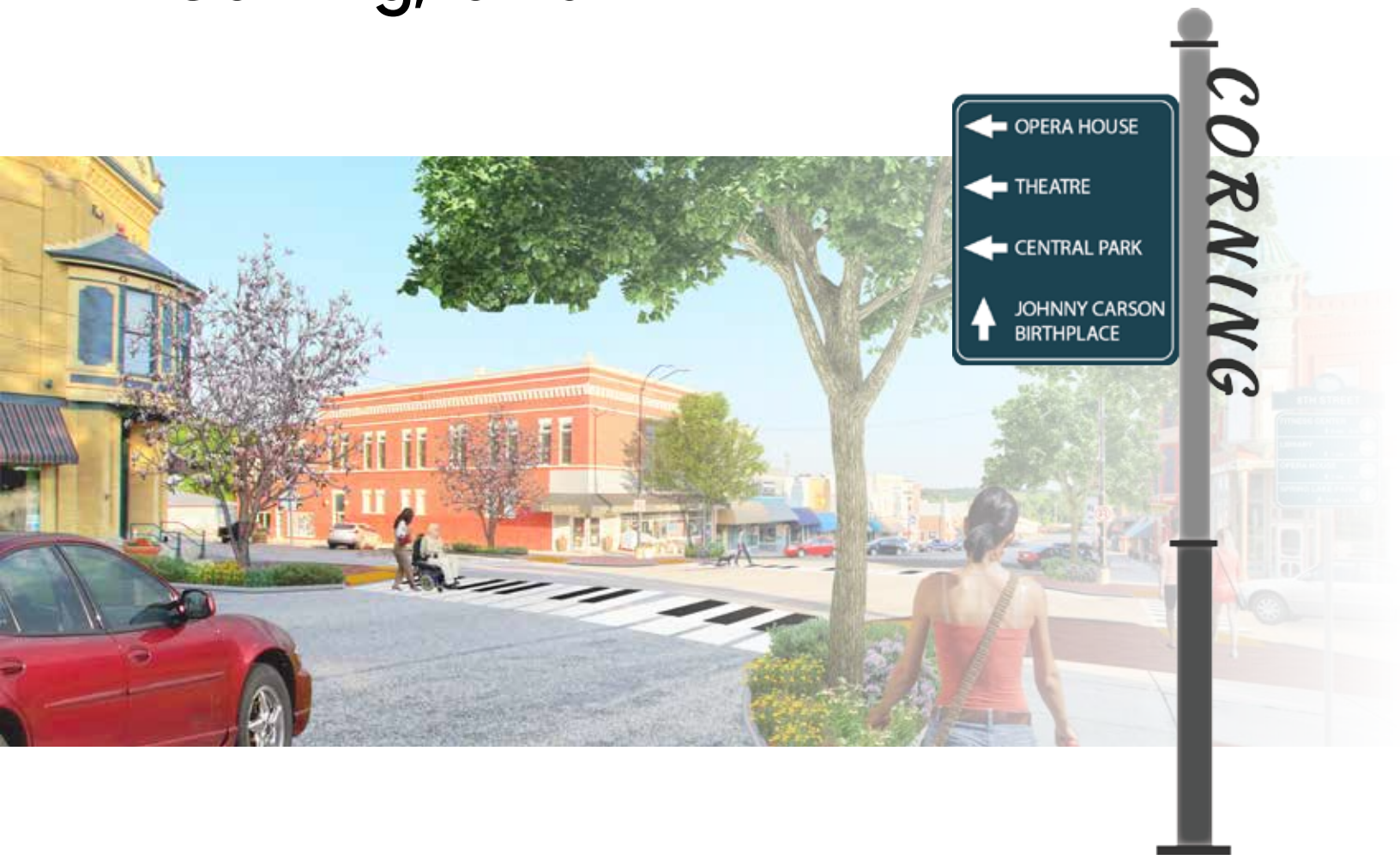
Final Report and Feasibility Study
Corning, Iowa



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JBC 30
JEFFREY L. BRUCE & COMPANY LLC
landscape architecture • planning • urban design

Program Partners:
Iowa Department of Transportation
Trees Forever
Iowa State University

Iowa's Living Roadways
community visioning

Participants

Corning Steering Committee

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Kennedy Moore
Judy Beckett
Jerry Peckham
Marilea Mullen
Michelle Birt
Beth Waddle
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Rosie Manzo
Landscape Architecture Intern
Iowa State University

Jeremy Johnson
Landscape Architecture Intern
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

Corning 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 corning steering committee identified a number of goals and priority areas during the visioning process: circulation and sidewalk improvements, establishment of a trail system, safe pedestrian crossings, traffic calming, and improved way-finding and signage with a unified community identity.

Capturing the Corning 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

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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.

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1. Program initiation
2. Needs assessment and goal setting
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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.

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Capturing the Corning Vision

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

1. Program Overview
2. Bioregional Assessments
3. Transportation Assets and Barriers
4. Transportation Inventory and Analysis
5. Goal Setting
6. Concept Overview

7a. Lake Trails
7b. Community Trails
8a. Spring Lake Park
8b. River's Landing Park
9. Sidewalk Safety
10. Way-finding Signage
11a. Main Street Improvements
11b. Main Street Diagnostics

Jeffrey L. Bruce & Company landscape architect Thomas Buller receives feedback on his design from Corning steering committee members during the design charrette.


The design team interacted with many community members during the design charrette held during Corning's First Friday's Lunch.


The design team worked in Corning's Central Park, soliciting suggestions and concerns for Corning's future development projects.


Iowa State University landscape architecture intern Jeremy Johnson discusses possible trail routes with Corning residents.

Corning

Program Overview

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

Iowa's Living Roadways community visioning

Bioregional Assessment

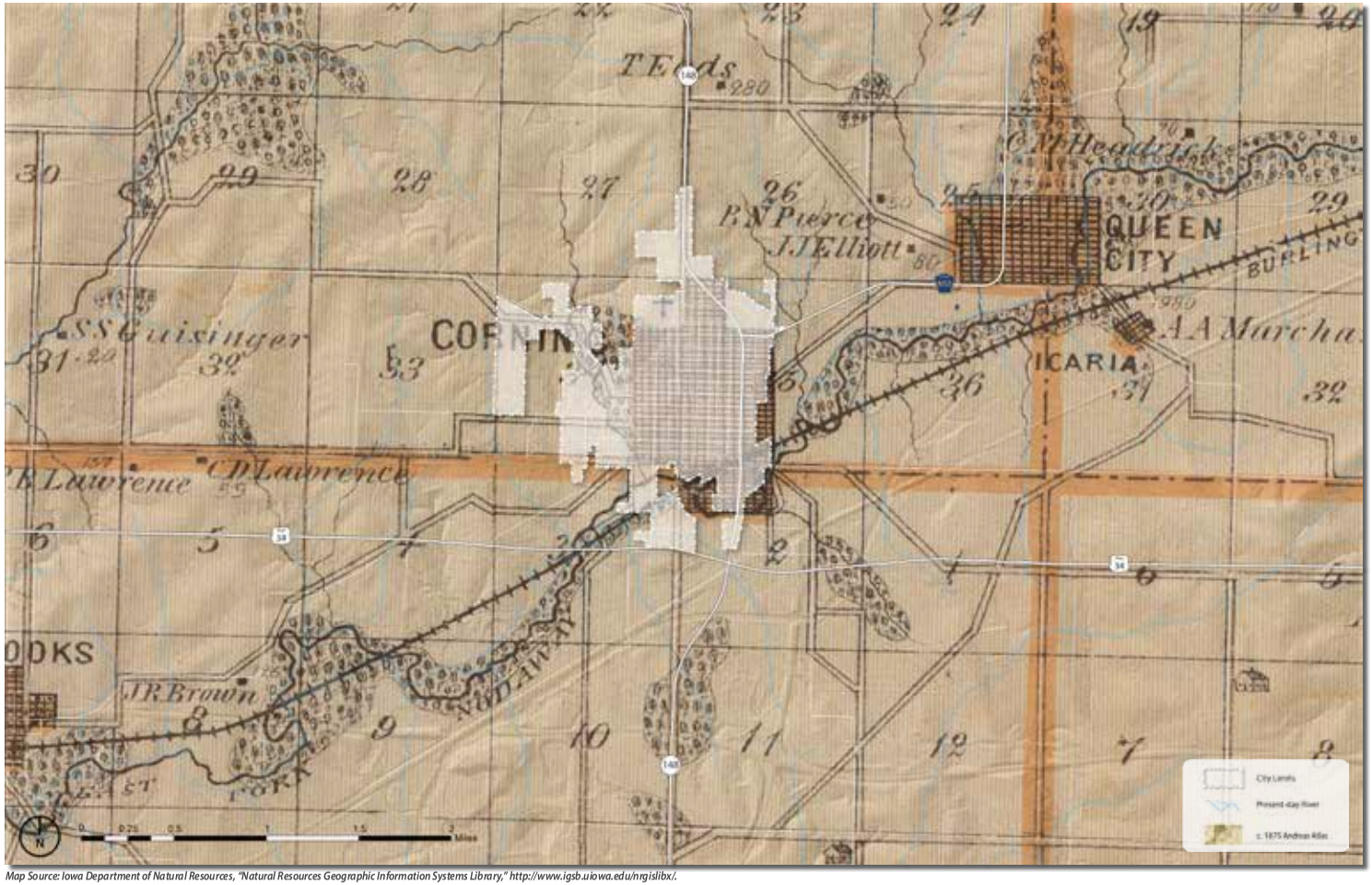
Settlement Patterns

This board uses maps from A.T. Andreas' *Illustrated Historical Atlas of the State of Iowa, 1875* overlaid with present-day Corning 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.

Corning 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?



Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," http://www.igsb.uiowa.edu/nrgislibx/.

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Corning
Settlement Patterns

Bioregional Context

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Historical Vegetation

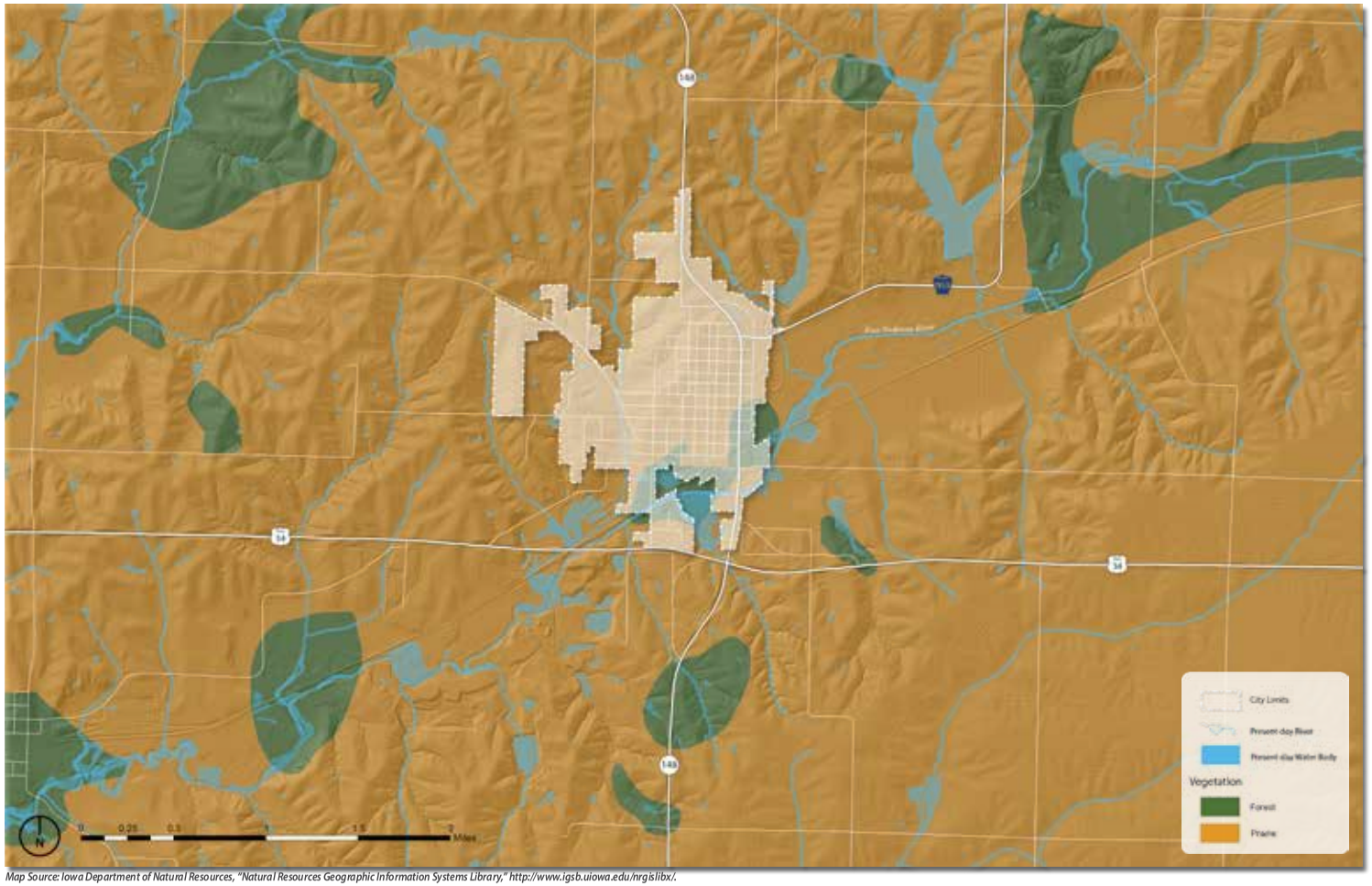
The vegetation information shown here is derived from township maps made by the General Land Office (GLO) surveys beginning in 1836 through 1859. The vegetation information was digitized in 1996 as a resource for natural resource management and is useful "...for the study of long term ecological processes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



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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.

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Historical Vegetation

Bioregional Context
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Iowa's Living Roadways community visioning

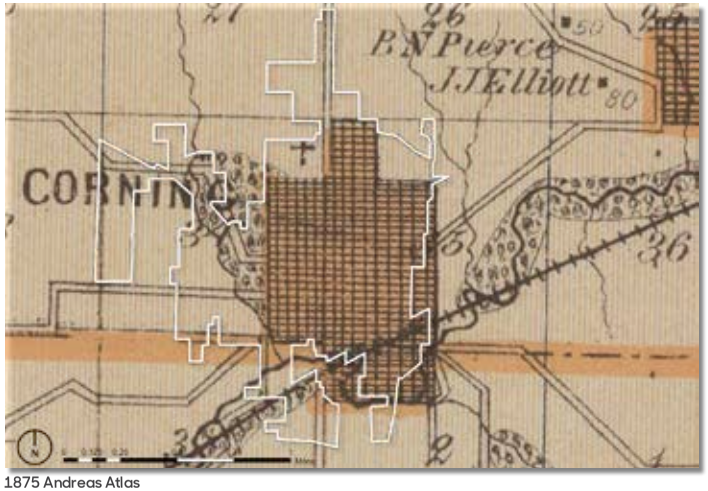
Change Over Time

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.



1875 Andreas Atlas

1930s

1970s

2015

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

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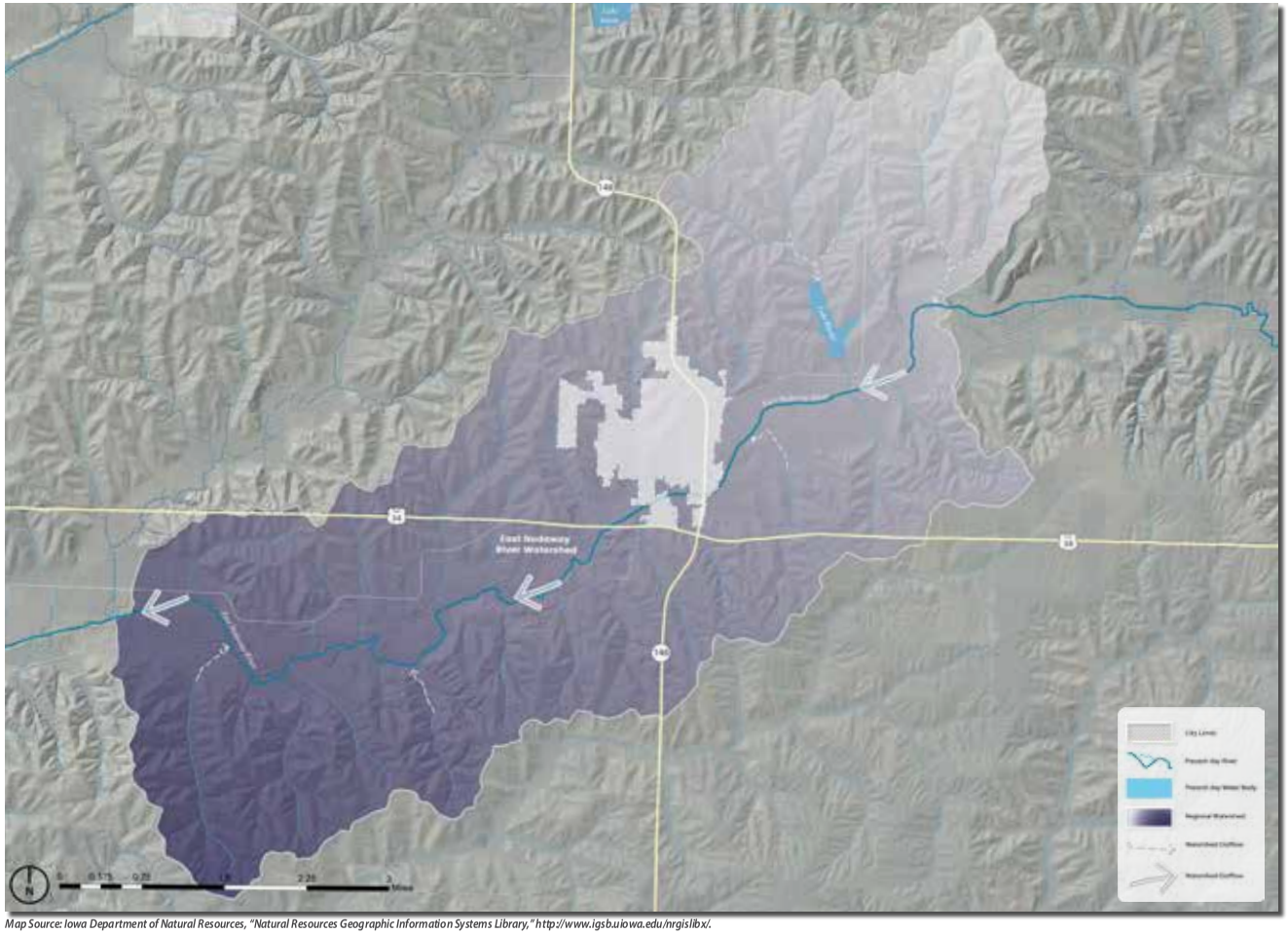
Regional Watershed

