

Final Report and Feasibility Study

Algona, Iowa



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Trees Forever
Iowa State University



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About Firm Name

The Iowa State University Community Design Lab (CDL) partners with communities and organizations, combining local knowledge and design research expertise, to create healthy, livable communities. A primary goal of CDL's work is to effectively inform and engage community members in the process of developing design concepts for each community. Our process involves on-the-ground and investigative research to perform a thorough and engaged inventory and analysis with a focus on landscape performance and user experience of the built environment. The analysis aids us in visualizing community goals and concerns and provides a framework for developing community led strategies and designs. Throughout the process the CDL engages with the community members and stakeholders through committee and public meetings as well as through unique interactive strategies out in the community.

The Community Design Lab is a collaborative team, primarily comprised of landscape architects with additional background in architecture, visual art and community food systems. The team is made up of full-time designers, faculty in the landscape architecture department at Iowa State University, and a rotating cast of graduate and undergraduate design research assistants based on project needs.



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Program Overview

Algona is one of 10 communities selected to participate in the 2021 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

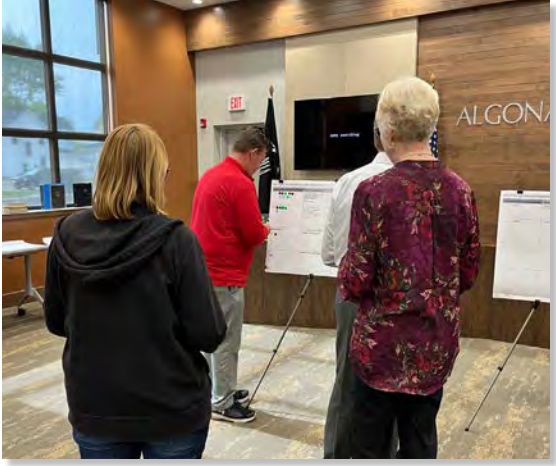
- The Algona visioning committee identified a number of goals and priority areas during the visioning process.
- Enhance and expand the trail network
- Create social destinations/connect to the river
- Build community identity and entry experiences
- Increase pedestrian and bicycle safety

Capturing the Algona Vision

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



Participants in the focus groups



Steering committee prioritizing their programming objectives



Community members collaborating with the landscape architecture team to create initial design concepts at the design workshop



Sharing the design concepts with the public



Temporary McGregor Street bike lane demonstration as part of the public presentation



