | Iowa Department of Transportation



SUMMER 2018

31

# Concept Overview

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

## **1. Trails and Recreation**

The design proposals calls for an expansion of the existing community trail in order to connect city parks and recreation areas, both within and outside city limits. The addition of a trail network will also address residents' desire to live in a walkable and bike-friendly Merville.

## **2. Accessibility and Safety**

There are many discontinuous sidewalks throughout the city. Merville wants to prioritize a sidewalk system with ADA accessibility, visible crossings, and sufficient lighting to provide equitable access to Merville's amenities.

## **3. Way-finding and Signage**

An attractive and cohesive signage scheme incorporates elements of existing community signage and enhancing Merville's visual appearance and legibility.

## **4. Main Street and Downtown Revitalization**

Improving both the accessibility and aesthetic of downtown Merville will gain attention of Merville residents and visitors. Way-finding signage will also help to direct visitors to downtown.

## **5. Frontage Road Renovation**

Frontage Road welcomes residents and visitors into the community. By beautifying this stretch of road with the addition of a bike trail and roadside plantings, Merville can signal to those passing by what the city has to offer.

## Concept Overview

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- Accessibility and Safety**  
 There are many discontinuous sidewalks throughout the city. Moville wants to prioritize a sidewalk system with ADA accessibility, visible crossings, and sufficient lighting to provide equitable access to Moville's amenities.
- Way-finding and Signage**  
 An attractive and cohesive signage scheme incorporates elements of existing community signage and enhancing Moville's visual appearance and legibility.
- Main Street and Downtown Revitalization**  
 Improving both the accessibility and aesthetic of downtown Moville will gain attention of Moville residents and visitors. Way-finding signage will also help to direct visitors to downtown.
- Frontage Road Renovation**  
 Frontage Road welcomes residents and visitors into the community. By beautifying this stretch of road with the addition of a bike trail and roadside plantings, Moville can signal to those passing by what the city has to offer.



### Accessibility and Safety

Improve pedestrian safety and encourage walking and biking as healthier alternatives to driving by enhancing the sidewalk system.

### Main Street and Downtown Revitalization

Create pedestrian-friendly environment and enhance aesthetics with the addition of street trees and bump-outs.

### Way-finding and Signage

Improve navigation and create a more cohesive community identity.

### Frontage Road Revitalization

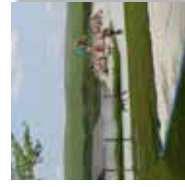
Enhance and improve access and aesthetics of community entrance road.



Board 7a



Board 7b



Board 7c



Board 8



Board 9



Board 10



Board 11

**Moville**

## Concept Overview

**Jeffrey L. Bruce and Company LLC**

Landscape Architect: Eric Doll, PLA, ASLA

Interns: Jeremy Johnson and Rosie Manzo

Iowa State University | Trees Forever | Iowa Department of Transportation



## Recreation: Trails

### Separate Trail

A separate trail is proposed as an extension from the existing trail, cutting west into town through the cemetery. Separate bike trails provide a safe space for people who find it challenging to bike alongside high-speed vehicular traffic. Areas of the proposed route run through privately-owned land and landowners would need to be consulted to discuss the addition of such trails in Moville.

### Shared Roadway

Many towns across the nation have chosen to make bicyclists a common roadway element by designating roads as shared roadways. This designation must be accompanied by ample signage and painted pavement markings as seen in the image to the left. Along residential roads, directing cyclists to use the road will free up sidewalks for pedestrians.

## Design Expertise Recommended

Projects may require help beyond the capability of the Moville steering committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a landscape architect and civil 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

## Recreation: Trails

### Proposed Separate Trail along Frontage Road From Fair St. to 1st St. (1/2 Mile)

Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Demolition/Site Preparation</b>					\$37,000.00
Mobilization	1	ls	\$5,000.00	\$5,000.00	
SWPPP Preparation/Documentation	1	ls	\$3,000.00	\$3,000.00	
Site Survey	1	ls	\$4,000.00	\$4,000.00	
Site Clearing and Concrete Removal	1	ls	\$25,000.00	\$25,000.00	
<b>Site Sedimentation and Erosion Control</b>					\$2,500.00
Inlet Protection and Erosion Mitigation	1	ls	\$2,500.00	\$2,500.00	
<b>Site Earthwork</b>					\$10,000.00
Rough Grading	1	ls	\$10,000.00	\$10,000.00	
<b>Trail Surfacing</b>					\$162,000.00
10' Wide Asphalt Paved Separate Trail (0.50 Miles)	26,400	sf	\$5.00	\$132,000.00	
Modular Block Retaining Walls to Make Up Grade along Trail	1	ls	\$30,000.00	\$30,000.00	
<b>Site Amenities</b>					\$20,300.00
Trail Signage (Every 0.50 Mile)	2	ea	\$500.00	\$1,000.00	
ADA Curb Ramps	14	ea	\$1,200.00	\$16,800.00	
Crosswalk Markings	1	ls	\$2,500.00	\$2,500.00	
<b>Sub-Total</b>					\$231,800.00
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					\$55,632.00
<b>Total</b>					\$287,432.00

### Proposed Separate Trail From 1st St. and Frontage Road to MYRA Fields (3/4 Mile)

Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Demolition/Site Preparation</b>					\$34,500.00
Mobilization	1	ls	\$7,500.00	\$7,500.00	
Site Clearing and Concrete Removal	1	ls	\$20,000.00	\$20,000.00	
SWPPP Preparation/Documentation	1	ls	\$3,000.00	\$3,000.00	
Site Survey	1	ls	\$4,000.00	\$4,000.00	
<b>Site Sedimentation and Erosion Control</b>					\$2,500.00
Inlet Protection and Erosion Mitigation	1	ls	\$2,500.00	\$2,500.00	
<b>Site Earthwork</b>					\$15,000.00
Rough Grading	1	ls	\$15,000.00	\$15,000.00	
<b>Trail</b>					\$213,000.00
10' Wide Asphalt Paved Separate Trail (0.75 Miles)	39,600	sf	\$5.00	\$198,000.00	
Modular Block Retaining Walls to Make Up Grade along Trail	1	ls	\$15,000.00	\$15,000.00	
<b>Site Amenities</b>					\$10,700.00
Trail Signage (Every 0.50 Mile)	2	ea	\$500.00	\$1,000.00	
ADA Curb Ramps	6	ea	\$1,200.00	\$7,200.00	
Crosswalk Markings	1	ls	\$2,500.00	\$2,500.00	
<b>Sub-Total</b>					\$275,700.00
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					\$66,168.00
<b>Total</b>					\$341,868.00

### Proposed Separate Trail From MYRA Fields to Midway County Park (4 Miles)

Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Land Acquisition</b>					\$25,000.00
General Purchase of Land	1	ls	\$25,000.00	\$25,000.00	
<b>Demolition/Site Preparation</b>					\$43,000.00
Mobilization	1	ls	\$20,000.00	\$20,000.00	
Clearing and Grubbing	1	ls	\$12,000.00	\$12,000.00	
SWPPP Preparation/Documentation	1	ls	\$6,000.00	\$6,000.00	
Site Survey	1	ls	\$5,000.00	\$5,000.00	
<b>Site Sedimentation and Erosion Control</b>					\$2,500.00
Inlet Protection and Erosion Mitigation	1	ls	\$2,500.00	\$2,500.00	
<b>Site Earthwork</b>					\$20,000.00
Rough Grading	1	ls	\$20,000.00	\$20,000.00	
<b>Trail Surfacing</b>					\$869,800.00
10' Wide Asphalt Paved Separate Trail (4.00 Miles)	211,200	sf	\$4.00	\$844,800.00	
Small Wood Bridge at Midway County Park	1	ls	\$25,000.00	\$25,000.00	
<b>Site Amenities</b>					\$7,800.00
Trail Signage (Every 1 Mile)	4	ea	\$500.00	\$2,000.00	
ADA Curb Ramps	4	ea	\$1,200.00	\$4,800.00	
Crosswalk Markings	1	ls	\$1,000.00	\$1,000.00	
<b>Sub-Total</b>					\$968,100.00
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					\$232,344.00
<b>Total</b>					\$1,200,444.00

Proposed Paved Shared Road from Cemetery North to Highway 140 on Humboldt Avenue (Approx. 1 Mile)					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Demolition/Site Preparation</b>					\$34,000.00
Mobilization	1	ls	\$12,000.00	\$12,000.00	
SWPPP Preparation/Documentation	1	ls	\$6,000.00	\$6,000.00	
Clearing and Grubbing	1	ls	\$10,000.00	\$10,000.00	
Site Survey	1	ls	\$6,000.00	\$6,000.00	
<b>Site Sedimentation and Erosion Control</b>					\$3,500.00
Inlet Protection and Erosion Mitigation	1	ls	\$3,500.00	\$3,500.00	
<b>Site Earthwork</b>					\$20,000.00
Rough Grading	1	ls	\$20,000.00	\$20,000.00	
<b>New Paved Humboldt Avenue from Cemetery to Highway 140</b>					\$684,288.00
New 24 ft Wide Asphalt Road	114,048	sf	\$6.00	\$684,288.00	
<b>Site Amenities</b>					\$3,000.00
Pavement Markings (For Future Paved Humboldt Avenue)	1	ls	\$2,000.00	\$2,000.00	
Trail Signage (Every 0.50 Mile)	2	ea	\$500.00	\$1,000.00	
<b>Sub-Total</b>					<b>\$744,788.00</b>
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					<b>\$178,749.00</b>
<b>Total</b>					<b>\$923,537.00</b>

Proposed Separate Trail From Cemetery to Terrtam Street through Golf Course (0.30 Miles)					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Land Acquisition</b>					\$10,000.00
General Purchase of Land	1	ls	\$10,000.00	\$10,000.00	
<b>Demolition/Site Preparation</b>					\$7,000.00
Mobilization	1	ls	\$4,500.00	\$4,500.00	
Clearing and Grubbing	1	ls	\$2,500.00	\$2,500.00	
<b>Site Sedimentation and Erosion Control</b>					\$1,500.00
Inlet Protection and Erosion Mitigation	1	ls	\$1,500.00	\$1,500.00	
<b>Site Earthwork</b>					\$5,000.00
Rough Grading	1	ls	\$5,000.00	\$5,000.00	
<b>Trail Surfacing</b>					\$79,200.00
10' Wide Asphalt Paved Separate Trail (0.30 Miles)	15,840	sf	\$5.00	\$79,200.00	
<b>Site Plant Material</b>					\$8,000.00
Overstory Trees	20	ea	\$400.00	\$8,000.00	
<b>Site Amenities</b>					\$1,000.00
Trail Signage (Every 0.50 Mile)	2	ea	\$500.00	\$1,000.00	
<b>Sub-Total</b>					<b>\$111,700.00</b>
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					<b>\$26,808.00</b>
<b>Total</b>					<b>\$138,508.00</b>

## Separate Trail

A separate trail is proposed as an extension from the existing trail, cutting west into town through the cemetery. Separate bike trails provide a safe space for people who find it challenging to bike alongside high-speed vehicular traffic. Areas of the proposed route run through privately-owned land and landowners would need to be consulted to discuss the addition of such trails in Merville.



