

Final Report and Feasibility Study Decorah, 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

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

- Circulation and sidewalk improvements
- Trail systems enhancements and connections to downtown
- Safe pedestrian crossings
- Traffic calming
- Improved way-finding and signage

Capturing the Decorah 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 Decorah 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 Decorah steering committee identified a number of goals and priority areas during the visioning process, which include circulation and sidewalk improvements, trail systems enhancements and connections to downtown, safe pedestrian crossings, traffic calming, and improved way-finding and signage with a unified community identity.

Capturing the Decorah 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 Behaviors and Needs
5. Transportation Inventory
6. Goal Setting
7. Concept Overview
- 8a. Accessibility/Connectivity
- 8b. East Water Street Trail
9. Intersection Safety
10. Way-finding/Branching
11. Traffic Calming
- 12a. College Drive Improvements
- 12b. West Heivly Street
- 13a. East Heivly Street
- 13b. Implementation Strategies
- 14.

SUMMER 2018 1



Jeffrey L. Bruce & Company senior landscape architect David Stokes discusses community walkability with Decorah school children and parents during the design workshop.



Steering committee members highlight important areas for goal setting.



Jeffrey L. Bruce & Company landscape architecture intern Jeremy Johnson sketches during the design workshop.



During the length of the design workshop, the design team interacted with approximately 100 community members.

Decorah Program Overview

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



Bioregional Assessment

Settlement Patterns

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

Decorah 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



Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," <https://www.iawebdwr.com/arcgis/ibaz/>.

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

Settlement Patterns

Bioregional Context

Julia Badenhop, Casey Cox, Riley Dunn, Dominick Florer, Hatvany Gomez- Concepcion, Ngoc Ho, Henry Herman, Alyse Kirkman, Giannis Koutsou, Emma Lorenz, Zoey Mauck, Carol Ustine
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Historical Vegetation

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

The 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.

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

Historical Vegetation

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Not all communities will show all vegetation types, in part because the people making the maps did not observe subtleties of vegetation type. Also, various conditions that effect vegetation— such as geology, exposure to wind, seasonally high water or ground water, and frequency of fire— differ from place to place.

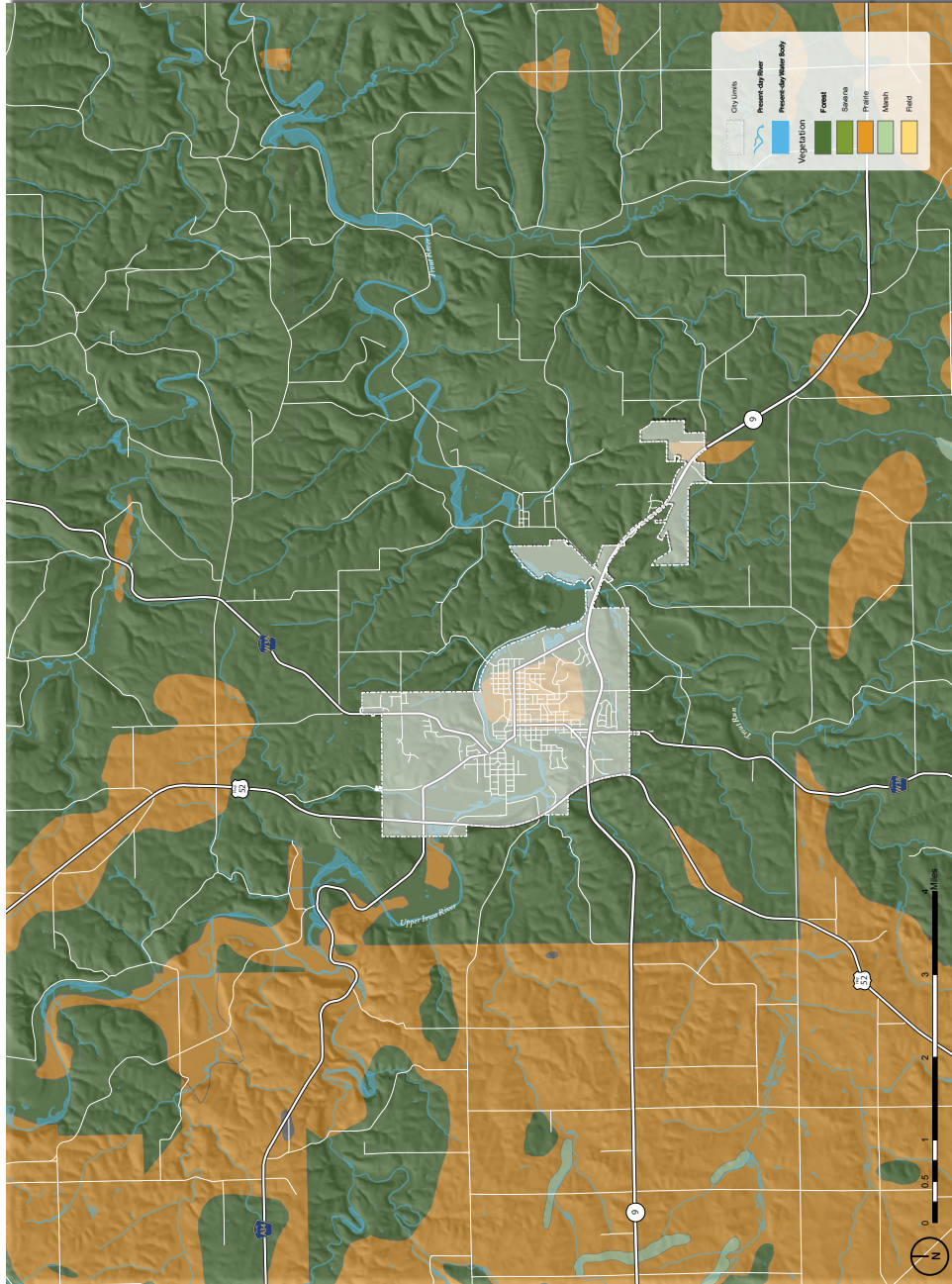
The following types have been represented in the historical vegetation map we have created :

1. **Forest:** Tree dominated, with a mostly closed canopy. Ground vegetation shade tolerant. developed under infrequent fire.
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¹ J. E. Basinger, "Presentment Vegetation of Cass County, Illinois," Transactions of the Illinois State Geologic Survey, 1891.
² "Analysis of historical vegetation patterns in Iowa using Government Land Office surveys and a Geographic Information System." (master's thesis, Iowa State University, 1995).

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Historical Vegetation



Bioregional Context

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



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.

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1930s



2015



1875 Andreas Atlas



1970s

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

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Change Over Time

Bioregional Context

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Regional Watershed

A watershed is a defined area or ridge of land with a boundary that separates waters flowing to different rivers, creeks, or basins. Watershed boundaries show the extent of a drainage area flowing to a single outlet point, and 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.

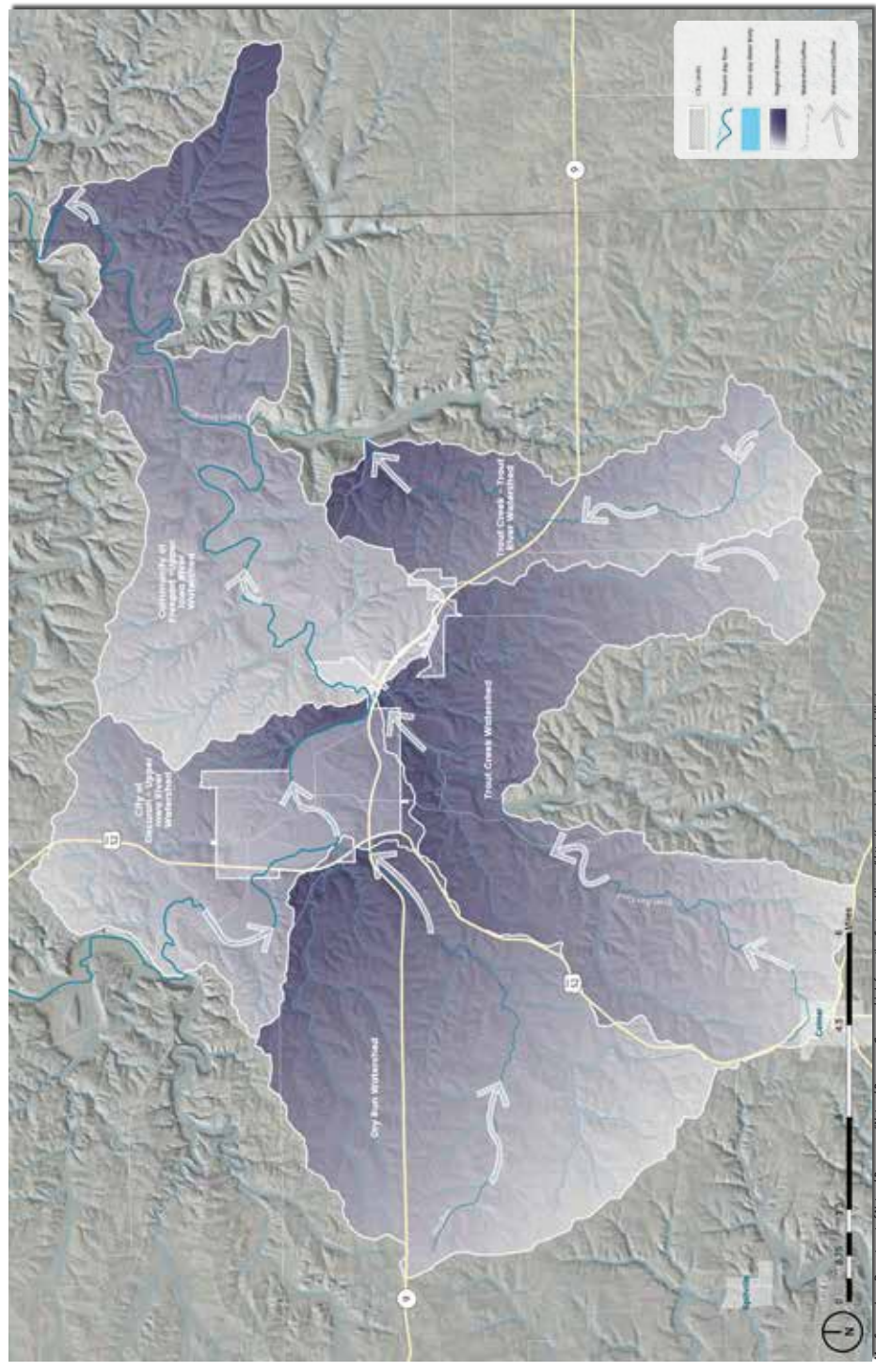
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Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," <http://www.dnr.iowa.edu/mgis/ibz/>.

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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.

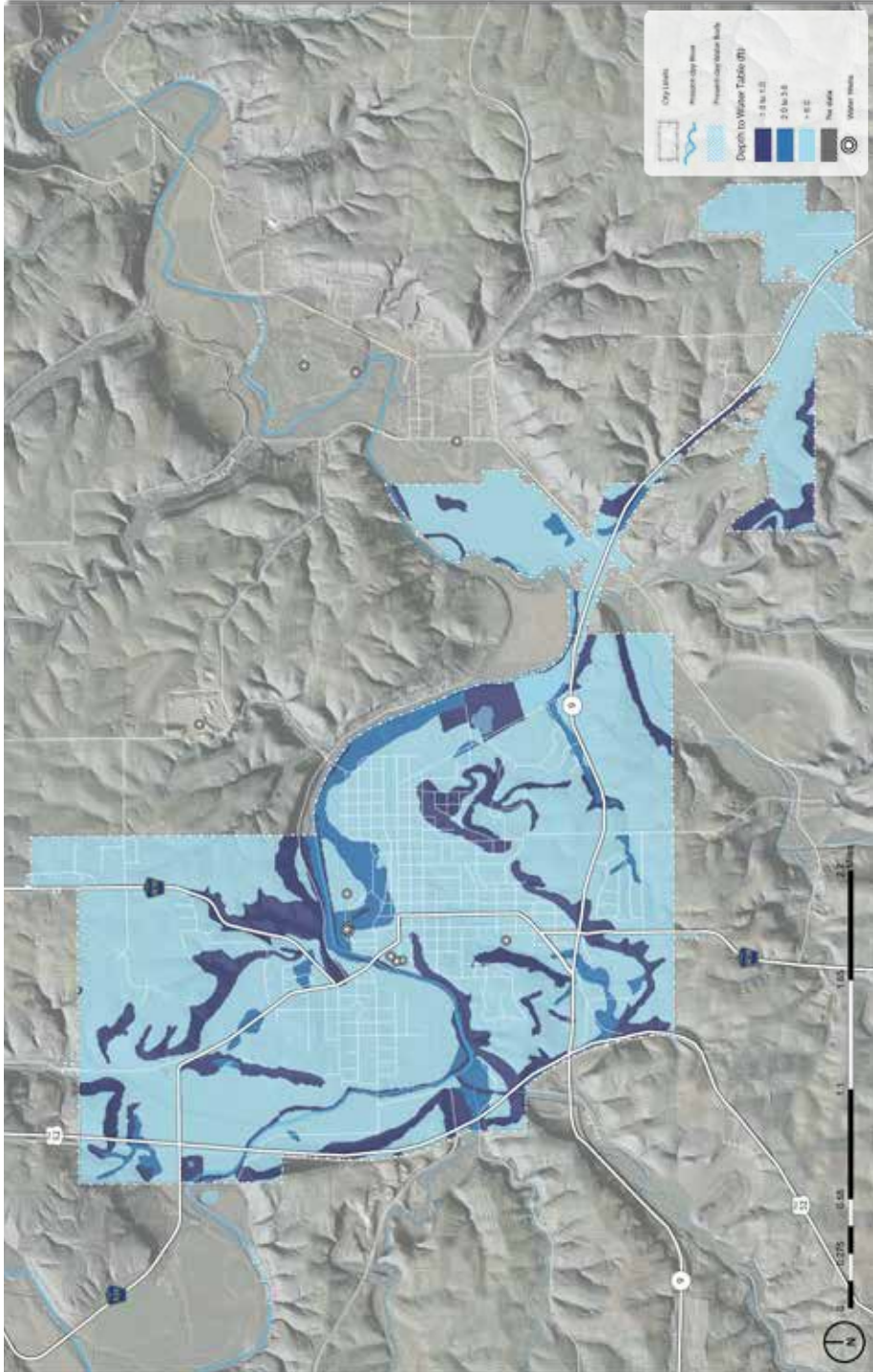
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Depth to Water Table

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Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library." <https://www.ijsb.uiowa.edu/ingiflib/>.

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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.

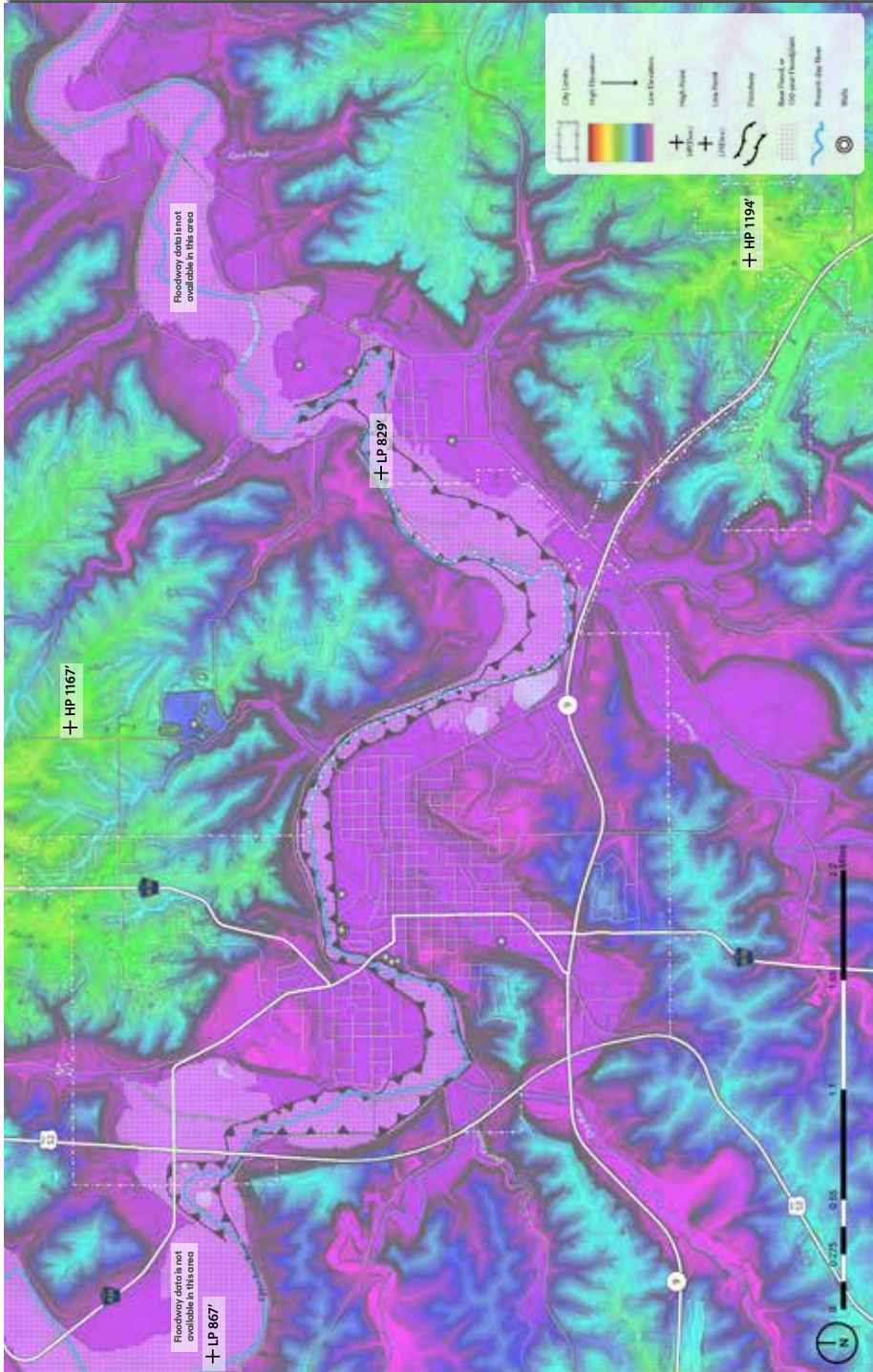
Flood risk is correlated to low-lying land. This map also shows your community's flood risk as defined by the Federal Emergency Management Agency (FEMA) Flood Map Service Center. If your community has these features, this map will show the two most important flood zones, the Base Flood and the Regulatory 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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Elevation and Flow

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Present Day Land Cover

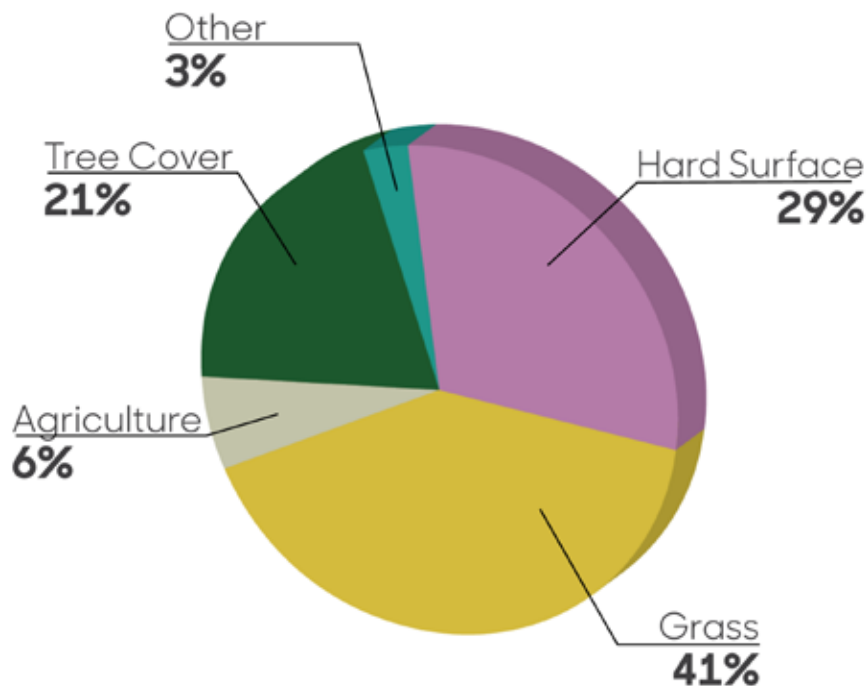
The land cover map depicts both natural and man-made land cover types with aerial imagery. The Iowa DNR created 15 unique classes for this dataset to differentiate land covers. Refer to the legend for a breakdown of land cover types within your community boundaries.