Sharing the design concepts with the public

Bioregional Assessment

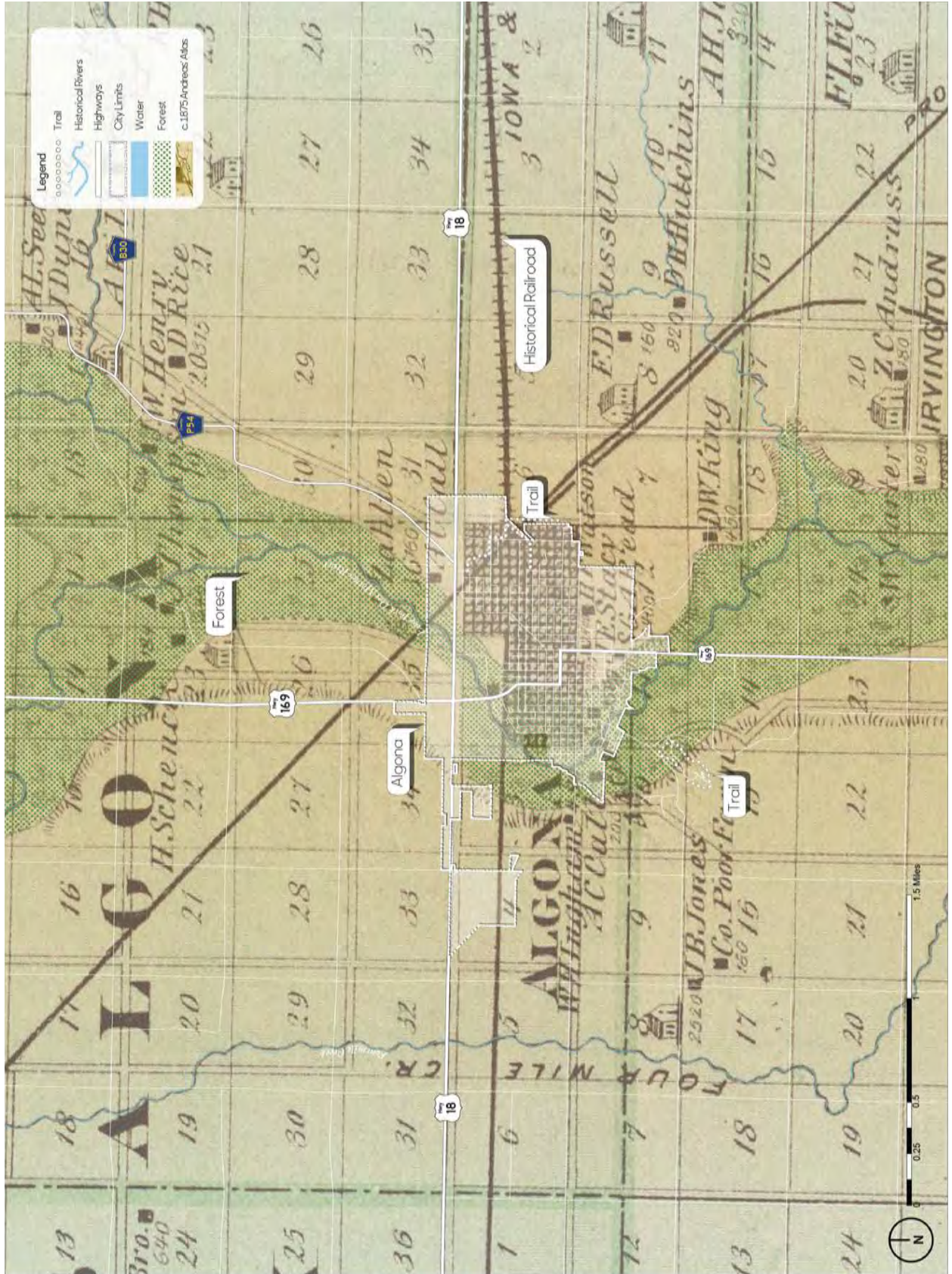
Historical Settlement Patterns

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

Algona 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/>.

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