## Shared Road

Many towns across the nation have chosen to make bicyclists a common roadway element by designating roads as shared roadways. This designation must be accompanied by ample signage and painted pavement markings as seen in the image to the left. Along residential roads, directing cyclists to use the road will free up sidewalks for pedestrians.



A. Perspective looking south showing the proposed separate trail that runs west of the MYRA Fields.



B. Perspective of proposed shared road trail along paired Humboldt Avenue at the entrance to the cemetery.



Base map showing potential trails and trail connections throughout the community.

**Jeffrey L. Bruce and Company LLC**

Landscape Architect: Eric Doll, PLA, ASLA

Interns: Jeremy Johnson and Rosie Manzo

Iowa State University | Trees Forever | Iowa Department of Transportation

## Recreation: Parks

### Main Street Park

Main Street Park is centrally located in town along Main Street and has several recently upgraded amenities including a large shelter, playground, and basketball court surfacing. During the design charrette meeting, members of the community noted that there is limited ADA access to the shelter. The proposed design aims to provide more substantial ADA access with designated signage, pavement markings, and additional paved areas.

### Midway Park

Several community members noted the recent efforts of high school students working to improve a county park north of town. The design team incorporated the students' vision for recreation at Midway Park into a spatial landscape plan that includes a swimming area, and an outdoor classroom.

### Memorial Park

Memorial Park is located on the south side of town just east of Haskell Pool. Memorial Park offers a community gathering shelter, a playground, and some open space.

Moville community members noted that Memorial Park has safety concerns because of the various vehicular roadways penetrating the park. Pearl Street is the major roadway that divides the park and there is a smaller access road to the southeast that adds more opportunity for pedestrian conflict. The design plan calls for the removal of the southeastern access road and the addition of a designated pedestrian walkway. Improved ADA accessibility is also desired throughout the park area.

## Design Expertise Recommended

Projects may require help beyond the capability of the Moville steering committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a landscape architect and civil 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.

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

## Recreation: Parks

Main Street Park					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Site Earthwork</b>					\$6,000.00
Rough Grading	1	ls	\$6,000.00	\$6,000.00	
<b>Site Hardscape</b>					\$10,500.00
New Concrete Parking Areas	1,500	sf	\$7.00	\$10,500.00	
<b>Site Amenities</b>					\$660.00
Handicapped Parking Sign	2	ea	\$80.00	\$160.00	
Parking Line Painting	1	ls	\$500.00	\$500.00	
<b>Sub-Total</b>					<b>\$17,160.00</b>
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					<b>\$4,118.00</b>
<b>Total</b>					<b>\$21,278.00</b>

Midway Park					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Demolition/Site Preparation</b>					\$5,000.00
Clearing and Grubbing	1	ls	\$5,000.00	\$5,000.00	
<b>Site Sedimentation and Erosion Control</b>					\$2,500.00
Erosion Mitigation	1	ls	\$2,500.00	\$2,500.00	
<b>Site Utilities</b>					\$15,000.00
Electrical Service (Outlet and Circuiting)	1	ls	\$15,000.00	\$15,000.00	
<b>Site Earthwork</b>					\$5,000.00
Rough Grading	1	ls	\$5,000.00	\$5,000.00	
<b>Site Hardscape</b>					\$52,800.00
8' Wide Asphalt Loop Trail (0.25 miles)	10,560	sf	\$5.00	\$52,800.00	
<b>Site Amenities</b>					\$74,500.00
Pedestrian Lighting (LED Lighting)	3	ea	\$8,000.00	\$24,000.00	
Sand Volleyball Court	1	ea	\$10,000.00	\$10,000.00	
Restored Sand Swimming Beach	1	ls	\$20,000.00	\$20,000.00	
Floating Fishing Dock	1	ls	\$8,000.00	\$8,000.00	
Outdoor Classroom	1	ls	\$7,500.00	\$7,500.00	
Ropes/Obstacle Course	1	ls	\$5,000.00	\$5,000.00	
<b>Sub-Total</b>					<b>\$154,800.00</b>
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					<b>\$37,152.00</b>
<b>Total</b>					<b>\$191,952.00</b>

Memorial Park					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Demolition/Site Preparation</b>					\$21,000.00
Mobilization	1	ls	\$6,000.00	\$6,000.00	
Access Road and Sidewalk Removal	1	ls	\$15,000.00	\$15,000.00	
<b>Site Sedimentation and Erosion Control</b>					\$1,500.00
Inlet Protection and Erosion Mitigation	1	ls	\$1,500.00	\$1,500.00	
<b>Site Earthwork</b>					\$5,000.00
Rough Grading	1	ls	\$5,000.00	\$5,000.00	
<b>Site Plant Material</b>					\$6,300.00
Overstory Trees	12	ea	\$400.00	\$4,800.00	
General Site Seeding	1	ls	\$1,500.00	\$1,500.00	
<b>Site Hardscape</b>					\$24,100.00
New Paved ADA Parking Area	1,500	sf	\$7.00	\$10,500.00	
ADA Curb Ramps for Miller Blvd. Crossing	2	ea	\$1,200.00	\$2,400.00	
8' Wide Concrete Separate Walkway from Miller Blvd. to Park Shelter	1,600	sf	\$7.00	\$11,200.00	
<b>Site Amenities</b>					\$660.00
Handicapped Parking Sign	2	ea	\$80.00	\$160.00	
Parking Line Painting	1	ls	\$500.00	\$500.00	
<b>Sub-Total</b>					<b>\$58,560.00</b>
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					<b>\$14,054.00</b>
<b>Total</b>					<b>\$72,614.00</b>

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## Main Street Park

Main Street Park is centrally located in town along Main Street and has several recently upgraded amenities including a large shelter, playground, and basketball court surfacing. During the design charrette meeting, members of the community noted that there is limited ADA access to the shelter. The proposed design aims to provide more subintitl ADA access with designated signage, pavement markings, and additional paved areas.

## Midway Park

Several community members noted the recent efforts of high school students working to improve a county park north of town. The design team incorporated the students' vision for recreation at Midway Park into a spatial landscape plan that includes a swimming area, and an outdoor classroom.



Plan highlighting an assortment of pedestrian safety improvements at Memorial Park.

## Memorial Park

Memorial Park is located on the south side of town just east of Haskell Pool. Memorial Park offers a community gathering shelter, a playground, and some open space.

Moivre community members noted that Memorial Park has safety concerns because of the various vehicular roadways penetrating the park. Pearl Street is the major roadway that divides the park and there is a smaller access road to the southeast that adds more opportunity for pedestrian conflict. The design plan calls for the removal of the southeastern access road and the addition of a designated pedestrian walkway. Improved ADA accessibility is also desired throughout the park area.



Perspective showing Main Street Park ADA improvements.



Midway Park plan with proposed trail connection, beach, and recreation areas.



Historic photo of swimming at Midway Park.



Example of an outdoor classroom.



Fishing line disposal unit.



Example of an obstacle course.



Camping is desired at Midway Park.



Perspective A showing the proposed improvements at Midway Park.

**Moivre**

Recreation: Parks

**Jeffrey L. Bruce and Company LLC**

Landscape Architect: Eric Doll, PLA, ASLA

Interns: Jeremy Johnson and Rosie Manzo

Iowa State University | Trees Forever | Iowa Department of Transportation

**Iowa's Living Roadways**  
**community**  
**visioning**

## Bleil Recreation Area

The Bleil Recreation Area is a centrally located community park with passively programmed outdoor activity. Along with programmed soccer play, Bleil boasts a newly installed 9-hole disc golf course that takes advantage of the hilly topography.

The community noted the need for Bleil to offer a trail providing better access and connectivity to the nearby MYRA Baseball Fields and newer housing developments to the north and east. The design proposal identifies a smaller trailhead area at the northeast corner with the trail heading west, north of the drainage swale. A small bridge is proposed over the drainage swale to provide central access to the trail.

### Design Expertise Recommended

Projects may require help beyond the capability of the Merville steering committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a landscape architect and civil 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.

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

**Bleil Recreation Area****Trail and Walkway Improvements**

<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
<b>Demolition/Site Preparation</b>					\$12,000.00
Mobilization	1	ls	\$10,000.00	\$10,000.00	
Clearing and Grubbing	1	ls	\$2,000.00	\$2,000.00	
<b>Site Utilities</b>					\$15,000.00
Electrical Service (Outlet and Circuiting)	1	ls	\$15,000.00	\$15,000.00	
<b>Site Sedimentation and Erosion Control</b>					\$1,500.00
Inlet Protection and Erosion Mitigation	1	ls	\$1,500.00	\$1,500.00	
<b>Site Earthwork</b>					\$10,000.00
Rough Grading	1	ls	\$6,000.00	\$6,000.00	
Fine Grading	1	ls	\$4,000.00	\$4,000.00	
<b>Site Hardscape</b>					\$108,900.00
10' Wide Concrete Trail from 4th Street to 2nd Street (750 lf)	7,500	sf	\$7.00	\$52,500.00	
8' Wide Secondary Concrete Trail South of Soccer Fields (600 lf)	4,800	sf	\$7.00	\$33,600.00	
New 5' Sidewalk along East Side of Park	400	sf	\$7.00	\$2,800.00	
Wood Pedestrian Bridge over Drainage Swale	1	ls	\$20,000.00	\$20,000.00	
<b>Site Plant Material</b>					\$8,000.00
Overstory Trees	20	ea	\$400.00	\$8,000.00	
<b>Site Amenities</b>					\$65,800.00
Pedestrian Lighting (LED Lighting)	8	ea	\$8,000.00	\$64,000.00	
Way-finding Sign	1	ea	\$1,800.00	\$1,800.00	
<b>Sub-Total</b>					\$221,200.00
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					\$53,088.00
<b>Total</b>					\$274,288.00

**New Trailhead Area**

<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
<b>Demolition/Site Preparation</b>					\$3,000.00
Mobilization	1	ls	\$2,000.00	\$2,000.00	
Clearing and Grubbing	1	ls	\$1,000.00	\$1,000.00	
<b>Site Sedimentation and Erosion Control</b>					\$500.00
Inlet Protection and Erosion Mitigation	1	ls	\$500.00	\$500.00	
<b>Site Earthwork</b>					\$1,250.00
Rough Grading	1	ls	\$1,250.00	\$1,250.00	
<b>Site Hardscape</b>					\$9,650.00
Brick Paved Trailhead Gathering Area (15-foot by 30-foot)	450	sf	\$9.00	\$4,050.00	
Concrete Parking Area	800	sf	\$7.00	\$5,600.00	
<b>Site Utilities</b>					\$7,500.00
Electrical Service (Outlet and Circuiting)	1	ls	\$7,500.00	\$7,500.00	
<b>Site Plant Material</b>					\$2,700.00
Native Prairie and Wildflower Seeding Mix	1	ls	\$1,500.00	\$1,500.00	
Overstory and Evergreen Trees	3	ea	\$400.00	\$1,200.00	
<b>Site Amenities</b>					\$12,700.00
Trailhead/Park Informational Sign	1	ea	\$2,000.00	\$2,000.00	
Pedestrian LED Lighting	1	ea	\$8,000.00	\$8,000.00	
Bench	1	ea	\$800.00	\$800.00	
Trash Receptacle	1	ea	\$400.00	\$400.00	
Bollard	6	ea	\$250.00	\$1,500.00	
<b>Sub-Total</b>					\$37,300.00
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					\$8,952.00
<b>Total</b>					\$46,252.00



Perspective of proposed trail connection into Bleil Recreation Area.