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



SPRING 2018 29

Present Day Land Cover

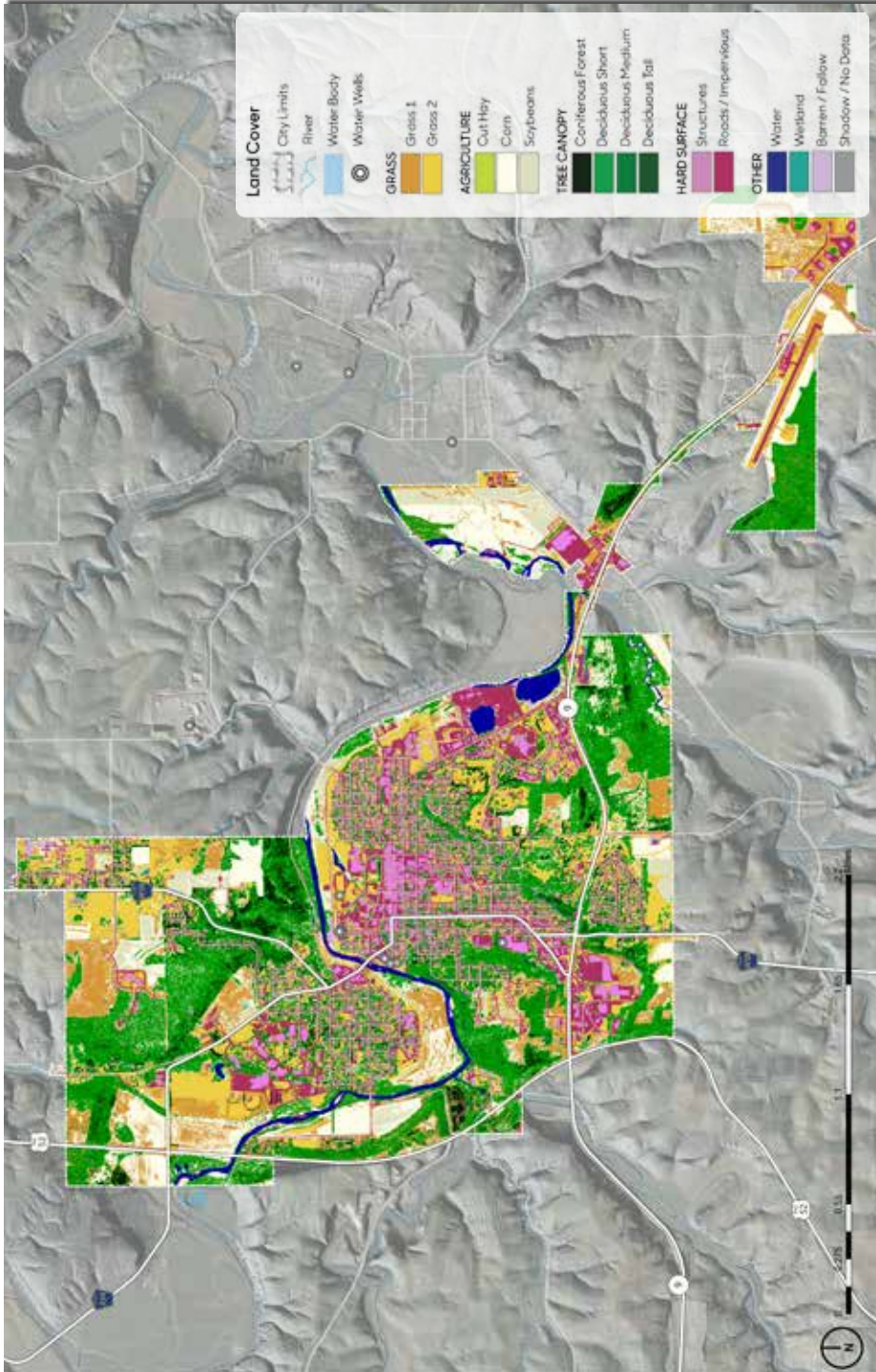
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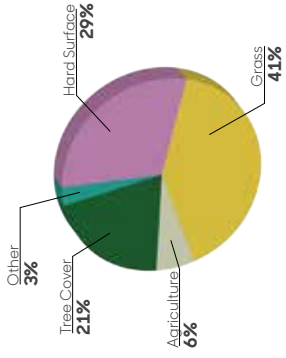
Where is the tree canopy most concentrated?

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 winter? How do these places feel in the winter?



Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," <https://www.iadnr.gov/data/arcgis/ibaz/>.



Percent Land Cover Type

Decorah

Present Day Land Cover

Bioregional Context

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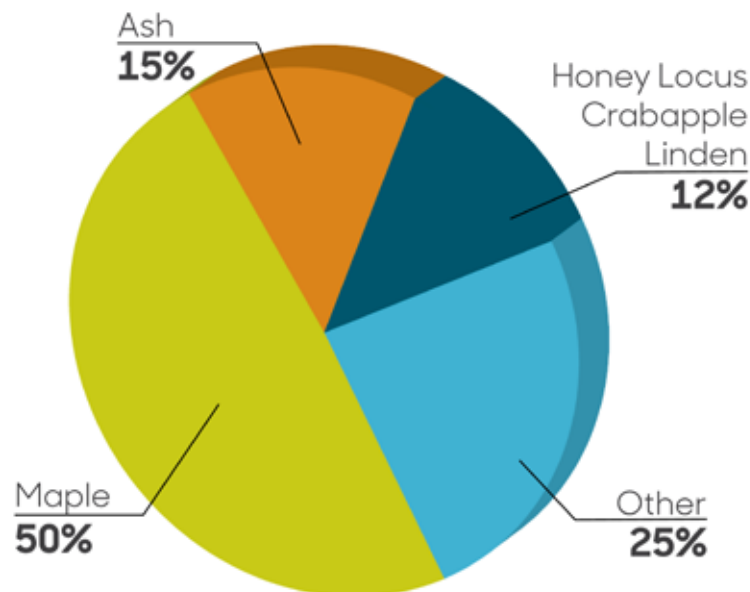


The Urban Forest

The map on the left depicts public right-of-way trees that have been surveyed by the Iowa Department of Natural Resources (Iowa DNR).¹ 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.² EAB was first discovered in Iowa in 2010 and was confirmed in 30 Iowa counties as of 2016.³



There is a strong possibility that 15% (Ash trees) of Decorah's city owned trees will die once EAB is carried to the area.

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

² 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.

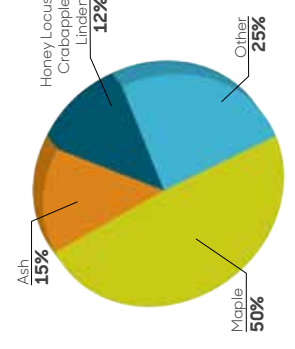
³ "Iowa Tree Pests website," Entomology and Plant Science Bureau of the Iowa Department of Agriculture and Land Stewardship (IDALS), last updated February 9, 2016, http://www.iowatreepests.com/eab_home.html.

SPRING 2018 2h

The Urban Forest

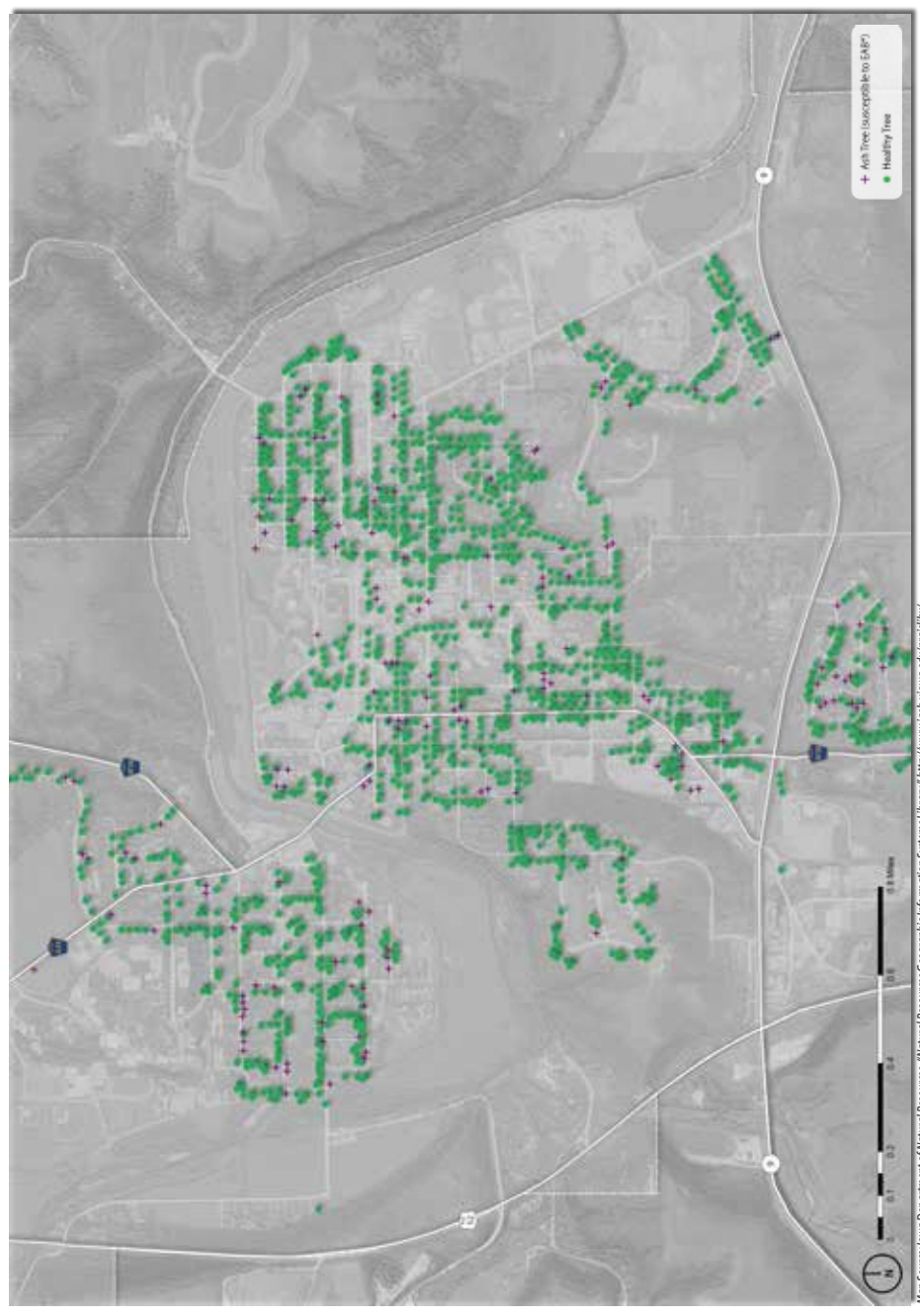
The map on the left depicts city-owned trees that have been surveyed by the City of Decorah | City Government and Services. The trees are divided into two categories: healthy trees and ash trees.

"Healthy" trees are shown with a green circle. The graphic below shows how many of the city's trees are of the same species. With proper planning and management, the diversity city's canopy can be improved by planting suitable trees that can gradually diversify the species. Improving species diversity will create a more resilient urban forest.



"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. EAB was first discovered in Iowa in 2010 and was confirmed in 30 Iowa counties as of 2016.³ There is a strong possibility that 15% (Ash trees) of Decorah's city owned trees will die once EAB is carried to the area.

1. City of Decorah | City Government and Services, "EAB Management Plan," <http://www.decorah.org/wp-content/uploads/2018/02/EAB-Management-Plan-Map.pdf>
 2. "Emerald Ash Borer Threat to our Urban Suburban, and Rural Forests has become a reality in Iowa 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 an important part of our landscape and provide habitat for many birds and other wildlife." Emerald Ash Borer the Green Network, USDA Program Ad No. 1769, 2008. http://www.aphis.usda.gov/publications/plant_health/content/epn/ash_borer_eab_080808.html
 3. "Iowa Tree Pests website," Entomology and Plant Science Bureau of the Iowa Department of Agriculture and Land Stewardship (DAS), last updated February 9, 2018. <http://www.iowatreepests.com/Map2.html>.



Map Source: Iowa Department of Natural Resources, "Natural Resource Geographic Information Systems Library," <https://www.dnr.iowa.gov/imagerylib/> and City of Decorah | City Government and Services, "EAB Management Plan," <http://www.decorah.org/wp-content/uploads/2018/02/EAB-Management-Plan-Map.pdf>.

Decorah
Urban Forest

Bioregional Context
 Julia Badenhop, Ngoc Ho, 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 Decorah, 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 Decorah'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 Decorah residents with different transportation needs to participate in focus groups. A total of ## residents attended Decorah's workshop. Participants were separated into five user groups and the Decorah 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.

SPRING 2018 3a

What Factors Affect Transportation in Decorah?

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 Decorah, 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 Decorah'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

To capture insights about transportation from a variety of perspectives, we invited Decorah residents with different transportation needs to participate in focus groups. A total of 75 residents attended Decorah's workshop. Participants were separated into five user groups and the Decorah steering committee.



Actives



Mobility Impaired



Older Adults



Youth



Parents



Steering Committee

(9 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.

(11 participants): 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.

(23 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.

(13 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.

(8 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.

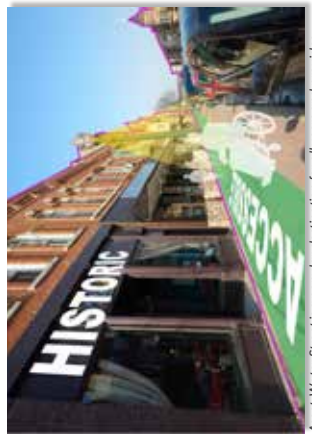
Decorah Overview

Transportation Assets and Barriers Analysis

Julia Badenhop, Sandra Oberbroeckling, Hatvany Gomez-Concepcion, Abby Schafer, Clare Kiboko, Saina Shayanjoo, and Carol Ulstine
Iowa State University | Trees Forever | Iowa Department of Transportation



Asset: The trails, shade, and views at Dunning Springs Park make it a beautiful, fun, and desirable destination for locals and visitors.



Asset: Water Street is a popular destination for all users and provides access to almost everything, including awesome food and shops.



Asset: Dug Road is a desirable destination because of an accessible trail and view of the river.



Barrier: Steep hills throughout town make movement challenging for the mobility-impaired group.



Barrier: Locust Road is busy with car and pedestrian traffic. The lack of sidewalks, lighting and narrow lanes make users feel unsafe.



Barrier: College Drive is an important route that connects Whippoy Dip to the pool. However, lack of shade, concrete surfaces, and fast turning on College Drive make walking and biking feel uncomfortable.

What People Said

"Because of the [Freeport] trail connection we've started a biking school bus for the Freeport kids into the upper elementary and middle school in the spring and fall."

"The original stretch on Dug Road, which is now closed because it's collapsing, is where a lot of walking happens, and it's beautiful and it's always shaded, and it's lovely."

"I just walk all over the place, so I just like the size of Decorah because I can really walk in here, anywhere within a reasonable time."



"For the most part the sidewalks are great, but if you have a stroller of any sort, there [are] a lot of stairs, so you have to kind of like memorize where those are, and remember to cross the street before you get to them."

Actives

"I just recovered from a concussion that took me over six months to come back from. I tripped on a crack in the sidewalk... The sidewalks are old and we love our old neighborhoods so much, but [the sidewalks] settle."

"We have this great asset in the community prairie. And you can see it from our wonderful 11-mile trail, but you can't get there. A bridge across the river from the trailhead to the prairie would make this prairie usable."

"A lot of people like to go out to the fish hatchery; you can feed the fish. You can see the eagles' nest right out there. It's right on the trail as well."



"[Main Street] is the roughest street, and I can't bike on it. It makes my teeth rattle."

"As I get older I need a lot more light when I'm walking, and I just think there are some pretty dark places."

Older Adults

"We have one gentleman who works every other weekend, and on Sundays we are forced to give him a ride and pick him up because there's no alternative."

"All of them work in the community, and they rely on taxi and transit to get to and from work."

"They have [bike] racks in several areas, but it's really not enough considering the [number] of bicycles there are in this town."



"As you get down into the Phelps Park area, there's no sidewalk whatsoever."

"Downtown is safe to walk and everything, but it's difficult to ride a bike down there."

Mobility Impaired



Parents


"[We need] more and more walking opportunities. We intentionally lived near downtown because we wanted to walk to the grocery store and the library and everything...but I see...continuing to provide that as a safe thing to do."

"Some of the places downtown aren't very accessible to people with wheelchairs or strollers or things like that, because there are places where you've got steps."

"We have great trails...but downtown isn't really connected to those trails."

"Downtown doesn't necessarily have bike-friendly paths."

"...[Washington Street] is wide, and my kids and I cross all the time to go to the middle school park, and it feels a little unsafe. There aren't many crossing opportunities."



Youth

"When I'm walking [on River Street behind the middle school] I almost get run over sometimes because there's no sidewalk."

"The shoulders on [Ice Cave Road] aren't that great so we can't really run on the shoulders safely."

"At Dunning Springs, a lot of people are there in the summer, and there's a hiking trail you can go up on."

"...I have to cross [the 5th Avenue] bridge, and there's usually a ton of traffic moving through there all the time."

"I would definitely bike more, except for the fact that biking is very difficult because there aren't places to securely put your bike."



Steering Committee

"Dug Road is probably one of the most popular spots on the trail to go, especially in the summer if it's hot, because it's nice and cool with all the trees, and it's beautiful with the river there, you can see the prairie."

"I have two walking school buses that go year-round...behind the elementary...there [are] three intersections we have to cross when we're walking kids, that you have to be really careful...that cars are watching."

"It's not well delineated between pedestrian area and cars, I don't think, especially along College Drive."

"I like the river. I spend a lot of time fishing, canoeing, kayaking, swimming in it."

"Technically, Short Street is a bikeable street. It's got the lane, but...I would never want to bike on that one...It's a freeway through there."

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 run regularly, either as part of a daily commute or as recreational/sports training. They are interested in more trail amenities such as showers at the trailhead and more lighting.

Mobility-impaired individuals: Those who are mobility-impaired walk, drive, use motorized scooters, or take the taxi to get around. They would like a public fitness center, as well as an inexpensive form of public transport.

Older adults: Older adults walk, drive, and bike. Sometimes they use the taxi service. This group is interested in making connections between the trail and local destinations, as well as connecting to the Prairie Farmer Trail.

Youth: Youth walk, drive, bike, run, and take the bus. This group is concerned about heavy traffic and congestion at the schools during start and end times.

Parents: Parents walk, drive, and bike. They are concerned about their children's transportation experience. Parents' top priority is revamping the parking lot north of Water Street. They are also interested in connectivity for walkers and bikers.

Steering committee: The steering committee walks, drives, and bikes. Committee members consider College Drive north of the bridge as a major barrier. They also would like to revamp the parking lot north of Water Street.

Transportation Behaviors and Needs

Overview

The survey gives the visioning steering committee objective, representative information for the goal-setting phase of community visioning. The quantitative data collected from survey responses complements the qualitative information gathered from the focus groups at the transportation assets and barriers workshop.

The modes of transportation that residents use and the routes they take suggest suitable types of transportation enhancements in these areas. Having a sense for people's willingness to help either financially or with their time is important because many transportation enhancements are funded from multiple sources, including grants, private donations, in-kind contributions, and volunteers. Understanding what types of improvements are important to residents gives the committee insight into how to prioritize projects.

With assistance from Iowa State University's Survey Research Services staff in the Center for Survey Statistics and Methodology (CSSM-SRS), ISU visioning program staff conducted a survey to better understand the transportation patterns and behaviors, needs and desires of Decorah residents. Surveys were mailed to 400 randomly selected residents living in Decorah and the surrounding area. To increase the response rate, the study was publicized through the local media and follow-up packets were mailed to nonrespondents. With adjustments for ineligible respondents (e.g., incorrect addresses, no longer living in the community), the final sample size was 269. A total of 137 people returned surveys, for a response rate of 50.9%. (A response rate of 20% is considered valid.)

We asked survey recipients what routes they used most often for going to work, walking, and biking. We also asked whether or not residents would like a recreation trail and where they think it should be. We also discovered what residents think is most important in terms of transportation enhancements that address issues such as accessibility, mobility, and safety. Finally, we learned whether or not residents are willing to contribute their time or their financial resources to making enhancements to Decorah. This series of boards summarizes the results of the survey as follows:

- Willingness to Help
- Enhancement Priorities
- Commuting Routes
- Walking Routes
- Biking Routes
- Desired Trail Routes

Why Do A Survey?

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How Is It Done?

With assistance from Iowa State University's Survey Research Services staff in the Center for Survey Statistics and Methodology (CSSM-SRS), ISU visioning program staff conducted a survey to better understand the transportation patterns and behaviors, needs and desires of Decorah residents. Surveys were mailed to 300 randomly selected residents living in Decorah and the surrounding area. To increase the response rate, the study was publicized through the local media and follow-up packets were mailed to nonrespondents. With adjustments for ineligible respondents (e.g., incorrect addresses, no longer living in the community), the final sample size was 269. A total of 137 people returned surveys, for a response rate of 50.9%. (A response rate of 20% is considered valid.) In addition, 15 self-selected surveys were completed and have been included with the overall results.

What Did We Find Out?

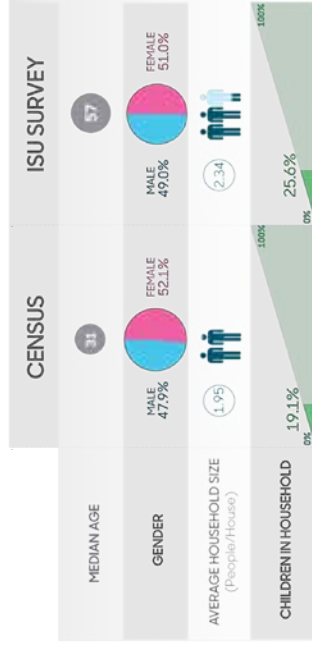
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Decorah Overview

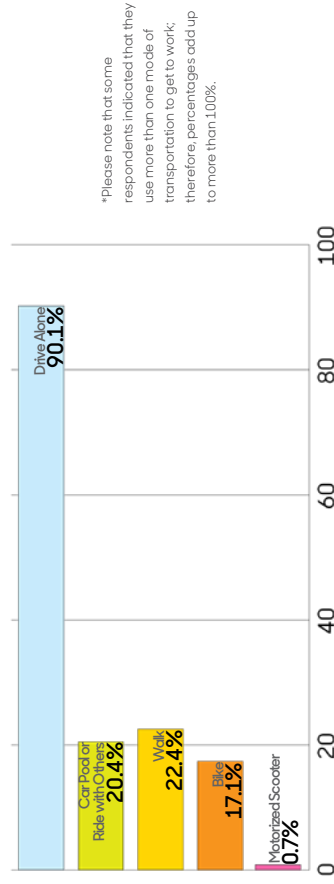
How Did We Do?

The demographics of the respondents are somewhat different from those obtained from the 2016 American Community Survey Five-Year Estimate. For example, the survey respondents' median age of 57 is significantly older than the 2016 estimated average age for Decorah residents of 31. The gender of survey respondents is similar to 2016 estimates. In terms of average household size, and number of children in the household, survey respondents' demographics differ from the 2016 estimates.



How Do Decorah Residents Travel?

Most survey respondents drive to important destinations such as the convenience store, the post office, school, and church (90.1%). More than 20% car pool or ride with someone else, 22.4% walk, and 17.1% bike. One respondent uses a motorized scooter.



*Please note that some respondents indicated that they use more than one mode of transportation to get to work; therefore, percentages add up to more than 100%.

Willingness to Help

Most survey participants who answered this question are willing to contribute both time and talent and financial help to community improvements (51.4%), while more than 32% would contribute their time and talent. More than 15% of respondents indicated that they would be willing to contribute financially.

Compared to other small towns in Iowa, Decorah residents are more willing to become involved in improving their community. In 2014, on average, 43% of residents in small, rural towns volunteered to help with a community project.¹

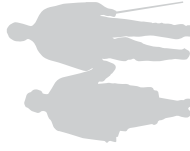
In 2014, the most common reason residents in small-town Iowa said they didn't become involved in community projects is that no one asked them (34%). Twenty-eight percent on average said that they don't have time, which is significantly lower than the 2004 average of 59%. Sixteen percent indicated that they didn't know how to become involved, and 7% said that no community project needed volunteers.¹ These results indicate that the best ways to get people involved in community projects is to simply ask, along with advertising opportunities through traditional and social media outlets.