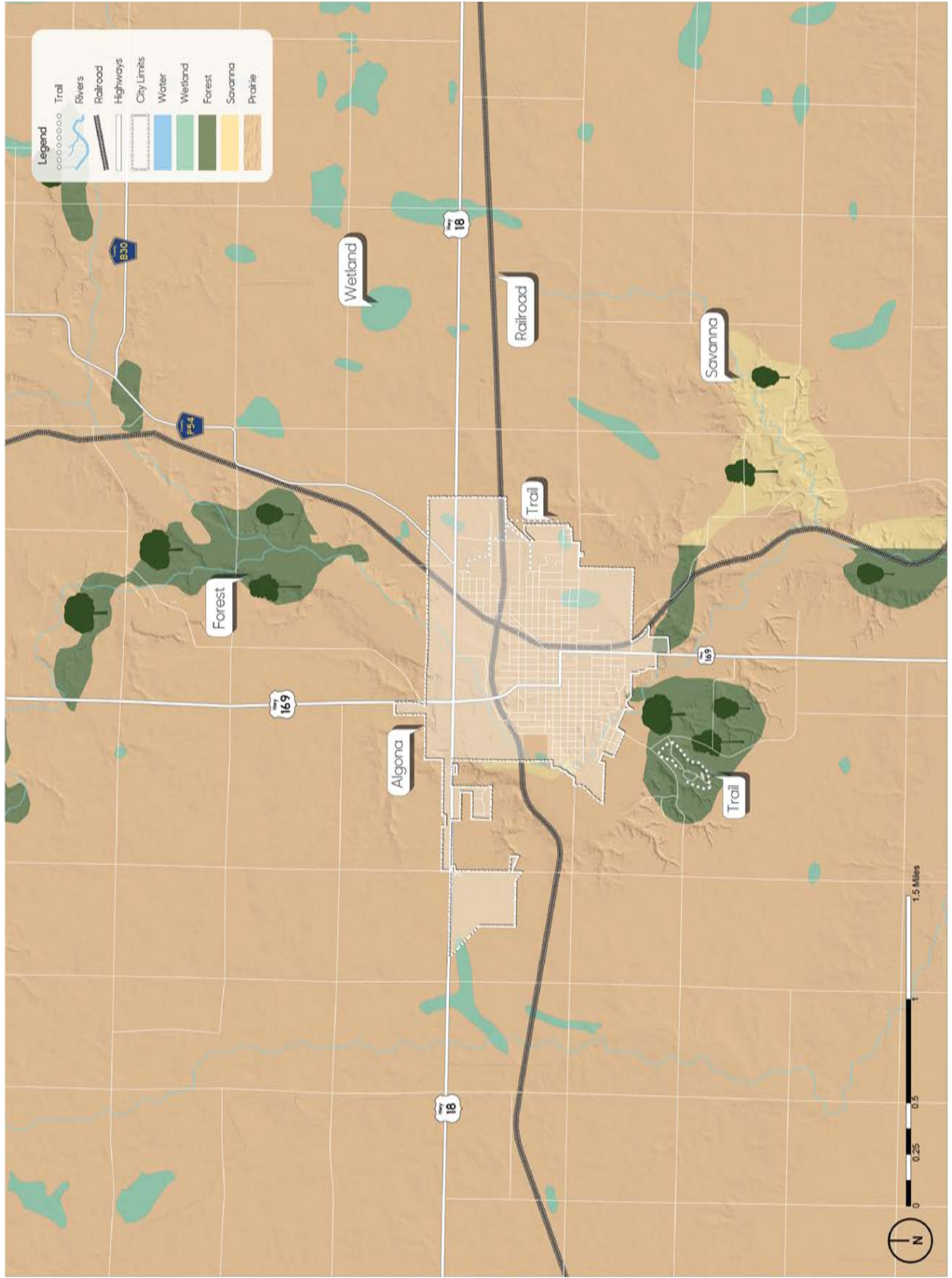
The names of plant communities mapped by the GLO surveyors varied. The original terminology used by the surveyors who made maps has been preserved in the original data, but we have re-named these types on this map to reflect names used to describe contemporary ecological vegetation communities.