**Bleil Recreation Area**

The Bleil Recreation Area is a centrally located community park with passively programmed outdoor activity. Along with programmed soccer play, Bleil boasts a newly installed 9-hole disc golf course that takes advantage of the hilly topography.

The community noted the need for Bleil to offer a trail providing better access and connectivity to the nearby MYRA Baseball Fields and newer housing developments to the north and east. The design proposal identifies a smaller trailhead area at the northeast corner with the trail heading west, north of the drainage swale. A small bridge is proposed over the drainage swale to provide central access to the trail.



Perspective A looking northwest showing proposed trail to 2nd Street with lighting and creek-side plantings.



Perspective B looking southwest showing the proposed trailhead area at N 4th and Sunset Streets.

**Moville**

Bleil Recreation Area

**Jeffrey L. Bruce and Company LLC**  
Landscape Architect: Eric Doll, PLA, ASLA  
Interns: Jeremy Johnson and Rosie Manzo  
Iowa State University | Trees Forever | Iowa Department of Transportation

## Accessibility/Safety

### 2nd Street Crossing

The addition of paved sidewalks with curb and gutter creates a safe environment for pedestrians from vehicular traffic. During ball games, the MYRA fields are filled with spectators and ball players, many who cross 2nd Street. The amount of foot traffic warrants the addition of painted crosswalks, signage, and pedestrian intersection amenities to communicate to drivers where pedestrians are crossing the drive lane.

### Fair Street and Main Street

The intersection of Main and Fair Streets is challenging for drivers and pedestrians because of visibility at the stop sign and traffic when the fair is occurring. This design proposal relocates this entrance to align with Pinney Road as well as a curb bump-out for an improved Main Street pedestrian crossing.

## Design Expertise Recommended

Projects may require help beyond the capability of the Merville steering committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a landscape architect and civil 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.

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## Accessibility and Safety

### 2nd Street Sidewalk Improvements

Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Demolition/Site Preparation</b>					\$10,000.00
Mobilization	1	ls	\$5,000.00	\$5,000.00	
Site Survey	1	ls	\$3,000.00	\$3,000.00	
Clearing and Grubbing	1	ls	\$2,000.00	\$2,000.00	
<b>Site Utilities</b>					\$15,000.00
Storm Sewer Coordination and Connections	1	ls	\$15,000.00	\$15,000.00	
<b>Site Sedimentation and Erosion Control</b>					\$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
<b>Site Earthwork</b>					\$5,000.00
Rough Grading	1	ls	\$5,000.00	\$5,000.00	
<b>Site Hardscape</b>					\$128,850.00
New 8' Wide Sidewalk from Ash Street to 150th Street on West Side of 2nd Street	6,400	sf	\$7.00	\$44,800.00	
New Sidewalks on East Side of 2nd Street (500 lf at 5' Width)	2,500	sf	\$7.00	\$17,500.00	
Concrete Curb and Gutter along New Sidewalks	1,250	lf	\$35.00	\$43,750.00	
Brick or Colored Concrete Paved Intersection	1,200	sf	\$9.00	\$10,800.00	
ADA Curb Ramps for Miller Blvd. Crossing	10	ea	\$1,200.00	\$12,000.00	
<b>Site Amenities</b>					\$3,000.00
Crosswalk Pavement Markings	1	ls	\$1,000.00	\$1,000.00	
Sidewalk Crossing Signage	2	ea	\$400.00	\$800.00	
Trash/Recycling Receptacle	2	ea	\$600.00	\$1,200.00	
<b>Sub-Total</b>					\$166,850.00
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					\$40,044.00
<b>Total</b>					\$206,894.00

### Main Street, Fair Street, and Fairgrounds Entrance Improvements

Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Demolition/Site Preparation</b>					\$18,500.00
Mobilization	1	ls	\$1,500.00	\$1,500.00	
Removal of Corner of Main Street for Bump Out	1	ls	\$5,000.00	\$5,000.00	
Tree Removal	1	ls	\$2,000.00	\$2,000.00	
Removal of Existing Fairgrounds Entrance Drive	1	ls	\$10,000.00	\$10,000.00	
<b>Site Utilities</b>					\$15,000.00
Storm Sewer Coordination and New Culvert Under Road	1	ls	\$15,000.00	\$15,000.00	
<b>Site Sedimentation and Erosion Control</b>					\$2,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$2,000.00	\$2,000.00	
<b>Site Earthwork</b>					\$7,500.00
Rough Grading and Soil Filling	1	ls	\$7,500.00	\$7,500.00	
<b>Site Hardscape</b>					\$36,800.00
Gravel Surfacing Patching and Repair (General)	1	ls	\$5,000.00	\$5,000.00	
ADA Curb Ramps for Main Street Crossing	2	ea	\$1,200.00	\$2,400.00	
Concrete Curb and Gutter for New Bump Out	120	lf	\$35.00	\$4,200.00	
New Paved Entry into Fairgrounds at Pinney Road	3,600	sf	\$7.00	\$25,200.00	
<b>Site Amenities</b>					\$500.00
Crosswalk Pavement Marking	1	ls	\$500.00	\$500.00	
<b>Sub-Total</b>					\$80,300.00
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					\$19,272.00
<b>Total</b>					\$99,572.00

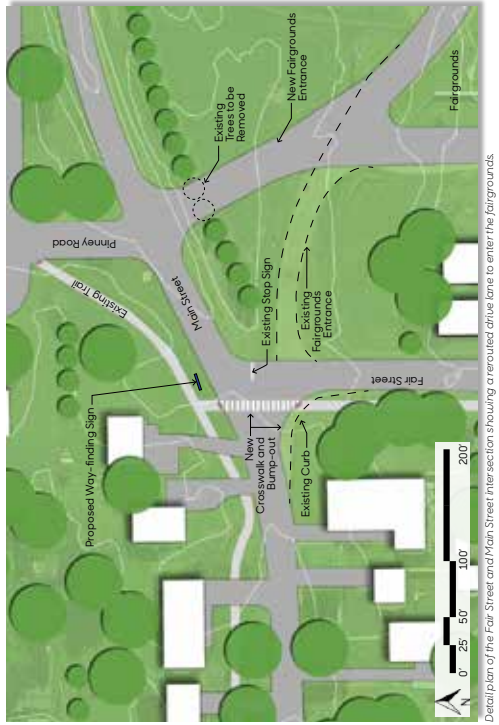


### 2nd Street Crossing

The addition of paved sidewalks with curb and gutter creates a safe environment for pedestrians from vehicular traffic. During ball games, the MYRA fields are filled with spectators and ball players, many who cross 2nd Street. The amount of foot traffic warrants the addition of painted crosswalks, signage, and pedestrian intersection amenities to communicate to drivers where pedestrians are crossing the drive lane.

### Fair Street and Main Street

The intersection of Main and Fair Streets is challenging for drivers and pedestrians because of visibility at the stop sign and traffic when the fair is occurring. This design proposal relocates this entrance to align with Pinney Road as well as a curb bump-out for an improved Main Street pedestrian crossing.



## Way-finding Signage

Moville has two community entrance signs located at the north and west entrances into the community. Moville has a strong set of park entrance signs throughout town and north of town at Midway Park. A prominent entrance sign is proposed for the southeast entrance of town at the intersection of Fair Street and Frontage Road. Additional vehicle and pedestrian way-finding signage will help direct visitors to amenities such as the MYRA Ball fields, city pool, and fairgrounds. Effective signage displays information in a clear and consistent manner.

Creating a consistent family of signage throughout the community helps to enhance Moville's identity. Displayed on this board are several options for way-finding and entry signage inspired by existing signage and community amenities.

## Design Expertise Recommended

Projects may require help beyond the capability of the Moville 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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lf = linear foot                      ls = lump sum                      sf = square foot                      sy = square yard

Way-finding Signage					
Way-finding/Branding Signage Options (à la carte)					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Entry Signs</b>					
Prominent Entry Sign Wall with Uplighting	1	ea	\$15,000.00	\$15,000.00	
Stone Entry Sign	1	ea	\$4,500.00	\$4,500.00	
<b>Way-finding Signs</b>					
Vehicle Way-finding Sign on Posts (#1)	1	ea	\$3,500.00	\$3,500.00	
Vehicle Way-finding Sign on Post (#2)	1	ea	\$3,000.00	\$3,000.00	
Pedestrian Way-finding Sign on Post	1	ea	\$1,800.00	\$1,800.00	
Trailhead/Park Informational Sign	1	ea	\$2,000.00	\$2,000.00	
Custom Sign Topper	1	ea	\$500.00	\$500.00	



Map showing existing and proposed signage types throughout the community.

### Way-finding and Branding

Moville has two community entrance signs located at the north and west entrances into the community. Moville has a strong set of park entrance signs throughout town and north of town at Midway Park. A prominent entrance sign is proposed for the southeast entrance of town at the intersection of Fair Street and Frontage Road. Additional vehicle and pedestrian way-finding signage will help direct visitors to amenities such as the MYRA Ball fields, city pool, and fairgrounds. Effective signage displays information in a clear and consistent manner. Creating a consistent family of signage throughout the community helps to enhance Moville's identity. Displayed on this board are several options for way-finding and entry signage inspired by existing signage and community amenities.

## Moville Way-finding/Signage

**Jeffrey L. Bruce and Company LLC**  
Landscape Architect: Eric Doll, PLA, ASLA  
Interns: Jeremy Johnson and Rosie Manzo  
Iowa State University | Trees Forever | Iowa Department of Transportation



**Iowa's Living Roadways**  
**community visioning**

# Main Street Revitalization

Moville's Main Street is unique in that there can be many steps from the street to access a storefront. The proposed design takes a comprehensive approach to ADA accessibility, energy efficiency, economic development, and green infrastructure. This design proposes to modify the street width and road elevation to meet store entryway elevations without steps and provide more pedestrian-friendly amenities such as street trees.