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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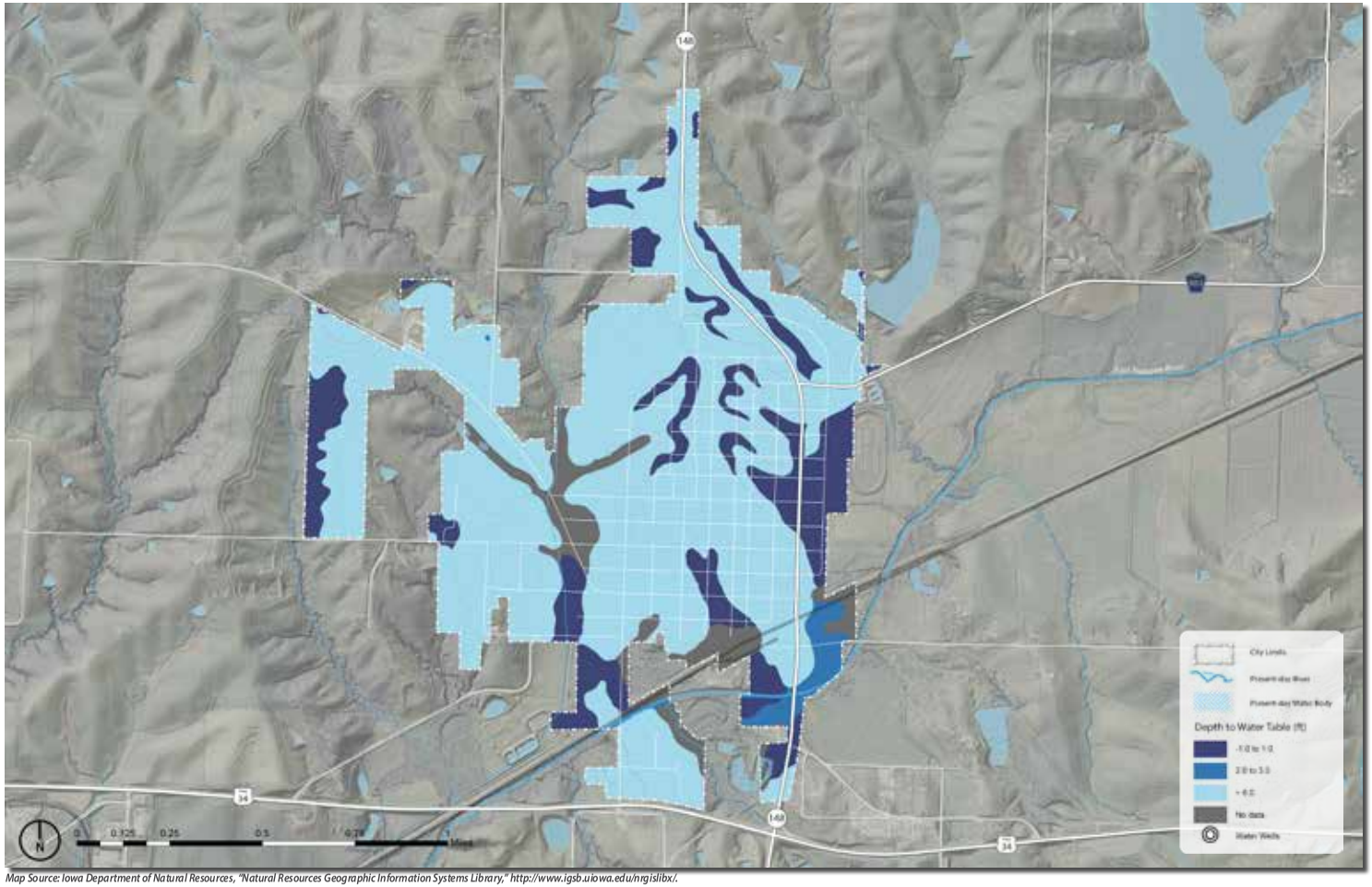
Depth to Water Table

The water table is defined as the level below which the ground is saturated with water. Depth to water table is represented as a range because it varies due to seasonal changes and precipitation volumes. For example, following a spring snowmelt, an area with a depth to water table ranging from one foot to three feet is likely to be at or near one-foot depth.

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

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



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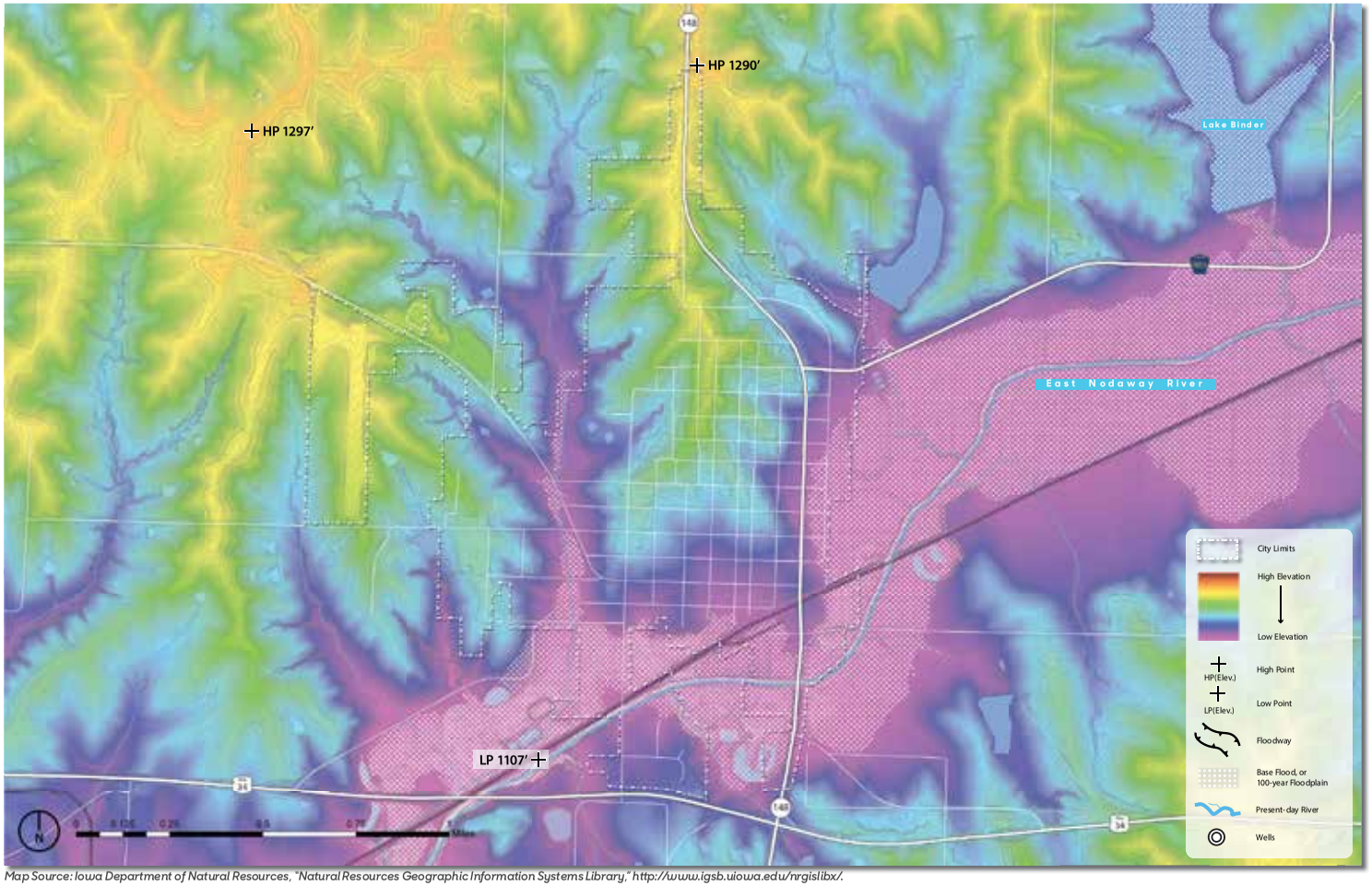
Elevation and Flow

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

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

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

Flood risk is correlated to low-lying land. This map also shows your community's flood risk as defined by the Federal Emergency Management Agency (FEMA) Flood Map Service Center. If your community has these features, this map will show the two most important flood zones, the Base Flood and the Regulatory Floodway (consult legend). Base Flood is the zone having a one percent chance of being equaled or exceeded in any given year, also referred to as the "100-year floodplain." The Regulatory Floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of objects so that the floodwater can move freely, keeping the base flood elevation from rising.



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Iowa's Living Roadways community visioning

Present Day Land Cover

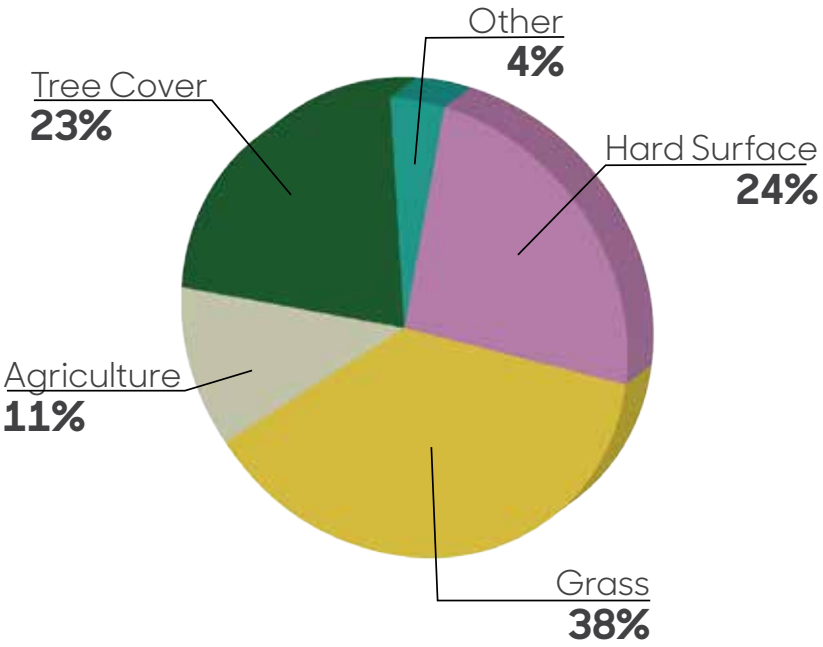
The land cover map depicts both natural and man-made land cover types with aerial imagery. The Iowa DNR created 15 unique classes for this dataset to differentiate land covers. Refer to the legend for a breakdown of land cover types within your community boundaries.

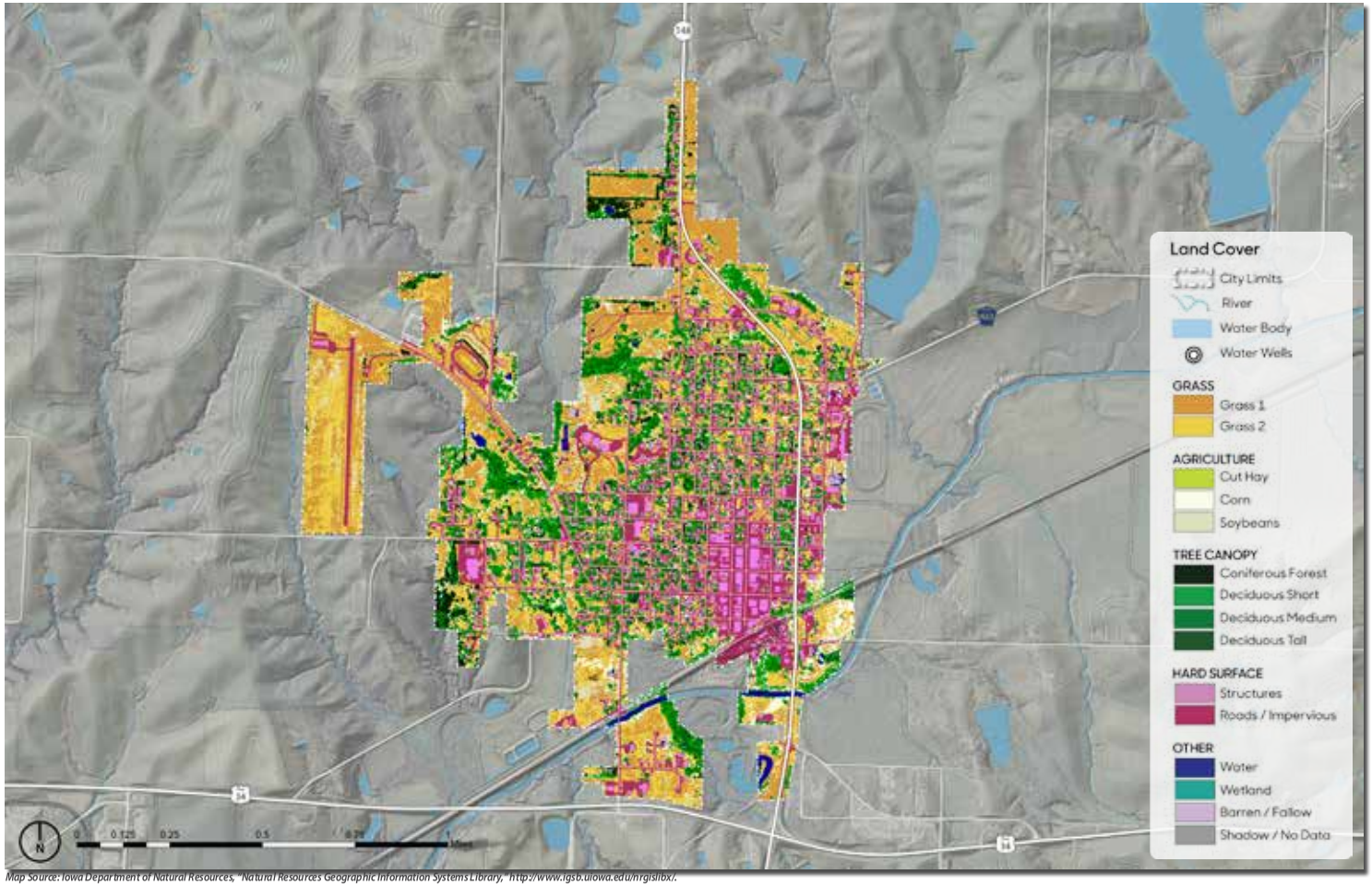
What do you observe about the dominant land cover types in your community? Where is the tree canopy most concentrated?

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





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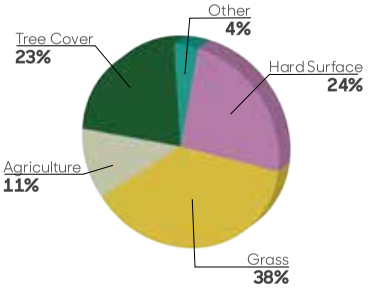

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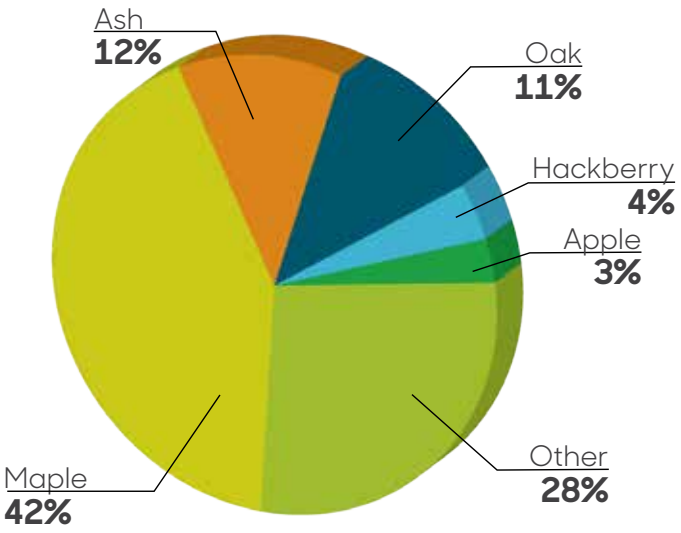
The Urban Forest

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]



The graphic above shows how many of the city's trees are of the same species. There is a strong possibility that 12% (Ash trees) of Corning's city owned trees will die once EAB is carried to the area. With proper planning and management, the city's canopy can be improved by planting suitable trees that can gradually replace hazard trees and Ash trees. Improving species diversity will create a more resilient urban forest.