Not all communities will have all vegetation types, because various conditions that effect vegetation- such as geology, exposure to wind, seasonally high water or ground water, and frequency of fire- differ from place to place.

The following types have been mapped :

1. Wetland: Perennial non-woody plants, water and fire dominated.
2. Forest: Tree dominated, with a mostly closed canopy. Ground vegetation shade tolerant. Developed under infrequent fire.
3. Prairie: Perennial non woody plants, fire dominated.
4. Savanna: Scattered trees, with an open canopy, and prairie below. Fire dominated.

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.



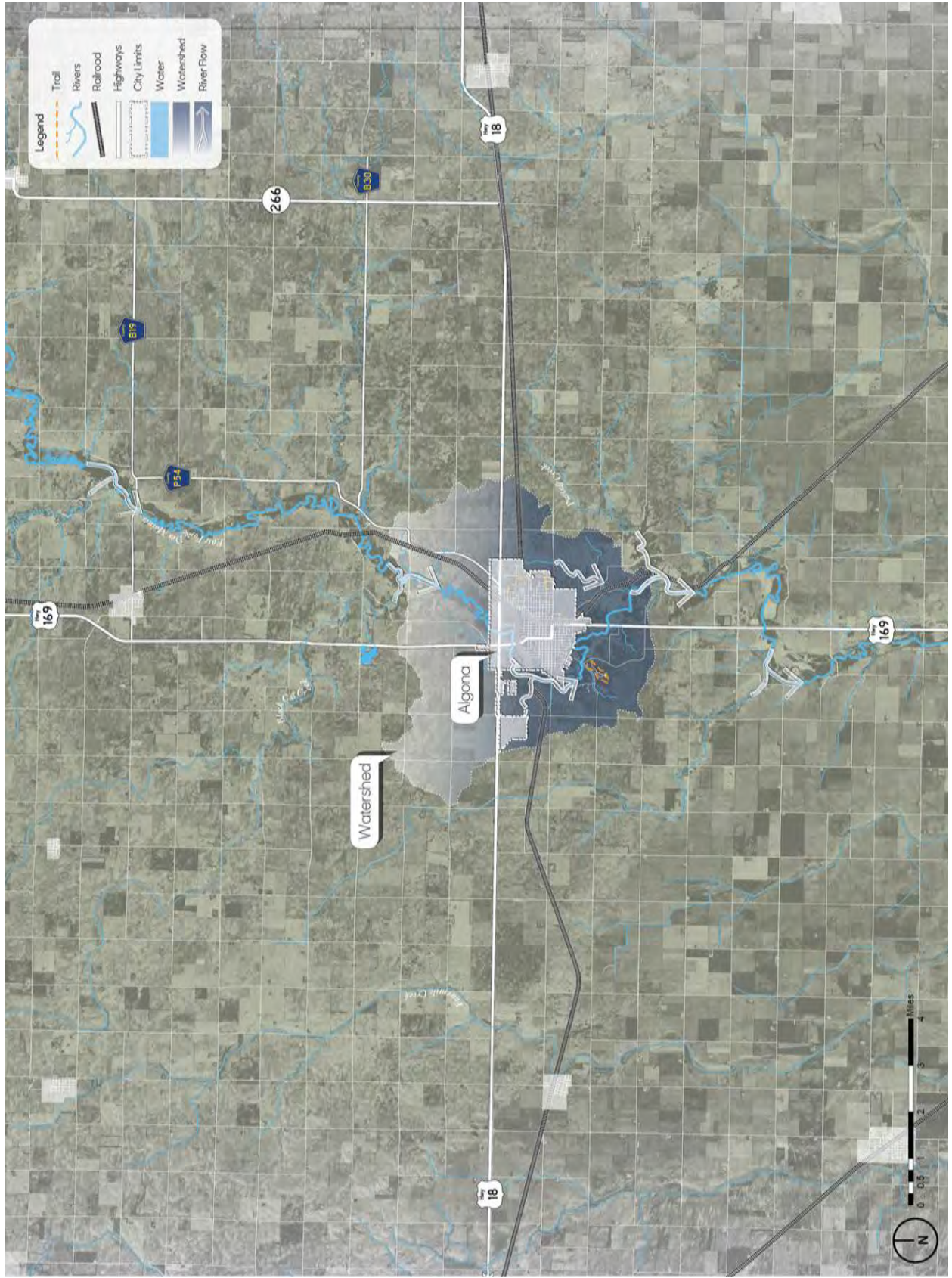
Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," <http://www.igsb.uiowa.edu/nrgislib/>.

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.



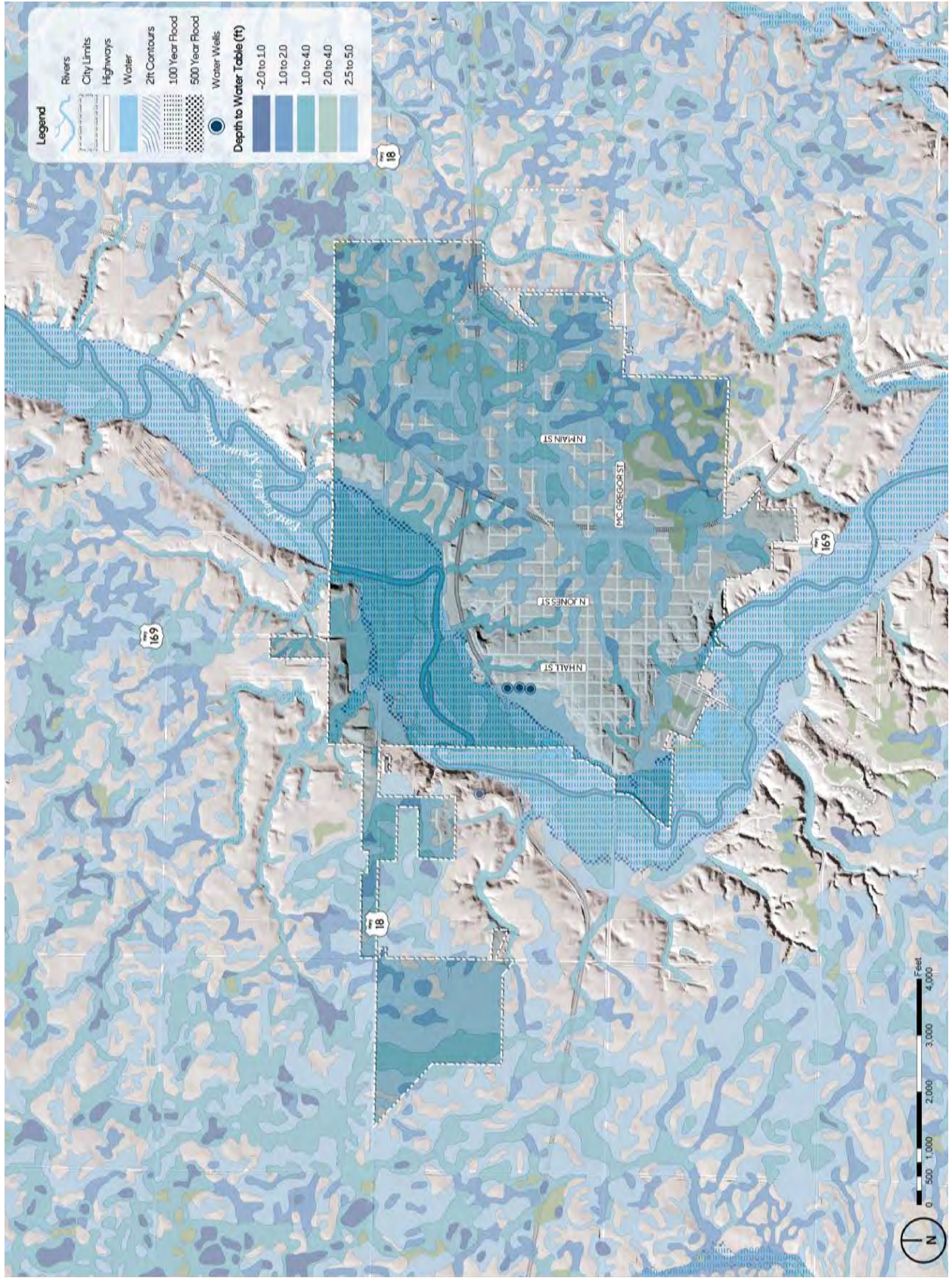
Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," <http://www.igsb.uiowa.edu/nrgislib/>.