The landmark flag pole at the intersection of 2nd Street and Main Street is a great opportunity to create an enhanced focal point for Main Street with plenty of space to increase pedestrian areas with bump-outs. Painted road markings and colored paving make it safer for cars to navigate the intersection as well.

## Design Expertise Recommended

Projects may require help beyond the capability of the Moville steering committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a landscape architect and civil 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

## Main Street Improvements

### Street Reconstruction from Highway 140 to 2nd Street, Façade to Façade - Excluding 2nd and Main Intersection

Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Demolition and Site Preparation</b>					\$239,086.00
Site Survey, Mobilization, Traffic Control, and SWPPP Documentation	1	ls	\$25,000.00	\$25,000.00	
Street Removal for New Paved Street (50,800 sf)	5,644	sy	\$30.00	\$169,333.00	
Sidewalk Removal (11,100 sf)	1,233	sy	\$25.00	\$30,833.00	
Curb and Gutter Removals (1,160 lf)	1,160	lf	\$12.00	\$13,920.00	
<b>Site Utilities</b>					\$150,000.00
Electrical Service/Coordination (Outlet and Circuiting)	1	ls	\$50,000.00	\$50,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$100,000.00	\$100,000.00	
<b>Site Earthwork</b>					\$125,000.00
Rough Grading, Excavation, Filling, and Site Preparation	1	ls	\$125,000.00	\$125,000.00	
<b>Site Hardscape</b>					\$469,100.00
New Curb and Gutter on Both Sides of Street	1,180	lf	\$35.00	\$41,300.00	
New Sidewalks from Storefront to Biocell	9,000	sf	\$7.00	\$63,000.00	
New Street Pavement	45,000	sf	\$8.00	\$360,000.00	
ADA Curb Ramps	4	ea	\$1,200.00	\$4,800.00	
<b>Stormwater Biocells along North Side of Main Street</b>					\$96,400.00
Biocells - Installed Components including Designed Soil, Gravel, Subdrainage, Street Trees, Tree Grates, Curb Cuts, Etc.)	3,800	sf	\$18.00	\$68,400.00	
Sidewalk Pavement over Biocells	3,500	sf	\$8.00	\$28,000.00	
<b>Site Amenities</b>					\$110,700.00
New Street Light Poles and Banners	8	ea	\$12,000.00	\$96,000.00	
Miscellaneous Pavement Markings	1	ls	\$7,500.00	\$7,500.00	
Way-finding Signage	4	ea	\$1,800.00	\$7,200.00	
<b>Sub-Total</b>					\$1,190,286.00
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					\$285,669.00
<b>Total</b>					\$1,475,955.00

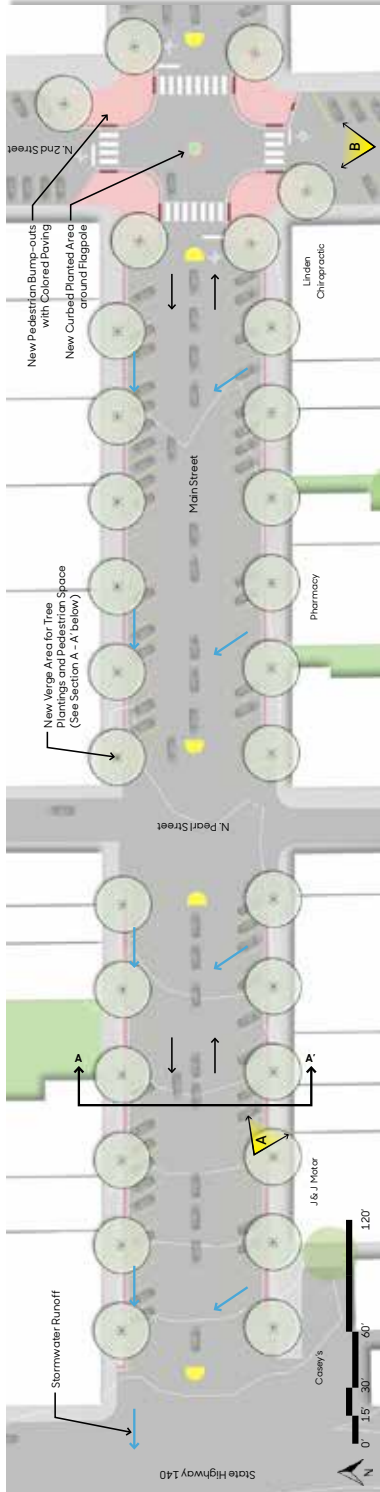
### 2nd and Main Intersection Improvements

Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Demolition and Site Preparation</b>					\$34,640.00
Site Survey, Mobilization, and Traffic Control	1	ls	\$10,000.00	\$10,000.00	
Street Removal for Bump-outs and Crosswalks (6,600 sf)	733	sy	\$30.00	\$22,000.00	
Curb and Gutter Removals (220 lf)	220	lf	\$12.00	\$2,640.00	
<b>Site Utilities</b>					\$20,000.00
Electrical Service/Coordination (Outlet and Circuiting)	1	ls	\$5,000.00	\$5,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$15,000.00	\$15,000.00	
<b>Site Earthwork</b>					\$2,500.00
Rough Grading	1	ls	\$2,500.00	\$2,500.00	
<b>Site Hardscape</b>					\$75,305.00
New Curb and Gutter for Bump-outs	425	lf	\$35.00	\$14,875.00	
New Curb and Gutter around Flagpole	38	lf	\$35.00	\$1,330.00	
Brick or Colored Concrete Bump-out Areas	4,000	sf	\$9.00	\$36,000.00	
Brick or Colored Concrete Crosswalks	1,500	sf	\$9.00	\$13,500.00	
ADA Curb Ramps	8	ea	\$1,200.00	\$9,600.00	
<b>Plant Material</b>					\$4,400.00
Planting Soil for Tree Pits	1	ls	\$1,000.00	\$1,000.00	
Street Trees	6	ea	\$400.00	\$2,400.00	
Plantings around Flagpole	1	ls	\$1,000.00	\$1,000.00	
<b>Site Amenities</b>					\$52,350.00
New Street Light Poles and Banners	4	ea	\$12,000.00	\$48,000.00	
Miscellaneous Pavement Markings	1	ls	\$750.00	\$750.00	
Way-finding Signage	2	ea	\$1,800.00	\$3,600.00	
<b>Sub-Total</b>					\$189,195.00
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					\$45,407.00
<b>Total</b>					\$234,602.00

## Main Street Revitalization

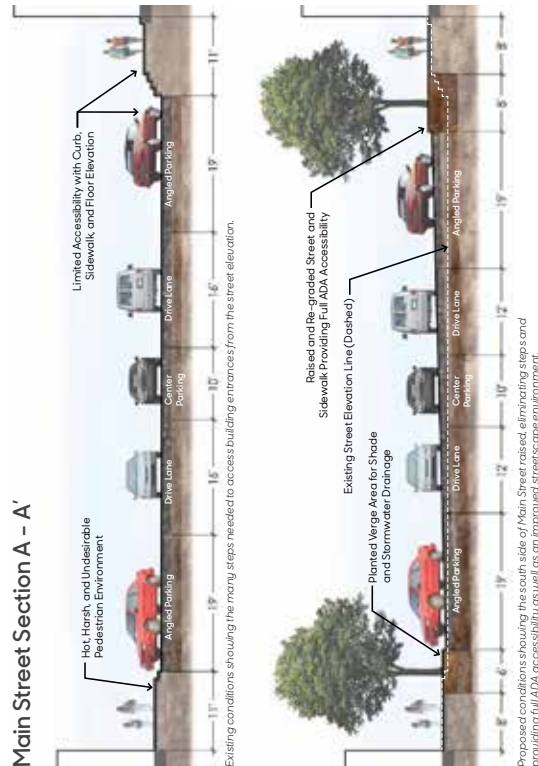
Moville's Main Street is unique in that there can be many steps from the street to access a storefront. The proposed design takes a comprehensive approach to ADA accessibility, energy efficiency, economic development, and green infrastructure. This design proposes to modify the street width and road elevation to meet store entryway elevations without steps and provide more pedestrian-friendly amenities such as street trees.

The landmark flag pole at the intersection of 2nd Street and Main Street is a great opportunity to create an enhanced focal point for Main Street with plenty of space to increase pedestrian areas with bump-outs. Painted road markings and colored paving make it safer for cars to navigate the intersection as well.



Plan of proposed changes to Main Street.

## Main Street Section A - A'



Perspective A showing the existing streetscape condition with steps



Proposed streetscape conditions with no steps by raising the elevation along the south side of Main Street.



Parental investment theory predicts that parents should invest more in their offspring when the cost of doing so is low and the benefit is high. In this study, we found that parents invest more in their offspring when the cost of doing so is low and the benefit is high.

# Movile

# Main Street Revitalization

**Jeffrey L. Bruce and Company LLC**

Landscape Architect: Eric Doll, PLA, ASLA

Interns: Jeremy Johnson and Rosie Manzo

Iowa State University | Trees Forever | Iowa Department of Transportation

# West Frontage Road

## Design Expertise Recommended

Projects may require help beyond the capability of the Movable steering committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a landscape architect and civil engineer.