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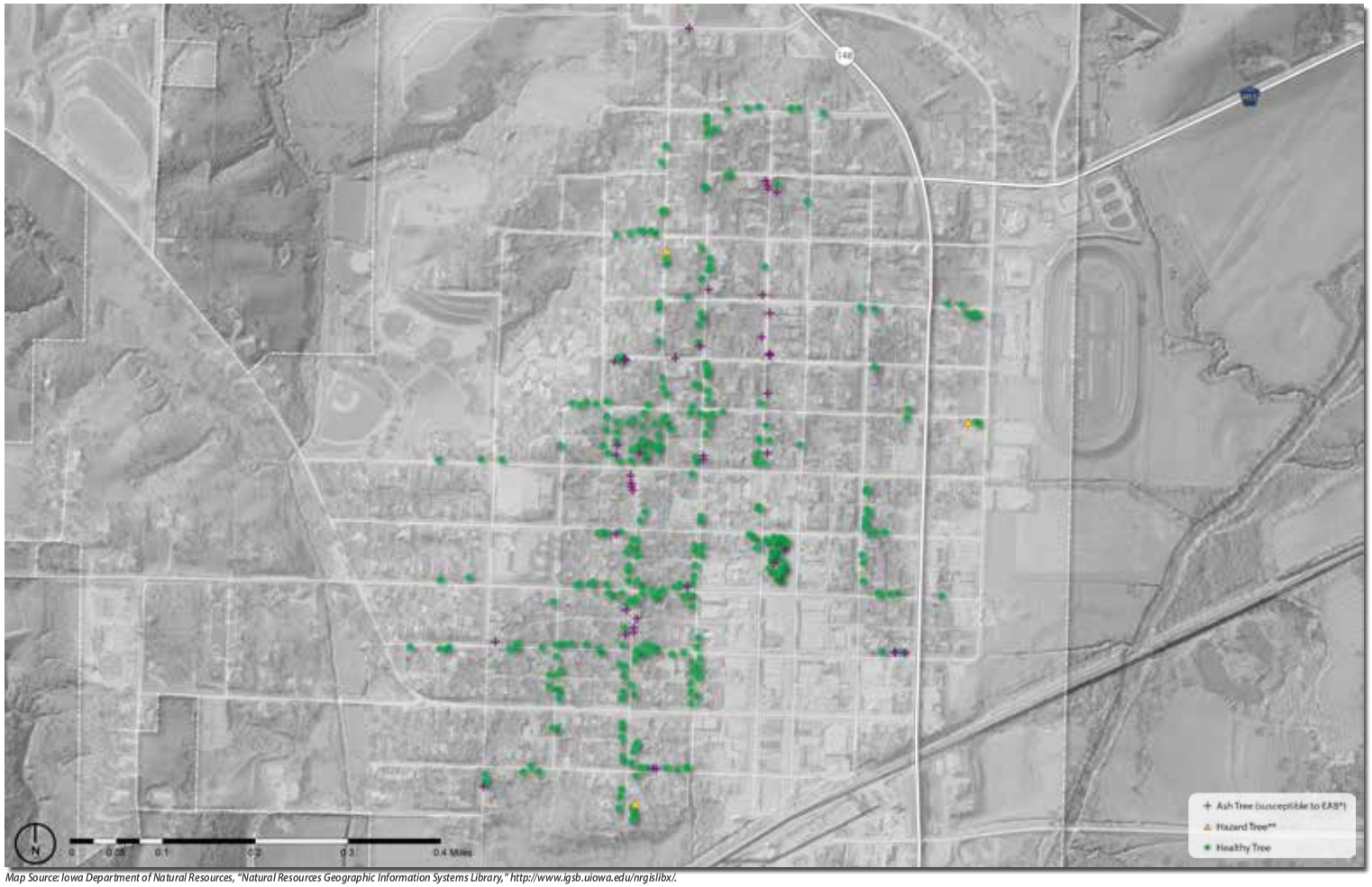
1 Iowa Department of Natural Resources Community Tree Inventories, http://www.iowadnr.gov/Conservation/Forestry/Urban-Forestry/Community-Tree-Inventories

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.



Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," http://www.igsb.uiowa.edu/nrgislibx/.

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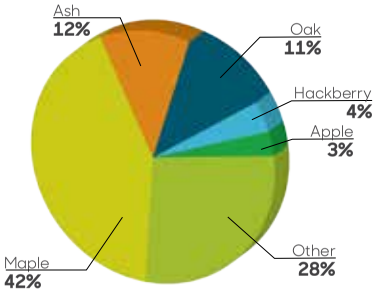

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Corning
Urban Forest

Bioregional Context

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

Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Transportation Assets and Barriers

Overview

Transportation is integral to small-Corning 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 Corning, 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 Corning'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 Corning residents with different transportation needs to participate in focus groups. A total of 57 residents attended Corning's workshop. Participants were separated into five user groups and the Corning 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.

Central Park off of Main Street is accessible for everyone. The Pavillion and shaded areas create a great place to enjoy the outdoors.

The intersection of Quincy Street and 6th is busy. Children frequently cross here to go to Casey's.

Lake Icaria is a natural getaway that provides a variety of recreation options, such as boating and bird watching.

Along Main Street, the sidewalk is cracked, and there is no seating available.

The track is an accessible and safe place to exercise.

Trucks park in the center of Benton Ave in order to unload. This blocks the visibility of other people using the street.

What Factors Affect Transportation in Corning?

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Actives — **(13 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.

Mobility Impaired — **(8 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.

Older Adults — **(12 participants):** Accessibility—both in terms of physical access and proximity—is a major concern for this user group. Because some people in this user group do not or are unable to drive, having goods and services within walking distance is important.

Youth — **(8 participants):** This group uses primarily non-motorized modes of transportation, so pedestrian- and bike-friendly streets and sidewalks are important. These users value the ability to get to destinations on foot or via bicycle and having goods and services within walking distance.

Parents — **(8 participants):** Safety of their children is a primary concern of this user group. Access to safe and easy routes to school activities is another significant factor to this group. Parents of young children desire smooth, wide surfaces for strollers.

Steering Committee — **(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.

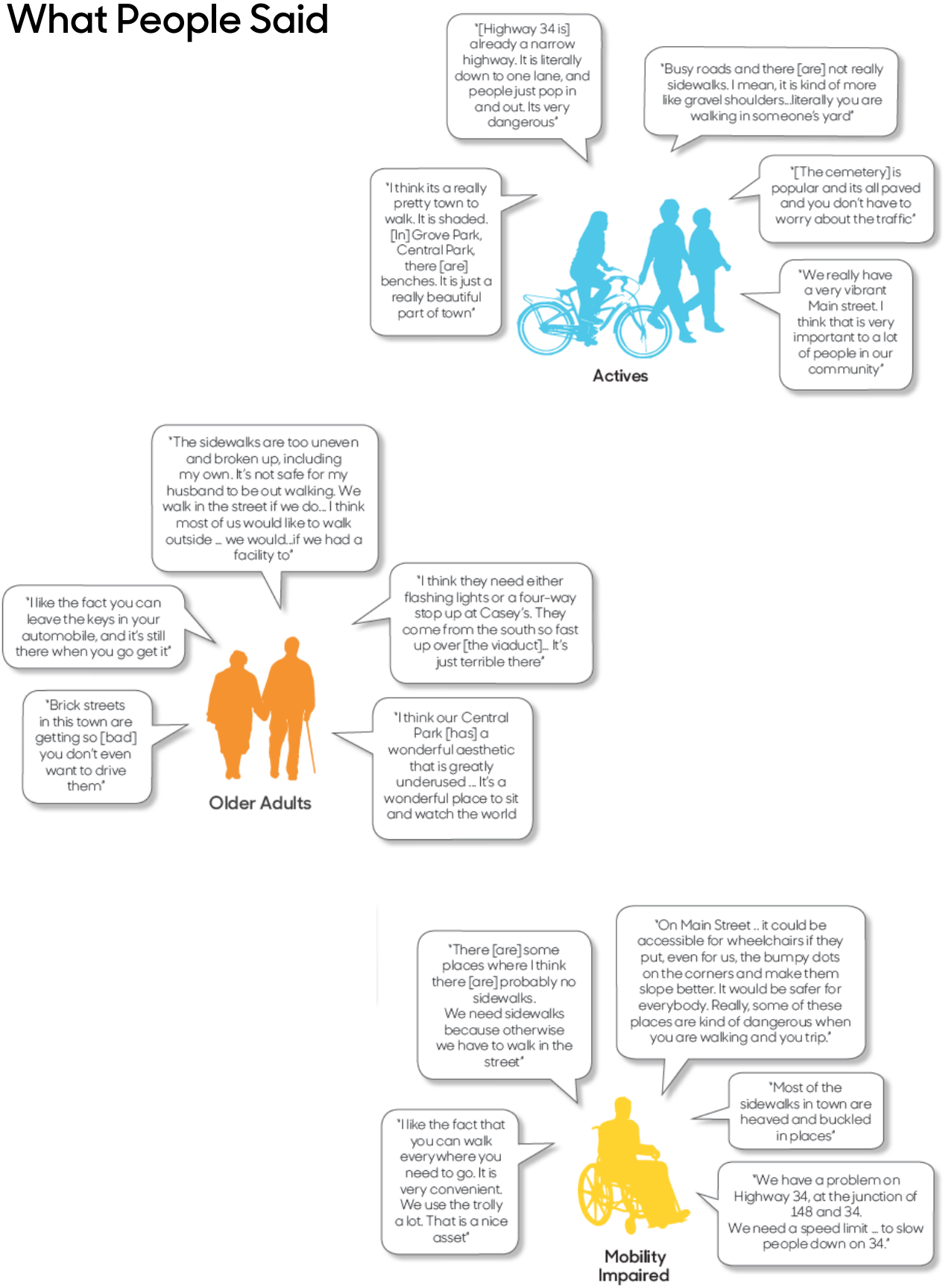
Corning

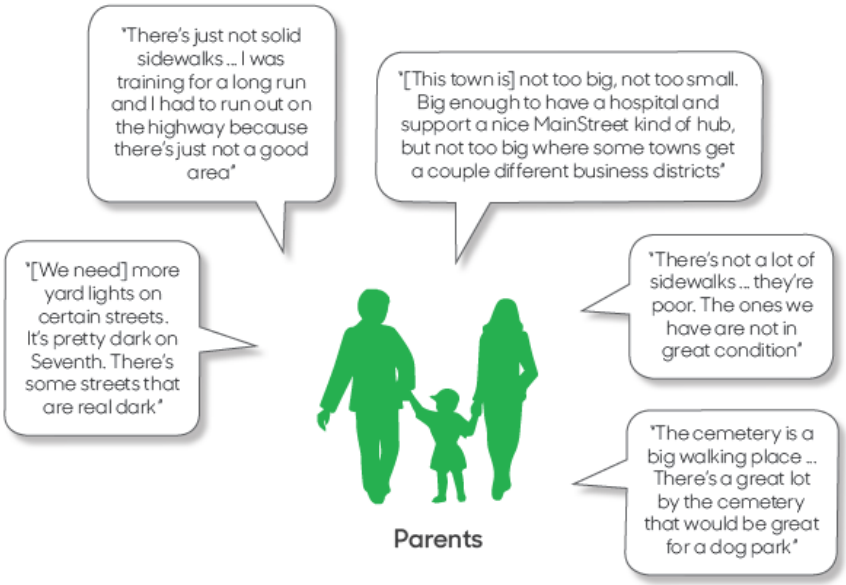
Overview

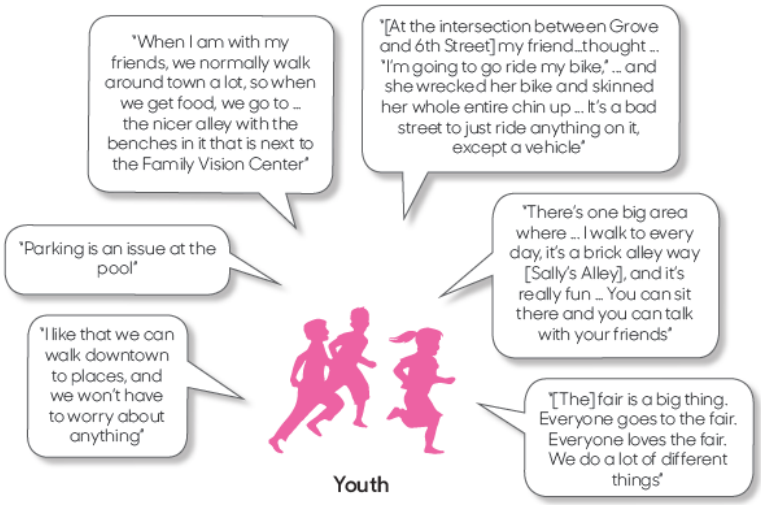
Transportation Assets and Barriers Analysis
Julia Badenhope, Sandra Oberbroeckling, Abigail Schafer, Clare Kiboko, Emma Georgeoff, and Mahsa Adib
Iowa State University | Trees Forever | Iowa Department of Transportation

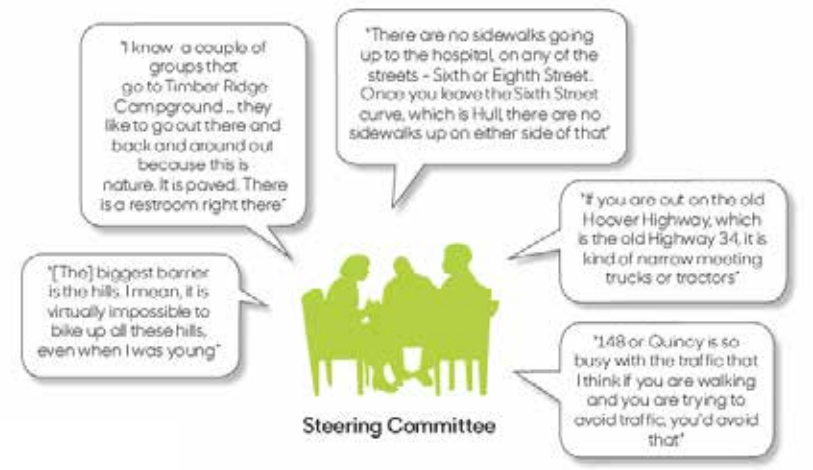
Iowa's Living Roadways community visioning

What People Said




"There's just not solid sidewalks ... I was training for a long run and I had to run out on the highway because there's just not a good area"
"[This town is] not too big, not too small. Big enough to have a hospital and support a nice MainStreet kind of hub, but not too big where some towns get a couple different business districts"
"[We need] more yard lights on certain streets. It's pretty dark on Seventh. There's some streets that are real dark"
"There's not a lot of sidewalks ... they're poor. The ones we have are not in great condition"
"The cemetery is a big walking place ... There's a great lot by the cemetery that would be great for a dog park"
Parents


"When I am with my friends, we normally walk around town a lot, so when we get food, we go to ... the nicer alley with the benches in it that is next to the Family Vision Center"
"[At the intersection between Grove and 6th Street] my friend...thought ... "I'm going to go ride my bike," ... and she wrecked her bike and skinned her whole entire chin up ... It's a bad street to just ride anything on it, except a vehicle"
"Parking is an issue at the pool"
"There's one big area where ... I walk to every day, it's a brick alley way [Sally's Alley], and it's really fun ... You can sit there and you can talk with your friends"
"I like that we can walk downtown to places, and we won't have to worry about anything"
"[The] fair is a big thing. Everyone goes to the fair. Everyone loves the fair. We do a lot of different things"
Youth


"I know a couple of groups that go to Timber Ridge Campground ... they like to go out there and back and around out because this is nature. It is paved. There is a restroom right there"
"There are no sidewalks going up to the hospital, on any of the streets - Sixth or Eighth Street. Once you leave the Sixth Street curve, which is Hull, there are no sidewalks up on either side of that"
"If you are out on the old Hoover Highway, which is the old Highway 34, it is kind of narrow meeting trucks or tractors"
"[The] biggest barrier is the hills. I mean, it is virtually impossible to bike up all these hills, even when I was young"
"148 or Quincy is so busy with the traffic that I think if you are walking and you are trying to avoid traffic, you'd avoid that"
Steering Committee

Emerging Themes

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

Actives: Actives walk, bike, and run regularly, either as part of a daily commute or as recreational/sports training. They feel constrained by a lack of recreational opportunities within the community.

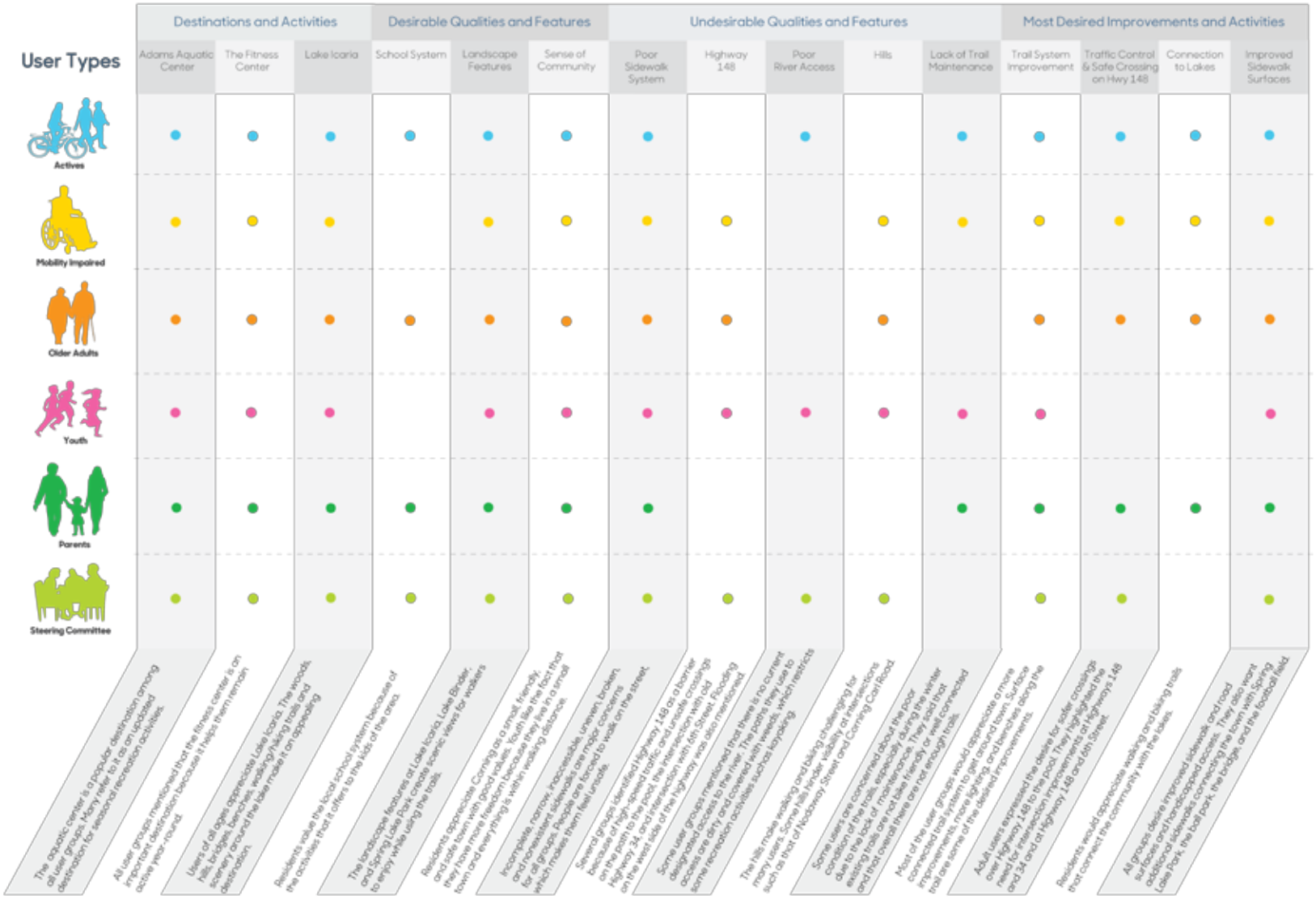
Mobility-impaired individuals: Mobility-impaired individuals often rely on motorized scooters and wheelchairs to get around. Therefore, smooth, wide surfaces are important. They also rely the trolley service. This group is concerned with lack of handicapped facilities on Main Street and the lack of snow removal.