Depth to Water Table

The water table is defined as the distance below the surface at 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 spring snow-melt an area with a depth to water table ranging from one foot to three feet is likely to be at or near one foot depth.

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



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

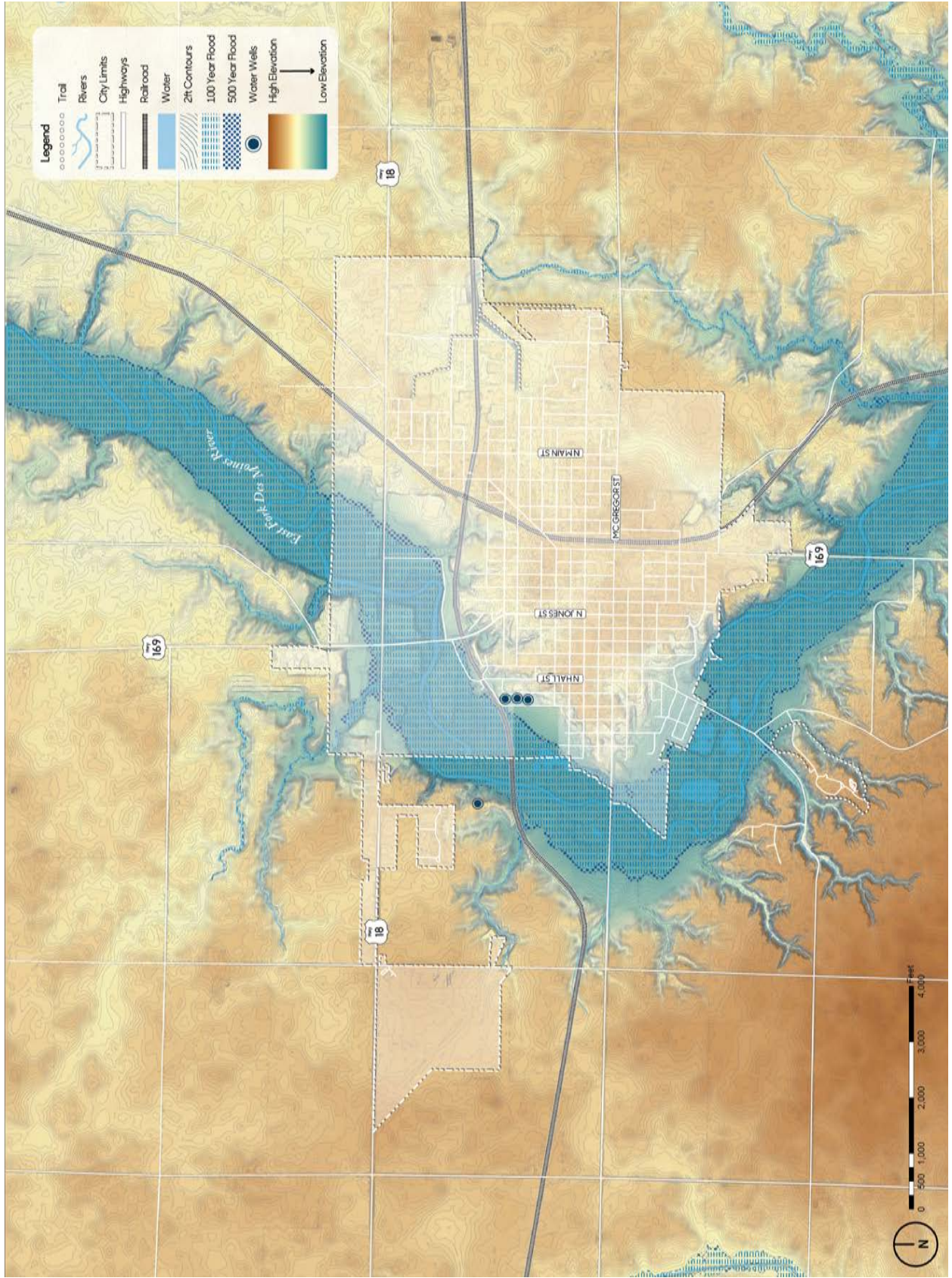
Elevation and Flow

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 reflects these features. Not all communities will have these elements; if they are absent on this map, none are present.

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



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

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.

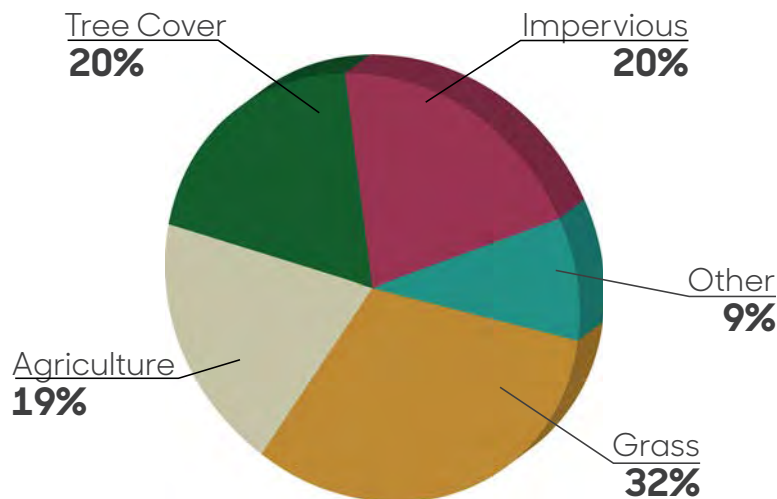
What do you observe about the dominant land cover types in your community?