## Project Scope and Cost Opinion

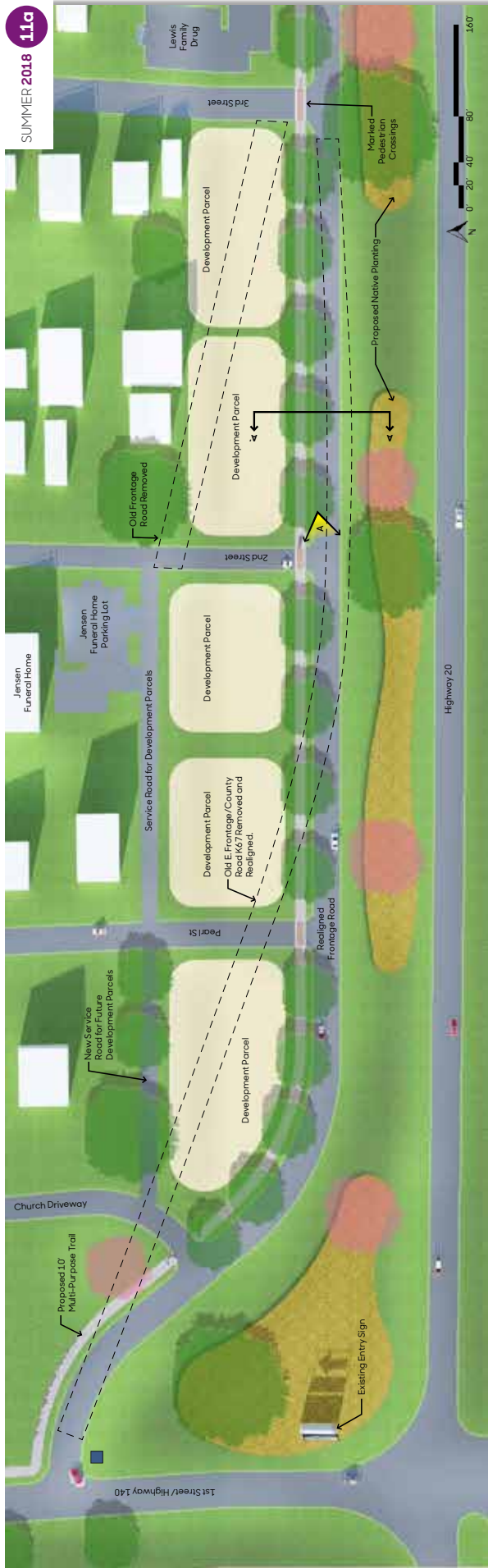
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lf = linear foot                      ls = lump sum                      sf = square foot                      sy = square yard

West Frontage Road					
Frontage Road Realignment from Highway 148 to 3rd Street					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Demolition/Site Preparation</b>					\$350,000.00
Site Survey, Mobilization, Traffic Control, and SWPPP Documentation	1	ls	\$25,000.00	\$25,000.00	
Clearing and Grubbing	1	ls	\$10,000.00	\$10,000.00	
General Land Purchasing	1	ls	\$100,000.00	\$100,000.00	
East Frontage Road Removal (34,000 sf)	3,778	sy	\$30.00	\$113,333.00	
Frontage Road Removal (23,000 sf)	2,556	sy	\$30.00	\$76,667.00	
Miscellaneous Gravel and Driveway Removals	1	ls	\$25,000.00	\$25,000.00	
<b>Site Utilities</b>					\$125,000.00
Electrical Service/Coordination (Outlet and Circuiting)	1	ls	\$75,000.00	\$75,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$50,000.00	\$50,000.00	
<b>Site Sedimentation and Erosion Control</b>					\$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
<b>Site Earthwork (Topsoil, Strip, Salvage, and Spread)</b>					\$120,000.00
Rough Grading	1	ls	\$40,000.00	\$40,000.00	
Fine Grading	1	ls	\$80,000.00	\$80,000.00	
<b>Site Hardscape</b>					\$544,500.00
New Paved Realigned Frontage Road (35,500 sf)	35,500	sf	\$7.00	\$248,500.00	
Concrete Curb and Gutter on Both Sides of Road	2,800	lf	\$35.00	\$98,000.00	
New Paved Service Road from S 2nd Street to Methodist Church Driveway	14,000	sf	\$7.00	\$98,000.00	
Miscellaneous Gravel and Driveway Replacement Paving	1	ls	\$100,000.00	\$100,000.00	
Proposed Separate Trail (See 7a Recreation: Trails Cost Estimate)					
<b>Site Amenities</b>					\$101,600.00
New Street Light Poles and Banners	8	ea	\$12,000.00	\$96,000.00	
Miscellaneous Pavement Markings	1	ls	\$2,000.00	\$2,000.00	
Way-finding Signage	2	ea	\$1,800.00	\$3,600.00	
<b>Site Plant Material</b>					\$43,900.00
Native Prairie Seedbed Preparation	1	ls	\$5,000.00	\$5,000.00	
Native Prairie and Wildflower Seed Mix along Highway 30 R.O.W.	1	ls	\$7,500.00	\$7,500.00	
Overstory Trees	35	ea	\$400.00	\$14,000.00	
Ornamental Trees	5	ea	\$300.00	\$1,500.00	
Shrubs	12	ea	\$75.00	\$900.00	
Grass Seeding	1	ls	\$15,000.00	\$15,000.00	
<b>Sub-Total</b>					\$1,290,000.00
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					\$309,600.00
<b>Total</b>					\$1,599,600.00

SUMMER 2018 11a



Aerial enlargement of the proposed realignment of Frontage Road from Highway 148 to 3rd Street.



Perspective A showing proposed reorganization of Frontage Road looking west towards Pearl Street with a separated bike lane and way-finding signage.



Section cut A-A through the proposed realignment and development of the western portion of Frontage Road.

# Moville West Frontage Road

**Jeffrey L. Bruce and Company LLC**  
Landscape Architects: Eric Doll, PLA, ASLA  
Interns: Jeremy Johnson and Rosie Manzo  
Iowa State University | Trees Forever | Iowa Department of Transportation



# East Frontage Road #1

## Design Expertise Recommended

Projects may require help beyond the capability of the Movable steering committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a landscape architect and civil 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.

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East Frontage Road #1					
Frontage Road Streetscape Improvements from Fair Street to 3rd Street					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Demolition/Site Preparation</b>					\$293,333.00
Site Survey, Mobilization, Traffic Control, and SWPPP Documentation	1	ls	\$30,000.00	\$30,000.00	
Clearing and Grubbing	1	ls	\$20,000.00	\$20,000.00	
Retaining Wall Removal at Fair Street Corner	1	ls	\$10,000.00	\$10,000.00	
Frontage Road Removal (55,000 sf)	6,111	sy	\$30.00	\$183,333.00	
Miscellaneous Gravel, Parking Area, and Driveway Removals	1	ls	\$50,000.00	\$50,000.00	
<b>Site Utilities</b>					\$100,000.00
Electrical Service/Coordination (Outlet and Circuiting)	1	ls	\$50,000.00	\$50,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$50,000.00	\$50,000.00	
<b>Site Sedimentation and Erosion Control</b>					\$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
<b>Site Earthwork (Topsoil, Strip, Salvage, and Spread)</b>					\$125,000.00
Rough Grading	1	ls	\$50,000.00	\$50,000.00	
Fine Grading	1	ls	\$75,000.00	\$75,000.00	
<b>Site Hardscape</b>					\$574,400.00
New Paved Realigned Frontage Road (34,700 sf)	34,700	sf	\$7.00	\$242,900.00	
Concrete Curb and Gutter on Both Sides of Road	2,900	lf	\$35.00	\$101,500.00	
New Entry Sign Retaining Wall with Up lighting	1	ls	\$30,000.00	\$30,000.00	
Miscellaneous Gravel, Parking Lot, and Driveway Paving	1	ls	\$150,000.00	\$150,000.00	
Miscellaneous Retaining Walls to Make Grade	1	ls	\$50,000.00	\$50,000.00	
Proposed Separate Trail (See 7a Recreation: Trails Cost Estimate)					
<b>Site Amenities</b>					\$113,600.00
New Street Light Poles and Banners	8	ea	\$12,000.00	\$96,000.00	
Miscellaneous Pavement Markings	1	ls	\$2,000.00	\$2,000.00	
Trailhead at Doller General Site	1	ls	\$12,000.00	\$12,000.00	
Way-finding Signage	2	ea	\$1,800.00	\$3,600.00	
<b>Site Plant Material</b>					\$40,400.00
Native Prairie Seedbed Preparation	1	ls	\$5,000.00	\$5,000.00	
Native Prairie and Wildflower Seed Mix along Highway 30 R.O.W.	1	ls	\$7,500.00	\$7,500.00	
Overstory Trees	30	ea	\$400.00	\$12,000.00	
Ornamental Trees	8	ea	\$300.00	\$2,400.00	
Shrubs	20	ea	\$75.00	\$1,500.00	
Grass Seeding	1	ls	\$12,000.00	\$12,000.00	
<b>Sub-Total</b>					\$1,251,733.00
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					\$300,416.00
<b>Total</b>					\$1,552,149.00

SUMMER 2018 11b



Bird's eye view showing the proposed routing of a 10' wide multi-purpose trail starting at a trailhead on Fair Street heading west along the north side of Frontage Road



Perspective A looking east in front of Subway showing the proposed trail and a reorganized parking area



Perspective B showing an optional community entry sign that is illuminated at night and visible from Highway 20

**Moville**

## East Frontage Road #1

**Jeffrey L. Bruce and Company LLC**

Landscape Architect: Eric Doll, PLA, ASLA

Interns: Jeremy Johnson and Rosie Manzo

Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways  
**community**  
**visioning**

# East Frontage Road #2

## Design Expertise Recommended

Projects may require help beyond the capability of the Mowille steering committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a landscape architect and civil 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:

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

East Frontage Road #2					
Frontage Road Streetscape Improvements from Fair Street to 3rd Street					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Demolition/Site Preparation</b>					\$293,333.00
Site Survey, Mobilization, Traffic Control, and SWPPP Documentation	1	ls	\$30,000.00	\$30,000.00	
Clearing and Grubbing	1	ls	\$20,000.00	\$20,000.00	
Retaining Wall Removal at Fair Street Corner	1	ls	\$10,000.00	\$10,000.00	
Frontage Road Removal (55,000 sf)	6,111	sy	\$30.00	\$183,333.00	
Miscellaneous Gravel, Parking Area, and Driveway Removals	1	ls	\$50,000.00	\$50,000.00	
<b>Site Utilities</b>					\$100,000.00
Electrical Service/Coordination (Outlet and Circuiting)	1	ls	\$50,000.00	\$50,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$50,000.00	\$50,000.00	
<b>Site Sedimentation and Erosion Control</b>					\$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
<b>Site Earthwork (Topsoil, Strip, Salvage, and Spread)</b>					\$125,000.00
Rough Grading	1	ls	\$50,000.00	\$50,000.00	
Fine Grading	1	ls	\$75,000.00	\$75,000.00	
<b>Site Hardscape</b>					\$574,400.00
New Paved Realigned Frontage Road (34,700 sf)	34,700	sf	\$7.00	\$242,900.00	
Concrete Curb and Gutter on Both Sides of Road	2,900	lf	\$35.00	\$101,500.00	
New Entry Sign Retaining Wall with Up lighting	1	ls	\$30,000.00	\$30,000.00	
Miscellaneous Gravel, Parking Lot, and Driveway Paving	1	ls	\$150,000.00	\$150,000.00	
Miscellaneous Retaining Walls to Make Grade	1	ls	\$50,000.00	\$50,000.00	
Proposed Separate Trail (See 7a Recreation: Trails Cost Estimate)					
<b>Site Amenities</b>					\$113,600.00
New Street Light Poles and Banners	8	ea	\$12,000.00	\$96,000.00	
Miscellaneous Pavement Markings	1	ls	\$2,000.00	\$2,000.00	
Trailhead at Doller General Site	1	ls	\$12,000.00	\$12,000.00	
Way-finding Signage	2	ea	\$1,800.00	\$3,600.00	
<b>Site Plant Material</b>					\$40,400.00
Native Prairie Seedbed Preparation	1	ls	\$5,000.00	\$5,000.00	
Native Prairie and Wildflower Seed Mix along Highway 30 R.O.W.	1	ls	\$7,500.00	\$7,500.00	
Overstory Trees	30	ea	\$400.00	\$12,000.00	
Ornamental Trees	8	ea	\$300.00	\$2,400.00	
Shrubs	20	ea	\$75.00	\$1,500.00	
Grass Seeding	1	ls	\$12,000.00	\$12,000.00	
<b>Sub-Total</b>					<b>\$1,251,733.00</b>
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					<b>\$300,416.00</b>
<b>Total</b>					<b>\$1,552,149.00</b>