Older adults: Older adults enjoy living in a Corning with neighbors who help each other. They value their access to the Icaria and Binder Lakes. Their main mode of transportation is driving but they would bike or walk more if they had better sidewalk and trail systems.

Youth: Youth enjoy destinations in Corning such as the fitness center, bakery, restaurants, Lake Park, Central Park, and Sally's Alley. Their main modes of transportation include walking, biking, and riding scooters. However, bad surface conditions restrict their movement around Corning.

Parents: Parents drive, ride scooters, and walk. They are concerned about their children's safety as they travel throughout Corning. They identified the lack of connections between trails and sidewalks all around the Corning as an issue.

Steering committee: Steering committee members walk, drive, and bike. They pointed out the lack of sidewalks and trail connections, which restrict their access to several amenities. They would like better lighting on Main Street and by the football field.


User Types
Destinations and Activities
Desirable Qualities and Features
Undesirable Qualities and Features
Most Desired Improvements and Activities
Adams Aquatic Center
The Fitness Center
Lake Icaria
School System
Landscape Features
Sense of Community
Poor Sidewalk System
Highway 148
Poor River Access
Hills
Lack of Trail Maintenance
Trail System Improvement
Traffic Control & Safe Crossing on Hwy 148
Connection to Lakes
Improved Sidewalk Surfaces
Actives
Mobility Impaired
Older Adults
Youth
Parents
Steering Committee
The aquatic center is a popular destination among all user groups. Many refer to it as an updated destination for seasonal recreation activities.
All user groups mentioned that the fitness center is an important destination because it helps them remain active year-round.
Users of all ages appreciate Lake Icaria. The woods, hills, bridges, benches, walking/hiking trails and scenery around the lake make it an appealing destination.
Residents value the local school system because of the activities that it offers to the kids of the area.
The landscape features at Lake Icaria, Lake Binder, and Spring Lake Park create scenic views for walkers to enjoy while using the trails.
Residents appreciate Corning as a small, friendly, and safe town with good values. Youth like the fact that they have more freedom because they live in a small town and everything is within walking distance.
Incomplete, narrow, inaccessible, uneven, broken, and nonexistent sidewalks are major concerns for all groups. People are forced to walk on the street, which makes them feel unsafe.
Several groups identified Highway 148 as a barrier because of high-speed traffic and unsafe crossings on the path to the pool, the intersection with old Highway 34, and intersection with 6th Street. Flooding on the west side of the highway was also mentioned.
Some user groups mentioned that there is no current designated access to the river. The paths they use to access are dirty and covered with weeds, which restricts some recreation activities such as kayaking.
The hills make walking and biking challenging for many users. Some hills hinder visibility at intersections such as that of Hackaway Street and Corning Cost Road.
Some users are concerned about the poor condition of the trails, especially during the winter and most overall there are not bike friendly or well connected existing trails are not bike friendly. They said that
Most of the user groups would appreciate a more connected trail system to get around town. Surface improvements, more lighting, and benches along the trail are some of the desired improvements.
Adult users expressed the desire for safer crossings over Highway 148 to the pool. They highlighted the need for intersection improvements at Highways 148 and 34 and at Highway 148 and 6th Street.
Residents would appreciate walking and biking trails that connect the community with the lakes.
All groups desire improved sidewalk and road surfaces and handicapped access. They also want additional sidewalks connecting the town with Spring Lake Park, the ball park, the bridge, and the football field.
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Steering committee members walk, drive, and bike. They pointed out the lack of sidewalks and trail connections, which restrict their access to several amenities. They would like better lighting on Main Street and by the football field.

Transportation Inventory and Analysis

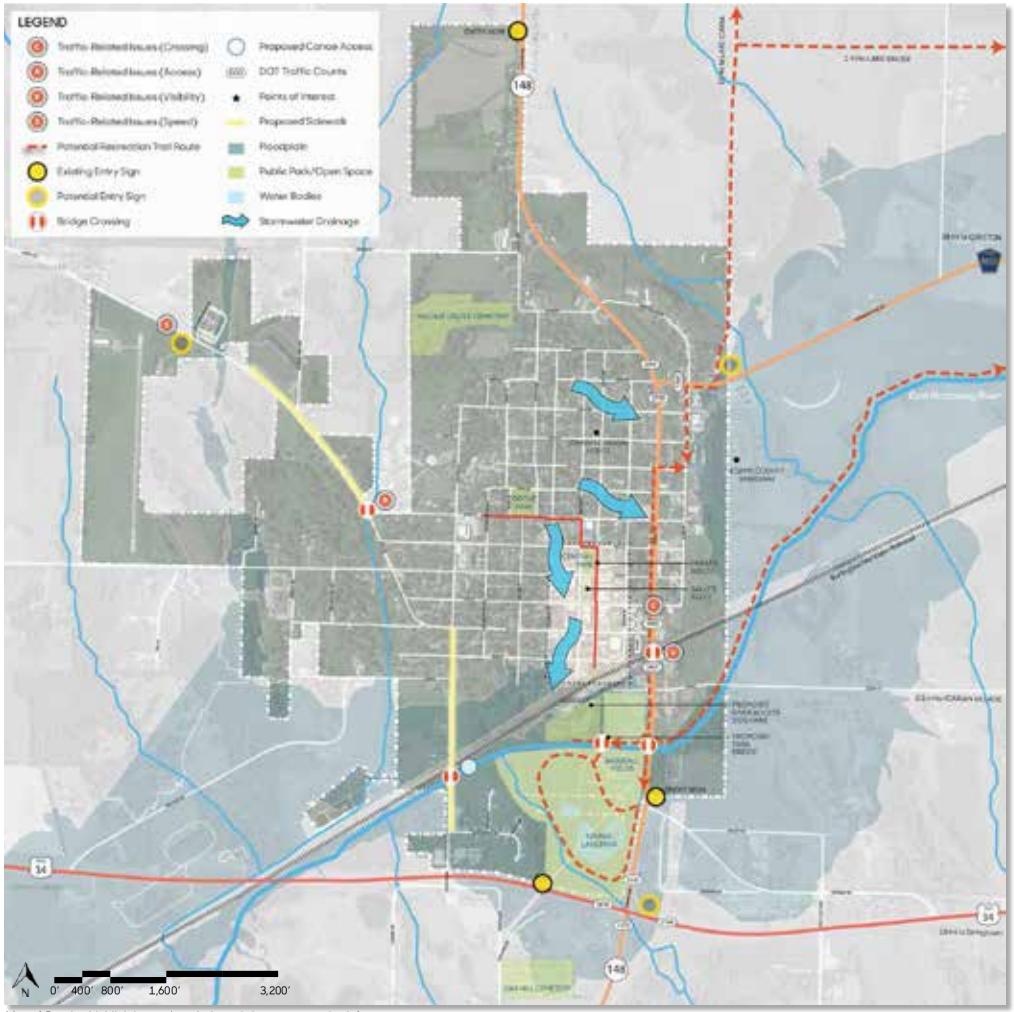
Knowledge of the transportation systems in and around a community is critical for sustainable transportation enhancement planning. Corning's transportation systems include roadways, sidewalks, a river and a railway.

The southeast corner of Corning is intersected by Highways 34 and 148. The Burlington Northern Railroad and East Nodaway River also traverse the southern part of the community from east to west.

The visioning design team met with Iowa Department of Transportation (DOT) personnel, the Adams 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 Corning area.

Several transportation-related assets and opportunities include destinations and activities such as the aquatic and fitness center, and the various parks and lakes throughout the city and region, such as Spring Lake Park, Lake Binder, and Lake Icaria.

Items of concern related to Corning's transportation systems include incomplete, narrow, and inaccessible sidewalks, unmaintained and nonexistent river access, poor visibility at intersections, and unsafe crossings along Highway 148. Additionally, Corning's hilly terrain presents visibility and accessibility challenges for cyclists and pedestrians alike.



Map of Corning highlighting and analyzing existing transportation infrastructure.

Transportation Inventory and Analysis

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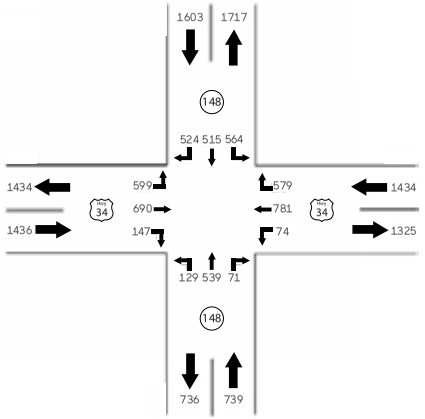

Turning Movement Traffic Count Summary - 2011 Annualized Daily Traffic For All Vehicles.

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Older Adults

"The sidewalks are too uneven and broken up, including my own. It's not safe for my husband to be out walking. We walk in the street if we do...I think most of us would like to walk outside...we would...if we had a facility to."

Steering Committee

"[The] biggest barrier is the hills. I mean, it is impossible to bike up all these hills, even when I was young."

Actives

"Busy roads and there [are] not really sidewalks. I mean, it is kind of more like gravel shoulders... literally you are walking in someone's yard."

Youth

"There's one big area where...I walk to every day; it's a brick alleyway [Sally's Alley], and it's really fun...You can sit there and you can talk with your friends."

Individual's concerns about aspects of Corning's transportation systems in and around the community.

Corning
Transportation Inventory

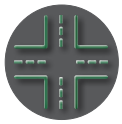
Jeffrey L. Bruce & Company LLC
LA: Eric Doll, PLA, ASLA
Intern(s): Rosie Manzo, Jeremy Johnson
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Goal Setting

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

The landscape architects organized programming themes for the city of Corning 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	Broad-Based Outcomes & Goals
Trails and Recreation 	Increased connectivity to community assets Draw people into Corning Make Corning a destination Multi-model access paved trails (8' minimum) Safety
Natural Resources 	Provide in-town recreation Attract young families to Corning Provide more opportunities for local youth More diverse recreational options Water access and storage
Sidewalk Safety 	More sidewalk connections Lighting in all sidewalk areas at a pedestrian scale Painted crossings ADA compliances More prominent pedestrian right-of-way
Way-finding 	Color-coded signing to clarify districts (historic) Distances to attractions Protected directory Introducing perpendicular signing along Davis St. Clearly and uniformly labeling community assets
Main Street Landscape 	More lighting Bump-outs to slow runoff and make room for trees Don't disrupt parking Address the urban heat effect Additional planters/vegetation
Infrastructure 	Create an overall infrastructure plan for Corning Survey existing utilities

Goal Setting Process

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Combined Results from Transportation Assets and Barriers Assessment & Steering Committee Goal Setting Meeting

Community Values/Themes Based on Assessments	Broad-Based Outcomes & Goals	Why Change Anything?	What Exactly and Where?
Trails and Recreation	Increased connectivity to community assets Draw people into Corning Make Corning a destination Multi-model access paved trails (8' minimum) Safety	· Create more options to travel in Corning · Bring people into Corning · Share nature · Recreation opportunity · Make it easier to travel all of Corning	· Prescott to Lake Binder · Lake Binder to Lake Icaria · Lake Icaria to Davis St. · To Spring Lake Park · To the aquatic center
Natural Resources	Provide in-town recreation Attract young families to Corning Provide more opportunities for local youth More diverse recreational options Water access and storage	· Supplement the needs of local youth · Locals won't need to travel to recreate · See an increase in tourism and population · Utilize the beautiful natural assets	· Spring Lake Park · Lakes Icaria & Binder · Regional draws to Davis · Casey's & 6th · Fitness center
Sidewalk Safety	More sidewalk connections Lighting in all sidewalk areas at a pedestrian scale Painted crossings ADA compliances More prominent pedestrian right-of-way	· Attract more people to Corning for a longer period of time · Eliminate the need of a car to utilize community assets · Enhance the use of facilities	· Paved ADA-compliant walks · Football field to elementary · 14th and Davis · Casey's intersection · Wide enough walks for bikes
Way-finding	Color-coded signing to clarify districts (historic) Distances to attractions Protected directory Introducing perpendicular signing along Davis St. Clearly and uniformly labeling community assets	· Define city identity · Increase accessibility to areas of interest for tourists and those unfamiliar with the area · Increase revenue for local businesses	· Uniformity and distinct hierarchy throughout the city · Memorial Rock · Davis St. businesses · Pool and fitness center · Along Hwy 148
Main Street Landscape	More lighting Bump-outs to slow runoff and make room for trees Don't disrupt parking Address the urban heat effect Additional planters/vegetation	· Increase safety · Improve street aesthetic · Reduce heat-island effect · Manage stormwater · Draw in visitors	· Beautifying opera house intersection · Keep historic look and positives of Corning's Main-street · Crossings based on traffic
Infrastructure	Create an overall infrastructure plan for Corning Survey existing utilities	· To create a database for all branches of Corning leadership to refer to for future developments · More efficient planning	· Community-wide · Focusing on areas with planned improvements

Represents individuals who voiced the same goal

Corning
Goal Setting

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

Iowa's Living Roadways community visioning

Concept Overview

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

1. **Trails and Recreation**
   The addition of a trail network will address residents' desire to live in a walkable and bike-friendly Corning. A trailhead in Spring Lake Park close to Highway 34 will draw in visitors wanting to ride the trails connecting Corning's natural resources to its beautiful Main Street district.
2. **Natural Resources**
   Improve accessibility to the East Nodaway River by repurposing the City Dump site as an access point. A pedestrian connection to Davis Street increases accessibility to the area, offering an opportunity for a city dog park.
3. **Sidewalk Safety**
   Ensuring the residents and visitors of Corning have the capability to move through town on ADA-compliant sidewalks with sufficient lighting.
4. **Signage and Way-finding**
   Introducing an attractive and cohesive signage scheme enhancing Corning's visual appearance and accessibility to visitors.
5. **Main Street Landscape**
   Improvements to this Main Street Iowa community include embellishing its sense of place as well as building on its existing successful features. Restructuring Main Street intersections with painted crosswalks and curb bump-outs improve pedestrian comfort, address stormwater runoff, and enhance streetscape aesthetics.

Concept Overview

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

1. Trails and Recreation

   The addition of a trail network will address residents' desire to live in a walkable and bike-friendly Corning. A trailhead in Spring Lake Park close to Highway 34 will draw in visitors wanting to ride the trails connecting Corning's natural resources to its beautiful Main Street district.

2. Natural Resources

   Improve accessibility to the East Nodaway River by repurposing the City Dump site as an access point. A pedestrian connection to Davis Street increases accessibility to the area, offering an opportunity for a city dog park.

3. Sidewalk Safety

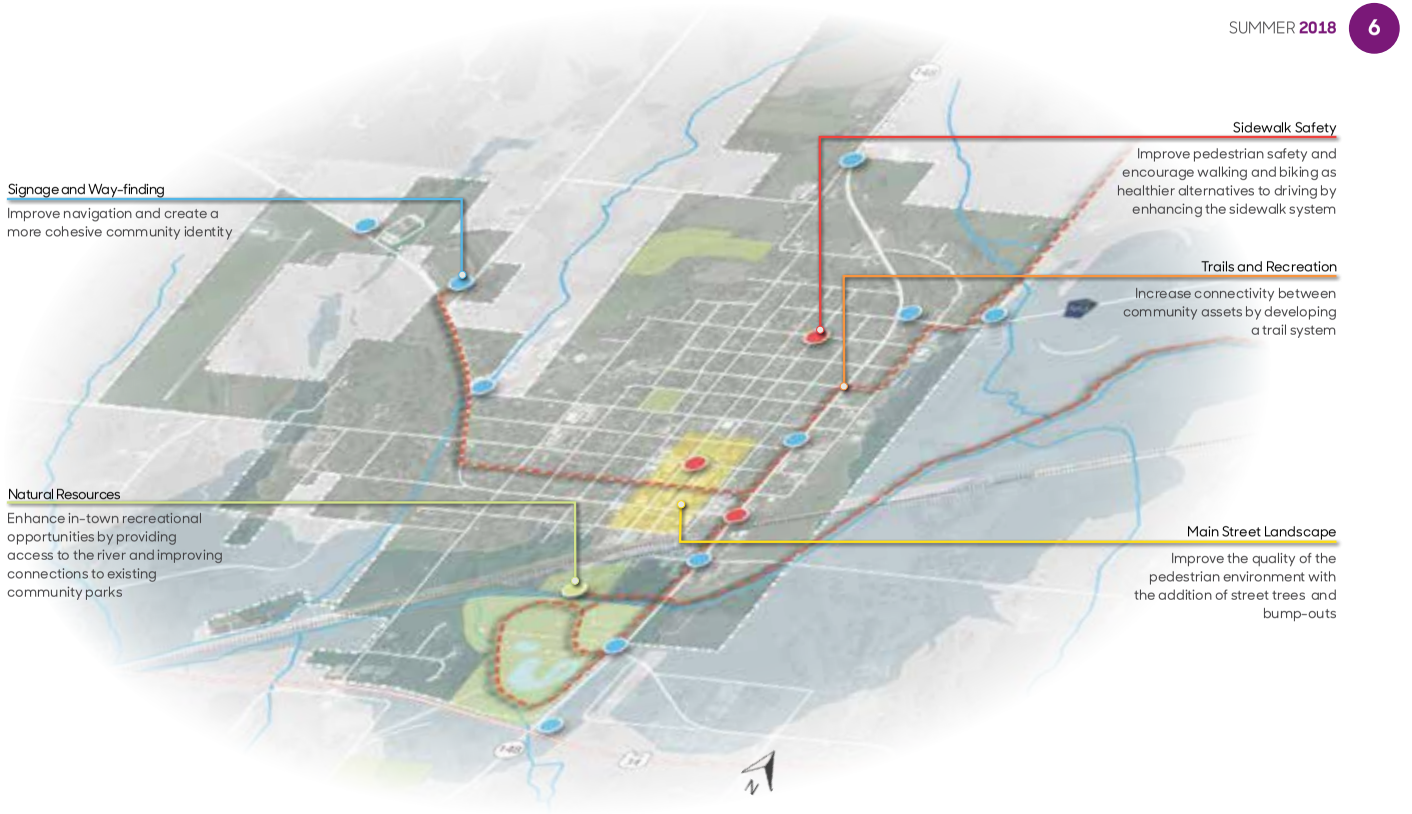
   Ensuring the residents and visitors of Corning have the capability to move through town on ADA-compliant sidewalks with sufficient lighting.