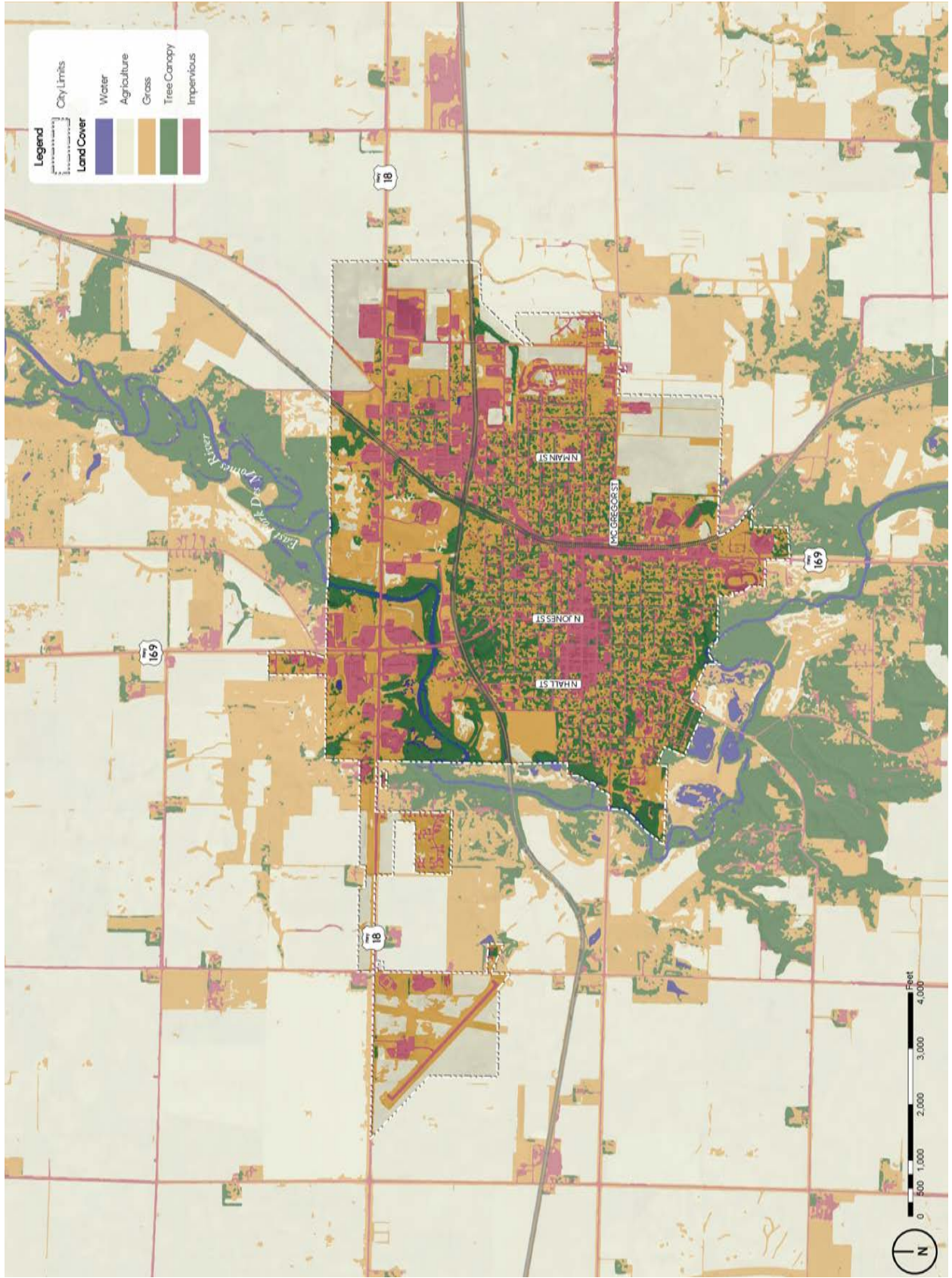
Where is the tree canopy most concentrated?