Back-of-Business Drive and Parking Lot Improvements					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Demolition/Site Preparation</b>					\$223,333.00
Site Survey, Mobilization, Traffic Control, and SWPPP Documentation	1	ls	\$15,000.00	\$15,000.00	
General Land Purchasing	1	ls	\$100,000.00	\$100,000.00	
Building Demolition, Clearing and Grubbing	1	ls	\$75,000.00	\$75,000.00	
West and Circle Drive Pavement Removal	1,111	sy	\$30.00	\$33,333.00	
<b>Site Utilities</b>					\$100,000.00
Electrical Service (Outlet and Circuiting)	1	ls	\$25,000.00	\$25,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$75,000.00	\$75,000.00	
<b>Site Sedimentation and Erosion Control</b>					\$2,500.00
Inlet Protection and Erosion Mitigation	1	ls	\$2,500.00	\$2,500.00	
<b>Site Earthwork (Topsoil, Strip, Salvage, and Spread)</b>					\$100,000.00
Rough Grading	1	ls	\$50,000.00	\$50,000.00	
Fine Grading	1	ls	\$50,000.00	\$50,000.00	
<b>Site Hardscape</b>					\$549,500.00
Asphalt Parking Area and Access Roads (47,500 sf)	47,500	sf	\$7.00	\$332,500.00	
Concrete Curb and Gutter	2,200	lf	\$35.00	\$77,000.00	
Miscellaneous Sidewalk and Public Plaza Paving	1	ls	\$100,000.00	\$100,000.00	
Miscellaneous Retaining Walls to Make Grade	1	ls	\$40,000.00	\$40,000.00	
<b>Site Amenities</b>					\$94,600.00
Pedestrian LED Lighting	8	ea	\$8,000.00	\$64,000.00	
Miscellaneous Pavement Markings	1	ls	\$2,000.00	\$2,000.00	
Way-finding Signage	2	ea	\$1,800.00	\$3,600.00	
Miscellaneous Public Plaza Site Furnishings	1	ls	\$25,000.00	\$25,000.00	
<b>Site Plant Material</b>					\$11,250.00
Overstory Trees	10	ea	\$400.00	\$4,000.00	
Ornamental Trees	5	ea	\$300.00	\$1,500.00	
Shrubs	10	ea	\$75.00	\$750.00	
Grass Seed	1	ls	\$5,000.00	\$5,000.00	
<b>Sub-Total</b>					\$1,081,183.00
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					\$259,484.00
<b>Total</b>					\$1,340,667.00

Expanded School Grounds for Sports including Retaining Wall					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
<b>Demolition/Site Preparation</b>					\$140,000.00
Site Survey, Mobilization, Traffic Control, and SWPPP Documentation	1	ls	\$15,000.00	\$15,000.00	
General Land Purchasing	1	ls	\$50,000.00	\$50,000.00	
Building Demolition, Clearing and Grubbing	1	ls	\$75,000.00	\$75,000.00	
<b>Site Utilities</b>					\$25,000.00
Electrical Service (Outlet and Circuiting)	1	ls	\$25,000.00	\$25,000.00	
<b>Site Sedimentation and Erosion Control</b>					\$2,500.00
Inlet Protection and Erosion Mitigation	1	ls	\$2,500.00	\$2,500.00	
<b>Site Earthwork (Topsoil, Strip, Salvage, and Spread)</b>					\$175,000.00
Rough Grading	1	ls	\$100,000.00	\$100,000.00	
Fine Grading	1	ls	\$75,000.00	\$75,000.00	
<b>Site Hardscape</b>					\$440,000.00
10' High Retaining Wall (700 lf - 7,000 sf along the Face of the Wall)	7,000	sf	\$50.00	\$350,000.00	
Stairs from Parking Area to School Fields	1	ls	\$50,000.00	\$50,000.00	
Miscellaneous Sidewalk and Public Plaza Paving	1	ls	\$40,000.00	\$40,000.00	
<b>Site Amenities</b>					\$180,000.00
Athletic Field Lighting	1	ls	\$100,000.00	\$100,000.00	
Perimeter Sports Netting System	1	ls	\$80,000.00	\$80,000.00	
<b>Site Plant Material</b>					\$9,000.00
Overstory Trees	10	ea	\$400.00	\$4,000.00	
Grass Seed for Playing Fields	1	ls	\$5,000.00	\$5,000.00	
<b>Sub-Total</b>					\$971,500.00
<b>24% Contingency, Contractor Mark-Up, and Design Fees</b>					\$233,160.00
<b>Total</b>					\$1,204,660.00

SUMMER 2018 11c



Birdseye-view of proposed Frontage Road improvements with new hotel, multi-purpose trail, and reorganized vehicular circulation with enhanced public and private spaces.



Perspective A showing proposed public plaza along bike trail facing west.



Perspective B showing bike trail facing west at hotel pool.



Perspective C facing west showing proposed soccer fields and new parking area.

**Moville**

## East Frontage Road #2

**Jeffrey L. Bruce and Company LLC**

Landscape Architect: Eric Doll, PLA, ASLA

Interns: Jeremy Johnson and Rosie Manzo

Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways  
**community**  
**visioning**

# Implementation Strategies

The ILR Community Visioning Program is just the beginning of the planning process for implementation of projects that contribute to an enhanced quality of life in Merville. It is the design team's intent to continue providing Merville with professional consulting services for significant future development and enhancement of community resources.

Although professional expertise from several different backgrounds is required to successfully implement several of the identified improvement projects, a lead landscape architecture consultant is best suited to manage the design process, ensuring the community's goals understood and integrated. Architecture, civil, electrical, and structural engineer can all be managed under the landscape architect.

It is recommended that project implementation be approached in the following basic action plan:

## Year 1

### TASK 1

Schedule monthly steering committee meetings, confirm understanding scope and estimated costs of identified projects, and **prioritize the top three projects for design refinement and implementation.**

### TASK 2

Determine the most practical first project for implementation and **identify all applicable and eligible grant funding opportunities.**

### TASK 3

Utilizing Community Visioning deliverables and assistance from Trees Forever and a landscape architect, **submit application(s) for eligible and related grant programs.**

### TASK 4

Upon a successful grant application and securing funding, **develop a schedule for project design, bidding, and construction, and select and execute a contract with a landscape architect as the lead design consultant.**

## Year 2

### TASK 1

Reassess top three priority projects based on grant application success and **repeat Tasks 2 – 4 for a second project.**

## Implementation and Action Plan

The ILP Community Visioning Program is just the beginning of the planning and design process for implementation of projects that contribute to an enhanced quality of life in Corning. It is the design team's intent to continue providing Corning with professional consulting services for significant future development and enhancement of community resources.

Expertise from a team of allied professions may be needed to successfully design and implement several of the identified improvement projects. A landscape architecture consultant is best suited to lead and manage the design process. This helps ensure that the community's goals are fully integrated into the improvement projects. An architect, civil engineer, electrical engineer, and structural engineer can all be managed with subconsultant agreements under the landscape architect's prime agreement with the city.

It is recommended that project implementation be approached using the following basic action plan:

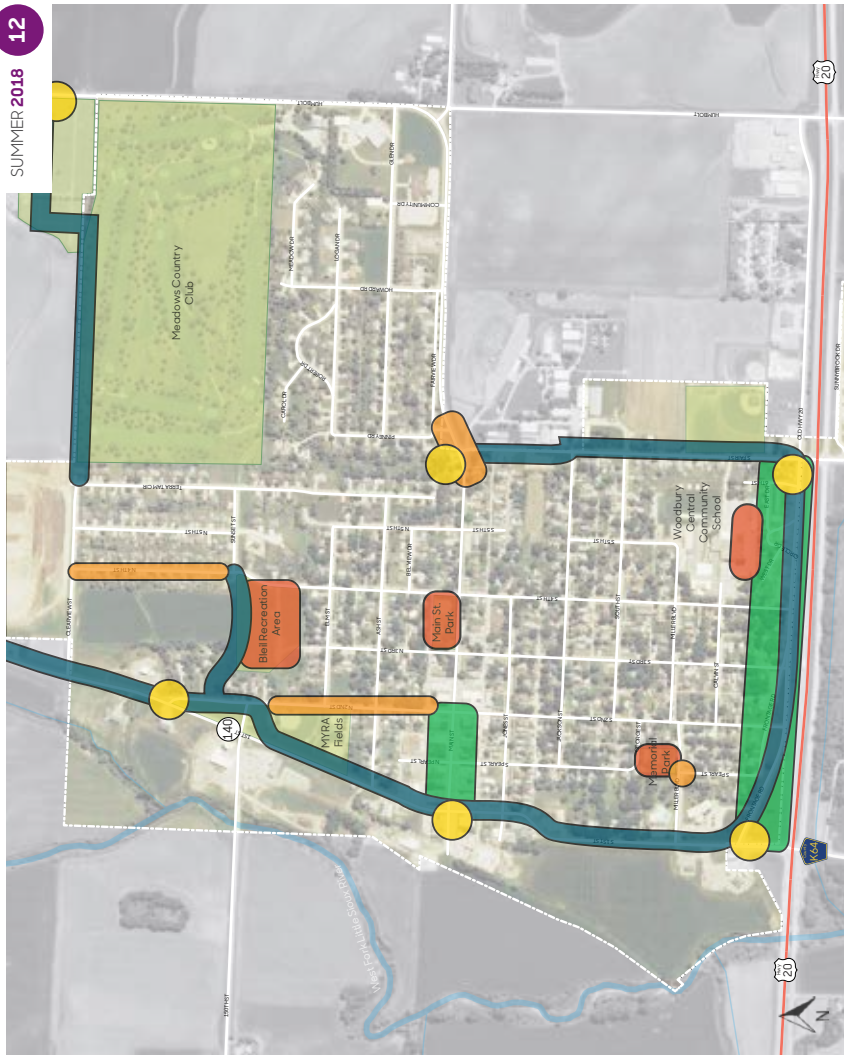
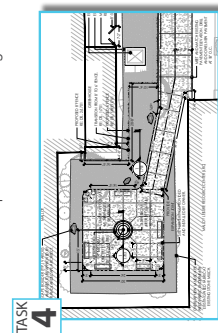
### Year 1