4. Signage and Way-finding

   Introducing an attractive and cohesive signage scheme enhancing Corning's visual appearance and accessibility to visitors.

5. Main Street Landscape

   Improvements to this Main Street Iowa community include embellishing its sense of place as well as building on its existing successful features. Restructuring Main Street intersections with painted crosswalks and curb bump-outs improve pedestrian comfort, address stormwater runoff, and enhance streetscape aesthetics.




Board 7a


Board 7b


Board 8a


Board 8b


Board 9


Board 10


Board 11a


Board 11b

Corning
Concept Overview

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

Iowa's Living Roadways community visioning

Lake Trails

Proposed Trail
The dashed lines on the conceptual plan highlights the best placement for stand alone trails. Compared to a shared roadway, a physically separate bike trail enables people who find it challenging to bike alongside vehicular traffic. Parts of the proposed route are located on private land and being that the trail runs along the edges of properties, they would see little disturbance from a trail to Lake Binder. Early conversations with land owners will be critical in the development of trails north from the Aquatic Center.

Shared Roadway
Many towns across the nation have chosen to make bicyclists a common roadway element by designating roads as a shared roadway. A shared roadway must be accompanied by ample signage and painted pavement markings. Shared roadways are ideal on low-traffic, low-speed roads. Creating shared roads in Corning is an option given low traffic-volumes on a number of roads.

Design Expertise Recommended

Projects may require help beyond the capability of the Corning 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

Lake Trails

Lake Binder Existing Renovated Trail Loop (2 Miles)

Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					$10,000.00
Mobilization	1	ls	$5,000.00	$5,000.00	
Trail Clearing and Preparation	1	ls	$5,000.00	$5,000.00	
Site Sedimentation and Erosion Control					$2,500.00
Inlet Protection and Erosion Mitigation	1	ls	$2,500.00	$2,500.00	
Site Earthwork					$5,000.00
Rough Grading	1	ls	$5,000.00	$5,000.00	
Trail Surfacing					$42,240.00
8' Wide Crushed Gravel Trail (3" Depth after Trail Surface Preparation - 2 Miles)	84,480	sf	$0.50	$42,240.00	
Site Amenities					$4,800.00
Trail Signage (Every 0.50 Mile)	4	ea	$500.00	$2,000.00	
Picnic Table	4	ea	$400.00	$1,600.00	
Trash Receptacles	4	ea	$300.00	$1,200.00	
Sub-Total					***$64,540.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$15,490.00***
Total					***$80,030.00***

10' Separated Asphalt Trail from River's Landing Park to Lake Binder (Brown Dashed Line - 2.25 Miles)

Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					$44,000.00
Mobilization	1	ls	$10,000.00	$10,000.00	
Clearing and Grubbing	1	ls	$20,000.00	$20,000.00	
SWPPP Preparation/Documentation	1	ls	$6,000.00	$6,000.00	
Site Survey	1	ls	$8,000.00	$8,000.00	
Site Sedimentation and Erosion Control					$10,000.00
Inlet Protection and Erosion Mitigation	1	ls	$10,000.00	$10,000.00	
Site Earthwork					$10,000.00
Rough Grading	1	ls	$10,000.00	$10,000.00	
Trail					$525,200.00
10' Wide Asphalt Paved Separate Trail (2.25 Miles)	118,800	sf	$4.00	$475,200.00	
Box Culvert Trail Infrastructure Under Corning Carl Road	1	ls	$50,000.00	$50,000.00	
Site Amenities					$2,000.00
Trail Signage (Every 0.50 Mile)	4	ea	$500.00	$2,000.00	
Sub-Total					***$591,200.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$141,888.00***
Total					***$733,088.00***

10' Separated Asphalt Trail from City Pool to Lake Binder (Blue Dashed Line - 1.25 Miles)

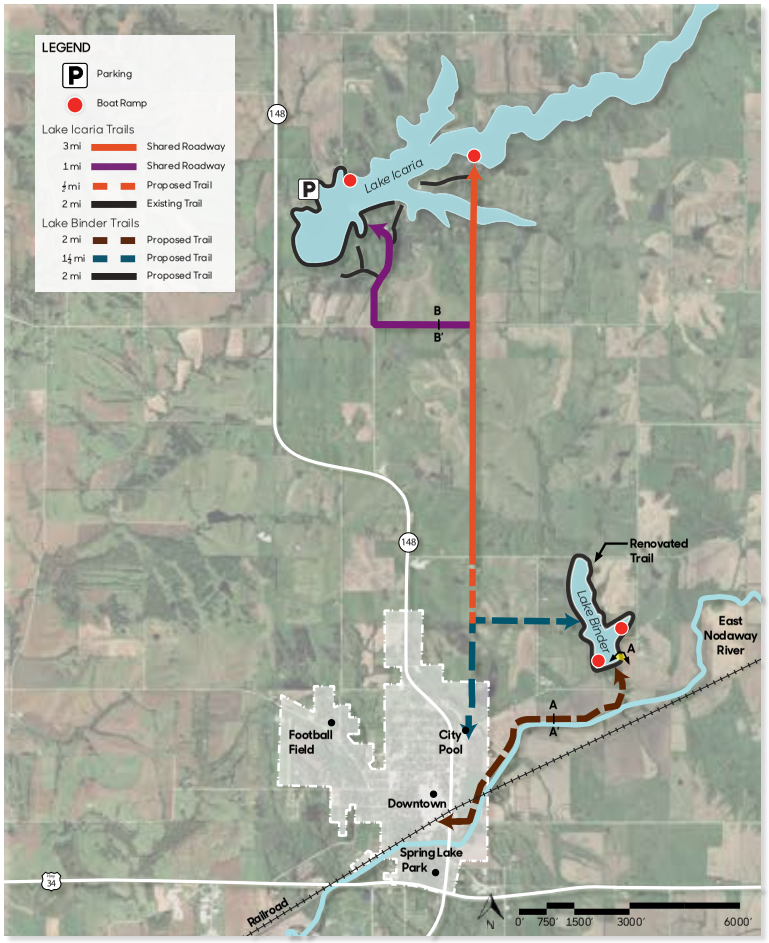
Description	Quantity	Unit	Unit Cost	Line Total	Totals
Land Acquisition					$25,000.00
General Purchase of Land	1	ls	$25,000.00	$25,000.00	
Demolition/Site Preparation					$23,500.00
Mobilization	1	ls	$7,500.00	$7,500.00	
Clearing and Grubbing	1	ls	$5,000.00	$5,000.00	
SWPPP Preparation/Documentation	1	ls	$6,000.00	$6,000.00	
Site Survey	1	ls	$5,000.00	$5,000.00	
Site Sedimentation and Erosion Control					$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	$5,000.00	$5,000.00	
Site Earthwork					$5,000.00
Rough Grading	1	ls	$5,000.00	$5,000.00	
Trail Surfacing					$264,000.00
10' Wide Asphalt Paved Separate Trail (1.25 Miles)	66,000	sf	$4.00	$264,000.00	
Site Amenities					$1,000.00
Trail Signage (Every 0.50 Mile)	2	ea	$500.00	$1,000.00	
Sub-Total					***$323,500.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$77,640.00***
Total					***$401,140.00***

10' Separated Asphalt Trail from Proposed Trail South of Kale Ave to 200th Street (Red Dashed Line - 0.50 Miles)					
Description	*Quantity*	*Unit*	*Unit Cost*	*Line Total*	*Totals*
Land Acquisition					$10,000.00
General Purchase of Land	1	ls	$10,000.00	$10,000.00	
Demolition/Site Preparation					$9,000.00
Mobilization	1	ls	$2,500.00	$2,500.00	
Clearing and Grubbing	1	ls	$3,000.00	$3,000.00	
Site Survey	1	ls	$3,500.00	$3,500.00	
Site Sedimentation and Erosion Control					$1,500.00
Inlet Protection and Erosion Mitigation	1	ls	$1,500.00	$1,500.00	
Site Earthwork					$5,000.00
Rough Grading	1	ls	$5,000.00	$5,000.00	
Trail Surfacing					$105,600.00
10' Wide Asphalt Paved Separate Trail (0.50 Mile)	26,400	sf	$4.00	$105,600.00	
Site Amenities					$500.00
Trail Signage (Every 0.50 Mile)	1	ea	$500.00	$500.00	
Sub-Total					***$131,600.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$31,584.00***
Total					***$163,184.00***

Shared Roadway from 200th Street to Lake Icaria along Kale Ave (0.80 Miles)					
Description	*Quantity*	*Unit*	*Unit Cost*	*Line Total*	*Totals*
Trail Surfacing					$5,000.00
Pavement Markings	1	ls	$5,000.00	$5,000.00	
Site Amenities					$2,000.00
Trail Signage (Every 0.50 Mile)	2	ea	$500.00	$1,000.00	
Share the Road Signage	2	ea	$500.00	$1,000.00	
Sub-Total					***$7,000.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$1,680.00***
Total					***$8,680.00***

Shared Roadway from 183rd Street to Juniper Ave to Timber Ridge Campground (0.80 Miles)					
Description	*Quantity*	*Unit*	*Unit Cost*	*Line Total*	*Totals*
Trail Surfacing					$5,000.00
Pavement Markings	1	ls	$5,000.00	$5,000.00	
Site Amenities					$2,000.00
Trail Signage (Every 0.50 Mile)	2	ea	$500.00	$1,000.00	
Share the Road Signage	2	ea	$500.00	$1,000.00	
Sub-Total					***$7,000.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$1,680.00***
Total					***$8,680.00***

Lake Binder Trailhead					
Description	*Quantity*	*Unit*	*Unit Cost*	*Line Total*	*Totals*
Demolition/Site Preparation					$3,000.00
Mobilization	1	ls	$2,000.00	$2,000.00	
Clearing and Grubbing	1	ls	$1,000.00	$1,000.00	
Site Sedimentation and Erosion Control					$500.00
Inlet Protection and Erosion Mitigation	1	ls	$500.00	$500.00	
Site Earthwork					$1,250.00
Rough Grading	1	ls	$1,250.00	$1,250.00	
Site Hardscape					$3,150.00
Concrete Paved Trailhead Gathering Area (15-foot by 30-foot)	450	sf	$7.00	$3,150.00	
Site Utilities					$7,500.00
Electrical Service (Outlet and Circuiting)	1	ls	$7,500.00	$7,500.00	
Site Plant Material					$2,700.00
Native Prairie and Wildflower Seeding Mix	1	ls	$1,500.00	$1,500.00	
Overstory and Evergreen Trees	3	ea	$400.00	$1,200.00	
Site Amenities					$21,200.00
Park Entry Sign with Bench	1	ea	$2,500.00	$2,500.00	
Pedestrian LED Lighting	2	ea	$8,000.00	$16,000.00	
Picnic Table	1	ea	$400.00	$400.00	
Trash Receptacles	1	ea	$300.00	$300.00	
Bollards	10	ea	$200.00	$2,000.00	
Sub-Total					***$39,300.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$9,432.00***
Total					***$48,732.00***



The goal setting meetings and TAB assessments revealed that Corning residents need an improved access to the natural resources nearby: Lake Binder and Lake Icaria. Above is a conceptual plan showing trail options.

A. Perspective showing proposed trailhead adjacent to the Lake Binder dam/spillway.

SECTION A-A'

SECTION B-B'

Proposed Trail

The dashed lines on the conceptual plan to the left highlights the best placement for stand alone trails. Compared to a shared roadway, a physically separate bike trail enables people who find it challenging to bike alongside vehicular traffic. Parts of the proposed route are located on private land and being that the trail runs along the edges of properties, they would see little disturbance from a trail to Lake Binder. Early conversations with land owners will be critical in the development of trails north from the Aquatic Center.

Shared Roadway

Many towns across the nation have chosen to make bicyclists a common roadway element by designating roads as a shared roadway. A shared roadway must be accompanied by ample signage and painted pavement markings. Shared roadways are ideal on low-traffic, low-speed roads. Creating shared roads in Corning is an option given low traffic-volumes on a number of roads.

Corning
Lake Trails

Jeffrey L. Bruce and Company LLC
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Iowa's Living Roadways community visioning

Community Trails

Community Trail System
Corning boasts a multitude of amenities and without a trail system, residents and visitors mostly rely on vehicular transportation to access them. With the addition of a community trail system, Corning is able to safely connect to community assets such as Lake Binder, Lake Icaria, and Spring Lake Park. The proposed comprehensive trail system encourages residents and visitors to pursue healthier modes of transportation and outdoor recreation opportunities.

The trail system includes separate trails, as seen in the trail proposed along Highway 148 (above), as well as shared roads, as seen along Loomis Ave (right). Primary, secondary, and tertiary paths are shown as red, orange, and yellow lines respectively, and speak to the prioritization of trail segments the City may pursue in the future. Phasing the development of the trail system helps identify the importance of certain community amenities.

Design Expertise Recommended

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

Project Scope and Cost Opinion

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

Abbreviations used in the following opinions of probable cost include:

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

Community Trails

10' Paved Trail on Hull St. from 10th St. to High School Football Field (0.40 Miles)

Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					$35,500.00
Mobilization	1	ls	$6,000.00	$6,000.00	
Site Survey	1	ls	$4,000.00	$4,000.00	
SWPPP Preparation/Documentation	1	ls	$3,500.00	$3,500.00	
Bridge Demolition	1	ls	$20,000.00	$20,000.00	
Clearing and Grubbing	1	ls	$2,000.00	$2,000.00	
Site Utilities					$15,000.00
Electrical Service (Outlet and Circuiting)	1	ls	$15,000.00	$15,000.00	
Site Sedimentation and Erosion Control					$1,500.00
Inlet Protection and Erosion Mitigation	1	ls	$1,500.00	$1,500.00	
Site Earthwork					$10,000.00
Rough Grading	1	ls	$6,000.00	$6,000.00	
Fine Grading	1	ls	$4,000.00	$4,000.00	
Site Hardscape					$264,520.00
10' Wide Concrete Trail (0.40 miles)	21,120	sf	$7.00	$147,840.00	
Concrete Curb and Gutter	1,848	lf	$35.00	$64,680.00	
New Culverts under Trail and Roadway	1	ls	$40,000.00	$40,000.00	
New Concrete Roadway over Culverts	1,500	sf	$8.00	$12,000.00	
Site Plant Material					$9,200.00
Overstory Trees	20	ea	$400.00	$8,000.00	
General Site Seeding	1	ls	$1,200.00	$1,200.00	
Site Amenities					$67,880.00
Pedestrian Lighting (LED Lighting)	8	ea	$8,000.00	$64,000.00	
Way-finding Sign	1	ea	$1,800.00	$1,800.00	
Hanging Baskets	8	ea	$200.00	$1,600.00	
Light Pole Banner	8	ea	$60.00	$480.00	
Sub-Total					***$403,600.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$96,864.00***
Total					***$500,464.00***

8' Paved Trail on Loomis Ave from 6th St. to Highway 34 (0.60 Miles)

Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					$18,500.00
Mobilization	1	ls	$6,000.00	$6,000.00	
Sidewalk Removal	1	ls	$5,000.00	$5,000.00	
Utilities Coordination	1	ls	$7,500.00	$7,500.00	
Site Sedimentation and Erosion Control					$2,500.00
Inlet Protection and Erosion Mitigation	1	ls	$2,500.00	$2,500.00	
Site Earthwork					$5,000.00
Rough Grading	1	ls	$5,000.00	$5,000.00	
Site Hardscape					$183,408.00
8' Wide Concrete Separate Trail (0.60 miles)	25,344	sf	$7.00	$177,408.00	
ADA Curb Ramps at Intersections	5	ea	$1,200.00	$6,000.00	
Site Amenities					$1,800.00
Way-finding Sign	1	ea	$1,800.00	$1,800.00	
Sub-Total					***$211,208.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$50,690.00***
Total					***$261,898.00***

8' Separated Paved Trail to Spring Lake Park Parking Lot from Loomis Ave (Solid Orange Line - 0.40 Miles)