¹ *Sigma: A Profile of Iowa Small Towns 1994 to 2014* (Ames, IA: Iowa State University College of Agriculture and Life Sciences, 2015).

WHAT DID PEOPLE SAY? Survey Participants Said...



"We and our children take advantage of the recreational opportunities whenever possible. It's hard to imagine how to make Decorah better but we sure support the effort and vision."

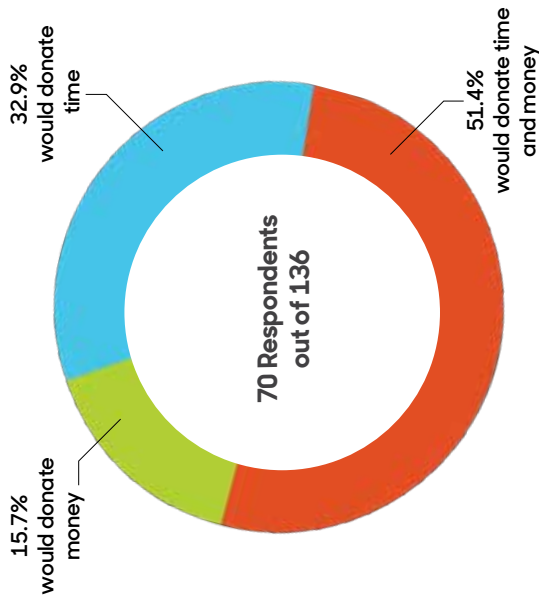


"We are definitely lacking space for seniors and mentally/physically-handicapped individuals to find fitness and wellness opportunities."



"I am really happy with our beautiful trails in Decorah. More lighting would be good and more entrances to the Trout Run Trail."

ARE PEOPLE WILLING TO HELP? More than 51% said YES!



Willingness to implement change
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Compared to other small towns in Iowa, Decorah residents are more willing to become involved in improving their community. In 2014, on average, 43% of residents in small, rural towns volunteered to help with a community project.¹ Decorah exceeds this average by 8%.

¹ Signora, A. Profile of Iowa Small Towns, 1994 to 2014 (Ames, IA: Iowa State University College of Agriculture and Life Sciences, 2015).

HOW DO YOU GET PEOPLE TO HELP?

Ask, Show, and Advertise Opportunities

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Decorah
Willingness to Help

Transportation Behavior and Needs Survey
Julia Badenhoppe and Sandra Oberbroeckling
Iowa State University | Trees Forever | Iowa Department of Transportation



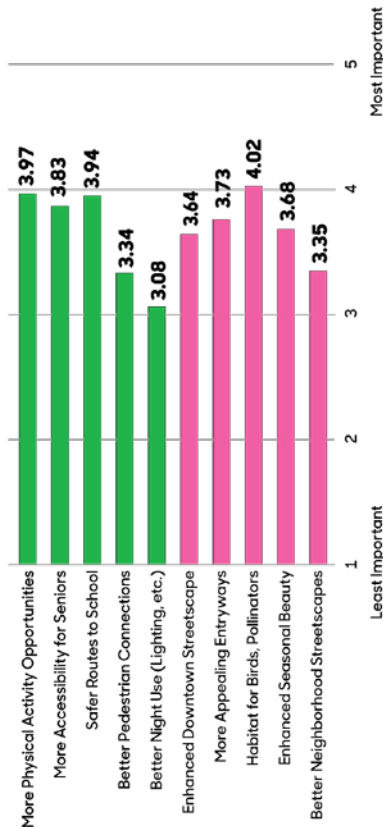
Priorities

On a scale of 1 to 5, with 5 being the most important, participants in Decorah ranked creating more habitat for birds and pollinators as most important, with a mean value of 4.02. Transportation enhancements that address pedestrian mobility, health, and safety are also considered important, such as providing more opportunities for physical activity (3.97), creating safer routes to school (3.94), and providing more accessibility for seniors (3.83). These findings are consistent with the views expressed by focus group participants during the Transportation Assets and Barriers workshop held in April 2018.

WHAT TYPES OF ENHANCEMENTS ARE IMPORTANT?

Quality of the Built Environment!

Transportation Enhancement Issues
 ■ Pedestrian/Facility, Safety, and Health
 ■ Quality of the Built Environment



Importance of transportation enhancement by type (125 responses)

On a scale of 1 to 5, with 5 being the most important, participants in Decorah ranked creating more habitat for birds and pollinators as most important, with a mean value of 4.02. Transportation enhancements that address pedestrian mobility, health, and safety are also considered important, such as providing more opportunities for physical activity (3.97), creating safer routes to school (3.94), and providing more accessibility for seniors (3.83). These findings are consistent with the views expressed by focus group participants during the Transportation Assets and Barriers workshop held in April 2018.

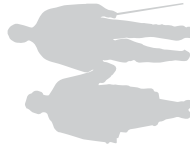
Decorah
 Priorities

WHAT DID THEY SAY?

Survey Participants Said...



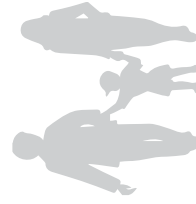
"I believe that city design can shape people's behavior. Create dedicated bike lanes and people will bike."



"With so much traffic on [Locust Road] involving vehicles, bikes, and pedestrians, there needs to be a sidewalk and trail addition to the road besides making it a bit wider."



"Potholes, steps, sudden curbs, broken sidewalks make it impossible for my daughter in her wheelchair. These lumps and bumps affect everyone, not only her! Zero entry curbs are awesome!"



"Connectivity of the transportation system is so important—multi modal connectivity—walking/ biking/transit. More emphasis on opportunities for storm-water improvements combined with biking/walking improvements is important too."

Transportation Behavior and Needs Survey

Julia Badenhop and Sandra Oberbroeckling
 Iowa State University | Trees Forever | Iowa Department of Transportation



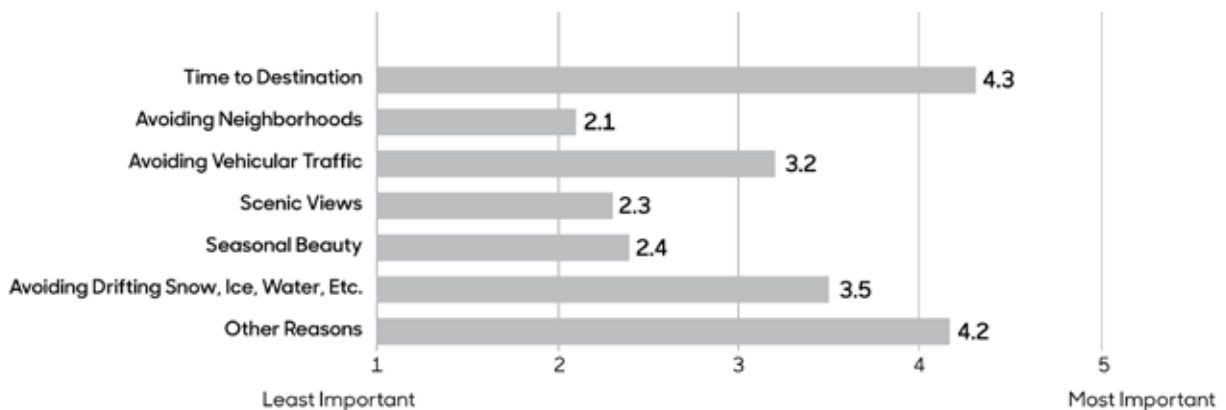
Commuting Routes

This map shows the commuting routes identified by 88 survey respondents. The frequency that the routes are used is depicted by their thickness, with most frequently used routes being the thickest. The primary commuting corridor in Decorah is Highway 9 to the southeast. Some people also go north-south on Highway 52 and travel on County Roads W38 and A34. In town, Montgomery Street, Water Street, and College Drive to Locust Road are the most heavily traveled.

The circulation patterns that emerge when routes for biking, walking, and commuting are overlaid suggest suitable types of transportation enhancements. For example, where pedestrian and vehicular traffic intersect, such improvements could include creating better visibility, defining crossing points, or improving signage.

Why They Go That Way

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that factored into their choice of commuting route. Among Decorah participants, time to destination is the most important factor, with a mean value of 4.3, followed by other reasons (4.2), which include avoiding schools at start and end times, road conditions, avoiding stoplights, and for walkers, availability of sidewalks. Avoiding weather-related issues such as snow and ice is also considered important, with a mean value of 3.5. Avoiding neighborhoods, scenic views, and seasonal beauty are not critical factors in determining commuting routes.

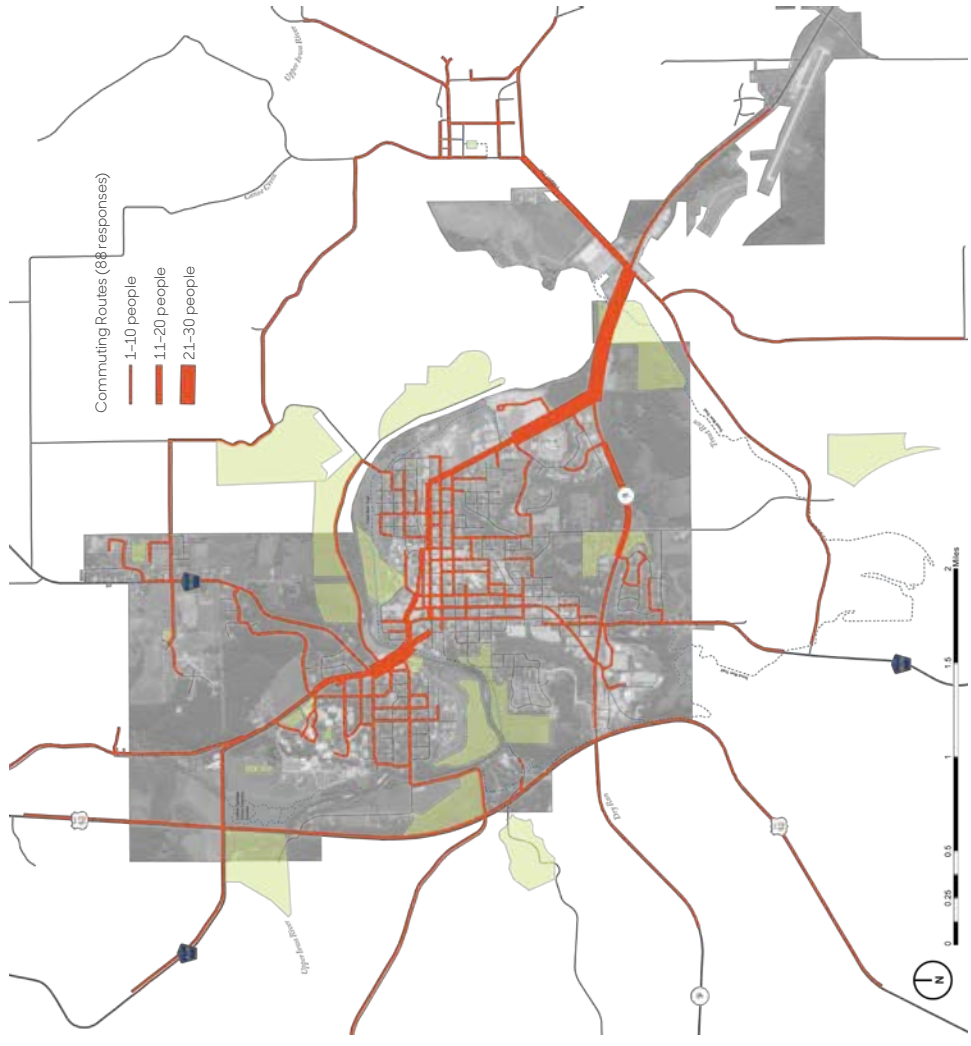


SPRING 2018 4d

How They Get There

This map shows the commuting routes identified by 88 survey respondents. The frequency that the routes are used is depicted by their thickness, with most frequently used routes being the thickest. The primary commuting corridor in Decorah is Highway 9 to the southeast. Some people also go north-south on Highway 52 and travel on County Roads W38 and A34. In town, Montgomery Street, Water Street, and College Drive to Locust Road are the most heavily traveled.

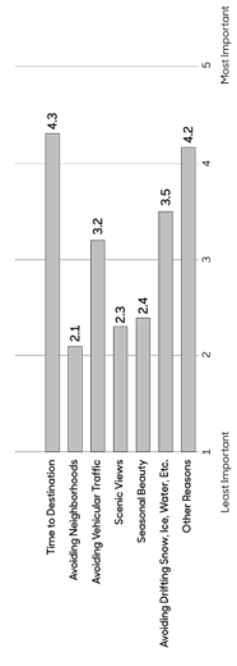
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Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," <http://www.igb.uiowa.edu/nrgislib/>.

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Decorah Commuting Routes

Transportation Behavior and Needs Survey

Julia Badenhop and Sandra Oberbroeckling
Iowa State University | Trees Forever | Iowa Department of Transportation

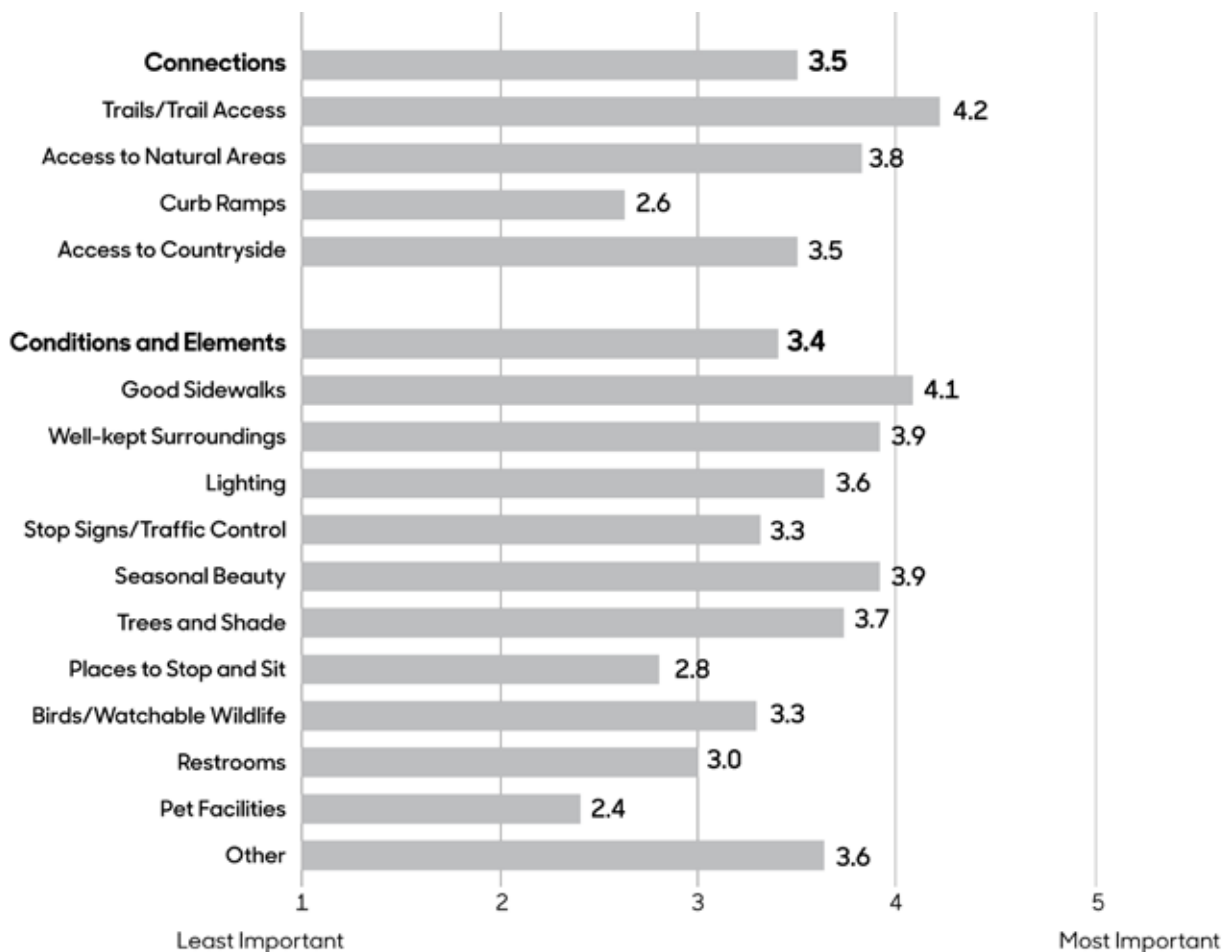


Walking Routes

This map shows the walking routes identified by 101 survey respondents. The frequency that the routes are used is depicted by their thickness, with most frequently used routes being the thickest. Trout Run Trail within town and Water Street downtown are the most popular walking routes. A number of people walk on Ice Cave Road and 5th Avenue, and connect to Trout Run Trail at the west end of 5th Avenue. Some people walk in the parks and at the Decorah City Prairie, some walk in Phelps Cemetery, and some walk the Luther College cross country course.

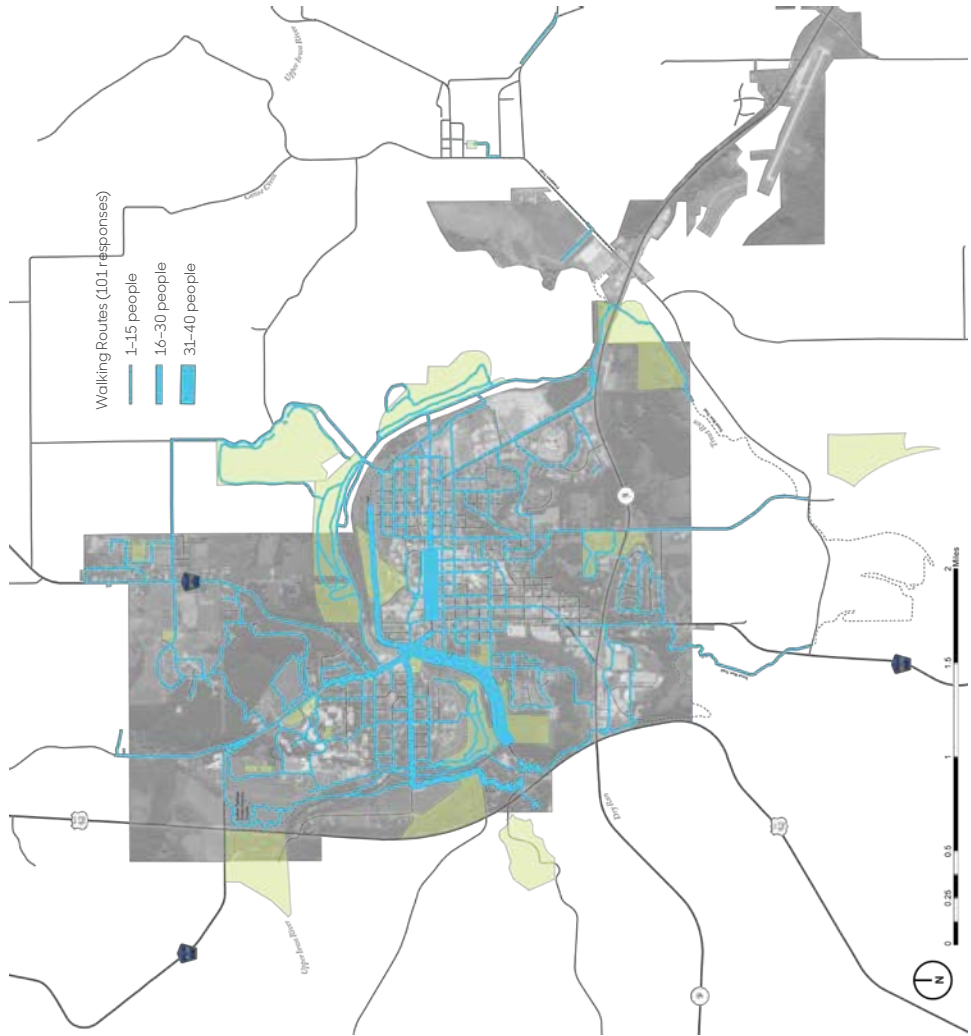
Why They Go That Way

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their walking experience better. These features are categorized as either "connections" or "conditions and elements." Among Decorah participants, connections and conditions/elements are of similar importance, with mean values of 3.5 and 3.4, respectively. In terms of connections, access to trails is most important with a mean value of 4.2. Good sidewalks (4.1) is the most important element to walkers, followed by well-kept surroundings and seasonal beauty (3.9). Other factors include snow removal, water fountains, surface conditions, and access to parks.