- TASK 1** Schedule monthly steering committee meetings, confirm understanding scope and estimated costs of identified projects, and **prioritize the top three projects for design refinement and implementation.**
- TASK 2** Determine the most practical first project for implementation and **identify all applicable and eligible grant funding opportunities.**
- TASK 3** Utilizing Community Visioning deliverables and assistance from Trees Forever and a landscape architect, **submit application(s) for eligible and related grant programs.**
- TASK 4** Upon a successful grant application and securing funding, **develop a schedule for project design, bidding, and construction, and select and execute a contract with a landscape architect as the lead design consultant.**

### Year 2

- TASK 1** Reassess top three priority projects based on grant application success and **repeat Tasks 2-4 for a second project.**

TASK 1	TASK 2	Grant Funding Opportunities
Community Visioning Project Areas	Recreation: Parks	Recreation: Parks
Accessibility and Safety	Way-finding and Branding Signage	Accessibility and Safety
Streetscape Reconstruction	Trails	Streetscape Reconstruction
		Trails



### Grant Funding Opportunities Legend

- Iowa DNR REAP**  
open space, parks, trails
- The Wellmark Foundation**  
food nutrition, healthy environments
- Keep Iowa Beautiful**  
garden tools, site furniture, point
- Iowa Economic Development Authority**  
main street, green infrastructure
- Iowa Department of Transportation**  
accessibility, trails, roadside vegetation
- Environmental Protection Agency**  
education, brownfields, innovation
- Trees Forever**  
plantings, trees, education
- Historical and Cultural Affairs**  
preservation, signage, art

Maville

## Implementation Strategies

Jeffrey L. Bruce and Company LLC

Landscape Architects: Eric Doll, PLA, ASLA

Interns: Jeremy Johnson and Rosie Manzo

Iowa State University | Trees Forever | Iowa Department of Transportation



## 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 fenton.kathleen@epa.gov	Early April	<a href="https://www.epa.gov/education/environmental-education-ee-grants">https://www.epa.gov/education/environmental-education-ee-grants</a>
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	<a href="https://www.epa.gov/exchangenetwork/fiscal-year-2017-national-environmental-information-exchange-network-grant">https://www.epa.gov/exchangenetwork/fiscal-year-2017-national-environmental-information-exchange-network-grant</a>
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	<a href="http://www.epa.gov/p2/pubs/grants/index.htm#p2grant">http://www.epa.gov/p2/pubs/grants/index.htm#p2grant</a>
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)	<a href="http://www.epa.gov/ncer">http://www.epa.gov/ncer</a>
Small Business Innovation Research (SBIR)	Competitive funding through environmental technology research at small businesses.		(Multiple Dates)	<a href="http://www.epa.gov/ncer/sbir/">http://www.epa.gov/ncer/sbir/</a>
Brownfields	EPA's Brownfields program provides direct funding for Brownfields assessment, cleanup, revolving loans, and environmental job training.	Susan Klein U.S. EPA Region 7 (913) 551-7786 Klein.Susan@epa.gov	(Multiple Dates)	<a href="http://www.epa.gov/water/funding.html">http://www.epa.gov/water/funding.html</a>
Greening America's Communities	EPA program to help cities and towns develop an implementable vision of environmentally friendly neighborhoods that incorporate innovative green infrastructure and other sustainable design strategies.	Clark Wilson (202) 566-2880 wilson.clark@epa.gov	Ongoing	<a href="https://www.epa.gov/smartgrowth/greening-americas-communities#background">https://www.epa.gov/smartgrowth/greening-americas-communities#background</a>

## Keep Iowa Beautiful

Yeoman & Company Tools Grant	The grant is available to "Friend Groups" from Iowa State Parks awarding up to \$200 in tool grants for each applicant.	Bill Jackson 300 E. Locust St. Ste 100 Des Moines, Iowa 50309 (515) 323 - 6507 bjackson@keepiowabeautiful.com	Mid April	<a href="https://keepiowabeautiful.com/grants-awards/yeoman-tools-grant/">https://keepiowabeautiful.com/grants-awards/yeoman-tools-grant/</a>
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	<a href="http://www.keepiowabeautiful.com/grants/paint-iowa-beautiful">http://www.keepiowabeautiful.com/grants/paint-iowa-beautiful</a>
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	<a href="http://www.keepiowabeautiful.com/grants/build-with-bags">www.keepiowabeautiful.com/grants/build-with-bags</a>

## 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. Funding is generally limited to industrial, manufacturing, warehousing, distribution, and professional office developments, with few exceptions.	Jennifer Kolacia (515) 239-1738 Jennifer.Kolacia@dot.iowa.gov	Ongoing	<a href="http://www.iowadot.gov/systems_planning/rise.htm">http://www.iowadot.gov/systems_planning/rise.htm</a>
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 · Encouraging the use of professional design services to enhance the quality of projects	Leslie Berckes Trees Forever 770 7th Avenue Marion, Iowa 52302 (515) 681 - 2295 lberckes@treesforever.org	Applications are currently not being accepted.	<a href="http://www.treesforever.org/ILR_Projects">http://www.treesforever.org/ILR_Projects</a>
Living Roadway Trust Fund (3% of REAP Funds)	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	<a href="http://www.iowadot.gov/lrtf/grants.html">http://www.iowadot.gov/lrtf/grants.html</a>
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	October	<a href="http://www.iowadot.gov/systems_planning/fedstate_rectrails.htm">http://www.iowadot.gov/systems_planning/fedstate_rectrails.htm</a>
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	<a href="http://www.iowadot.gov/systems_planning/fedstate_rectrails.htm">http://www.iowadot.gov/systems_planning/fedstate_rectrails.htm</a>

## County Grants

Siouxland Community Foundation	Grants are made to nonprofit organizations that provide services vital to the quality of life in Siouxland. Organizations recognized under 501(c)(3) of the Internal Revenue Code and/or qualified government entities located within the greater Siouxland tri-state area (defined as a general 50-mile radius of Sioux City, Iowa, are eligible to receive grants from the Community Foundation. Grants to address present and emerging needs are made in the following focus areas: arts and culture, civic affairs, education, environment, health, and human services.	office@siouxlandcommunityfoundation.org 505 Fifth Street, Suite 412 Sioux City, IA 51101 (712) 293-3303	On-going	<a href="http://www.siouxlandcommunityfoundation.org/scholarships-grants/">http://www.siouxlandcommunityfoundation.org/scholarships-grants/</a>
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## 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.	David Downing (515) 725-8487 david.downing@dnr.iowa.gov	Mid-March	<a href="http://www.iowadnr.gov/About-DNR/Grants-Other-Funding/Land-Water-Conservation-Fund">http://www.iowadnr.gov/About-DNR/Grants-Other-Funding/Land-Water-Conservation-Fund</a>
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	<a href="http://www.iowadnr.gov/Environment/REAP/REAPFundingwork/CityParksOpenSpaces.aspx">http://www.iowadnr.gov/Environment/REAP/REAPFundingwork/CityParksOpenSpaces.aspx</a>
REAP County Conservation	County Conservation (20% of REAP funds) - This money is available to counties for land easements or acquisition, capital improvements, stabilization and protection of resources, repair and upgrading of facilities, environmental education, and equipment.	Tammie Krausman (515) 725 - 8443 Wallace State Office Building 502 E. 9th St. Des Moines, IA 50319 tammie.krausman@dnr.iowa.gov	Mid August	<a href="http://www.iowadnr.gov/Conservation/REAP/REAP-Funding-at-Work/County-Conservation">http://www.iowadnr.gov/Conservation/REAP/REAP-Funding-at-Work/County-Conservation</a>
REAP Conservation Education Program	The Conservation Education Program (CEP) is a key provision of the Resource Enhancement and Protection (REAP) Act of 1989. A five-member board implements the CEP and annually they allocate approximately \$350,000 in grants for conservation education in Iowa.	Jerah Sheets Representing IDNR (515) 313-8909 reapcep@dnr.iowa.gov	November 1	<a href="http://www.iowadnr.gov/Conservation/REAP/REAP-Funding-at-Work/Conservation-Education">http://www.iowadnr.gov/Conservation/REAP/REAP-Funding-at-Work/Conservation-Education</a>
REAP Soil and Water Enhancement	Soil and Water Enhancement (20% of REAP funds) - These funds are available to landowners for soil and water conservation and enhancement projects and practices. Project money is directed towards protecting the state's surface and ground water resources from point and non-point sources of contamination.	Jim Gillespie Division of Soil Conservation Department of Agriculture and Land Stewardship (515) 281-7043 Jim.Gillespie@iowaagriculture.gov	Ongoing	<a href="http://www.iowadnr.gov/Conservation/REAP/REAP-Funding-at-Work/Soil-Water-Enhancement">http://www.iowadnr.gov/Conservation/REAP/REAP-Funding-at-Work/Soil-Water-Enhancement</a>
Trees for Kids	The Trees for Kids grant program serves to educate K-12 and college students in Iowa about the importance of trees through tree planting events at schools and on public land. Grant recipients are awarded \$1,000-\$5,000 per project to purchase trees and mulch from Iowa nurseries.	Evan Miller (515) 725-8455	Mid September	<a href="http://www.iowadnr.gov/Conservation/Forestry/Educational-Opportunities">http://www.iowadnr.gov/Conservation/Forestry/Educational-Opportunities</a>
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 July 1	<a href="http://www.iowadnr.gov/swap">http://www.iowadnr.gov/swap</a>
Fish Habitat Program	Funding assistance is available to County Conservation Boards for land acquisition and development of fish habitat.	Randy Schultz (515) 725-8447 randy.schultz@dnr.iowa.gov	Last Working Day in November	<a href="http://www.iowadnr.gov/About-DNR/Grants-Other-Funding/Fish-Habitat-Program">http://www.iowadnr.gov/About-DNR/Grants-Other-Funding/Fish-Habitat-Program</a>
Water Trail Enhancement Grant	The Iowa Legislature appropriated funds for fiscal year 2018 for the development of dam mitigation and water trail projects. A portion of the funds (\$130,000 this fiscal year) are available competitively for water trail enhancement cost-share grants.	John Wenck (515) 725-8465 john.wenck@dnr.iowa.gov	Mid September	<a href="http://www.iowadnr.gov/Things-to-Do/Canoeing-Kayaking">http://www.iowadnr.gov/Things-to-Do/Canoeing-Kayaking</a>
Water Recreation Access Cost-Share Program	The Water Recreation Access Cost-Share Program is available for constructing or improving boat access facilities to Iowa's lakes and streams. Projects can include boat ramps, loading/off-loading docks and other structures to enhance use by the public.	Michelle Wilson (515) 725-8441 michelle.wilson@dnr.iowa.gov	September 30	<a href="http://www.iowadnr.gov/Things-to-Do/Boating/Water-Rec-Access-Cost-Share">http://www.iowadnr.gov/Things-to-Do/Boating/Water-Rec-Access-Cost-Share</a>