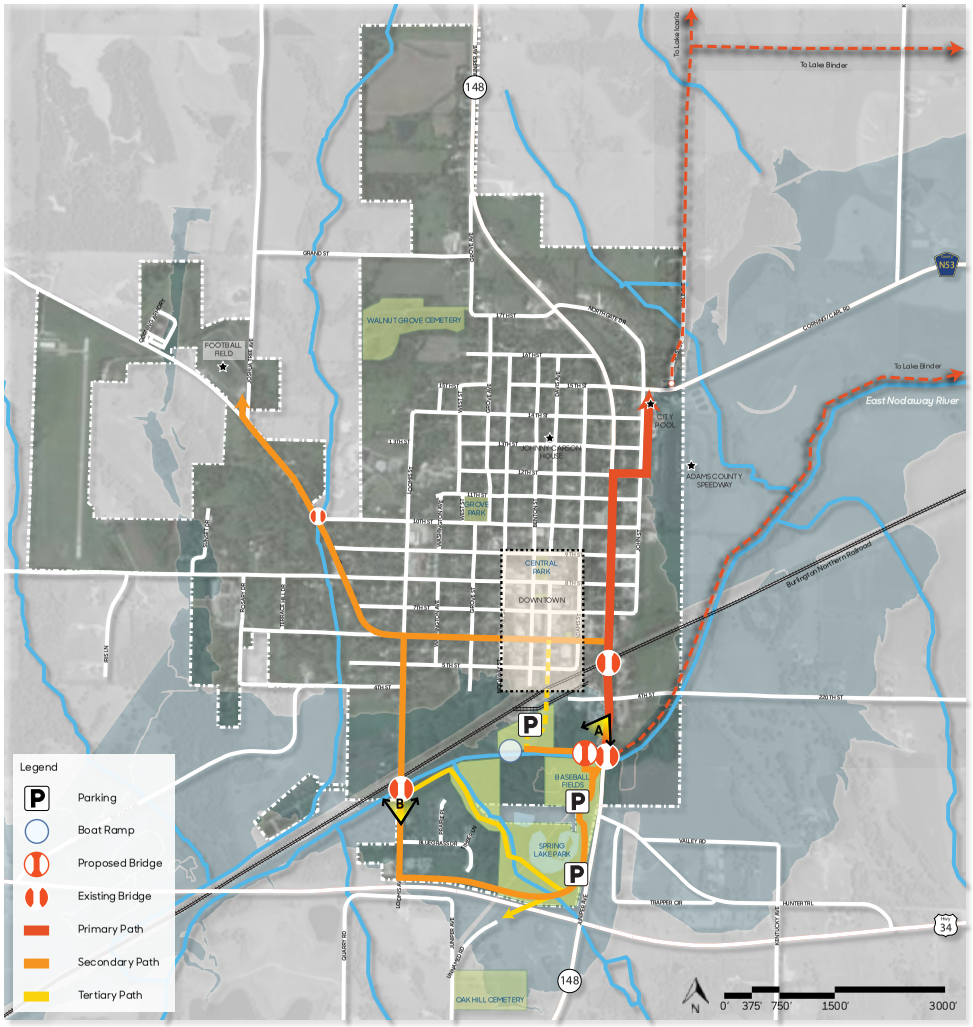
Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					$16,500.00
Mobilization	1	ls	$6,000.00	$6,000.00	
Site Survey	1	ls	$3,000.00	$3,000.00	
SWPPP Preparation/Documentation	1	ls	$2,500.00	$2,500.00	
Clearing and Grubbing	1	ls	$5,000.00	$5,000.00	
Site Sedimentation and Erosion Control					$3,000.00
Inlet Protection and Erosion Mitigation	1	ls	$3,000.00	$3,000.00	
Site Earthwork					$8,000.00
Rough Grading	1	ls	$8,000.00	$8,000.00	
Site Plant Material					$6,300.00
Overstory Trees	12	ea	$400.00	$4,800.00	
General Site Seeding	1	ls	$1,500.00	$1,500.00	
Site Hardscape					$158,272.00
Wood Trail Bridge	1	ls	$40,000.00	$40,000.00	
8' Wide Concrete Separate Trail (0.40 Miles)	16,896	sf	$7.00	$118,272.00	
Sub-Total					***$192,072.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$46,097.00***
Total					***$238,169.00***

10' Separated Paved Trail from Spring Lake Park Parking Lot to Ball Fields (0.25 Miles)					
Description	***Quantity***	***Unit***	***Unit Cost***	***Line Total***	***Totals***
Demolition/Site Preparation					$7,500.00
Mobilization	1	ls	$3,000.00	$3,000.00	
Clearing and Grubbing	1	ls	$4,500.00	$4,500.00	
Site Sedimentation and Erosion Control					$1,500.00
Inlet Protection and Erosion Mitigation	1	ls	$1,500.00	$1,500.00	
Site Earthwork					$5,000.00
Rough Grading	1	ls	$5,000.00	$5,000.00	
Site Hardscape					$92,400.00
10' Wide Concrete Separate Trail (0.25 Miles)	13,200	sf	$7.00	$92,400.00	
Site Amenities					$1,800.00
Way-finding Sign	1	ea	$1,800.00	$1,800.00	
Sub-Total					***$108,200.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$25,968.00***
Total					***$134,168.00***

10' Paved Trail from Ball Fields to 12th St. along Quincy St. (0.40 Miles)					
Description	***Quantity***	***Unit***	***Unit Cost***	***Line Total***	***Totals***
Demolition/Site Preparation					$53,500.00
Mobilization	1	ls	$4,000.00	$4,000.00	
Site Survey	1	ls	$5,000.00	$5,000.00	
SWPPP Preparation/Documentation	1	ls	$3,000.00	$3,000.00	
Clearing and Grubbing	1	ls	$1,500.00	$1,500.00	
Sidewalk Removal	1	ls	$25,000.00	$25,000.00	
Utilities Coordination	1	ls	$15,000.00	$15,000.00	
Site Sedimentation and Erosion Control					$3,000.00
Inlet Protection and Erosion Mitigation	1	ls	$3,000.00	$3,000.00	
Site Earthwork					$8,000.00
Rough Grading	1	ls	$8,000.00	$8,000.00	
Site Hardscape					$187,040.00
ADA Curb Ramps at Intersections	16	ea	$1,200.00	$19,200.00	
Miscellaneous Retaining Walls	1	ls	$20,000.00	$20,000.00	
10' Wide Concrete Separate Trail (0.40 Miles)	21,120	sf	$7.00	$147,840.00	
Site Plant Material					$9,200.00
Overstory Trees	20	ea	$400.00	$8,000.00	
General Site Seeding	1	ls	$1,200.00	$1,200.00	
Site Amenities					$1,800.00
Way-finding Sign	1	ea	$1,800.00	$1,800.00	
Sub-Total					***$262,540.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$63,010.00***
Total					***$325,550.00***

10' Paved Trail from 12th St. and Quincy St. to John St. to City Pool (0.25 Miles)					
Description	***Quantity***	***Unit***	***Unit Cost***	***Line Total***	***Totals***
Demolition/Site Preparation					$7,500.00
Mobilization	1	ls	$2,000.00	$2,000.00	
Clearing and Grubbing	1	ls	$500.00	$500.00	
Sidewalk Removal	1	ls	$5,000.00	$5,000.00	
Site Sedimentation and Erosion Control					$2,000.00
Inlet Protection and Erosion Mitigation	1	ls	$2,000.00	$2,000.00	
Site Earthwork					$6,000.00
Rough Grading	1	ls	$6,000.00	$6,000.00	
Site Hardscape					$96,000.00
ADA Curb Ramps at Intersections	3	ea	$1,200.00	$3,600.00	
10' Wide Concrete Separate Trail (0.25)	13,200	sf	$7.00	$92,400.00	
Site Amenities					$3,300.00
Way-finding Sign	1	ea	$1,800.00	$1,800.00	
Painted Crosswalks	3	ea	$500.00	$1,500.00	
Sub-Total					***$114,800.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$27,552.00***
Total					***$142,352.00***

8' Pervious Trail from Loomis Ave Bridge to Spring Lake Park Parking Lot (Solid Yellow Line - 0.50 Miles)					
Description	***Quantity***	***Unit***	***Unit Cost***	***Line Total***	***Totals***
Demolition/Site Preparation					$17,500.00
Mobilization	1	ls	$6,000.00	$6,000.00	
Site Survey	1	ls	$4,000.00	$4,000.00	
SWPPP Preparation/Documentation	1	ls	$2,500.00	$2,500.00	
Clearing and Grubbing	1	ls	$5,000.00	$5,000.00	
Site Sedimentation and Erosion Control					$3,000.00
Inlet Protection and Erosion Mitigation	1	ls	$3,000.00	$3,000.00	
Site Earthwork					$6,000.00
Rough Grading	1	ls	$6,000.00	$6,000.00	
Site Hardscape					$158,272.00
Wood Trail Bridge	1	ls	$40,000.00	$40,000.00	
8' Wide Concrete Separate Trail (0.40 Miles)	16,896	sf	$7.00	$118,272.00	
Sub-Total					***$184,772.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$44,345.00***
Total					***$229,117.00***



Overview plan of Corning's proposed trail system.

A. Perspective looking south along Highway 148 north of the river showing how the trail splits off, providing access west to the dog park and east under the bridge to Lake Binder.

Community Trail System

Corning boasts a multitude of amenities and without a trail system, residents and visitors mostly rely on vehicular transportation to access them. With the addition of a community trail system, Corning is able to safely connect to community assets such as Lake Binder, Lake Icaria, and Spring Lake Park. The proposed comprehensive trail system encourages residents and visitors to pursue healthier modes of transportation and outdoor recreation opportunities.

The trail system includes separate trails, as seen in the trail proposed along Highway 148 (above), as well as shared roads, as seen along Loomis Ave (right). Primary, secondary, and tertiary paths are shown as red, orange, and yellow lines respectively, and speak to the prioritization of trail segments the City may pursue in the future. Phasing the development of the trail system helps identify the importance of certain community amenities.

B. Perspective looking north on Loomis Ave, showing the addition of a sidewalk and sharrow route.

Corning
Community Trails

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

Iowa's Living Roadways community visioning

Spring Lake Park

Accessing Natural Resources

Corning is situated among a variety of natural resource assets. Many residents enjoy the existing parks within the community as well as larger parks such as Lake Binder and Lake Icaria just outside the community.

It has been well documented in the Transportation Assets and Barriers workshops as well as the Goal Setting exercise that Corning residents desire a designated trail in town. More so, they desire a trail that provides access to their in-town natural resources.

Corning has asked the design team to develop a landscape plan identifying a proposed trail connecting to Spring Lake Park. A new multi-purpose trail is routed south from the Highway 148/East Nodaway River bridge connecting to the ball fields and Spring Lake.

The design proposal includes a reorganized parking area for the ball fields, a new trailhead area adjacent to Spring Lake, and additional trails connecting to the residential area further west. The design takes into consideration existing topography for low maintenance.

Design Expertise Recommended

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

Project Scope and Cost Opinion

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

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Spring Lake Park

Spring Lake Park Trailhead

Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					$11,000.00
Mobilization	1	ls	$3,000.00	$3,000.00	
Site Survey	1	ls	$3,000.00	$3,000.00	
Clearing and Grubbing	1	ls	$5,000.00	$5,000.00	
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					$10,000.00
Rough Grading	1	ls	$5,000.00	$5,000.00	
Fine Grading	1	ls	$5,000.00	$5,000.00	
Site Hardscape					$58,838.00
Gravel Drive and Parking Area (14,000 sf @ 6" Depth)	259	cy	$50.00	$12,963.00	
Boardwalk (100 lf @ 8' Wide)	800	sf	$55.00	$44,000.00	
Proposed Trail (See Cost Estimates on Community Trails Board 7b)					
Concrete Curb Stops	25	ea	$75.00	$1,875.00	
Site Plant Material					$7,300.00
Native Prairie and Wildflower Seed Mix	1	ls	$2,500.00	$2,500.00	
Overstory Trees	12	ea	$400.00	$4,800.00	
Site Amenities					$54,050.00
Pedestrian LED Lighting on Boardwalk	2	ea	$8,000.00	$16,000.00	
Picnic Table	2	ea	$400.00	$800.00	
Trash/Recycling Receptacle	2	ea	$600.00	$1,200.00	
Bike Repair Station	1	ea	$2,000.00	$2,000.00	
Bike Racks	1	ea	$800.00	$800.00	
Trail Wayfinding Bollards	3	ea	$250.00	$750.00	
20' x 20' Park Shelter	1	ea	$30,000.00	$30,000.00	
Park Entry Sign with Bench	1	ea	$2,500.00	$2,500.00	
Sub-Total					***$171,188.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$41,085.00***
Total					***$212,273.00***

Ballfields Parking Lot Improvements

Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					$1,500.00
Mobilization	1	ls	$1,500.00	$1,500.00	
Site Sedimentation and Erosion Control					$500.00
Inlet Protection and Erosion Mitigation	1	ls	$500.00	$500.00	
Site Earthwork					$2,000.00
Rough Grading	1	ls	$2,000.00	$2,000.00	
Site Hardscape					$5,000.00
Gravel Surfacing Patching and Repair (General)	1	ls	$5,000.00	$5,000.00	
Proposed Trail (See Cost Estimates on Community Trails Board 7b)					
Site Plant Material					$5,100.00
Native Prairie and Wildflower Mix	1	ls	$1,500.00	$1,500.00	
Overstory Trees	9	ea	$400.00	$3,600.00	
Site Amenities					$14,525.00
Trash/Recycling Receptacle	2	ea	$600.00	$1,200.00	
Bike Racks	1	ea	$800.00	$800.00	
Concrete Curb Stops	79	ea	$75.00	$5,925.00	
Boulders	33	ea	$200.00	$6,600.00	
Sub-Total					***$28,625.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$6,870.00***
Total					***$35,495.00***

Accessing Natural Resources

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The design proposal includes a reorganized parking area for the ball fields, a new trailhead area adjacent to Spring Lake, and additional trails connecting to the residential area further west. The design takes into consideration existing topography for low maintenance.

Spring Lake Park Trailhead Plan.

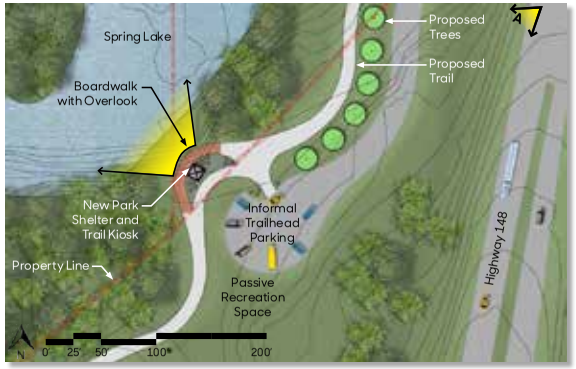

Figure 1: Detail Plan of Spring Lake Park Trailhead.

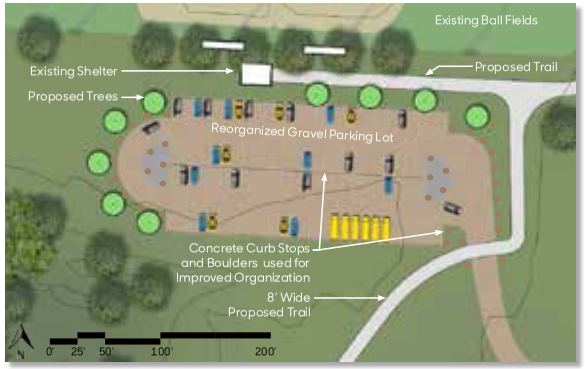

Figure 2 Detail Plan of Ball fields Parking lot.

A. Perspective looking southwest towards the proposed trailhead and parking area for the Spring Lake Trail.

Corning
Spring Lake Park

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

Iowa's Living Roadways community visioning

River's Landing Park

Corning is bisected by the East Nodaway River to the south. This river is viewed by many in the town as an underutilized source for outdoor recreation. With the addition of a canoe and kayak launch point, the community attracts visitors and provides another outdoor recreation opportunity to its residents. Situated at the old city dump site, this proposed river access is south of downtown and north of Spring Lake Park, allowing the proposed trail system to connect all three areas. As seen in the proposed plan, design elements include a canoe/kayak launch area, a riverside gathering area, a new pavilion for community gatherings, open green space for outdoor recreation, and a dog park for all community residents and their pets to enjoy.