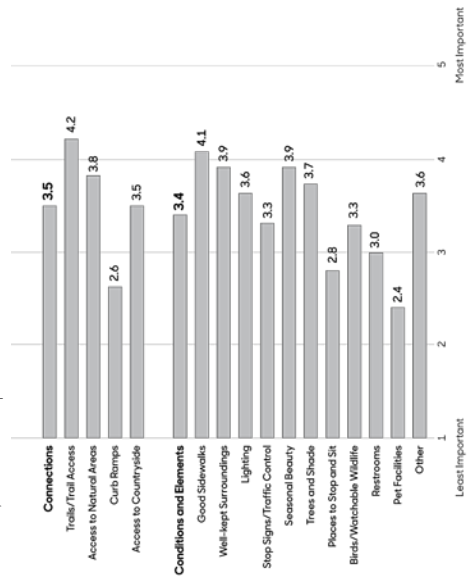
How They Get There

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Decorah Walking Routes

Transportation Behavior and Needs Survey

Julia Badenhop and Sandra Oberbroeckling
Iowa State University | Trees Forever | Iowa Department of Transportation

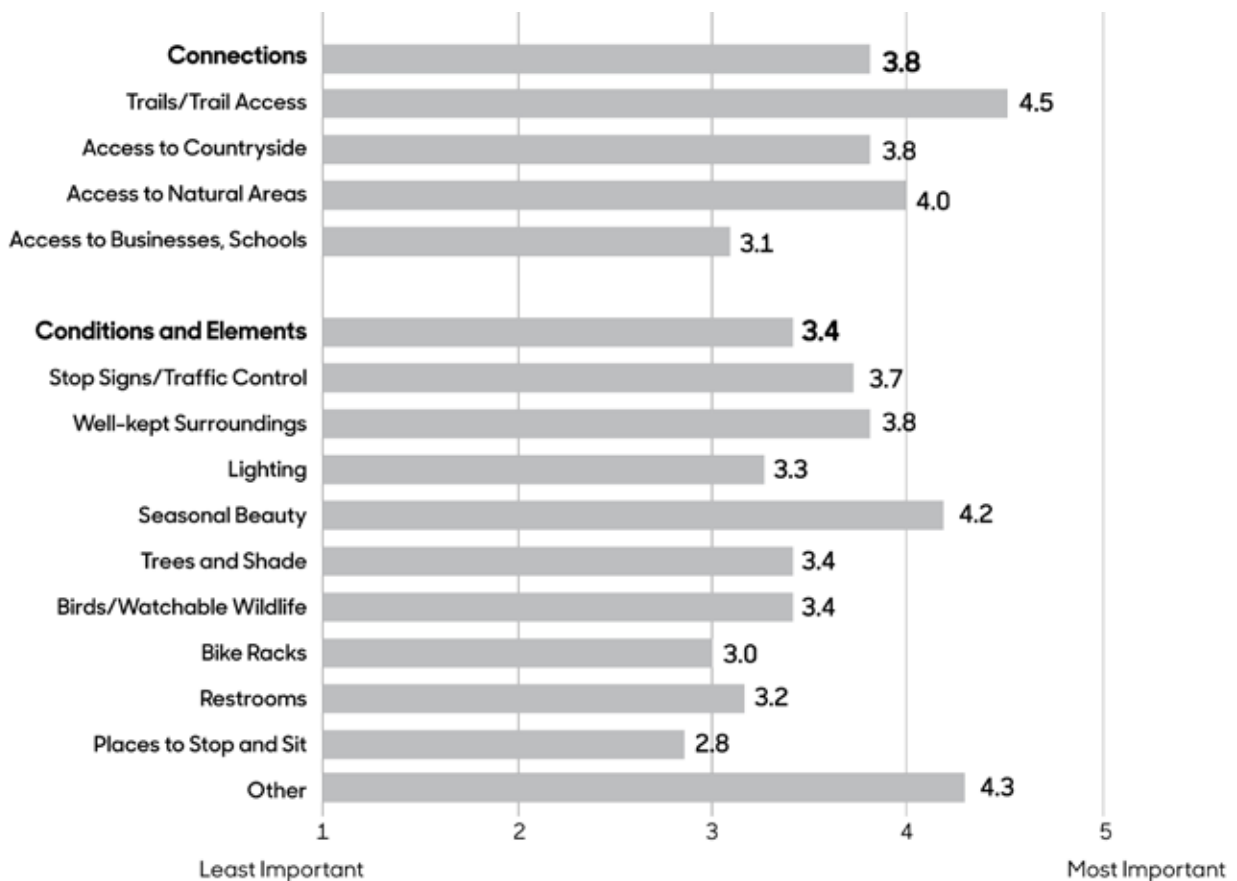


Biking Routes

This map shows the biking routes identified by 76 survey respondents. The frequency that the routes are used is depicted by their thickness, with most frequently used routes being the thickest. Trout Run Trail within town is the most popular biking route. Some people bike the city streets, especially 5th Avenue. A few people bike around the Luther College campus, and some bike along Ice Cave Road to Quarry Hill Road.

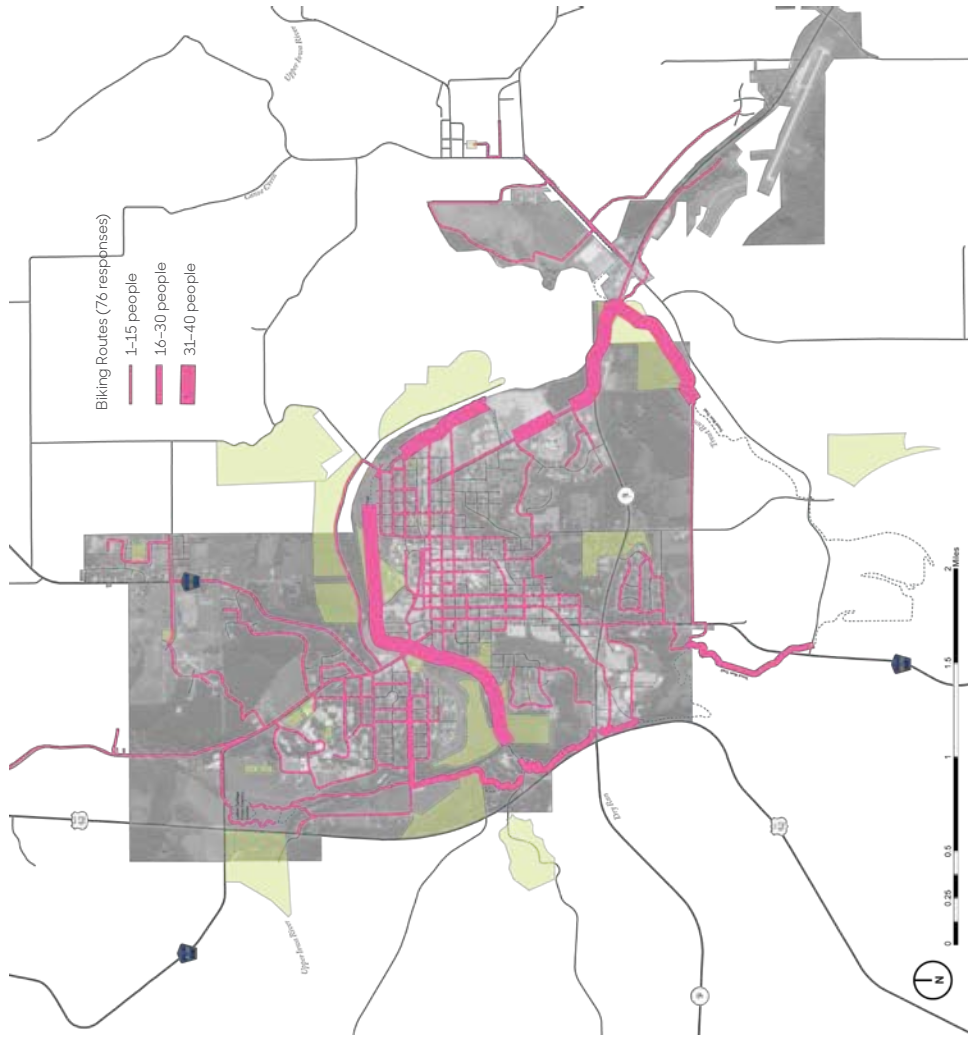
Why They Go That Way

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their biking experience better. These features are categorized as either "connections" or "conditions and elements." Among Decorah participants, connections are more important than conditions/elements, with mean values of 3.8 and 3.4, respectively. In terms of connections, access to trails is most important with a mean value of 4.5. Other factors (4.3) are the most important elements, and include water fountains, surface conditions, existence of dedicated bike lanes, hills, and access to parks. Seasonal beauty is also an important element to cyclists (4.2).



How They Get There

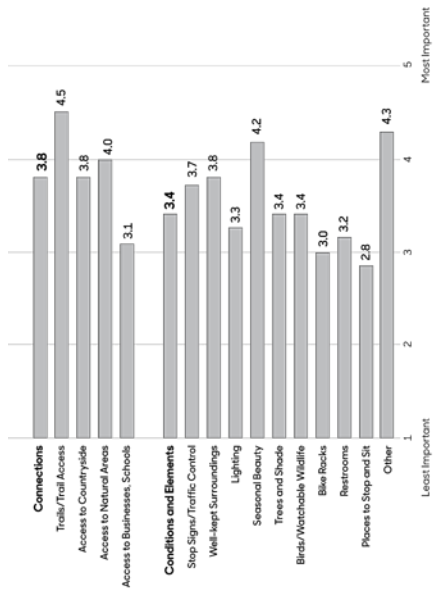
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Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," <http://www.igisbu.iowa.edu/nrgislib/>.

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Transportation Behavior and Needs Survey
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Decorah
 Biking Routes

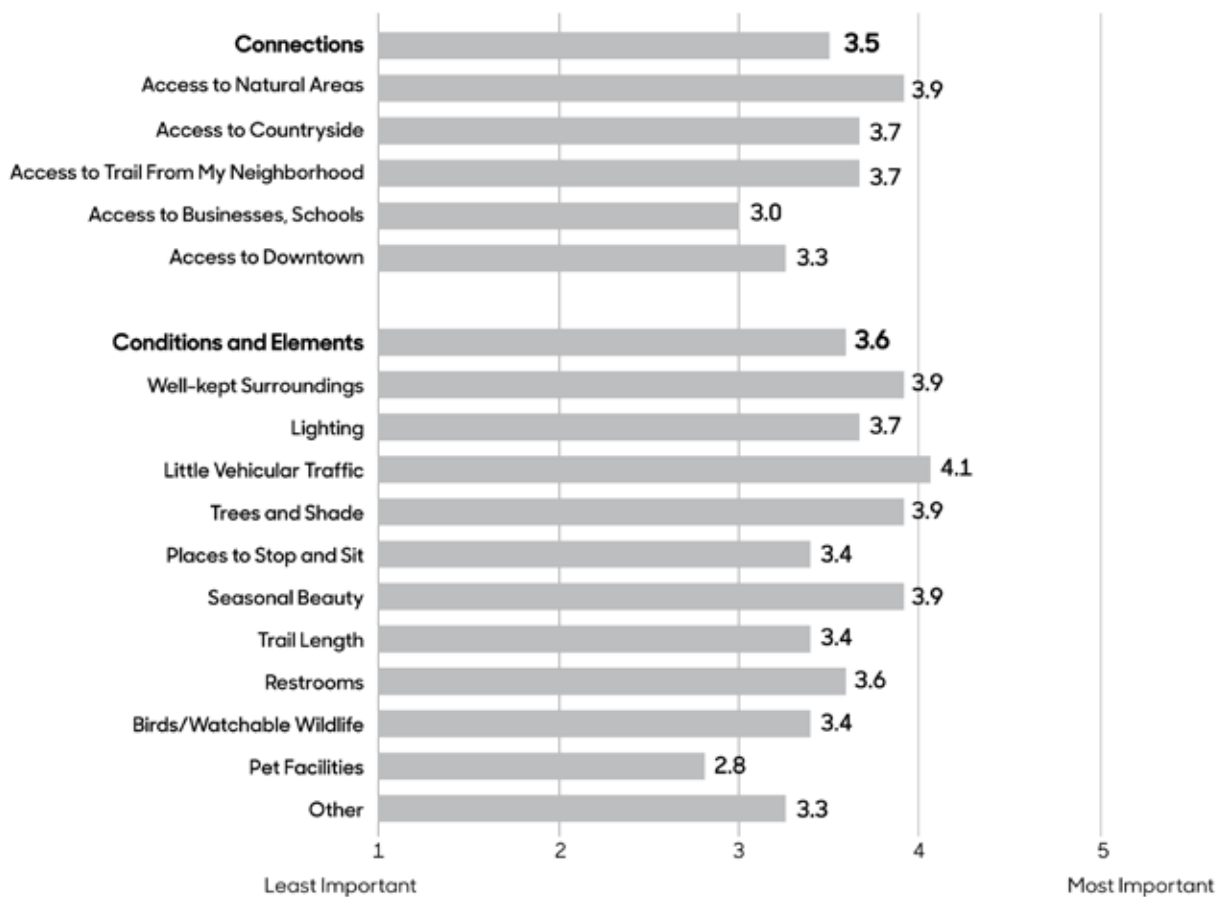


Desired Trail Routes

This map shows the desired trail routes identified by 40 survey respondents. The frequency that the routes are identified is depicted by their thickness, with most frequently identified routes being the thickest. The most popular location for a trail among survey respondents is along Locust Road. Ice Cave Road, Mechanic Street, and Ravine Street and Pleasant Avenue to Trout Run Road are also desired trail routes.

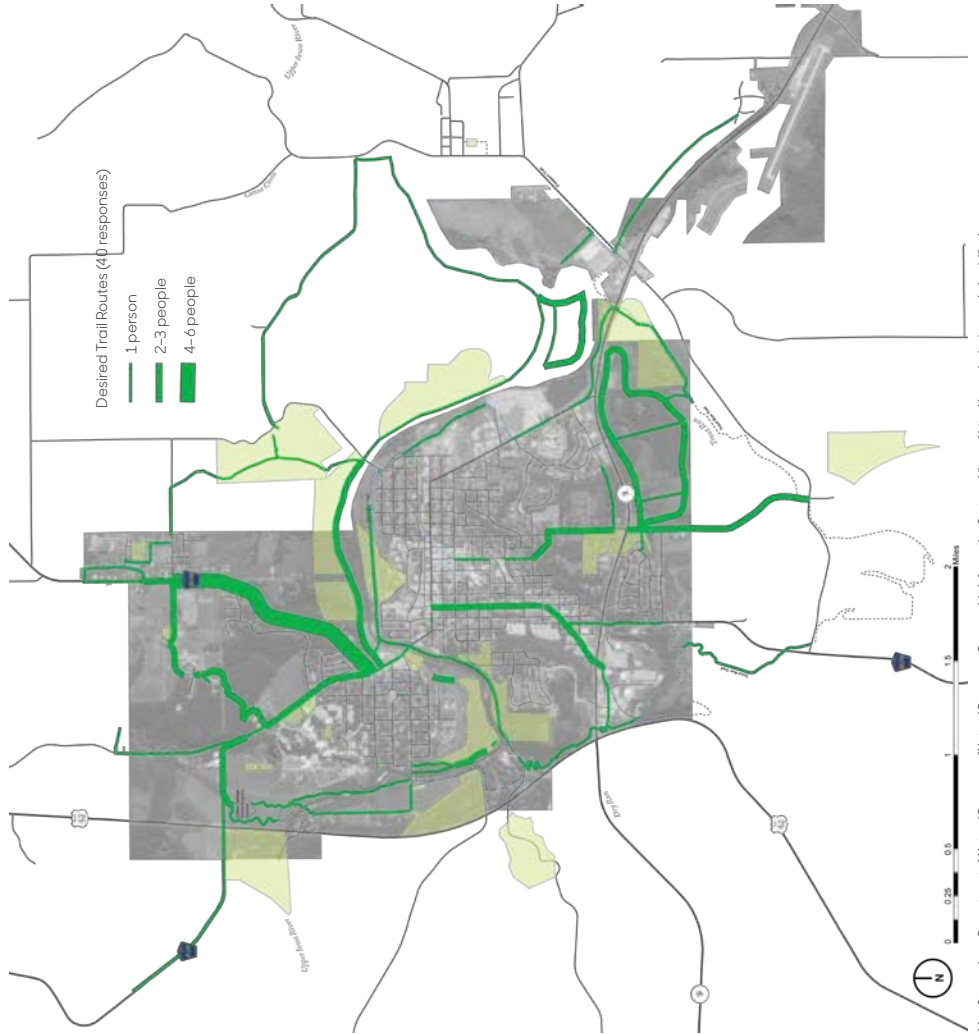
What Trail Features Are Important

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their trail experience better. These features are categorized as either "connections" or "conditions and elements." Among Decorah participants, connections and conditions/elements are of similar importance, with mean values of 3.5 and 3.6, respectively. In terms of connections, access to natural areas is most important with a mean value of 3.9. Little vehicular traffic is the most important element (4.1), followed by well-kept surroundings, trees and shade, and seasonal beauty (3.9 each). Other factors include separation from motorized traffic and well paved, wide surfaces.



How They Get There

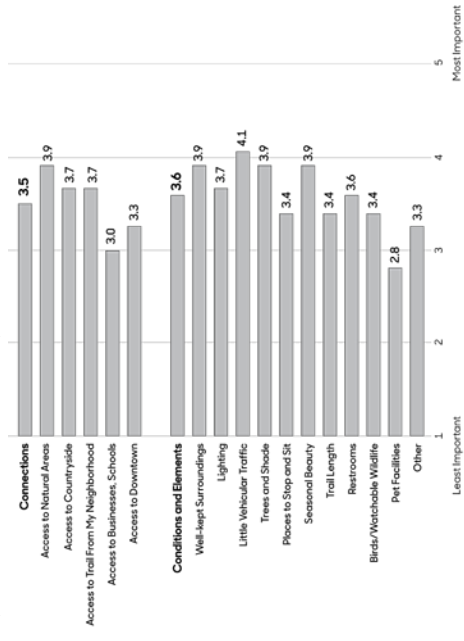
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Important Trail Features

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Decorah
 Desired Trail Routes



Transportation Inventory and Analysis

Knowledge of the transportation systems in and around a community is critical for sustainable transportation enhancement planning. Decorah's transportation systems include highways, pedestrian walking and biking routes, and various forms of multi-modal transportation.

Decorah is bisected by the Upper Iowa River, which serves as a major means of recreation within the community. Additionally, State Highway 9 and US Highway 52 intersect at the southwest corner of the city.

The visioning design team coordinated with Iowa Department of Transportation (DOT) personnel, and met with the Winneshiek 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 Decorah area.

Several transportation-related assets and opportunities include a city taxi service, a multitude of recreational opportunities, and the many quality municipal services and amenities, such as the co-op, farmers market, and library.

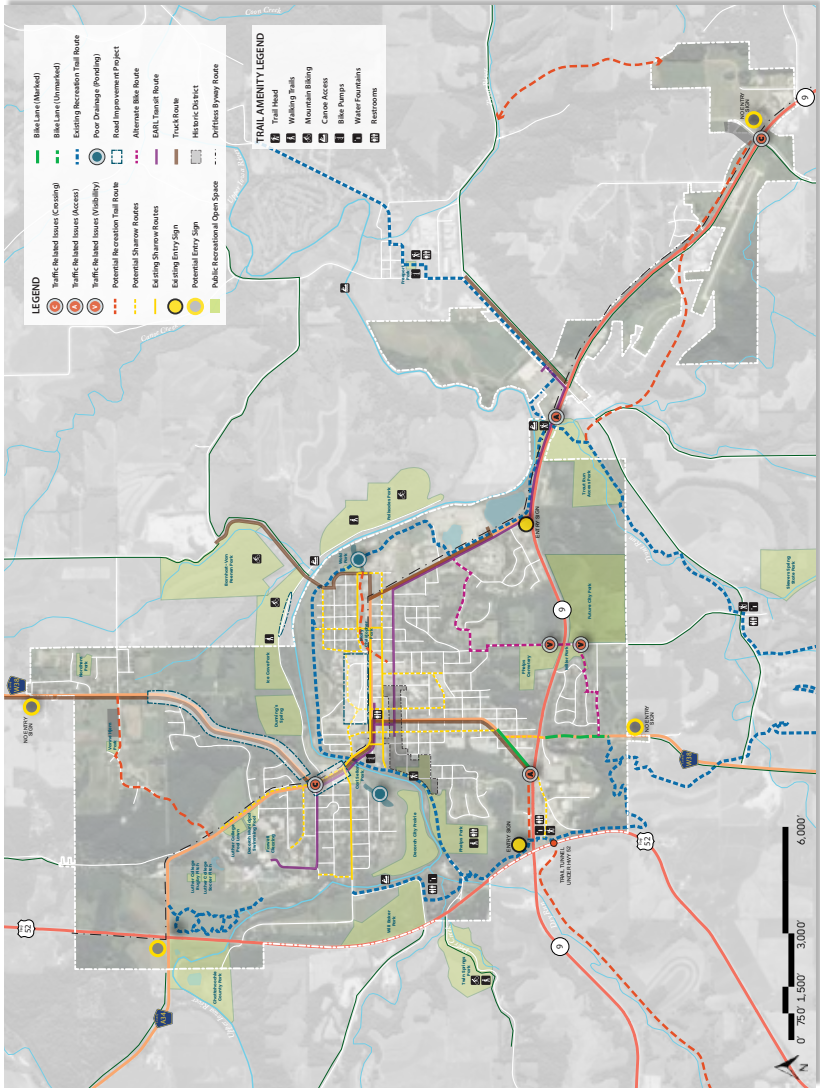
Items of concern related to the transportation systems include incomplete, narrow, or crumbling sidewalks, unsafe intersections and high vehicular speed along such roads as College Drive, poor visibility, and unorganized or non-delineated multi-use streets.

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Map of Decorah highlighting and analyzing existing transportation infrastructure.

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<p>Steering Committee</p> 	<p>Older Adults</p> 	<p>Youth</p> 	<p>Actives</p> 
<p>“...Short Street is a bike-able street. It’s got the lane, but...I would never bike on that one. It’s a freeway through there.”</p> <p>“It’s not well delineated between pedestrian areas and cars. I don’t think, especially along College Drive.”</p>	<p>“I just recovered from a concussion that took me six months to come back from. I tripped on a crack in the sidewalk... The sidewalks are old and are low our old neighborhoods so much, but I’ll sit sideways settle.”</p>	<p>“The shoulders on [Ice Cave Road] aren’t that great so we can’t really run on the shoulders safely.”</p> <p>“When I’m walking on River Street behind the middle school I almost get run over sometimes because there’s no sidewalk.”</p>	<p>“For the most part the sidewalks are great, but if you have a stroller or any sort, there [are] a lot of stairs, so you have to kind of like memorize where those are and remember to cross the street before you get to them.”</p>

Community concerns about aspects of Decorah's transportation systems.

Decorah Transportation Inventory







Jeffrey L. Bruce & Company LLC
 Landscape Architects: Eric Doll, PLA, ASLA and David Stokes, PLA, ASLA
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Goal Setting

The Decorah steering committee presented what they learned from the TAB assessment, survey, and bioregional information to the landscape architects. The committee then 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 Decorah 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.