## Iowa Department of Natural Resources (IDNR)

Watershed Improvement Grants (Section 319)	The DNR offers Iowa groups looking to improve our state's streams, rivers and lakes the opportunity to apply for grants. These grants allow groups, such as Soil and Water Conservation Districts and other organizations, to create watershed projects.	Steve Hopkins Nonpoint Source Coordinator DNR Watershed Improvement Program 515-725-8390 Stephen.Hopkins@dnr.iowa.gov		<a href="http://www.iowadnr.gov/Environmental-Protection/Water-Quality/Watershed-Improvement/Watershed-Planning">http://www.iowadnr.gov/Environmental-Protection/Water-Quality/Watershed-Improvement/Watershed-Planning</a>
Wildlife Diversity (non-game) Program Grants	The wildlife diversity program offers three grants programs to encourage research, habitat management and environment education that supports non-game wildlife in Iowa.	Stephanie Shepherd (515) 432-2823 x102	November	<a href="http://www.iowadnr.gov/Conservation/Iowas-Wildlife/Wildlife-Diversity-Program/Wildlife-Grant-Opportunities">http://www.iowadnr.gov/Conservation/Iowas-Wildlife/Wildlife-Diversity-Program/Wildlife-Grant-Opportunities</a>
State Revolving Fund (SRF)	The State Revolving Fund (SRF) is the best choice to finance the design and construction of Iowa drinking water and wastewater infrastructure.	Lee Wagner (515) 725-0992 SRF Coordinator Iowa Department of Natural Resources lee.wagner@dnr.iowa.gov	Early September	<a href="http://www.iowasrf.com/about_srf/sponsored_projects_home_page.cfm">http://www.iowasrf.com/about_srf/sponsored_projects_home_page.cfm</a>

## Iowa Economic Development Authority (IEDA)

Community Development Block Grant (CDBG)  Water and Sewer Fund	Funds awarded through this annual competitive program assist cities and counties with projects such as sanitary sewer system improvements, water system improvements, water and wastewater treatment facility projects, storm sewer projects related to sanitary sewer system improvements and rural water connections.	Nichole Hansen 515.348.6215 cdbg@iowaeda.com	January 1, April 1, July 1 and October 1	<a href="https://www.iowaeconomicdevelopment.com/Community/CDBG">https://www.iowaeconomicdevelopment.com/Community/CDBG</a>
CDGB  Community Facilities and Services Fund	This annual competitive program assists projects such as day care facilities, senior centers, vocational workshops and other community services such as storm water projects.	Nichole Hansen 515.348.6215 cdbg@iowaeda.com	Spring	<a href="https://www.iowaeconomicdevelopment.com/Community/CDBGPF">https://www.iowaeconomicdevelopment.com/Community/CDBGPF</a>
CDGB  Downtown Revitalization Fund	Community leaders can use this program to rehabilitate blighted downtown buildings.	Nichole Hansen 515.348.6215 cdbg@iowaeda.com	Spring	<a href="https://www.iowaeconomicdevelopment.com/Community/CDBGPF">https://www.iowaeconomicdevelopment.com/Community/CDBGPF</a>
Community Attraction and Tourism Program (CAT)	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 (515) 348-6258 enhanceiowa@iowaeda.com	January 15, April 15, July 15, and October 15.	<a href="https://www.iowaeconomicdevelopment.com/Community/EnhanceIowa">https://www.iowaeconomicdevelopment.com/Community/EnhanceIowa</a>
Disaster Resilience Grant: Iowa Watershed Approach	This program utilizes a one-time source of funding to help Iowans work together to make our communities more resilient to flooding and help improve water quality. Focused on nine distinct watersheds.	Leslie Leager (515) 348-6206 disaster@iowaeda.com	Ongoing	<a href="http://iowawatershedapproach.iowa.gov/#section1">http://iowawatershedapproach.iowa.gov/#section1</a>
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) 348-6162	Not Currently Accepting Applications	<a href="http://www.iowaeconomicdevelopment.com/Community/ReinvestmentDistrict">http://www.iowaeconomicdevelopment.com/Community/ReinvestmentDistrict</a>
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 mainstreet@iowa.gov	Contact for Application Cycle	<a href="http://www.iowaeconomicdevelopment.com/mainstreetiowa">http://www.iowaeconomicdevelopment.com/mainstreetiowa</a>

## United States Department of Agriculture (USDA)

FUNDING PROGRAM	PROGRAM DESCRIPTION	CONTACT	SUBMISSION DEADLINE	WEBSITE
Natural Resources Conservation Service (NRCS)  Conservation Innovation Grants	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  nrscsig@wdc.usda.gov	First Quarter of Year	<a href="http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/cig/">http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/cig/</a>
Sustainable Agriculture Research and Education in Iowa (SARE)	Grants and education to advance innovations in sustainable agriculture. Grant programs include: Farmer Rancher, Research and Education, Professional Development Program, Graduate Student, Youth Educator, and Partnership.	Linda Naeye (515) 294- 8946 lnaeye@iastate.edu	(Multiple Dates)	<a href="https://www.northcentralsare.org/Grants/Our-Grant-Programs">https://www.northcentralsare.org/Grants/Our-Grant-Programs</a>

## The Wellmark Foundation

Small MATCH grant	The Matching Assets to Community Health grant program supports sustainable projects that increase access to and consumption of nutritious foods; or promote safe and healthy environments that encourage activity. 50% Match	(515) 376-6420 wellmarkfoundation@wellmark.com	June	<a href="https://www.wellmark.com/foundation/rfps.html">https://www.wellmark.com/foundation/rfps.html</a>
Large MATCH grant	The Matching Assets to Community Health grant program supports sustainable projects that increase access to and consumption of nutritious foods; or promote safe and healthy environments that encourage activity. 100% Match	(515) 376-6420 wellmarkfoundation@wellmark.com	June	<a href="https://www.wellmark.com/foundation/rfps.html">https://www.wellmark.com/foundation/rfps.html</a>

## Historical and Cultural Affairs

State Historical Society (5% of REAP Funds)	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	May 15th	<a href="http://iowaculture.gov/about-us/about/grants/historical-resource-development-program">http://iowaculture.gov/about-us/about/grants/historical-resource-development-program</a>
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	<a href="http://iowaculture.gov/about-us/about/grants/art-project-grant">http://iowaculture.gov/about-us/about/grants/art-project-grant</a>
National Endowment for the Arts OUR TOWN	Our Town is the National Endowment for the Arts' creative placemaking grants program. These grants support projects that integrate arts, culture, and design activities into efforts that strengthen communities by advancing local economic, physical, and/or social outcomes.	1-800-218-4726 OT@arts.gov	August	<a href="https://www.arts.gov/grants-organizations/our-town/introduction">https://www.arts.gov/grants-organizations/our-town/introduction</a>

## Iowa Department of Ag and Land Stewardship (IDALS)

Water Quality Initiative  Urban Conservation Projects	Desired outcomes for these projects will include concentrated efforts to demonstrate urban conservation practices paired with strong outreach/education components to disseminate information on these practices.	Derek Namanny (515) 725-0150 derek.namanny@iowaagriculture.gov	Early December	<a href="https://www.iowaagriculture.gov/FieldServices/urbanConservation.asp">https://www.iowaagriculture.gov/FieldServices/urbanConservation.asp</a>
Stormwater BMP Loans	The Stormwater BMP Loans are a new source of low-cost financing for long term/voluntary practices that manage storm water quality.	Derek Namanny (515) 725-0150 derek.namanny@iowaagriculture.gov	Ongoing	<a href="https://www.iowaagriculture.gov/FieldServices/stormwaterBMPloans.asp">https://www.iowaagriculture.gov/FieldServices/stormwaterBMPloans.asp</a>

## Miscellaneous 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	<a href="http://scottsmiracleagro.com/responsibility/gro1000/">http://scottsmiracleagro.com/responsibility/gro1000/</a>
People for Bikes	Program is established to provide a funding source for bicycling, active transportation and community development.	Erik Esborg (303) 449-4893 x103 erik@peopleforbikes.org	January	<a href="https://peopleforbikes.org/grant-guidelines/">https://peopleforbikes.org/grant-guidelines/</a>
Trees Forever  Granting a Better Tomorrow	Granting a Better Tomorrow grants are for tree-planting and educational projects, including tree planting, seedling give-a-ways, pollinator (trees & plants) plantings, rain gardens with trees, educational classroom projects, club or church projects, fruit and nut orchards, school memorials, cemetery plantings and disaster recovery projects.	Deb Roman (319) 373-0650 x 110 droman@treesforever.org	July 1	<a href="http://www.treesforever.org/Granting-a-Better-Tomorrow">http://www.treesforever.org/Granting-a-Better-Tomorrow</a>
Trees Forever  Working Watersheds: Buffers and Beyond	Trees Forever's Working Watersheds: Buffers & Beyond program helps to improve water quality, soil retention and habitat improvement by working with Iowa landowners to implement conservation practices and promote land stewardship.	Jeff Jensen (515) 320-6756 jjensen@treesforever.org	December 31	<a href="http://www.treesforever.org/Working_Watersheds">http://www.treesforever.org/Working_Watersheds</a>
Monsanto Grow America	Program that gives back to communities with a donation to a local non-profit, a grant to grow innovation in schools, and a scholarship for a future ag. student.	1-877-267-3332	Ongoing	<a href="https://www.americasfarmers.com/">https://www.americasfarmers.com/</a>
National Parks and Recreation Assoc. Great Urban Parks Campaign	NRPA is working in partnership with cities to support large scale, replicable park green infrastructure demonstration projects that will serve as case studies for park and recreation agencies.	Jenny Cox jcox@nrpa.org	Ongoing	<a href="https://www.nrpa.org/our-work/partnerships/initiatives/water-conservation/great-urban-parks-campaign-pilot-projects/">https://www.nrpa.org/our-work/partnerships/initiatives/water-conservation/great-urban-parks-campaign-pilot-projects/</a>
American Water Environmental Grant Program	American Water's environmental grants support innovative, community-based environmental projects that improve, restore and/or protect watersheds and community water supplies through partnerships.	(563) 468-9201	March	<a href="https://amwater.com/corp/customers-and-communities/environmental-grant-program">https://amwater.com/corp/customers-and-communities/environmental-grant-program</a>