Design Expertise Recommended

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

Project Scope and Cost Opinion

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

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River's Landing Park

Canoe/Kayak Launch

Description	*Quantity*	*Unit*	*Unit Cost*	*Line Total*	*Totals*
Demolition/Site Preparation					$22,500.00
Mobilization	1	ls	$4,500.00	$4,500.00	
Site Survey	1	ls	$5,000.00	$5,000.00	
Clearing and Grubbing	1	ls	$10,000.00	$10,000.00	
SWPPP Preparation/Documentation	1	ls	$3,000.00	$3,000.00	
Site Utilities					$25,000.00
Electrical Service (Outlet and Circuiting)	1	ls	$25,000.00	$25,000.00	
Site Sedimentation and Erosion Control					$1,500.00
Inlet Protection and Erosion Mitigation	1	ls	$1,500.00	$1,500.00	
Site Earthwork					$15,000.00
Rough Grading	1	ls	$5,000.00	$5,000.00	
Fine Grading	1	ls	$10,000.00	$10,000.00	
Site Hardscape					$640,500.00
Asphalt Parking Area and Road (67,600 sf @ 6" Depth)	67,600	sf	$6.00	$405,600.00	
Concrete Curb and Gutter	1,000	lf	$35.00	$35,000.00	
Grooved Reinforced PCC Canoe Launch	80	sy	$95.00	$7,600.00	
Concrete Pad for Riverside Shelter (3,450 sf @ 5" Depth)	1,400	sf	$7.00	$9,800.00	
8' Wide Concrete Trail (25,000 sf @ 5" Depth) (Includes Central Shelter Pad)	25,000	sf	$7.00	$175,000.00	
6' Perimeter Granular Surface Trail (10,000 sf @ 5" Depth)	10,000	sf	$0.75	$7,500.00	
Dog Park					$56,500.00
Dog Park Fencing (Includes Gates and Secure Areas)	450	lf	$20.00	$9,000.00	
Dog Park Mulch Surfacing	1	ls	$7,500.00	$7,500.00	
Dog Park Obstacles and Equipment	1	ls	$25,000.00	$25,000.00	
Dog Park Benches and Other Site Furnishings	1	ls	$15,000.00	$15,000.00	
Site Amenities					$286,900.00
Pedestrian LED Lighting	10	ea	$8,000.00	$80,000.00	
Pavilion Shelter	1	ea	$40,000.00	$40,000.00	
Riverside Shelter with Bathrooms	1	ea	$80,000.00	$80,000.00	
Steel Bridge over East Nodaway River	1	ls	$150,000.00	$150,000.00	
Trash/Recycling Receptacle	4	ea	$600.00	$2,400.00	
Picnic Tables	8	ea	$500.00	$4,000.00	
Bike Racks	2	ea	$1,000.00	$2,000.00	
Bench	6	ea	$1,000.00	$6,000.00	
Park Entry Sign with Bench	1	ea	$2,500.00	$2,500.00	
Site Plant Material					$31,000.00
Native Prairie and Wildflower Seed Mix	1	ls	$5,000.00	$5,000.00	
Overstory Trees	30	ea	$400.00	$12,000.00	
Ornamental Trees	20	ea	$300.00	$6,000.00	
Shrubs	40	ea	$75.00	$3,000.00	
Grass Seed (176,000 sf)	1	ls	$5,000.00	$5,000.00	
Sub-Total					***$1,078,900.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$258,936.00***
Total					***$1,337,836.00***

River's Landing Park

SUMMER 2018 8b

Corning is bisected by the East Nodaway River to the south. This river is viewed by many in the town as an underutilized source for outdoor recreation. With the addition of a canoe and kayak launch point, the community attracts visitors and provides another outdoor recreation opportunity to its residents. Situated at the old city dump site, this proposed river access is south of downtown and north of Spring Lake Park, allowing the proposed trail system to connect all three areas. As seen in the proposed plan, design elements include a canoe/kayak launch area, a riverside gathering area, a new pavilion for community gatherings, open green space for outdoor recreation, and a dog park for all community residents and their pets to enjoy.

Plan showing the transformation of the existing city dump site into a public green space and dog park with river access.

South-facing bird's-eye view of the existing city dump site and East Nodaway River with property boundaries.

South-facing bird's-eye view showing the transformation of the existing city dump site into a vibrant green space with river access.

Corning

River's Landing Park

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

Iowa's Living Roadways community visioning

Sidewalk Safety

Improved sidewalk surfaces is one of Corning's top goals in the Transportation Assets and Barriers findings. Sidewalk conditions vary across town are generally better downtown and begin to deteriorate as you move away from the city core. Installing new and ADA accessible sidewalks improves the walkability of the city and helps promote outdoor recreation.

As sidewalks are updated over time, curb ramps should be included for ADA accessibility. However, with Corning's hilly terrain ADA accessibility will not always be achievable. The proposed sidewalk along Hull Street is too steep to be an accessible route. Both sidewalk and trail improvements offer a holistic look at community-wide accessibility that can be strategically phased in over time.

Design Expertise Recommended

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Project Scope and Cost Opinion

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Sidewalk Safety

Safety Improvements at the Intersection of Qunicy St and 6th St

Description	*Quantity*	*Unit*	*Unit Cost*	*Line Total*	*Totals*
Demolition					$1,500.00
Mobilization	1	ls	$1,500.00	$1,500.00	
Site Sedimentation and Erosion Control					$1,200.00
Inlet Protection and Erosion Mitigation	1	ls	$1,200.00	$1,200.00	
Site Earthwork					$2,000.00
Rough Grading	1	ls	$2,000.00	$2,000.00	
Site Hardscape					$42,400.00
4' Wide Sidewalk along 6th St New Concrete Sidewalk (100 lf)	400	sf	$7.00	$2,800.00	
New Colored Pavement Crosswalks	4	ea	$7,500.00	$30,000.00	
ADA Curb Ramps	8	ea	$1,200.00	$9,600.00	
Site Amenities					$8,500.00
Vehicular Way-finding Sign	2	ea	$3,500.00	$7,000.00	
Screening Plantings	1	ls	$1,500.00	$1,500.00	
Sub-Total					***$55,600.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$13,344.00***
Total					***$68,944.00***

Safety Improvements at the Intersection of 12th St and John St

See Cost Estimate Breakdown from Board 7b - Community Trails

10' Paved Trail on Hull St from 10th St to High School Football Field

See Cost Estimate Breakdown from Board 7b - Community Trails

Safety and Accessibility

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A. Perspective showing sidewalk safety improvements on Quincy St. at the intersection of 6th St.

Sidewalk improvement perspective locations map.

B. Perspective showing sidewalk safety improvements on 12th St. at the intersection of John St.

C. Perspective showing sidewalk safety improvements on Hull St. facing North.

Corning
Sidewalk Safety

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Iowa's Living Roadways community visioning

Way-finding Signage

Corning has multiple entrance signs with various styles that sit at the North and West entrances into the community. Additional way-finding signage located at strategic sites throughout the community will help to orient both residents and visitors. Corning boasts an abundance of recreational opportunities, that would greatly benefit from these types of way-finding signage.

The most effective signage is that which displays information in a clear and consistent manner. Creating a consistent family of signage throughout the community will help to enhance Corning's identity. Here are several options for alternative branding inspired by community amenities , such as the lakes and Opera House, as well as the various applications for their use.

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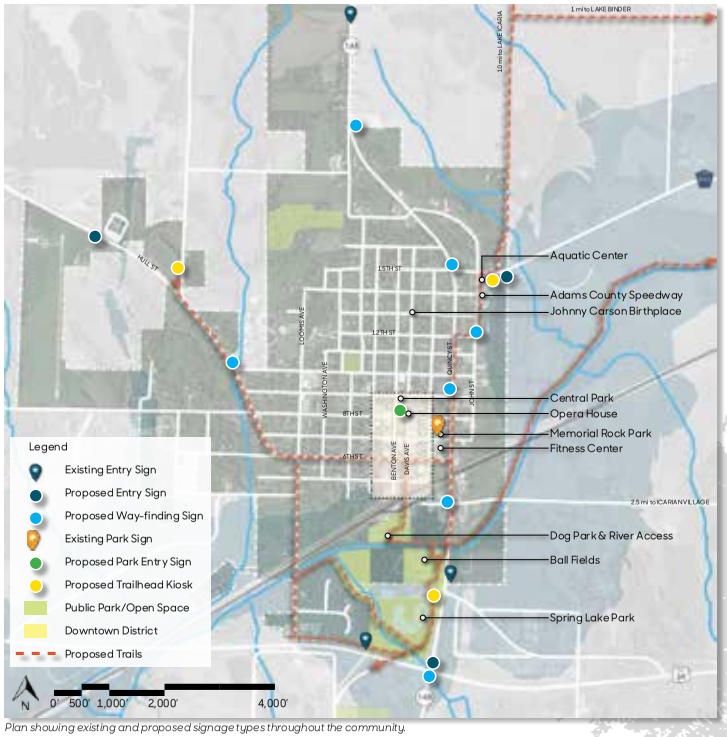
Way-finding Signage

Way-finding/Branding Signage Options (à la carte)

Description	*Quantity*	*Unit*	*Unit Cost*	*Line Total*	*Totals*
Entry Signs					
Stone Community Entry Sign with Plantings	1	ea	$4,000.00	$4,000.00	
Park Entry Sign with Bench	1	ea	$2,500.00	$2,500.00	
Wayfinding Signs					
Vehicle Way-finding Signs on Post (Styles 1 & 2)	1	ea	$3,500.00	$3,500.00	
Way-finding Signs on Post (Style 1 & 2)	1	ea	$1,800.00	$1,800.00	
Trail Wayfinding Bollards	1	ea	$250.00	$250.00	
Light Pole Banners					
Custom Banners (24" x 48")	1	ea	$60.00	$60.00	
Custom Banners (28" x 60")	1	ea	$80.00	$80.00	



Plan showing existing and proposed signage types throughout the community.

Way-finding and Branding

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Existing Park Entry Sign

Existing Park Entry Sign

Existing Community Entry Sign

Way-finding Enlargement 1

Way-finding Enlargement 2

Entry Sign | *Park Entry Sign* | *Trail Signage* | *Pedestrian Way-finding Sign Style 1 & 2* | *Vehicle Way-finding Sign Style 1 & 2* | *Banner Designs*

Corning
Way-finding Signage

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Iowa's Living Roadways community visioning

Main Street Improvements

As a Main Street Iowa community, Corning's existing downtown district has exceptionally high standards for a city its size. With an abundance of parking, emerging businesses, and a weekly seasonal farmers market, downtown Corning experiences a great deal of traffic from both residents and visitors.

Downtown is the core identity of Corning, currently there is no vegetation along the streetscape and plenty of concrete, which can contribute to an unfriendly pedestrian environment. Discussions with the steering committee and Corning residents revealed a desire to address this issue, as well as pedestrian safety and accessibility. The proposed design adds vegetated bump-outs that decrease pedestrian crossing distances , intercept stormwater runoff from rain events, and enhance the existing beauty of downtown Corning.

Design Expertise Recommended

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Main Street Improvements

8th and Benton Avenue Intersection Improvements

Description	*Quantity*	*Unit*	*Unit Cost*	*Line Total*	*Totals*
Demolition and Site Preparation					$24,807.00
Site Survey, Mobilization, Traffic Control, and SWPPP Documentation	1	ls	$5,500.00	$5,500.00	
Street Removal for Bump-outs and Crosswalks (6,000 sf)	667	sy	$25.00	$16,667.00	
Curb and Gutter Removals (220 lf)	220	lf	$12.00	$2,640.00	
Site Utilities					$5,000.00
Electrical Service/Coordination (Outlet and Circuiting of Existing Poles)	1	ls	$5,000.00	$5,000.00	
Site Earthwork					$2,500.00
Rough Grading	1	ls	$2,500.00	$2,500.00	
Site Hardscape					$76,900.00
New Curb and Gutter for Bump-outs	380	lf	$35.00	$13,300.00	
Brick or Colored Concrete Crosswalks and Bump-outs	6,000	sf	$9.00	$54,000.00	
ADA Curb Ramps	8	ea	$1,200.00	$9,600.00	
Stormwater Biocells at Intersection Bump-outs					$25,000.00
Planting Bed Preparation	1	ls	$1,000.00	$1,000.00	
Biocells - Installed Components including Designed Soil, Gravel, Subdrainage, Native Plant Plugs, Mulch, Erosion Control, Curb Cuts, Etc.)	1,600	sf	$13.00	$20,800.00	
Street Trees	8	ea	$400.00	$3,200.00	
Site Amenities					$2,960.00
Street Light Banners	2	ea	$80.00	$160.00	
Miscellaneous Pavement Markings	1	ls	$1,000.00	$1,000.00	
Way-finding Signage	1	ea	$1,800.00	$1,800.00	
Sub-Total					***$137,167.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$32,920.00***
Total					***$170,087.00***

8th and Davis Avenue Intersection Improvements

Description	*Quantity*	*Unit*	*Unit Cost*	*Line Total*	*Totals*
Demolition and Site Preparation					$22,269.00
Site Survey, Mobilization, Traffic Control, and SWPPP Documentation	1	ls	$5,500.00	$5,500.00	
Street Removal for Bump-outs and Crosswalks (5,000 sf)	556	sy	$25.00	$13,889.00	
Curb and Gutter Removals (240 lf)	240	lf	$12.00	$2,880.00	
Site Utilities					$5,000.00
Electrical Service/Coordination (Outlet and Circuiting of Existing Poles)	1	ls	$5,000.00	$5,000.00	
Site Earthwork					$2,500.00
Rough Grading	1	ls	$2,500.00	$2,500.00	
Site Hardscape					$67,200.00
New Curb and Gutter for Bump-outs	360	lf	$35.00	$12,600.00	
Brick or Colored Concrete Crosswalks and Bump-outs	5,000	sf	$9.00	$45,000.00	
ADA Curb Ramps	8	ea	$1,200.00	$9,600.00	
Stormwater Biocells at Intersection Bump-outs					$26,800.00
Planting Bed Preparation	1	ls	$1,000.00	$1,000.00	
Biocells - Installed Components including Designed Soil, Gravel, Subdrainage, Native Plant Plugs, Mulch, Erosion Control, Curb Cuts, Etc.)	1,800	sf	$13.00	$23,400.00	
Street Trees	6	ea	$400.00	$2,400.00	
Site Amenities					$2,710.00
Street Light Banners	2	ea	$80.00	$160.00	
Miscellaneous Pavement Markings	1	ls	$750.00	$750.00	
Way-finding Signage	1	ea	$1,800.00	$1,800.00	
Sub-Total					***$126,479.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$30,355.00***
Total					***$156,834.00***

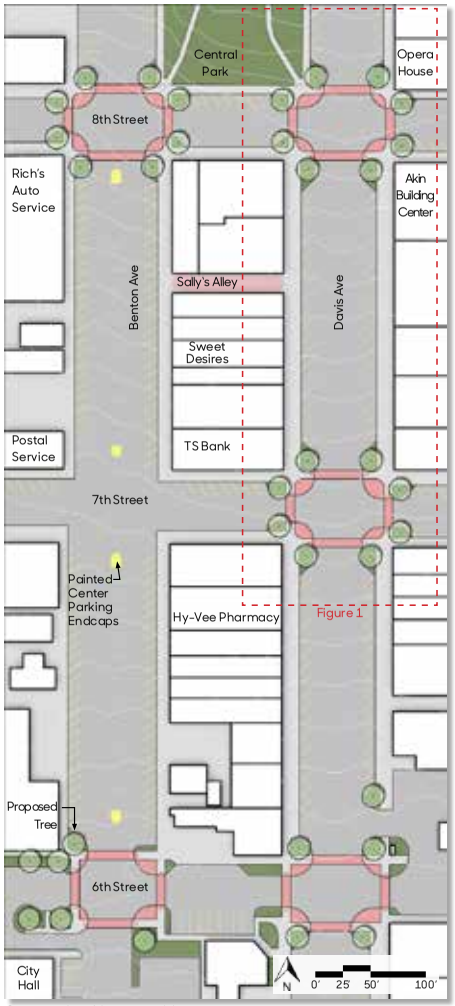
7th and Davis Avenue Intersection Improvements					
Description	***Quantity***	***Unit***	***Unit Cost***	***Line Total***	***Totals***
Demolition and Site Preparation					$21,833.00
Site Survey, Mobilization, Traffic Control, and SWPPP Documentation	1	ls	$5,500.00	$5,500.00	
Street Removal for Bump-outs and Crosswalks (4,800 sf)	533	sy	$25.00	$13,333.00	
Curb and Gutter Removals (250 lf)	250	lf	$12.00	$3,000.00	
Site Utilities					$5,000.00
Electrical Service/Coordination (Outlet and Circuiting of Existing Poles)	1	ls	$5,000.00	$5,000.00	
Site Earthwork					$2,500.00
Rough Grading	1	ls	$2,500.00	$2,500.00	
Site Hardscape					$66,850.00
New Curb and Gutter for Bump-outs	350	lf	$35.00	$12,250.00	
Brick or Colored Concrete Crosswalks and Bump-outs	5,000	sf	$9.00	$45,000.00	
ADA Curb Ramps	8	ea	$1,200.00	$9,600.00	
Stormwater Biocells at Intersection Bump-outs					$26,950.00
Planting Bed Preparation	1	ls	$1,000.00	$1,000.00	
Biocells - Installed Components including Designed Soil, Gravel, Subdrainage, Native Plant Plugs, Mulch, Erosion Control, Curb Cuts, Etc.)	1,750	sf	$13.00	$22,750.00	
Street Trees	8	ea	$400.00	$3,200.00	
Site Amenities					$910.00
Street Light Banners	2	ea	$80.00	$160.00	
Miscellaneous Pavement Markings	1	ls	$750.00	$750.00	
Sub-Total					***$124,043.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$29,770.00***
Total					***$153,813.00***

6th and Benton Avenue Intersection Improvements					
Description	***Quantity***	***Unit***	***Unit Cost***	***Line Total***	***Totals***
Demolition and Site Preparation					$22,633.00
Site Survey, Mobilization, Traffic Control, and SWPPP Documentation	1	ls	$7,500.00	$7,500.00	
Street Removal for Bump-outs and Crosswalks (4,800 sf)	533	sy	$25.00	$13,333.00	
Curb and Gutter Removals (150 lf)	150	lf	$12.00	$1,800.00	
Site Utilities					$5,000.00
Electrical Service/Coordination (Outlet and Circuiting of Existing Poles)	1	ls	$5,000.00	$5,000.00	
Site Earthwork					$3,500.00
Rough Grading	1	ls	$3,500.00	$3,500.00	
Site Hardscape					$70,850.00
New Curb and Gutter for Bump-outs	450	lf	$35.00	$15,750.00	
Brick or Colored Concrete Crosswalks and Bump-outs	4,500	sf	$9.00	$40,500.00	
Miscellaneous Flatwork	1	ls	$5,000.00	$5,000.00	
ADA Curb Ramps	8	ea	$1,200.00	$9,600.00	
Stormwater Biocells at Intersection Bump-outs					$13,800.00
Planting Bed Preparation	1	ls	$1,000.00	$1,000.00	
Biocells - Installed Components including Designed Soil, Gravel, Subdrainage, Native Plant Plugs, Mulch, Erosion Control, Curb Cuts, Etc.)	800	sf	$13.00	$10,400.00	
Street Trees	6	ea	$400.00	$2,400.00	
Site Amenities					$2,710.00
Street Light Banners	2	ea	$80.00	$160.00	
Way-finding Signage	1	ea	$1,800.00	$1,800.00	
Miscellaneous Pavement Markings	1	ls	$750.00	$750.00	
Sub-Total					***$118,493.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$28,438.00***
Total					***$146,931.00***