Community Values/Themes Based on Assessments	Steering Committee Tally	Broad-Based Outcomes & Goals
Accessibility and Connectivity 	III	Complete sidewalk system and safe crossings Designated biking routes Enhanced trail connections into downtown Trail connections between parks Increased accessibility for seniors
Intersection Safety 	III	Improved visibility Safe pedestrian and bike crossings Safe routes to school Enhanced streetscape with pollinator habitat
Traffic Calming 	III I	Slow traffic Shared or mixed-use paths Safe pedestrian and bike crossings Safe routes to school
Way-finding and Branding 	II	Comprehensive update Unified signage system Signage visibility for all modes of transport
College Drive Improvements 	III I	Traffic calming and safe intersections Shared-use paths Enhanced streetscape with pollinator habitat Improved way-finding to areas of interest
Heivly Street Improvements 	III I	Traffic calming and safe intersections Safer routes to school Complete sidewalk system and safe crossings Enhanced streetscape with pollinator habitat Organize street structure and reduce road size

Goal Setting Process

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Decorah Goal Setting

Combined Results from Transportation Behavior and Needs Survey and Steering Committee Goal Setting Meeting

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Community Values/Themes Based on Assessments	Steering Committee Tally	Broad-Based Outcomes & Goals	Why Change Anything?	What Exactly and Where?
Accessibility and Connectivity 	III	Complete sidewalk system and safe crossings Designated biking routes Enhanced trail connections into downtown Trail connections between parks Increased accessibility for seniors	<ul style="list-style-type: none"> Encourage walking Increase safety Bring trail users into downtown to stimulate local businesses Enhance recreation opportunities 	<ul style="list-style-type: none"> Depot outlet store Ice Cove Rd. PHELPS Park Dry Run Creek
Intersection Safety 	III	Improved visibility Safe pedestrian and bike crossings Safe routes to school Enhanced streetscape with pollinator habitat	<ul style="list-style-type: none"> Encourage walking in areas previously viewed as challenging Increase safety Improve street aesthetic Reduce heat-island effect 	<ul style="list-style-type: none"> Heivly St. and Claiborne Dr. Heivly St. and State St. Broadway St. and Winnebago Broadway St. and Oak St. Montgomery St. and C Miller Dr.
Traffic Calming 	III	Slow traffic Shared or mixed-use paths Safe pedestrian and bike crossings Safe routes to school	<ul style="list-style-type: none"> Encourage walking in areas previously viewed as challenging Increase safety Improve walking and cycling experience 	<ul style="list-style-type: none"> Montgomery St. 5th Ave.
Way-finding and Branding 	II	Comprehensive update Unified signage system Signage visibility for all modes of transport	<ul style="list-style-type: none"> Defined city identity Increase accessibility to areas of interest for tourists and those unfamiliar with the area 	<ul style="list-style-type: none"> Uniformity and distinct hierarchy throughout the city
College Drive Improvements 	III	Traffic calming and safe intersections Shared-use paths Enhanced streetscape with pollinator habitat Improved way-finding to areas of interest	<ul style="list-style-type: none"> Increase safety Improve street aesthetic Reduce heat-island effect Manage stormwater 	<ul style="list-style-type: none"> From intersection of College Dr. and Locust Rd. to College Dr. and 5th Ave. Municipal swimming pool College Dr. and Water St.
Heivly Street Improvements 	III	Traffic calming and safe intersections Safer routes to school Complete sidewalk system and safe crossings Enhanced streetscape with pollinator habitat Organize street structure and reduce road size	<ul style="list-style-type: none"> Increase safety of this primary school route Reduce heat-island effect Manage stormwater Improve way-finding 	<ul style="list-style-type: none"> From intersection of Heivly St. and State St. to Heivly and Claiborne Dr.

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Community Concept Plan

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

1. Accessibility and Connectivity

The design proposal for improvements to the trail and sidewalk networks in town addresses residents' desire to have completed sidewalks for getting around Decorah and connecting downtown to their many parks and trail routes.

2. Intersection Safety

Improvements to the visibility of busy intersections currently making points of interest in town difficult to access safely.

3. Traffic Calming

Best practices and methods getting cars to slow down in locations with a lot of pedestrian traffic and crossings.

4. Way-finding and Branding

An attractive and cohesive signage scheme incorporating elements of existing community signage, enhancing Decorah's visual appearance and improving sign legibility.

5. College Drive Improvements

Improving pedestrian qualities by utilizing the right-of-way as a barrier from traffic with added vegetation for shade and color. Designating a new trail and limiting vehicles crossing the pedestrian way to make walking and biking safer.

6. Heivly Street Improvements

Reorganization of Day Spring Lane and Heivly Street into a single, two-lane road creates a larger right-of-way to be filled with more vegetation without decreasing the number of parking stalls. Stormwater best management practices are employed to minimize stresses on the current storm sewer system by reducing stormwater velocity and peak discharge.

Concept Overview

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- 3. Traffic Calming**
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- 4. Way-finding and Branding**
 An attractive and cohesive signage scheme incorporating elements of existing community signage enhancing Decorah's visual appearance and improving sign legibility.
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College Drive Improvements
 Create pedestrian-friendly environment and enhance aesthetics with the addition of street trees and wider pedestrian walkways.

Way-finding and Branding
 Improve navigation and create a more cohesive community identity.

Accessibility and Connectivity
 Increase connectivity between Town and Decorah's community assets.

Traffic Calming
 Provide a more safe environment for pedestrians along Montgomery Street.

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

Hevily Street Improvements
 Reorganize drive lanes to maximize the usable space for pedestrians, parking, and the farmer's market.



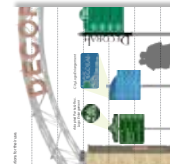
Board 8a



Board 8b



Board 9



Board 10



Board 11



Board 12a



Board 13a

Decorah

Concept Overview

Jeffrey L. Bruce and Company LLC
 Landscape Architects: Eric Doll, PLA, ASLA and David Stokes, PLA, ASLA
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Accessibility/Connectivity

The primary goal for accessibility and connectivity improvements in Decorah is to improve pedestrian connections between historic, cultural and recreational amenities throughout town. The four primary areas identified were:

1. Luther College and College Drive
2. Wold Park and Montgomery Street
3. Phelps Park and the Dug Road Trailhead area
4. Miller Park and a potential new city park along Pleasant Avenue

Design Expertise Recommended

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

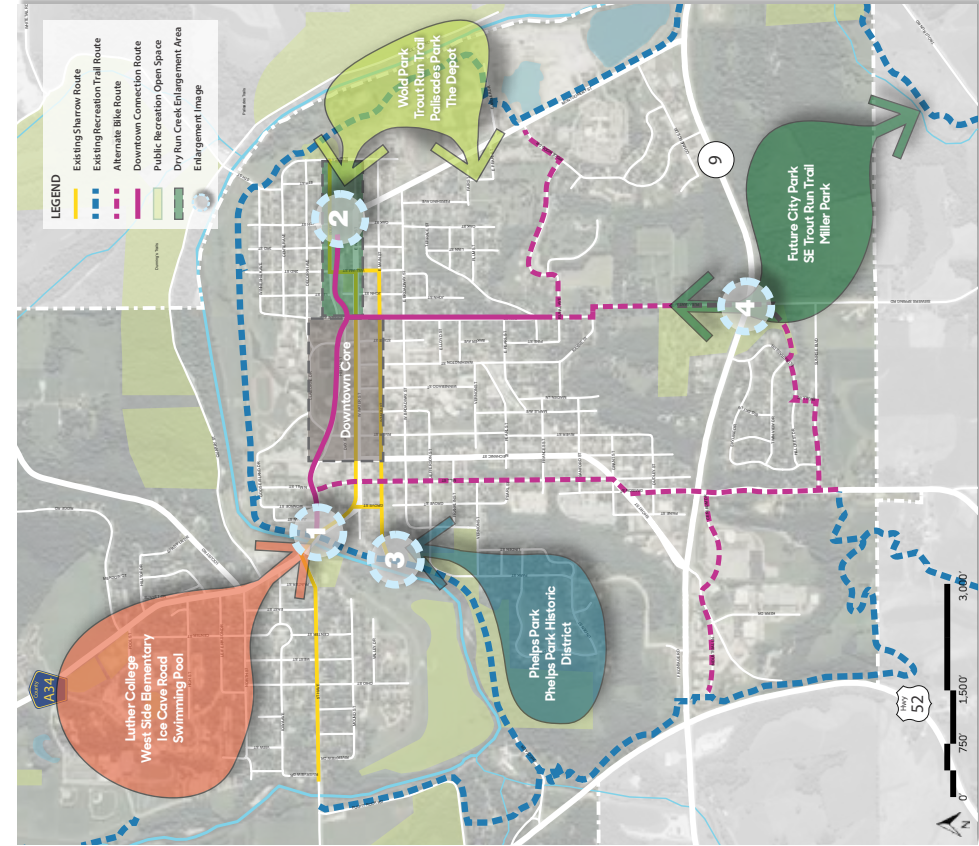
Abbreviations used in the following opinions of probable cost include:

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

Accessibility/Connectivity					
1. College Drive and Heivly Street Intersection Improvements					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					\$8,800.00
Mobilization	1	ls	\$1,000.00	\$1,000.00	
Pavement Removal for Colored Crosswalks (1,300 sf)	1,300	sf	\$6.00	\$7,800.00	
Site Sedimentation and Erosion Control					\$1,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$1,000.00	\$1,000.00	
Hardscape					\$10,400.00
Integrally-colored Concrete Crosswalks	1,300	sf	\$8.00	\$10,400.00	
Two-Way Protected Bike Lane (Cycle Track) - See Estimates for West Heivly					
Site Amenities					\$5,000.00
Miscellaneous Pavement Markings	1	ls	\$2,000.00	\$2,000.00	
General Curb Ramp Improvements	1	ls	\$2,000.00	\$2,000.00	
Crossing Signage	1	ls	\$1,000.00	\$1,000.00	
Sub-Total					\$25,200.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$6,048.00
Total					\$31,248.00
2. Montgomery Street Crossing - See Estimates for Traffic Calming (Board 11)					

3. Phelps Park and Dug Road Trailhead Improvements					
<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
Demolition/Site Preparation					\$22,500.00
Mobilization	1	ls	\$5,000.00	\$5,000.00	
Clearing and Grubbing	1	ls	\$15,000.00	\$15,000.00	
Site Survey	1	ls	\$2,500.00	\$2,500.00	
Site Sedimentation and Erosion Control					\$2,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$2,000.00	\$2,000.00	
Site Earthwork					\$7,500.00
Rough Grading	1	ls	\$7,500.00	\$7,500.00	
Nature Trail @ 600 lf, 8' Wide from Dug Park Trailhead to Phelps Park Entrance					\$9,667.00
Special Subgrade Preparation for Trail	533	sy	\$5.00	\$2,667.00	
Water Bars for Erosion Control	1	ls	\$2,000.00	\$2,000.00	
Modifications to Rock Wall along Park Street	1	ls	\$5,000.00	\$5,000.00	
Site Amenities					\$2,050.00
Way-finding Sign on Post	1	ea	\$1,800.00	\$1,800.00	
Trail Mile Marker Sign	1	ea	\$250.00	\$250.00	
Site Plant Material					\$8,000.00
Erosion Control Plantings along Trail	1	ls	\$5,000.00	\$5,000.00	
Native Plantings at Trailhead	1	ls	\$3,000.00	\$3,000.00	
Sub-Total					\$51,717.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$12,412.00
Total					\$64,129.00

4. Pleasant Avenue Improvements (Trailhead at Future City Park)					
<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
Demolition/Site Preparation					\$21,500.00
Mobilization	1	ls	\$5,000.00	\$5,000.00	
Clearing and Grubbing	1	ls	\$10,000.00	\$10,000.00	
SWPPP Preparation/Documentation	1	ls	\$4,000.00	\$4,000.00	
Site Survey	1	ls	\$2,500.00	\$2,500.00	
Site Utilities					\$25,000.00
Electrical Service (Outlet and Circuiting)	1	ls	\$25,000.00	\$25,000.00	
Site Sedimentation and Erosion Control					\$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
Site Earthwork					\$8,000.00
Rough Grading	1	ls	\$8,000.00	\$8,000.00	
Trail from Miller Park Crossing to Trailhead					\$72,000.00
10' Wide Asphalt Trail from Miller Park Crossing to Trailhead (1,200 lf)	12,000	sf	\$6.00	\$72,000.00	
Trailhead at Future City Park					\$37,156.00
Gravel Parking Area (6,000 sf @ 6" Depth)	111	cy	\$50.00	\$5,556.00	
Trailhead Kiosk Sign	1	ea	\$5,000.00	\$5,000.00	
Pedestrian LED Light Pole	2	ea	\$8,000.00	\$16,000.00	
Bench	2	ea	\$1,000.00	\$2,000.00	
Trash/Recycling Receptacle	1	ea	\$600.00	\$600.00	
Bike Repair Station	1	ea	\$2,000.00	\$2,000.00	
Bike Racks	1	ea	\$1,000.00	\$1,000.00	
Access Security Bollards	20	ea	\$200.00	\$4,000.00	
Parking Stops	10	ea	\$100.00	\$1,000.00	
Site Plant Material					\$9,000.00
Overstory Trees	1	ls	\$3,000.00	\$3,000.00	
Evergreen Trees	1	ls	\$3,000.00	\$3,000.00	
Native Plantings at Trailhead	1	ls	\$3,000.00	\$3,000.00	
Site Amenities					\$7,500.00
Bike Lane/Shared Road Pavement Markings from Miller Park to Day Street	1	ls	\$5,000.00	\$5,000.00	
Roadway Trail Signage	1	ls	\$2,500.00	\$2,500.00	
Sub-Total					\$185,156.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$44,437.00
Total					\$229,593.00



Decorah map showing existing trails and the desired destination connections into, around and within the city.



1 Plan view of College Drive and Healy Street showing optional intersection improvements with a protected two-way bike lane along the south side of Healy Street.



3 Perspective at the east Dug Road Trailhead looking south, depicting a natural surfaced trail providing access to Phelps Park.



2 North facing perspective on Montgomeri Street at the entrance of The Depot, showing the proposed trail crossing to the west of the street.



4 Perspective looking north down Pleasant Ave. from the St. Benedict Cemetery showing dedicated paved bike lanes, crossing and new trail accessing future designated city park.

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Decorah

Accessibility/Connectivity

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Iowa's Living Roadways
community
visioning

East Water Street Trail

The Decorah steering committee identified a strong need to provide dedicated access from the Trout Run Trail at Wold Park to the downtown Water Street area. The approximately 1/2 mile span of Dry Run Creek was noted as a viable corridor to develop a shared-use trail that connected Wold Park and Mary Christopher Park to Water Street and Heivly Street. Included in the proposal is the development of a new plaza space anchoring the east side of Water Street. Additional details include bike lane markings along Riverside Avenue and west up the alley behind the bank, connecting to a dedicated State Street crossing for continued trail access along Heivly Street.

Design Expertise Recommended

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

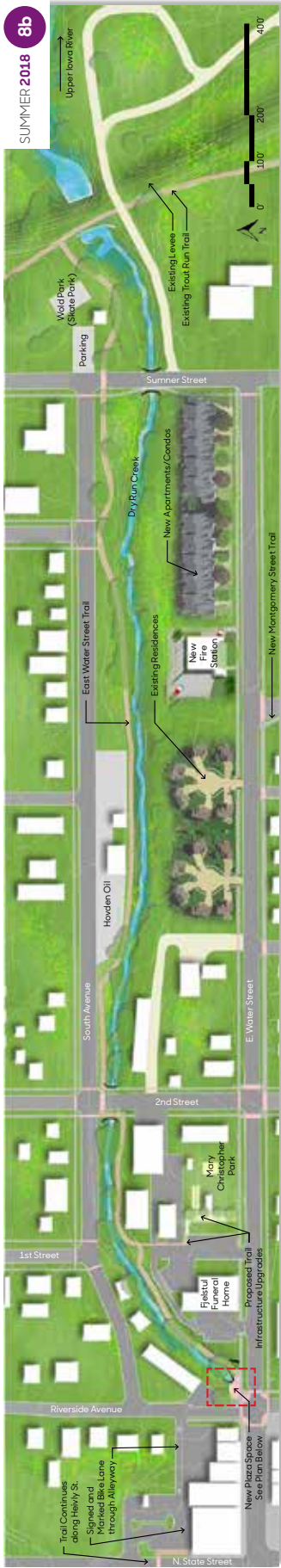
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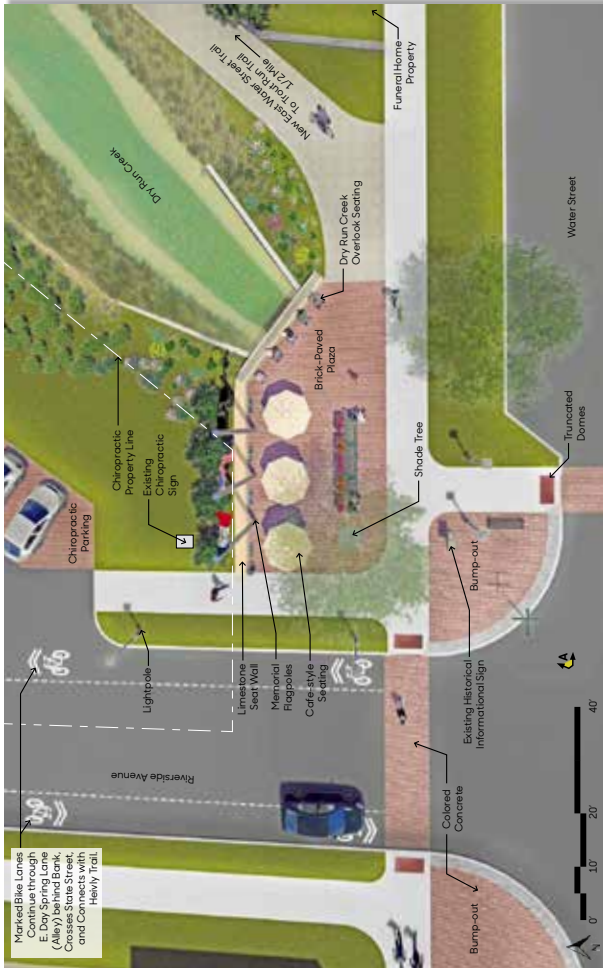
East Water Street Trail					
10' Paved Trail from Trout Run Trail at Wold Park to Riverside Avenue and Water Street					
<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
Demolition/Site Preparation					
Mobilization	1	ls	\$6,000.00	\$6,000.00	
Site Survey	1	ls	\$5,000.00	\$5,000.00	
SWPPP Preparation/Documentation	1	ls	\$5,000.00	\$5,000.00	
Pavement Removal for Colored Crosswalks (500 sf)	500	sf	\$6.00	\$3,000.00	
Clearing and Grubbing	1	ls	\$7,500.00	\$7,500.00	
Site Utilities					
Electrical Service (Outlet and Circuiting)	1	ls	\$25,000.00	\$25,000.00	
Site Sedimentation and Erosion Control					
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
Dry Run Creek Bank Stabilization and Restoration	1	ls	\$15,000.00	\$15,000.00	
Site Earthwork					
Trail Grading	53,000	sf	\$0.20	\$10,600.00	
Site Hardscape					
10' Wide Asphalt Trail (2,650 lf)	26,500	sf	\$6.00	\$159,000.00	
Curb Ramps along Trail	4	ea	\$1,000.00	\$4,000.00	
New Colored Pavement Crosswalks along Trail (250 sf each)	2	ea	\$7,500.00	\$15,000.00	
New Sidewalk to Mary Christopher Park (100 lf)	500	sf	\$7.00	\$3,500.00	
Site Plant Material					
Overstory Trees (1 Tree every 50 Feet along Trail)	50	ea	\$400.00	\$20,000.00	
General Site Seeding	1	ls	\$1,200.00	\$1,200.00	
Trail Amenities					
Pedestrian Lighting (LED Lighting)	8	ea	\$8,000.00	\$64,000.00	
Roadway Trail Signage	1	ls	\$2,500.00	\$2,500.00	
Benches	8	ea	\$1,000.00	\$8,000.00	
Site Amenity Improvements at Mary Christopher Park					
Pedestrian Lighting (LED Lighting)	6	ea	\$8,000.00	\$48,000.00	
Trailhead Kiosk Sign	1	ea	\$5,000.00	\$5,000.00	
Trash/Recycling Receptacle	1	ea	\$600.00	\$600.00	
Bike Repair Station	1	ea	\$2,000.00	\$2,000.00	
Bike Racks	1	ea	\$1,000.00	\$1,000.00	
Benches	2	ea	\$1,000.00	\$2,000.00	
Sub-Total					\$417,900.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$100,296.00
Total					\$518,196.00

Riverside Drive and Water Street Plaza Space					
<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
Demolition/Site Preparation					
Mobilization	1	ls	\$2,500.00	\$2,500.00	
Clearing and Grubbing	1	ls	\$1,000.00	\$1,000.00	
Pavement Removal	1	ls	\$4,500.00	\$4,500.00	
Storm Sewer and Electrical Utilities Coordination	1	ls	\$10,000.00	\$10,000.00	
Site Sedimentation and Erosion Control					
Inlet Protection and Erosion Mitigation	1	ls	\$2,500.00	\$2,500.00	
Site Earthwork					
Rough Grading	1	ls	\$2,000.00	\$2,000.00	
Fine Grading	1	ls	\$2,000.00	\$2,000.00	
Site Hardscape					
Brick-Paved Plaza Space and NE Corner Bump-out	1,600	sf	\$9.00	\$14,400.00	
New Colored Pavement Crosswalks at Intersection (250 sf each)	1000	sf	\$9.00	\$9,000.00	
Limestone Seat Wall and Overlook Area	50	lf	\$250.00	\$12,500.00	
Curb and Gutter for NE Bump-out	50	lf	\$35.00	\$1,750.00	
Site Plant Material					
Overstory Trees	2	ea	\$400.00	\$800.00	
Ornamental Trees	2	ea	\$250.00	\$500.00	
Shrubs	10	ea	\$120.00	\$1,200.00	
Site Planters	5	ea	\$800.00	\$4,000.00	
Site Amenities					
Pedestrian Lighting (LED Lighting)	2	ea	\$8,000.00	\$16,000.00	
Interpretive Signage	1	ea	\$1,500.00	\$1,500.00	
Memorial Flagpoles	3	ea	\$3,500.00	\$10,500.00	
Table Set and Umbrella	3	ea	\$2,400.00	\$7,200.00	
Trash/Recycling Receptacle	1	ea	\$600.00	\$600.00	
Benches	3	ea	\$1,000.00	\$3,000.00	
Outdoor Stools for Overlook Seating	5	ea	\$250.00	\$1,250.00	
Tree Grate	2	ea	\$1,200.00	\$2,400.00	
Painted Bike Lanes on Riverside Drive	1	ls	\$1,000.00	\$1,000.00	
Sub-Total					\$112,100.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$26,904.00
Total					\$139,004.00

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Proposed East Water Street Trail providing a dedicated connection from the Trout Run Trail at Wild Park to the eastern edge of the downtown area.



Detailed plan of the proposed Riverside Drive and Water Street plaza space, showing the potential trail connection along Dry Run Creek into downtown.



A-Perspective at Water Street and Riverside Avenue looking northeast showing a new plaza space and access to the East Water Street Trail.

Decorah

East Water Street Trail

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



Intersection Safety

As identified in the Transportation Assets and Barriers workshops, Decorah residents have concern about safe street crossings throughout the city. Many crossings are primary school routes in and around the urban downtown area.

With the addition of bump-outs, crossing distances can be substantially decreased, the visibility of pedestrians is improved, vehicle speeds are decreased, and a more substantial pedestrian zone can be realized.

Design Expertise Recommended

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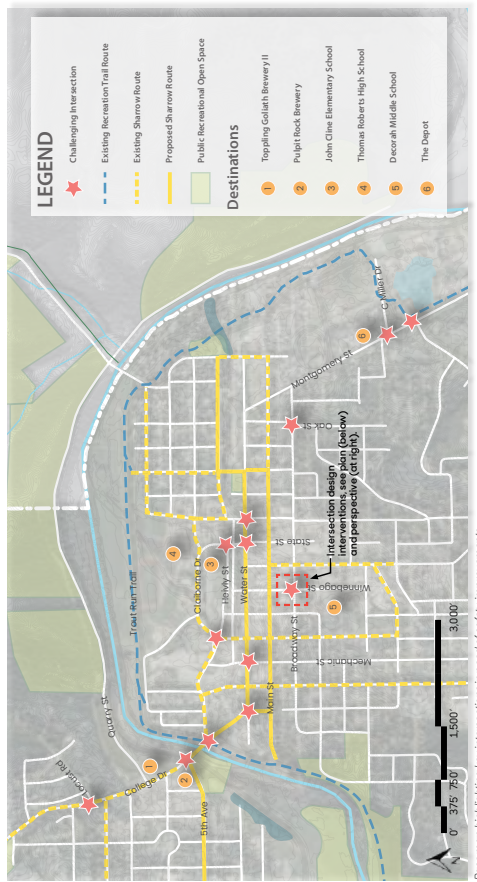
Project Scope and Cost Opinion

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Intersection Improvements					
Broadway and Winnebago Intersection Improvements					
<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
Demolition/Site Preparation					
Mobilization	1	ls	\$2,500.00	\$2,500.00	\$25,100.00
Pavement Removal for 3 Bump-outs	2,100	sf	\$6.00	\$12,600.00	
Storm Sewer and Electrical Utilities Coordination	1	ls	\$10,000.00	\$10,000.00	
Site Sedimentation and Erosion Control					
Inlet Protection and Erosion Mitigation	1	ls	\$2,500.00	\$2,500.00	\$2,500.00
Site Earthwork					
Fine Grading	1	ls	\$2,000.00	\$2,000.00	\$2,000.00
Site Hardscape					
New Paved Areas at 3 Bump-outs	1,350	sf	\$7.00	\$9,450.00	\$30,350.00
Limestone Seat Wall and Overlook Area	50	lf	\$250.00	\$12,500.00	
Curb and Gutter for 3 Bump-outs	240	lf	\$35.00	\$8,400.00	
Site Plant Material					
Street Trees	4	ea	\$400.00	\$1,600.00	\$6,300.00
Perennial Plantings at Bump-outs	1	ls	\$1,500.00	\$1,500.00	
Site Planters	4	ea	\$800.00	\$3,200.00	
Site Amenities					
Flashing Pedestrian Crossing Signage	2	ea	\$1,400.00	\$2,800.00	\$8,220.00
Trash/Recycling Receptacle	2	ea	\$600.00	\$1,200.00	
Benches	2	ea	\$1,000.00	\$2,000.00	
Truncated Domes	6	ea	\$120.00	\$720.00	
Crosswalk Painting	1	ls	\$1,500.00	\$1,500.00	
Sub-Total					\$74,470.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$17,873.00
Total					\$92,343.00

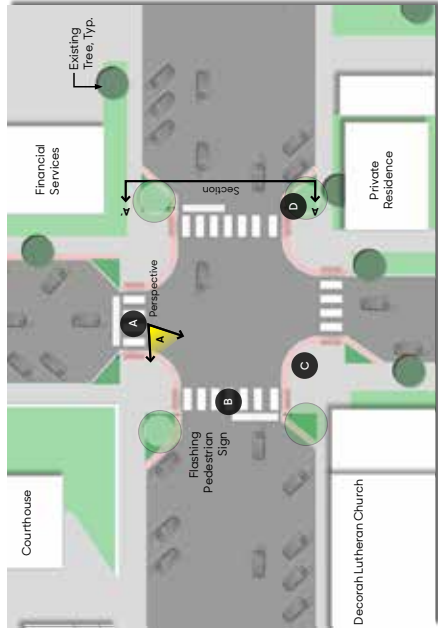


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Perspective A looking southwest depicting bump-outs and safe crossing elements working together to increase pedestrian awareness at the intersection of Broadway and Winniebago Streets.

Elements of Safety

- A Visible Crossings**
Painted crossings improve pedestrian awareness and help reduce vehicle speeds.
- B Accessible Crossings**
Curb cuts provide for ADA accessibility and truncated domes for the visually-impaired.
- C Bump-outs**
Slows turning traffic, increases pedestrian and cyclist visibility, decreases crossing distance, and provides space for amenities.
- D Streetscape Elements**
Trees, plantings, and various site furnishings provide a more amenable pedestrian environment.



Plan showing proposed improvements at the intersection of Broadway and Winniebago Streets.

As identified in the Transportation Assets and Barriers workshops, Decorah residents have concern about safe street crossings throughout the city. Many crossings are primary school routes in and around the urban downtown area.

With the addition of bump-outs, crossing distances can be substantially decreased, the visibility of pedestrians is improved, vehicle speeds are decreased, and a more substantial pedestrian zone can be realized.



Before, Section A - A through Broadway Street, looking west.



After, Section A - A through Broadway Street, looking west.

Scale: 1" = 4'



Intersection Safety

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



Way-finding and Branding

Decorah has many existing signs with various styles and logos throughout the community. There are park entry signs, as well as some pedestrian way-finding and historic signage along Water Street. Prominent community entry signs are located east and west of the city.

A cohesive family of signage throughout Decorah enhances community and visitor access to recreation and business throughout town. Signage fabrication in conjunction with the high school welding program is an added educational outreach opportunity. Shown are several options for alternative branding inspired by existing Decorah signage and the various applications for their use.

Design Expertise Recommended

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

Project Scope and Cost Opinion

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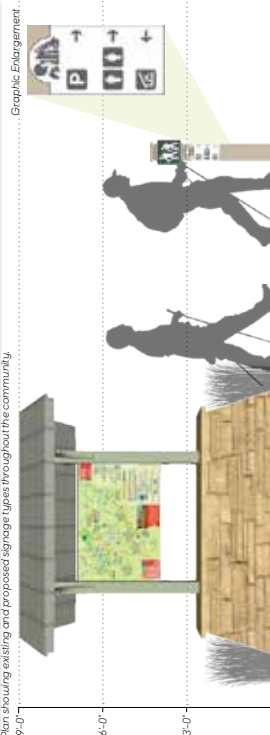
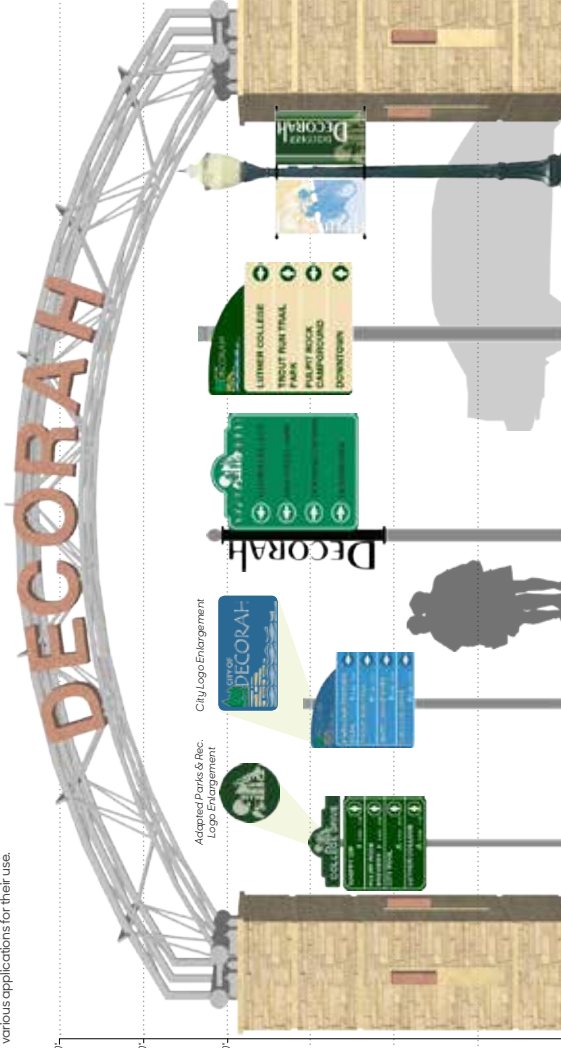
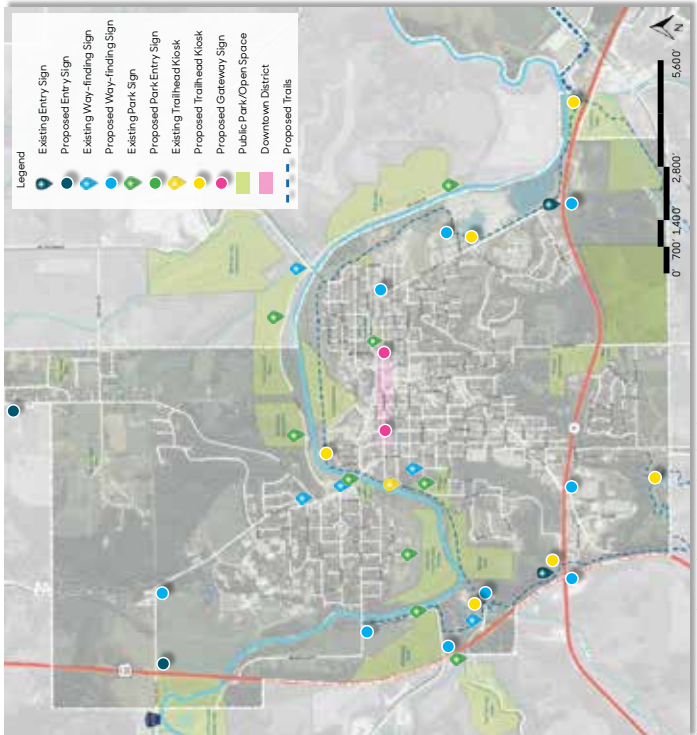
Way-finding/Branding					
Way-finding/Branding Signage Options (à la carte)					
<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
Gateway Sign					
Arched Steel Sign over Water Street	1	ea	\$150,000.00	\$150,000.00	
Trails Signage					
Stone Base Trailhead Kiosk Sign	1	ea	\$3,000.00	\$3,000.00	
Trail Mile Marker Sign	1	ea	\$250.00	\$250.00	
Way-finding Signs					
Pedestrian Way-finding Signs on Post (Styles 1 & 2)	1	ea	\$1,800.00	\$1,800.00	
Vehicle Way-finding Signs on Post (Styles 1 & 2)	1	ea	\$3,500.00	\$3,500.00	
Lightpole Banners					
Custom Banners (24" x 48")	1	ea	\$60.00	\$60.00	
Custom Banners (28" x 60")	1	ea	\$80.00	\$80.00	

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Way-finding and Branding

Decorah has many existing signs with various styles and logos throughout the community. There are park entry signs, as well as some pedestrian way-finding and historic signage along Water Street, prominent community entry signs are located east and west of the city.

A cohesive family of signage throughout Decorah enhances community and visitor access to recreation and business throughout town. Signage fabrication in conjunction with the high school welding program is an added educational outreach opportunity. Shown are several options for alternative branding inspired by existing Decorah signage and the various applications for their use.



Decorah

Way-finding/Branding

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



Traffic Calming (Montgomery Street)

Vehicle speed and pedestrian safety are significant concerns on major arterial roads such as Montgomery Street. Traffic calming mechanisms such as planted medians, street trees, visible pedestrian crossings and signage, and reduced lane widths signal drivers to slow down and become more aware of their surroundings. Montgomery Street provides a unique opportunity to add traffic calming elements without restricting traffic volumes and existing truck traffic.

Painted pedestrian crossings need to be repainted annually. A more viable long-term option is integrally colored pavement similar to the existing crossings on Water Street. The up-front costs are more but maintenance is less.

Montgomery Street improvements also include an opportunity to address trail connections. The addition of a 10' wide trail on the east side of the street, a dedicated crossing by The Depot Outlet, and an improved sidewalk on the west side of Montgomery Street provides improved connectivity to Water Street and nearby businesses.

Design Expertise Recommended

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

Project Scope and Cost Opinion

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Traffic Calming (Montgomery Street Improvements)

Safety and Traffic Calming Streetscape Improvements (Planted Medians from Speedway to Ridgewood)

Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition					\$73,200.00
Mobilization	1	ls	\$6,000.00	\$6,000.00	
Traffic Control	1	ls	\$4,500.00	\$4,500.00	
Pavement Removal for Planted Medians	6,200	sf	\$6.00	\$37,200.00	
Storm Sewer and Electrical Utilities Coordination	1	ls	\$20,000.00	\$20,000.00	
Site Survey	1	ls	\$2,500.00	\$2,500.00	
SWPPP Preparation/Documentation	1	ls	\$3,000.00	\$3,000.00	
Site Sedimentation and Erosion Control					\$2,500.00
Inlet Protection and Erosion Mitigation	1	ls	\$2,500.00	\$2,500.00	
Site Earthwork					\$12,000.00
Rough Grading and Median Excavation	1	ls	\$12,000.00	\$12,000.00	
Site Hardscape					\$89,900.00
Miscellaneous Paving (Patching and Squaring)	1,000	sf	\$8.00	\$8,000.00	
Curb and Gutter with Concrete Apron for Planted Medians	1,470	lf	\$50.00	\$73,500.00	
Protected Crosswalk Curbing and Paving	250	sf	\$8.00	\$2,000.00	
ADA Curb Ramps	8	ea	\$800.00	\$6,400.00	
Site Plant Material					\$39,283.00
Planting Bed Preparation	1	ls	\$2,500.00	\$2,500.00	
Street Trees	35	ea	\$400.00	\$14,000.00	
Perennial Plantings in Medians	4,500	sf	\$2.50	\$11,250.00	
Top Soil for Medians	167	cy	\$50.00	\$8,333.00	
Site Planters	4	ea	\$800.00	\$3,200.00	
Site Amenities					\$6,800.00
Vehicular Way-finding Sign	2	ea	\$1,800.00	\$3,600.00	
Light Pole Banners	20	ea	\$60.00	\$1,200.00	
Miscellaneous Pavement Markings	1	ls	\$2,000.00	\$2,000.00	
Sub-Total					\$223,683.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$53,684.00
Total					\$277,367.00

Montgomery Street Sidewalk and Trail Improvements

Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition					\$27,940.00
Mobilization	1	ls	\$4,000.00	\$4,000.00	
Pavement Removal for Widened Sidewalks	1,240	sf	\$6.00	\$7,440.00	
Site Survey	1	ls	\$3,500.00	\$3,500.00	
Storm Sewer and Electrical Utilities Coordination	1	ls	\$10,000.00	\$10,000.00	
SWPPP Preparation/Documentation	1	ls	\$3,000.00	\$3,000.00	
Site Sedimentation and Erosion Control					\$2,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$2,000.00	\$2,000.00	
Site Earthwork					\$10,000.00
Rough Grading and Excavation	1	ls	\$10,000.00	\$10,000.00	
Site Hardscape					\$91,840.00
10' Paved Trail from The Depot Outlet to Trout Run Trail (600 lf)	6000	sf	\$7.00	\$42,000.00	
10' Paved Trail Along C. Miller Drive (400 lf)	4000	sf	\$7.00	\$28,000.00	
8' Wide Improved Sidewalk from Main to Water (315 lf)	2520	sf	\$7.00	\$17,640.00	
ADA Curb Ramps	3	ea	\$1,000.00	\$3,000.00	
Truncated Domes	8	ea	\$150.00	\$1,200.00	
Site Amenities					\$4,800.00
Flashing Bike and Pedestrian Crossing Sign	2	ea	\$1,400.00	\$2,800.00	
Miscellaneous Pavement Markings	1	ls	\$2,000.00	\$2,000.00	
Sub-Total					\$136,580.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$32,779.00
Total					\$169,359.00



Before

Montgomery Street Improvements
 Vehicle speed and pedestrian safety are significant concerns on major arterial roads such as Montgomery Street. Traffic calming mechanisms such as planted medians, street trees, visible pedestrian crossings and signage, and reduced lane widths signal drivers to slow down and become more aware of their surroundings. Montgomery Street provides a unique opportunity to add traffic calming elements without restricting traffic volumes and existing truck traffic.

Painted pedestrian crossings need to be repainted annually. A more viable long-term option is integrally colored pavement similar to the existing crossings on Water Street. The up-front costs are more but maintenance is less.

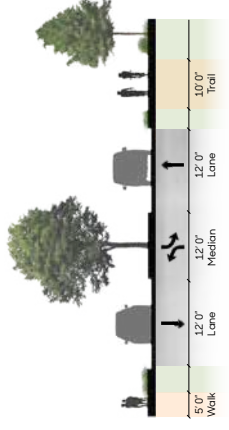
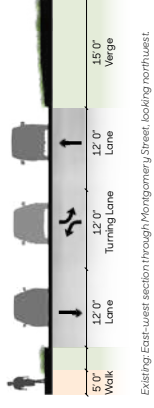
Montgomery Street improvements also include an opportunity to address trail connections. The addition of a 10' wide trail on the east side of the street, a dedicated crossing by The Depot Outlet, and an improved sidewalk on the west side of Montgomery Street provides improved connectivity to Water Street and nearby businesses.



Proposed traffic calming plan for Montgomery Street



Perspective A looking north showing traffic calming measures implemented on Montgomery Street at the intersection of East Pear Street.



Proposed East-west section through Montgomery Street, looking northwest.



Enlargement Plan A highlighting the primary pedestrian crossing just northwest of the Depot Outlet.

Decorah

Traffic Calming

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



College Drive Improvements

College Drive is major arterial connector for Decorah residents and visitors, connecting Luther College, the city pool, Water Street, and two popular parks on Quarry Street/Ice Cave Road. The proposed streetscape improvements center around the conversion of four traveled lanes to three with a center turn lane. The lane conversion decreases the overall road width and provides additional space along the sides of College Drive for improved pedestrian and environmental features such as a separated multi-purpose trail, street trees, and green infrastructure.

This creates a park-like atmosphere for pedestrians and cyclists and softens the harsh concrete areas that currently dominate College Drive. A fourth right-only turn lane is introduced at the Casey's intersection in order to accommodate increased afternoon traffic turning onto Locust Road. Additionally, a protected concrete crossing at Quarry Street allows pedestrians to safely cross College Drive to access businesses on the east side of the road.

College Drive was defined as a transportation barrier for pedestrians and bikers during the Transportation Assets and Barriers workshops because of fast traffic speeds, undefined trail space, and an uncomfortable pedestrian environment. Furthermore, College Drive serves as a primary entrance into the community and currently underserves the desired aesthetic and environmental functions sought after in Decorah.

As shown in the visuals on this board, a three-lane conversion effectively decreases the street width providing space for a safe, defined trail with integrated green infrastructure and way-finding signage. Street trees, in combination with stormwater best management practices, form what is known as a biocell. A biocell is a mechanism to capture stormwater, remove pollutants, and recharge the groundwater, minimizing stormwater runoff pressures put on storm sewer infrastructure and mitigating erosion further downstream.