6th and Benton Avenue Intersection Improvements					
Description	***Quantity***	***Unit***	***Unit Cost***	***Line Total***	***Totals***
Demolition and Site Preparation					$24,578.00
Site Survey, Mobilization, Traffic Control, and SWPPP Documentation	1	ls	$7,500.00	$7,500.00	
Street Removal for Bump-outs and Crosswalks (5,500 sf)	611	sy	$25.00	$15,278.00	
Curb and Gutter Removals (150 lf)	150	lf	$12.00	$1,800.00	
Site Utilities					$5,000.00
Electrical Service/Coordination (Outlet and Circuiting of Existing Poles)	1	ls	$5,000.00	$5,000.00	
Site Earthwork					$3,500.00
Rough Grading	1	ls	$3,500.00	$3,500.00	
Site Hardscape					$78,900.00
New Curb and Gutter for Bump-outs	500	lf	$35.00	$17,500.00	
Brick or Colored Concrete Crosswalks and Bump-outs	5,200	sf	$9.00	$46,800.00	
Miscellaneous Flatwork	1	ls	$5,000.00	$5,000.00	
ADA Curb Ramps	8	ea	$1,200.00	$9,600.00	
Stormwater Biocells at Intersection Bump-outs					$18,600.00
Planting Bed Preparation	1	ls	$1,000.00	$1,000.00	
Biocells - Installed Components including Designed Soil, Gravel, Subdrainage, Native Plant Plugs, Mulch, Erosion Control, Curb Cuts, Etc.)	1,200	sf	$13.00	$15,600.00	
Street Trees	5	ea	$400.00	$2,000.00	
Site Amenities					$2,710.00
Street Light Banners	2	ea	$80.00	$160.00	
Way-finding Signage	1	ea	$1,800.00	$1,800.00	
Miscellaneous Pavement Markings	1	ls	$750.00	$750.00	
Sub-Total					***$133,288.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$31,989.00***
Total					***$165,277.00***

New Lighting along Main Street from 5th Street to 9th Street					
Description	***Quantity***	***Unit***	***Unit Cost***	***Line Total***	***Totals***
Demolition and Site Preparation					$60,000.00
Site Survey, Mobilization, Traffic Control, and SWPPP Documentation	1	ls	$7,500.00	$7,500.00	
Sidewalk Removal for New Underground Wiring on Both Sides (2,700 lf @ 5' wide)	1,500	sy	$25.00	$37,500.00	
Remove Existing Light Poles and Salvage Luminaries and PA System	1	ls	$15,000.00	$15,000.00	
Site Utilities					$100,000.00
New Underground Electrical Service on Both Sides of Road	1	ls	$50,000.00	$50,000.00	
Electrical Service/Coordination (Outlet and Circuiting of New Poles and PA System)	1	ls	$50,000.00	$50,000.00	
Site Hardscape					$182,000.00
New Concrete Curb and Gutter on Both Sides of Roadway	2,500	lf	$35.00	$87,500.00	
Replace Concrete Sidewalk (2,700 lf @ 5' wide)	13,500	sf	$7.00	$94,500.00	
Site Amenities					$240,000.00
New Light Poles and Bases (3 per Block per Side)	24	ea	$10,000.00	$240,000.00	
Sub-Total					***$582,000.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$139,680.00***
Total					***$721,680.00***

Pedestrian Bridge at South End of Davis Avenue over Railroad Tracks					
Description	***Quantity***	***Unit***	***Unit Cost***	***Line Total***	***Totals***
Demolition and Site Preparation					$15,000.00
Site Survey, Mobilization, Traffic Control, and SWPPP Documentation	1	ls	$5,000.00	$5,000.00	
General Site Clearing and Demolition	1	ls	$10,000.00	$10,000.00	
Site Utilities					$10,000.00
General Utilities Coordination	1	ls	$10,000.00	$10,000.00	
Site Earthwork					$2,500.00
Rough Grading	1	ls	$2,500.00	$2,500.00	
Site Hardscape					$260,650.00
Steel Pedestrian Railroad Overpass	1	ls	$250,000.00	$250,000.00	
New Concrete Curb and Gutter	150	lf	$35.00	$5,250.00	
6' Concrete Sidewalk to Bridge	600	sf	$7.00	$4,200.00	
ADA Curb Ramps	1	ea	$1,200.00	$1,200.00	
Plant Material					$7,500.00
Site Seeding and Preparation	1	ls	$1,500.00	$1,500.00	
Screening Trees	20	ea	$300.00	$6,000.00	
Site Amenities					$16,160.00
Street Light Banners	2	ea	$80.00	$160.00	
Pedestrian LED Lighting	2	ea	$8,000.00	$16,000.00	
Sub-Total					***$311,810.00***
24% Contingency, Contractor Mark-Up, and Design Fees					***$74,834.00***
Total					***$386,644.00***



Overview plan of the proposed downtown core.

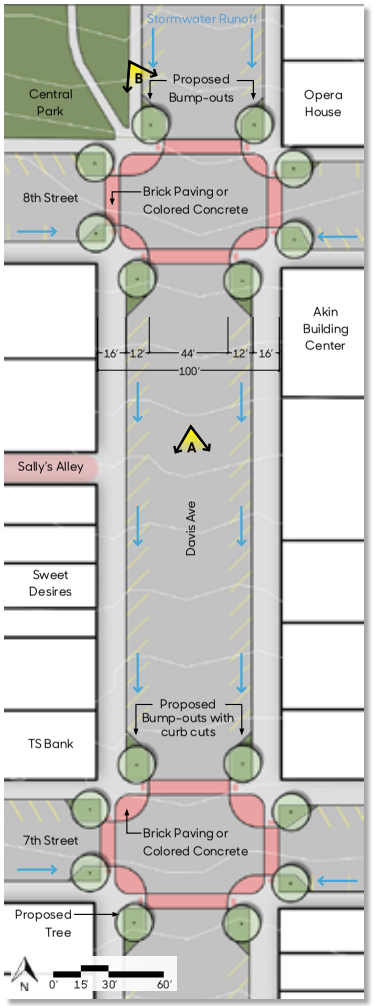


Figure 1: Detail plan of proposed intersections along Davis Ave.

Downtown Improvements

As a Main Street Iowa community, Corning's existing downtown district has exceptionally high standards for a city its size. With an abundance of parking, emerging businesses, and a weekly seasonal farmers market, downtown Corning experiences a great deal of traffic from both residents and visitors.

Downtown is the core identity of Corning, currently there is no vegetation along the streetscape and plenty of concrete, which can contribute to an unfriendly pedestrian environment. Discussions with the steering committee and Corning residents revealed a desire to address this issue, as well as pedestrian safety and accessibility. The proposed design adds vegetated bump-outs that decrease pedestrian crossing distances, intercept stormwater runoff from rain events, and enhance the existing beauty of downtown Corning.

A. South facing perspective of Davis Ave, illustrating a potential pedestrian bridge over the railroad that would extend into the new dog park and river access area.

B. South facing perspective of 8th and Davis Ave, with proposed vegetated bump-outs and visual art inspired pedestrian crossings.

Corning
Main Street Improvements

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

Iowa's Living Roadways community visioning

Main Street Diagnostics

Land Cover
The Main Street Area contains the largest congregated area of impervious surfaces. Areas with more vegetation experience reduced solar radiation and lower air temperatures, whereas areas of impervious surfaces experience harsh summer temperatures and increased stormwater runoff.

Benefits of Street Trees
The plan on Board 11b illustrates the proposed improvements to the Main Street Area, including bump-outs and street trees. Bump-outs are an extension of the curb which allow sufficient space for tree plantings and other pedestrian amenities. The benefits of trees are numerous and can be quantified. Trees intercept stormwater runoff, increase property values for adjacent buildings, conserve energy, and sequester carbon. The chart below quantifies the monetary benefit of proposed street trees in the Main Street Area. Having the ability to communicate both the environmental and economic benefits of street trees for the community of Corning can be a powerful means for education.

Stormwater Management
Corning's Main Street Area has a consistently steep southern slope. During rain events, large amounts of water can be seen streaming down Davis and Benton Ave, making the streets impassible at times. The existing stormwater infrastructure is not able to handle the extreme pressures put on it, often decreasing the life expectancy of the system.

The integration of Stormwater Best Management Practices (BMPs) within the proposed bump-outs is a valid means to depressure Corning's existing stormwater system and provide space for trees to grow effectively. BMPs capture and store volumes of intercepted water, as well as, filter and clean water before it reaches the river.

Legend

Healthy Tree | Hazardous Tree | Ash Tree | Main Street Area

Street Tree Cover

The map above identifies city owned trees surveyed by the Iowa DNR. The map identifies healthy, hazardous, and ash trees. Healthy trees throughout the community include oak, hackberry, apple, and maple. The dashed line encompassing the Main Street Area (MSA) highlights the void of trees located in the urban pedestrian areas.

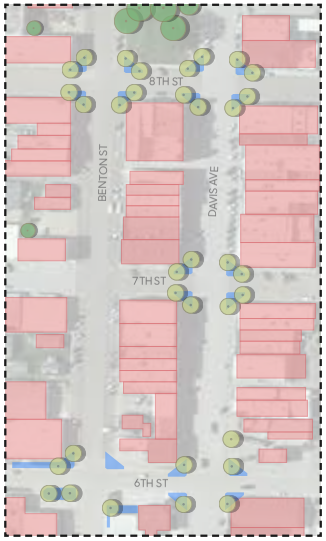
Legend

Roads/Impervious | Main Street Area | Structures | Tree Canopy

Land Cover Map

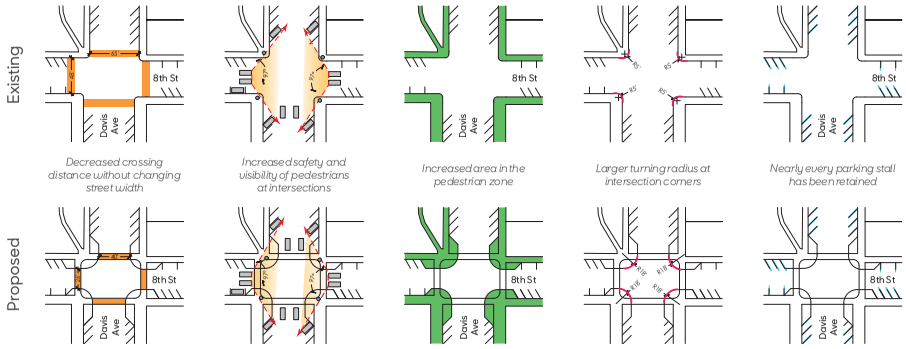
The Main Street Area contains the largest congregated area of impervious surfaces. Areas with more vegetation experience reduced solar radiation and lower air temperatures, whereas areas of impervious surfaces experience harsh summer temperatures and increased stormwater runoff.

Main Street Area



Enlargement of the Main Street Area showing proposed tree locations based on Board 11a. Not to Scale

Intersection Improvements



Decreased crossing distance without changing street width

Increased safety and visibility of pedestrians at intersections

Increased area in the pedestrian zone

Larger turning radius at intersection corners

Nearly every parking stall has been retained

Vignette diagrams highlighting the primary benefits of the proposed bump-outs in downtown Corning.

Benefits of Street Trees

Legend

Existing Tree | Proposed Street Tree | Stormwater Best Management Practice | Added Property Value

The plan to the left illustrates the proposed improvements to the Main Street Area, including bump outs and street trees. Bump outs are an extension of the curb which allow sufficient space for tree plantings and other pedestrian amenities. The benefits of trees are numerous and can be quantified. Trees intercept stormwater runoff, increase property values for adjacent buildings, conserve energy, and sequester carbon. The chart below quantifies the monetary benefit of proposed street trees in the Main Street Area. Having the ability to communicate both the environmental and economic benefits of street trees for the community of Corning can be a powerful means for education.

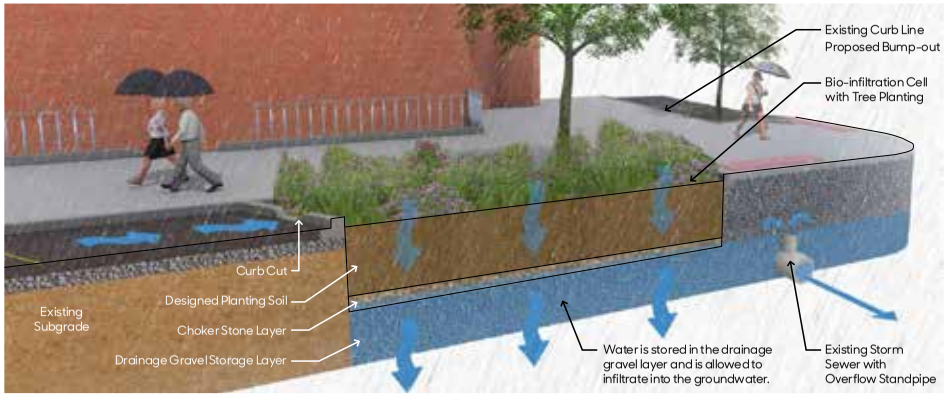
	Potential Street Trees	Average Benefit per Tree* ($/year)	Potential Tree Benefits* ($/year)	Storm Water Runoff Interception (gallons/year)	Added Property Value ($/year)	Energy Conservation (kilowatt/hours)	CO2 Sequestration (lbs./year)
Davis Ave.	21	$55	$1,155	9,716	$511	249	1,799
Benton Ave.	13	$55	$715	6,015	$316	154	1,114
Totals	34	$110	$1,870	15,731	$827	402	2,913

Tree benefits table displaying the environmental and economic benefit of proposed street trees on Benton and Davis Avenues.
**All monetary values have been sourced from The National Tree Benefit Calculator using a diverse array of tree species with a 12" caliper.*

Stormwater Management

Corning's Main Street Area has a consistently steep southern slope. During rain events, large amounts of water can be seen streaming down Davis and Benton Ave, making the streets impassible at times. The existing stormwater infrastructure is not able to handle the extreme pressures put on it, often decreasing the life expectancy of the system.

The integration of Stormwater Best Management Practices (BMPs) within the proposed bump-outs is a valid means to depressure Corning's existing stormwater system and provide space for trees to grow effectively. BMPs capture and store volumes of intercepted water, as well as, filter and clean water before it reaches the river.



Stormwater BMP Graphic and explanation

Corning

Main Street Diagnostics

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

Iowa's Living Roadways community visioning

Implementation Strategies

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

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

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

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

Year 1

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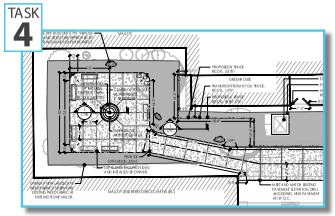
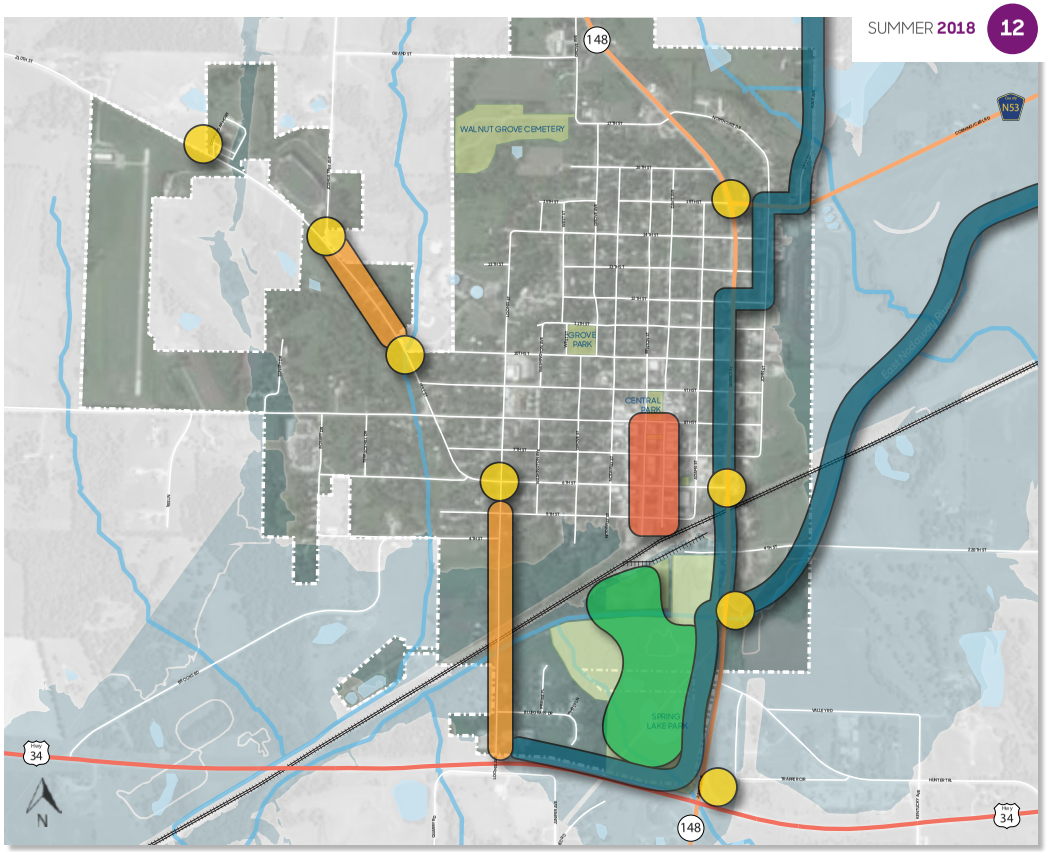
Year 2

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

Example of a schematic landscape plan for a meditation garden.



Example of a landscape construction document for a meditation garden.



Corning map highlighting the Community Visioning Project Areas - Not to Scale.

Grant Funding Opportunities Legend

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

Corning

Implementation Strategies

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Iowa's Living Roadways community visioning

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

County Grants

Adams County Community Foundation	ACEDC Fund Inc. is a 501(c)3 not for profit organization whose mission is to develop projects for the benefit of Adams community in Iowa.	ahturner@mchsi.com (641) 322-5229	Early January and Early June	https://www.adamscountyiowa.com/

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/REAPFuningwork/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 nrcscig@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, Reasearch 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

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 Monies, 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

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