Design Expertise Recommended

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

Project Scope and Cost Opinion

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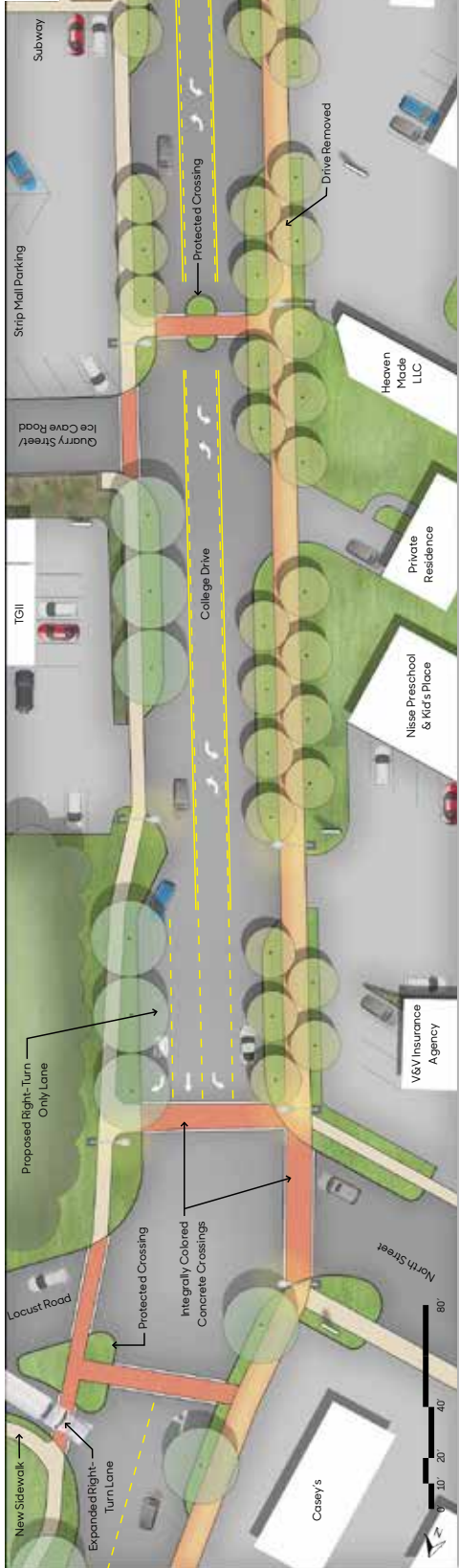
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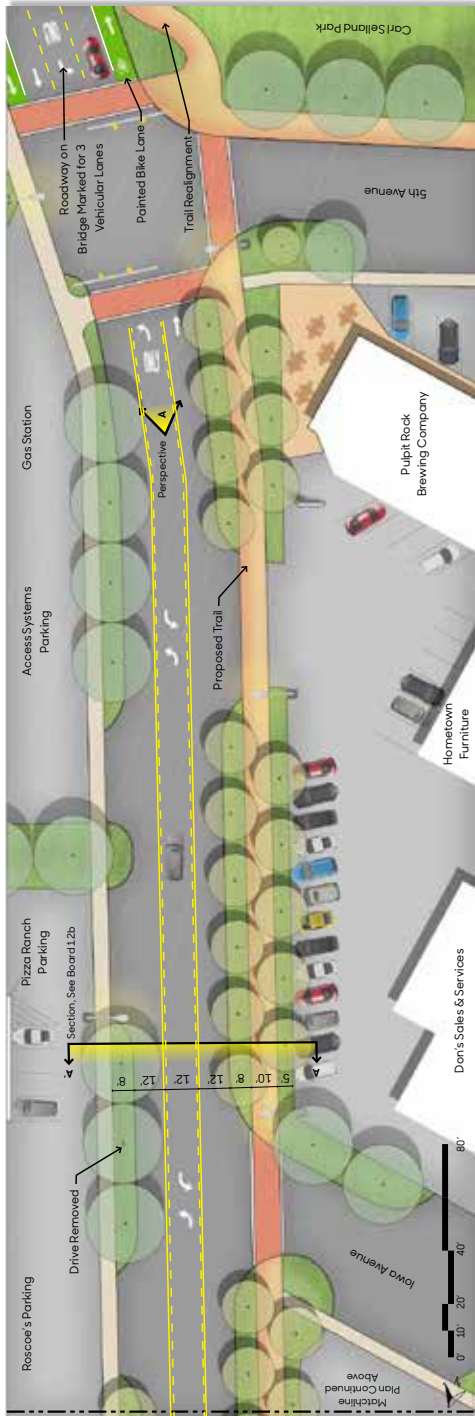
College Drive					
Streetscape Renovation from Locust Road to 5th Avenue					
<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
Demolition/Site Preparation					
Mobilization	1	ls	\$8,000.00	\$8,000.00	
Site Survey	1	ls	\$6,500.00	\$6,500.00	
Traffic Control	1	ls	\$10,000.00	\$10,000.00	
Business Entry Drive Pavement Removals (1,200 sf)	1,200	sf	\$5.00	\$6,000.00	
Curb and Gutter Removal (1,750 lf)	1,750	lf	\$9.00	\$15,750.00	
Old Trail and Sidewalk Pavement Removal for New Trail (13,125 sf)	13,125	sf	\$4.00	\$52,500.00	
Street Pavement Removal for Decreased Street Width (7,000 sf)	7,000	sf	\$5.00	\$35,000.00	
Street Pavement Removal for Colored Crosswalks (3,800 sf)	3,800	sf	\$5.00	\$19,000.00	
Excavation for Stormwater Biocell	1,056	cy	\$15.00	\$15,833.00	
Construction Survey	1	ls	\$7,500.00	\$7,500.00	
SWPPP Preparation/Documentation	1	ls	\$5,000.00	\$5,000.00	
Site Utilities					\$125,000.00
Electrical Service (Relocation, 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	
Site Sedimentation and Erosion Control					\$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
Site Earthwork					\$15,000.00
Rough Grading	1	ls	\$7,500.00	\$7,500.00	
Fine Grading	1	ls	\$7,500.00	\$7,500.00	
Site Hardscape					\$236,800.00
10' Wide Concrete Trail West of College Dr. from 5th to Locust (925 lf)	9,250	sf	\$7.00	\$64,750.00	
Concrete Curb and Gutter for College Drive	1,750	lf	\$25.00	\$43,750.00	
New Concrete Right-Turn Only Lane on College South of Locust	1,200	sf	\$8.00	\$9,600.00	
Locust Road Truck Right Turn Lane North Paving	3,000	sf	\$8.00	\$24,000.00	
Locust Road Truck Right Turn Lane North Curb and Gutter	250	lf	\$25.00	\$6,250.00	
Retaining Wall for New Right-Turn Only Lane on College	1	ls	\$15,000.00	\$15,000.00	
6' Wide Concrete Sidewalk on East Side of College (875 lf)	5,250	sf	\$7.00	\$36,750.00	
Integrally-Colored Concrete Crosswalks along Entire Corridor	3,800	sf	\$9.00	\$34,200.00	
Protected Crossing at Quarry Street	1	ls	\$2,500.00	\$2,500.00	
Stormwater Biocells along Both Sides of College					\$119,000.00
Planting Bed Preparation	1	ls	\$5,000.00	\$5,000.00	
Biocells - Installed Components including Designed Soil, Gravel, Subdrainage, Native Plant Plugs, Mulch, Erosion Control, Curb Cuts, Etc.)	9,500	sf	\$12.00	\$114,000.00	
Site Plant Material					\$26,800.00
Street Trees	25	ea	\$400.00	\$10,000.00	
Ornamental Trees	20	ea	\$350.00	\$7,000.00	
Shrubs	40	ea	\$120.00	\$4,800.00	
Miscellaneous Site Sodding and Seeding	1	ls	\$5,000.00	\$5,000.00	
Site Amenities					\$139,400.00
Pedestrian Lighting (LED Lighting)	10	ea	\$12,000.00	\$120,000.00	
Custom Light Pole Banners	10	ea	\$80.00	\$800.00	
Vehicle Way-finding Signs on Post (Styles 1 & 2)	2	ea	\$3,500.00	\$7,000.00	
Pedestrian Way-finding Signs on Post (Styles 1 & 2)	2	ea	\$1,800.00	\$3,600.00	
Painted Bike Lanes on Bridge	1	ls	\$8,000.00	\$8,000.00	
Sub-Total					\$848,083.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$203,540.00
Total					\$1,051,623.00

Converting College Drive from Four Lanes to Three Lanes from Locust Road to Heivly Street					
<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
Remove and Replace Pavement Markings					
Remove and Replace Pavement Markings Only	1	ls	\$40,000.00	\$40,000.00	
Traffic Signal Modifications	1	ls	\$15,000.00	\$15,000.00	
Sub-Total					\$55,000.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$13,200.00
Total					\$68,200.00

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Illustrative plan rendering showing the proposed improvements along College Drive.



Illustrative plan rendering showing the proposed improvements along College Drive.

College Drive Improvements

College Drive is major arterial connector for Decorah residents and visitors, connecting Luther College, the city pool, Water Street, and two popular parks on Quarry Street/Ice Cave Road. The proposed streetscape improvements center around the conversion of four traveled lanes to three with a center turn lane. The lane conversion decreases the overall road width and provides additional space along the sides of College Drive for improved pedestrian and environmental features such as a separated multi-purpose trail, street trees, and green infrastructure. This creates a park-like atmosphere for pedestrians and cyclists and softens the harsh concrete areas that currently dominate College Drive.

A fourth right-only turn lane is introduced at the Casey's intersection in order to accommodate increased afternoon traffic turning onto Locust Road. Additionally, a protected concrete crossing at Quarry Street allows pedestrians to safely cross College Drive to access businesses on the east side of the road.



College Drive Improvements

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



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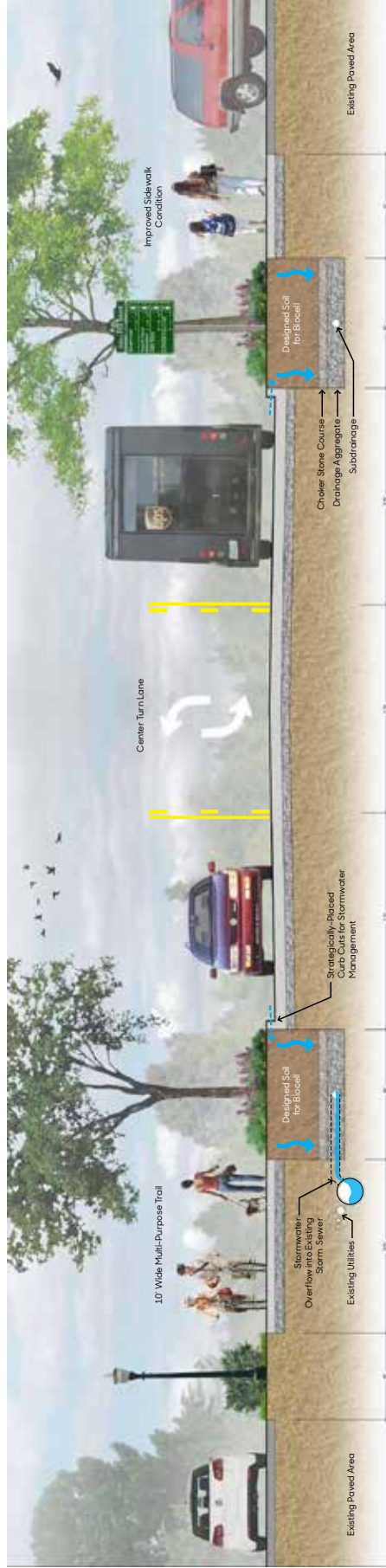
College Drive Improvements

College Drive was defined as a transportation barrier for pedestrians and bikers during the Transportation Assets and Barriers workshops because of fast traffic speeds, undefined trail space, and an uncomfortable pedestrian environment. Furthermore, College Drive serves as a primary entrance into the community and currently underserves the desired aesthetic and environmental functions sought after in Decorah.

As shown in the visuals on this board, a three-lane conversion effectively decreases the street width providing space for a safe, defined trail with integrated green infrastructure and way-finding signage. Street trees, in combination with stormwater best management practices, form what is known as a biocell. A biocell is a mechanism to capture stormwater, remove pollutants, and recharge the groundwater, minimizing stormwater runoff pressures put on storm sewer infrastructure and mitigating erosion further downstream.



Perspective A looking south on College Drive, showing the intersection at 5th Avenue and the bridge beyond.



Section A-A illustrating the spatial scale of the College Drive lane conversion and trail in the context of the existing street right-of-way. Scale: 3/8" = 1'-0"

Decorah

College Drive Improvements

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 Interns: Jeremy Johnson and Rosie Manzo
 Iowa State University | Trees Forever | Iowa Department of Transportation



West Heivly Street

Heivly Street, from College Drive to River Street, is a moderately-traveled corridor primarily used for easy access to College Drive, city offices, schools, and downtown. Spanning partway through a residential area and partway through commercial, two-lane Heivly Street has a road width of nearly 40 feet. The Decorah steering committee noted that although there is on-street parking in areas along Heivly, it is infrequently used for that purpose.

During the design charrette and preliminary design review meetings, committee members worked closely with the design team to envision a safe and effective means to get cyclists from College Drive to downtown via separated trail or a protected bike lane, as Water Street is not ideal for most recreational riders.

The design proposal for this section of Heivly takes a close look at crossing College Drive on the north side of Heivly, allowing bicyclists to access a protected, two-way bike lane known as a cycle track. The ideal location for the cycle track is on the north side of Heivly because there are fewer potential vehicular crossings and adequate street width. The cycle track extends the existing curb line 12' south, removing the potential for on-street parking and avoiding existing utility infrastructure.

At Mill Street, a new trailhead anchors the northwest corner and the cycle track transitions into a separated bike trail, because of the challenging curve and increased off-street design potential with fewer utilities. The trail continues east, maneuvering the roundabout towards "Farmers Park."

Design Expertise Recommended

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

West Heivly Street Improvements

From College Drive to River Street

Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					\$142,450.00
Mobilization	1	ls	\$7,500.00	\$7,500.00	
Site Survey	1	ls	\$6,500.00	\$6,500.00	
Traffic Control	1	ls	\$8,000.00	\$8,000.00	
Pavement Removal for Cycle Track (College Dr. to Mill St.) (7,000 sf)	7,000	sf	\$5.00	\$35,000.00	
Curb and Gutter Removal (1,100 lf)	1,100	lf	\$9.00	\$9,900.00	
Sidewalk Removal for New Separated Trail (3,200 sf)	3,200	sf	\$4.00	\$12,800.00	
Street Removal for Narrowed Street (Mill St. to Mechanic St. (6,750 sf)	6,750	sf	\$5.00	\$33,750.00	
Street Pavement Removal for Colored Crosswalks (4,400 sf)	3,800	sf	\$5.00	\$19,000.00	
Construction Survey	1	ls	\$6,000.00	\$6,000.00	
SWPPP Preparation/Documentation	1	ls	\$4,000.00	\$4,000.00	
Site Utilities					\$50,000.00
Electrical Service (Relocation, Outlet, and Circuiting)	1	ls	\$25,000.00	\$25,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$25,000.00	\$25,000.00	
Site Sedimentation and Erosion Control					\$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
Site Earthwork					\$20,000.00
Rough Grading	1	ls	\$10,000.00	\$10,000.00	
Fine Grading	1	ls	\$10,000.00	\$10,000.00	
Site Hardscape					\$235,950.00
10' Wide Two-Way Cycle Track Paving (6,200 sf)	6,200	sf	\$8.00	\$49,600.00	
Concrete Curb and Gutter from College Dr. to Mechanic St. (1,200 lf)	1,200	lf	\$25.00	\$30,000.00	
2' Wide Protective Median along Cycle Track (575 lf)	575	lf	\$50.00	\$28,750.00	
10' Wide Multi-Purpose Trail from Mill St. to Roundabout (600 lf)	6,000	sf	\$7.00	\$42,000.00	
5' Wide Sidewalk from College Dr. to Julian St. (lf)	3,000	sf	\$7.00	\$21,000.00	
Bump-outs at Mill Street and Mechanic Street (South Side of Heivly)	4	ea	\$5,000.00	\$20,000.00	
New Extended Curb North of Post Office	1	ls	\$5,000.00	\$5,000.00	
Integrally-Colored Concrete Crosswalks along Entire Corridor	4,400	sf	\$9.00	\$39,600.00	
Site Plant Material					\$11,800.00
Street Trees	10	ea	\$400.00	\$4,000.00	
Ornamental Trees	8	ea	\$350.00	\$2,800.00	
Miscellaneous Site Sodding and Seeding	1	ls	\$5,000.00	\$5,000.00	
Site Amenities					\$30,600.00
Vehicle Way-finding Signs on Post (Styles 1 & 2)	2	ea	\$3,500.00	\$7,000.00	
Pedestrian Way-finding Signs on Post (Styles 1 & 2)	2	ea	\$1,800.00	\$3,600.00	
Miscellaneous Pavement Markings	1	ls	\$20,000.00	\$20,000.00	
Sub-Total					\$495,800.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$118,992.00
Total					\$614,792.00

Mill Street Trailhead

Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					\$45,000.00
Mobilization	1	ls	\$5,000.00	\$5,000.00	
Pavement Removal (7,500 sf)	7,500	sf	\$5.00	\$37,500.00	
Site Survey	1	ls	\$2,500.00	\$2,500.00	
Site Sedimentation and Erosion Control					\$1,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$1,000.00	\$1,000.00	
Site Earthwork					\$5,000.00
Rough Grading	1	ls	\$5,000.00	\$5,000.00	
Site Hardscape					\$53,500.00
Trailhead Concrete Pad and Sidewalks	2,500	sf	\$7.00	\$17,500.00	
New Paved Parking Area	4,500	sf	\$8.00	\$36,000.00	
Site Amenities					\$67,600.00
Pedestrian Lighting (LED Lighting)	2	ea	\$8,000.00	\$16,000.00	
Bench	2	ea	\$1,000.00	\$2,000.00	
Trash/Recycling Receptacle	1	ea	\$600.00	\$600.00	
Bike Repair Station	1	ea	\$2,000.00	\$2,000.00	
Bike Racks	1	ea	\$1,000.00	\$1,000.00	
Open-air Shelter	1	ea	\$35,000.00	\$35,000.00	
Parking Stops	10	ea	\$100.00	\$1,000.00	
Bike Skills Course	1	ls	\$5,000.00	\$5,000.00	
Park Entry Sign	1	ea	\$2,000.00	\$2,000.00	
Stone Base Trailhead Kiosk Sign	1	ea	\$3,000.00	\$3,000.00	
Site Plant Material					\$8,410.00
Shade Trees	6	ea	\$400.00	\$2,400.00	
Evergreen Trees	4	ea	\$400.00	\$1,600.00	
Ornamental Trees	3	ea	\$350.00	\$1,050.00	
Shrubs	8	ea	\$120.00	\$960.00	
Miscellaneous Site Sodding and Seeding	1	ls	\$2,400.00	\$2,400.00	
Sub-Total					\$180,510.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$43,322.00
Total					\$223,832.00

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Illustrative plan rendering showing the proposed improvements in and around Heivly Street from College Drive to River Street.

West Heivly Street Improvements

Heivly Street, from College Drive to River Street, is a moderately-traveled corridor primarily used for easy access to College Drive, city offices, schools, and downtown. Spanning partway through a residential area and partway through commercial, two-lane Heivly Street has a road width of nearly 40 feet. The Decorah steering committee noted that although there is on-street parking in areas along Heivly, it is infrequently used for that purpose.

During the design charrette and preliminary design review meetings, committee members worked closely with the design team to envision a safe and effective

means to get cyclists from College Drive to downtown via a separated trail or a protected bike lane, as Water Street is not ideal for most recreational riders.

The design proposal for this section of Heivly takes a close look at crossing College Drive on the north side of Heivly, allowing bicyclists to access a protected, two-way bike lane known as a cycle track. The ideal location for the cycle track is on the north side of Heivly because there are fewer potential vehicular crossings and adequate street width. The cycle track extends the existing curb line 12' south, removing the potential for on-street parking and avoiding existing utility infrastructure.

At Mill Street, a new trailhead anchors the northwest corner and the cycle track transitions into a separated bike trail, because of the challenging curve and increased off-street design potential with fewer utilities. The trail continues east, maneuvering the roundabout towards 'Farmers Park.'



Section A - A showing the 2-lane cycle track along Heivly Street.



Perspective A showing the proposed two-way cycle track as it transitions to a separated trail at the Mill Street Trailhead.

Decorah

West Heivly Street

Jeffrey L. Bruce and Company LLC

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

Interns: Jeremy Johnson and Rosie Manzo

Iowa State University | Trees Forever | Iowa Department of Transportation



East Heivly Street

Heivly Street, from River Street to State Street, is a heavily trafficked corridor that bisects downtown Decorah, two community schools, and an assortment of recreation along the river. Day Spring Lane runs parallel to Heivly and offers an assortment of parking and service areas for Water Street businesses and residents.

During the Transportation Assets and Barriers Workshops (Boards 3a-3c) many residents noted the challenges kids have accessing the school and recreation areas north of Heivly. The primary route to the school from south of Water Street is through the Bank of the West building and out on Day Spring Lane.

The proposed improvements for the eastern half of Heivly Street include a complete Realignment and reorganization of the roadway to accommodate a multi-purpose trail, green infrastructure, and improved access for pedestrians throughout.

Modifications to Day Spring Lane include reorganized parking, a separated service lane, street trees, and a dedicated green space next to the Farmers Market lot coined "Farmers Park." This green space is envisioned as a community park/venue and is tied directly to the proposed trail and greenway.

Several other noteworthy design proposals shown in the plan above include a pedestrian-only Court Street, a roundabout south of City Hall and a new parking ramp structure next to Oneota Grocery. This parking ramp includes a habitable green roof with access from Norman Smith Plaza.

Design Expertise Recommended

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

Project Scope and Cost Opinion

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

Abbreviations used in the following opinions of probable cost include:

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

East Heivly Street Improvements

Heivly Street and Greenway Trail from River Street to State Street Including Farmers Park

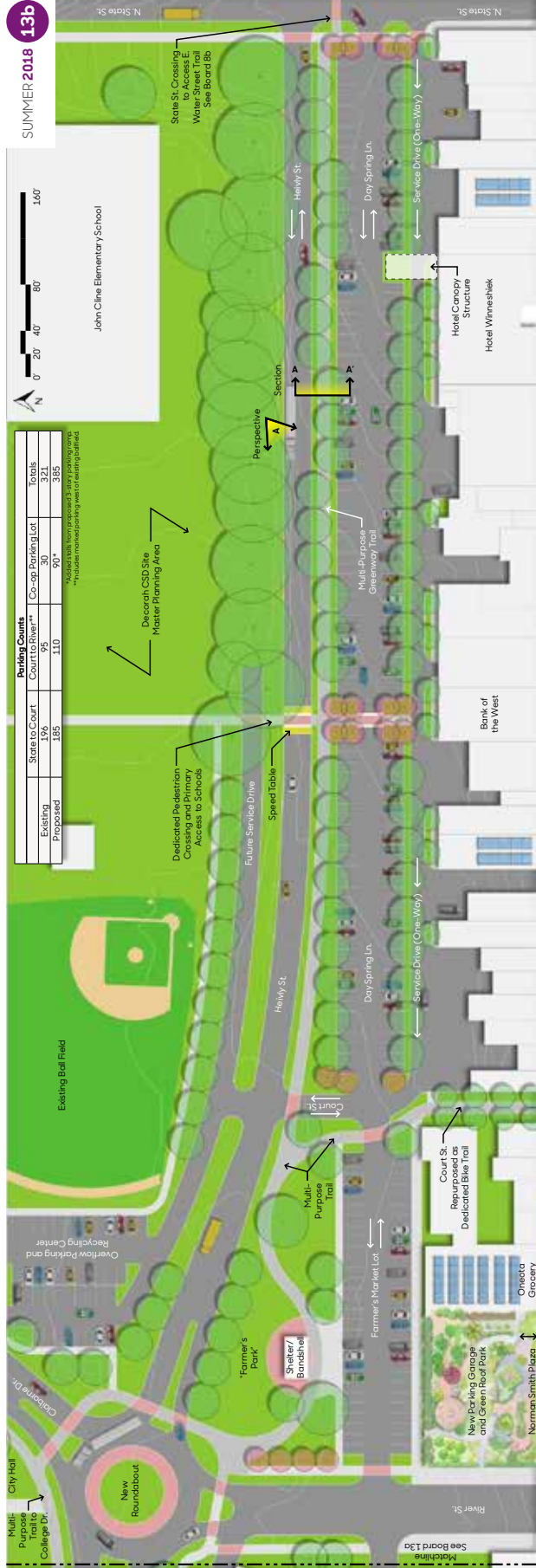
Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					\$435,000.00
Mobilization	1	ls	\$6,000.00	\$6,000.00	
Site Survey	1	ls	\$4,000.00	\$4,000.00	
Traffic Control	1	ls	\$6,000.00	\$6,000.00	
Pavement Removal from River Street to State Street (7,000 sf)	75,000	sf	\$5.00	\$375,000.00	
Curb and Gutter Removal (3,500 lf)	3,500	lf	\$9.00	\$31,500.00	
Construction Survey	1	ls	\$8,500.00	\$8,500.00	
SWPPP Preparation/Documentation	1	ls	\$4,000.00	\$4,000.00	
Site Utilities					\$125,000.00
Electrical Service (Relocation, 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	
Site Sedimentation and Erosion Control					\$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
Site Earthwork					\$30,000.00
Rough Grading	1	ls	\$15,000.00	\$15,000.00	
Fine Grading	1	ls	\$15,000.00	\$15,000.00	
Site Hardscape					\$627,050.00
10' Wide Concrete Trail from River St. to State Street (1,200 lf)	12,000	sf	\$7.00	\$84,000.00	
Concrete Curb and Gutter for Heivly Street	2,300	lf	\$25.00	\$57,500.00	
New Heivly Street Paving	29,500	sf	\$8.00	\$236,000.00	
New Court Street Paving Alignment	1,500	sf	\$8.00	\$12,000.00	
6' Wide Concrete Sidewalk along South Side of Farmers Park (275 lf)	1,650	sf	\$7.00	\$11,550.00	
Additional Paved Area at Farmers Park (3,000 sf)	3,000	sf	\$8.00	\$24,000.00	
Speed Table	1	ls	\$2,000.00	\$2,000.00	
Small Band shell/Shelter at Farmers Park	1	ls	\$200,000.00	\$200,000.00	
Site Plant Material					\$59,000.00
Planting Topsoil	1	ls	\$10,000.00	\$10,000.00	
Street Trees	25	ea	\$400.00	\$10,000.00	
Ornamental Trees	20	ea	\$400.00	\$8,000.00	
Shrubs	40	ea	\$400.00	\$16,000.00	
Miscellaneous Site Seeding	1	ls	\$5,000.00	\$5,000.00	
Farmers Park Sodding	1	ls	\$10,000.00	\$10,000.00	
Site Amenities					\$83,080.00
Pedestrian Lighting at Farmers Park (LED Lighting)	6	ea	\$12,000.00	\$72,000.00	
Custom Light Pole Banners	6	ea	\$80.00	\$480.00	
Vehicle Way-finding Signs on Post (Style 1 & 2)	2	ea	\$3,500.00	\$7,000.00	
Pedestrian Way-finding Signs on Post (Style 1 & 2)	2	ea	\$1,800.00	\$3,600.00	
Sub-Total					\$1,364,130.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$327,391.00
Total					\$1,691,521.00

Single-lane Roundabout at Heivly St., Claiborne Dr., and River St.

Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					\$141,000.00
Mobilization	1	ls	\$6,000.00	\$6,000.00	
Site Survey	1	ls	\$5,000.00	\$5,000.00	
Traffic Control	1	ls	\$15,000.00	\$15,000.00	
Site Demolition and Excavation	1	ls	\$100,000.00	\$100,000.00	
Construction Survey	1	ls	\$10,000.00	\$10,000.00	
SWPPP Preparation/Documentation	1	ls	\$5,000.00	\$5,000.00	
Site Utilities					\$125,000.00
Electrical Service (Relocation, Outlet, and Circuiting)	1	ls	\$100,000.00	\$100,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$25,000.00	\$25,000.00	
Site Sedimentation and Erosion Control					\$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
Site Earthwork					\$30,000.00
Rough Grading	1	ls	\$15,000.00	\$15,000.00	
Fine Grading	1	ls	\$15,000.00	\$15,000.00	
Site Hardscape					\$400,000.00
All-inclusive Single-Lane Roundabout	1	ls	\$400,000.00	\$400,000.00	
Site Plant Material					\$5,000.00
Ornamental Plantings and Topsoil for Median	1	ls	\$5,000.00	\$5,000.00	
Site Amenities					\$10,600.00
Vehicle Way-finding Signs on Post (Style 1 & 2)	2	ea	\$3,500.00	\$7,000.00	
Pedestrian Way-finding Signs on Post (Style 1 & 2)	2	ea	\$1,800.00	\$3,600.00	
Sub-Total					\$716,600.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$171,984.00
Total					\$888,584.00

Day Spring Lane from River Street to State Street Including One-way Service Drive					
<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
Demolition/Site Preparation					\$345,500.00
Mobilization	1	ls	\$6,000.00	\$6,000.00	
Site Survey	1	ls	\$5,000.00	\$5,000.00	
Traffic Control	1	ls	\$5,000.00	\$5,000.00	
Pavement Removal (75,000 sf)	75,000	sf	\$4.00	\$300,000.00	
Curb and Gutter Removal (2,000 lf)	2,000	lf	\$9.00	\$18,000.00	
Construction Survey	1	ls	\$7,500.00	\$7,500.00	
SWPPP Preparation/Documentation	1	ls	\$4,000.00	\$4,000.00	
Site Utilities					\$125,000.00
Electrical Service (Relocation, 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	
Site Sedimentation and Erosion Control					\$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
Site Earthwork					\$30,000.00
Rough Grading	1	ls	\$15,000.00	\$15,000.00	
Fine Grading	1	ls	\$15,000.00	\$15,000.00	
Site Hardscape					\$628,250.00
New Concrete Parking Area from Court St. to State St. (50,000 sf)	50,000	sf	\$8.00	\$400,000.00	
Concrete Curb and Gutter for Heivly Street (2,400 lf)	2,400	lf	\$25.00	\$60,000.00	
New Concrete One-way Service Drive	11,400	sf	\$8.00	\$91,200.00	
Concrete Curb and Gutter for Service Drive (1,350 lf)	1,350	lf	\$25.00	\$33,750.00	
Retaining Wall for New Right-Turn Only Lane on College	1	ls	\$15,000.00	\$15,000.00	
10' Wide Concrete Trail from Farmers Park to Water St. (250 lf)	2,500	sf	\$7.00	\$17,500.00	
Integrally-Colored Concrete Crosswalks along Entire Corridor	1,200	sf	\$9.00	\$10,800.00	
Site Plant Material					\$50,000.00
Planting Topsoil along Parking Median	1	ls	\$8,000.00	\$8,000.00	
Street Trees	25	ea	\$400.00	\$10,000.00	
Ornamental Trees	15	ea	\$400.00	\$6,000.00	
Shrubs	40	ea	\$400.00	\$16,000.00	
Miscellaneous Site Sodding and Seeding	1	ls	\$10,000.00	\$10,000.00	
Site Amenities					\$61,020.00
Access Security Bollards for Court Street Closing	8	ea	\$300.00	\$2,400.00	
Pedestrian Lighting (LED Lighting)	4	ea	\$12,000.00	\$48,000.00	
Custom Light Pole Banners	4	ea	\$80.00	\$320.00	
Vehicle Way-finding Signs on Post (Style 1 & 2)	1	ea	\$3,500.00	\$3,500.00	
Pedestrian Way-finding Signs on Post (Style 1 & 2)	1	ea	\$1,800.00	\$1,800.00	
Pavement Painting	1	ls	\$5,000.00	\$5,000.00	
Sub-Total					\$1,244,770.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$298,745.00
Total					\$1,543,515.00

New Parking Garage and Green Roof Park West of Oneota Community Food Co-op					
<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Line Total</i>	<i>Totals</i>
Demolition/Site Preparation					\$118,000.00
Mobilization	1	ls	\$6,000.00	\$6,000.00	
Site Survey	1	ls	\$2,500.00	\$2,500.00	
Traffic Control	1	ls	\$2,000.00	\$2,000.00	
Site Demolition and Excavation	1	ls	\$100,000.00	\$100,000.00	
Construction Survey	1	ls	\$7,500.00	\$7,500.00	
Site Utilities					\$100,000.00
Electrical Service (Relocation, Outlet, and Circuiting)	1	ls	\$75,000.00	\$75,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$25,000.00	\$25,000.00	
Site Earthwork					\$10,000.00
Rough Grading	1	ls	\$10,000.00	\$10,000.00	
Site Hardscape					\$1,800,000.00
Parking Garage (3 Levels @ 12,000 sf Each - 90 stalls)	36,000	sf	\$50.00	\$1,800,000.00	
Green Roof					\$510,000.00
Intensive (Habitable) Green Roof Area	1,500	sf	\$100.00	\$150,000.00	
Semi-intensive Green Roof Area	1,500	sf	\$60.00	\$90,000.00	
Extensive Green Roof Area	9,000	sf	\$30.00	\$270,000.00	
Sub-Total					\$2,538,000.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$609,120.00
Total					\$3,147,120.00



SUMMER 2018 13b

Illustrative plan rendering showing the proposed improvements in and around Heivly Street from River to State Streets.

East Heivly Street Improvements

Heivly Street, from River Street to State Street, is a heavily trafficked corridor that bisects downtown Decorah, two community schools, and an assortment of recreation along the river. Day Spring Lane runs parallel to Heivly and offers an assortment of parking and service areas for Water Street businesses and residents.

During the Transportation Assets and Barriers Workshops (Boards 3a-3c) many residents noted the challenges kids have accessing the school and recreation areas north of Heivly. The primary route to the school from south of Water Street is through the Bank of the West building and out on Day Spring Lane.

The proposed improvements for the eastern half of Heivly Street include a complete realignment and reorganization of the roadway to accommodate a multi-purpose trail, green infrastructure, and improved access for pedestrians throughout.

Modifications to Day Spring Lane include reorganized parking, a separated service lane, street trees, and a dedicated green space next to the Farmer's Market lot coined "Farmer's Park." This green space is envisioned as a community park/venue and is tied directly to the proposed trail and greenway.

Several other noteworthy design proposals shown in the plan above include a pedestrian-only Court Street, a ramp structure south of City Hall and a new parking ramp structure next to Oneota Grocery. This parking ramp includes a habitable green roof with access from Norman Smith Plaza.



Section A - A showing the multi-purpose trail parallel to Heivly Street.



Perspective A showing the proposed greenway along Heivly Street, south of the elementary school.

Decorah

East Heivly Street

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



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 Decorah. It is the design team's intent to continue providing Decorah 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 ILC 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 Decorah. It is the design team's intent to continue providing Decorah 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.**

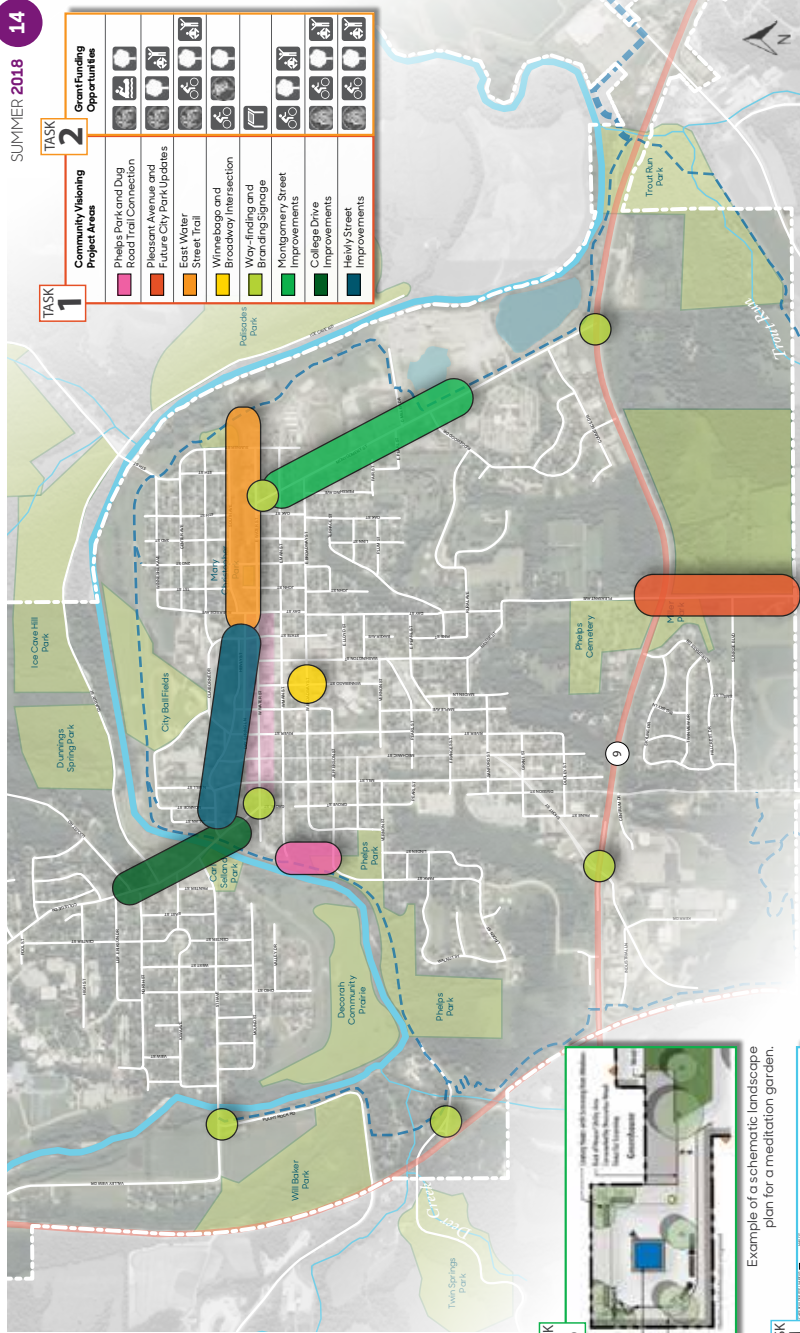
TASK 2 Determine the most practical first project for implementation and **identify all applicable and eligible grant funding opportunities.**

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.**



Decorah map highlighting the Community Visioning Project Areas.

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



Implementation Strategies

Jeffrey L. Bruce and Company LLC
 Landscape Architects: Eric Dool, PLA, ASLA and David Stokes, PLA, ASLA
 Interns: Jeremy Johnson and Roslie 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	https://www.epa.gov/education/environmental-education-ee-grants
2017 National Environmental Information Exchange Network Grant	Funding mechanism to develop an Internet-- based secure network that supports the electronic Collection, exchange, and integration of high-quality data.	Salena Reynolds (202) 566-0466 reynolds.salena@epa.gov	Mid November	https://www.epa.gov/exchangenetwork/fiscal-year-2017-national-environmental-information-exchange-network-grant
Pollution Prevention	Provides matching funds to state and tribal programs to support pollution prevention and to develop State-based programs	Marcus Rivas (913) 551-7669 rivas.marcus@epa.gov	Early May	http://www.epa.gov/p2/pubs/grants/index.htm#p2grant
Science to Achieve Results (STAR)	Funding mechanism research grants in numerous environmental science and engineering disciplines through a competitive solicitation process and independent peer review.		(Multiple Dates)	http://www.epa.gov/ncer
Small Business Innovation Research (SBIR)	Competitive funding through environmental technology research at small businesses.		(Multiple Dates)	http://www.epa.gov/ncer/sbir/
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)	http://www.epa.gov/water/funding.html
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	https://www.epa.gov/smartgrowth/greening-americas-communities#background

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	https://keepiowabeautiful.com/grants-awards/yeoman-tools-grant/
Paint Iowa Beautiful	Keeping up the appearance of our buildings and facilities is an important component of viable communities. Well-maintained and painted buildings reflect pride in our communities. Through a partnership with diamond Vogel Paint of Orange City, Iowa.	Bill Jackson 300 E. Locust St. Ste 100 Des Moines, Iowa 50309 (515) 323 - 6507 bjackson@keepiowabeautiful.com	Mid-February	http://www.keepiowabeautiful.com/grants/paint-iowa-beautiful
Build with Bags Grant	Funding made available to be used for the purchase of outdoor furniture or equipment that is made from recycled plastic grocery bags.	Iowa Grocery Industry (515) 270-2628 2540 106th St. Ste. 102 Des Moines, IA 50322 info@iowagrocers.com	End of March	www.keepiowabeautiful.com/grants/build-with-bags

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	http://www.iowadot.gov/systems_planning/rise.htm
Pedestrian Curb Ramp Construction Program	Assist cities in complying with the Americans with Disabilities Act (ADA) on primary roads in Iowa cities	Tony Lararowicz, P.E. District Engineer, Iowa DOT 2800 Gordon Drive, P.O. Box 987 Sioux City, IA 51102-0987 (712) 276-1451	Ongoing	(Use Contact Information)
Iowa DOT/DNR Fund	Roadside beautification of primary system corridors with plant materials	Iowa Department of Transportation Office of Design 800 Lincoln Way Ames, Iowa 50010 (515) 239-1424	Ongoing	(Use Contact Information)
Iowa's Living Roadway Projects Program	Aid Iowa's small communities in funding enhancements to transportation related landscape corridors. Goals include: · Beautification of transportation corridors (including trails) and entryways · 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.	http://www.treesforever.org/ILR_Projects
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	http://www.iowadot.gov/lrtf/grants.html
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	http://www.iowadot.gov/systems_planning/fedstate_rectrails.htm
Recreational Trails Program (Federal)	Program established to provide trail systems for public use.	Yvonne Diller (515) 239-1252 800 Lincoln Way Ames, IA 50010 yvonne.diller@dot.iowa.gov	December	http://www.iowadot.gov/systems_planning/fedstate_rectrails.htm

Alliant Energy

Community Grants	Community Grants are directed to programs and projects that benefit the residents and communities in the three Midwestern states Alliant Energy serves. Primary emphasis is given to organizations in area where Alliant energy has a presence.	1(866)769-3779 foundation@alliantenergy.com	March 1 September 1	https://www.alliantenergy.com/CommunityAndStewardship/CommunitySupport/GrantsAndCommunityPrograms/CommunityGrants
Branching Out	Branching Out is a nationally recognized and award-winning tree planting program in which Alliant Energy, Trees Forever and your community work together to plan, fund and implement community tree planting projects.	Deb Roman (319) 373-0650 x 110	November 1	http://www.treesforever.org/Branching_Out

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	http://www.iowadnr.gov/About-DNR/Grants-Other-Funding/Land-Water-Conservation-Fund
REAP City Parks and Open Spaces	The grants are 100% meaning local matching funds are not required. This grant program is very competitive. Funds are not available for single or multipurpose athletic fields. Parkland expansion and multi-purpose recreation developments are typical projects funded under this REAP Program.	Tammie Krausman (515) 725 - 8443 Wallace State Office Building 502 E. 9th St. Des Moines, IA 50319 tammie.krausman@dnr.iowa.gov	Mid August	http://www.iowadnr.gov/Environment/REAP/REAPFundingwork/CityParksOpenSpaces.aspx
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	http://www.iowadnr.gov/Conservation/REAP/REAP-Funding-at-Work/County-Conservation
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	http://www.iowadnr.gov/Conservation/REAP/REAP-Funding-at-Work/Conservation-Education
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	http://www.iowadnr.gov/Conservation/REAP/REAP-Funding-at-Work/Soil-Water-Enhancement
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	http://www.iowadnr.gov/Conservation/Forestry/Educational-Opportunities
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	http://www.iowadnr.gov/swap
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	http://www.iowadnr.gov/About-DNR/Grants-Other-Funding/Fish-Habitat-Program
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	http://www.iowadnr.gov/Things-to-Do/Canoeing-Kayaking
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	http://www.iowadnr.gov/Things-to-Do/Boating/Water-Rec-Access-Cost-Share

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		http://www.iowadnr.gov/Environmental-Protection/Water-Quality/Watershed-Improvement/Watershed-Planning
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	http://www.iowadnr.gov/Conservation/Iowas-Wildlife/Wildlife-Diversity-Program/Wildlife-Grant-Opportunities
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	http://www.iowasrf.com/about_srf/sponsored_projects_home_page.cfm

Iowa Economic Development Authority (IEDA)

Community Development Block Grant (CDGB) 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	https://www.iowaeconomicdevelopment.com/Community/CDBG
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	https://www.iowaeconomicdevelopment.com/Community/CDBGPF
CDGB Downtown Revitalization Fund	Community leaders can use this program to rehabilitate blighted downtown buildings.	Nichole Hansen 515.348.6215 cdbg@iowaeda.com	Spring	https://www.iowaeconomicdevelopment.com/Community/CDBGPF
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.	https://www.iowaeconomicdevelopment.com/Community/Enhancelowa
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	http://iowawatershedapproach.iowa.gov/#section1
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	http://www.iowaeconomicdevelopment.com/Community/ReinvestmentDistrict
Main Street Iowa	Programs goal is to improve the social and economic well being of Iowa towns. Hinging on the unique identity of a town and the assets that are already in place. The program puts a premium on historic preservation.	Michael Wagler (515) 725-3051 mainstreet@iowa.gov	Contact for Application Cycle	http://www.iowaeconomicdevelopment.com/mainstreetiowa

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	http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/cig/
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 Naeve (515) 294-8946 lnaeve@iastate.edu	(Multiple Dates)	https://www.northcentralsare.org/Grants/Our-Grant-Programs

Black Hills Energy

Power of Trees	Black Hills Energy provides matching grants of \$500 to \$7,000 per project. Trees Forever administers and facilitates the program, providing on-site technical and planning support.	Deb Roman (319) 373-0650 x 110 droman@treesforever.org	November 1	http://www.treesforever.org/Power_of_Trees
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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	https://www.wellmark.com/foundation/rfps.html
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	https://www.wellmark.com/foundation/rfps.html

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	http://iowaculture.gov/about-us/about/grants/historical-resource-development-program
Iowa Arts Council Project Grant	Project established to positively affect towns through arts.	Veronica O'Hern (515) 281-3293 600 E. Locust Des Moines, IA 50319 Veronica.ohern@iowa.gov	November May	http://iowaculture.gov/about-us/about/grants/art-project-grant
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	https://www.arts.gov/grants-organizations/our-town/introduction

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	https://www.iowaagriculture.gov/FieldServices/urbanConservation.asp
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	https://www.iowaagriculture.gov/FieldServices/stormwaterBMPloans.asp

County Grants

Winneshiek County Community Foundation	The Winneshiek County Community Foundation provides grants to improve life in Winneshiek County, Iowa. We want to help develop communities that people want to live in, as well as to benefit rural areas of the county.	Dotti Thompson (319) 243-1358	Early January	https://www.cfneia.org/grants/grant-opportunities/22-winneshiek-county-grants
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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	http://scottsmiraclegro.com/responsibility/gro1000/
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	https://peopleforbikes.org/grant-guidelines/
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	http://www.treesforever.org/Granting-a-Better-Tomorrow
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	http://www.treesforever.org/Working_Watersheds
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	https://www.americasfarmers.com/
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	https://www.nrpa.org/our-work/partnerships/initiatives/water-conservation/great-urban-parks-campaign-pilot-projects/
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	https://amwater.com/corp/customers-and-communities/environmental-grant-program