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





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

Landscape Change Over Time

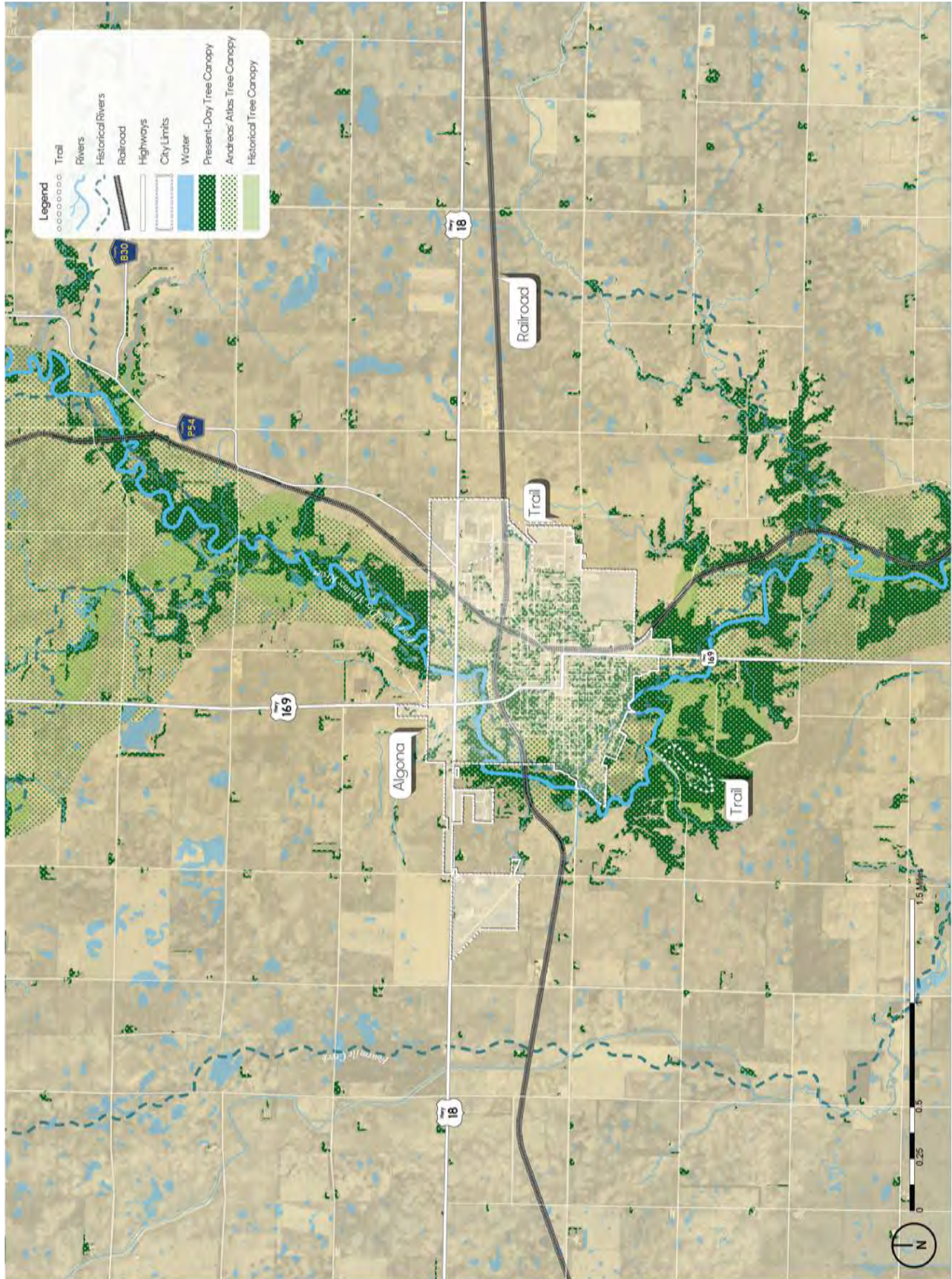
The map on this page shows how the landscape has changed over time, with an emphasis on vegetation and drainageways. It is helpful for understanding how landscapes change and for considering how these changes might affect how well the landscape works to support human and ecological needs.

Trees are invaluable. They clean the air, create shade, and cool the atmosphere. They intercept rainfall and consume groundwater, which helps mitigate stormwater runoff. Carefully chosen and placed trees provide communities identity and residents with a sense of home. In Iowa, a prairie state, we increased tree cover to create shade and a sense of enclosure within rural towns. Lack of natural fires and burning has also generally increased tree cover along rivers and floodplains. Other areas of trees have diminished due to clearing for roads or agriculture, or other purposes.

What changes do you see to the tree canopy surrounding your community? Where has the tree canopy decreased? Where might the tree canopy have increased? Consider what changes to the landscape might have led to the increase or decrease of trees in the region (e.g., farming practices, community development, establishing homesteads and windbreaks, preservation of natural resources).

This map also shows current and historical stream and river corridors. Alterations to waterways such as channelization have been made to increase drainage, but can lead to increased erosion, sediment movement, and flooding where the straightened portion ends. Storm sewers also affect streams and waterways where outfalls drop urban runoff into the corridor, which can dramatically decrease water quality. How have streams and rivers changed? Do these changes appear to be man-made or natural?

The following map shows the difference between the present day tree canopy gathered from the DNR's Land Cover data and past landscape cover, as defined in the General Land Office (GLO) surveys from 1836 through 1859 and the A.T. Andreas' Illustrated Historical Atlas of the State of Iowa from 1875.



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

Transportation Assets and Barriers

Overview

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

In this participatory assessment, we want to find out which factors and conditions affect transportation use in Algona, 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 Algona'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 Algona residents with different transportation needs to participate in focus groups. A total of 29 residents attended Algona's workshop. Participants were separated into five user groups and the Algona 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
Challenged

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.



State Street in downtown has ample parking and wide, smooth sidewalks that provide access to a wide array of amenities.



There are no sidewalks along Highway 18 or a designated crossing, limiting pedestrian access to Fareway.



The beautiful bike trail in Diamond Estates has scenic views and an updated bridge that enhances the experience.



Lack of sidewalks at the bridge over the river on Orton Road creates a disconnect between town and the neighborhood and park to the southwest.

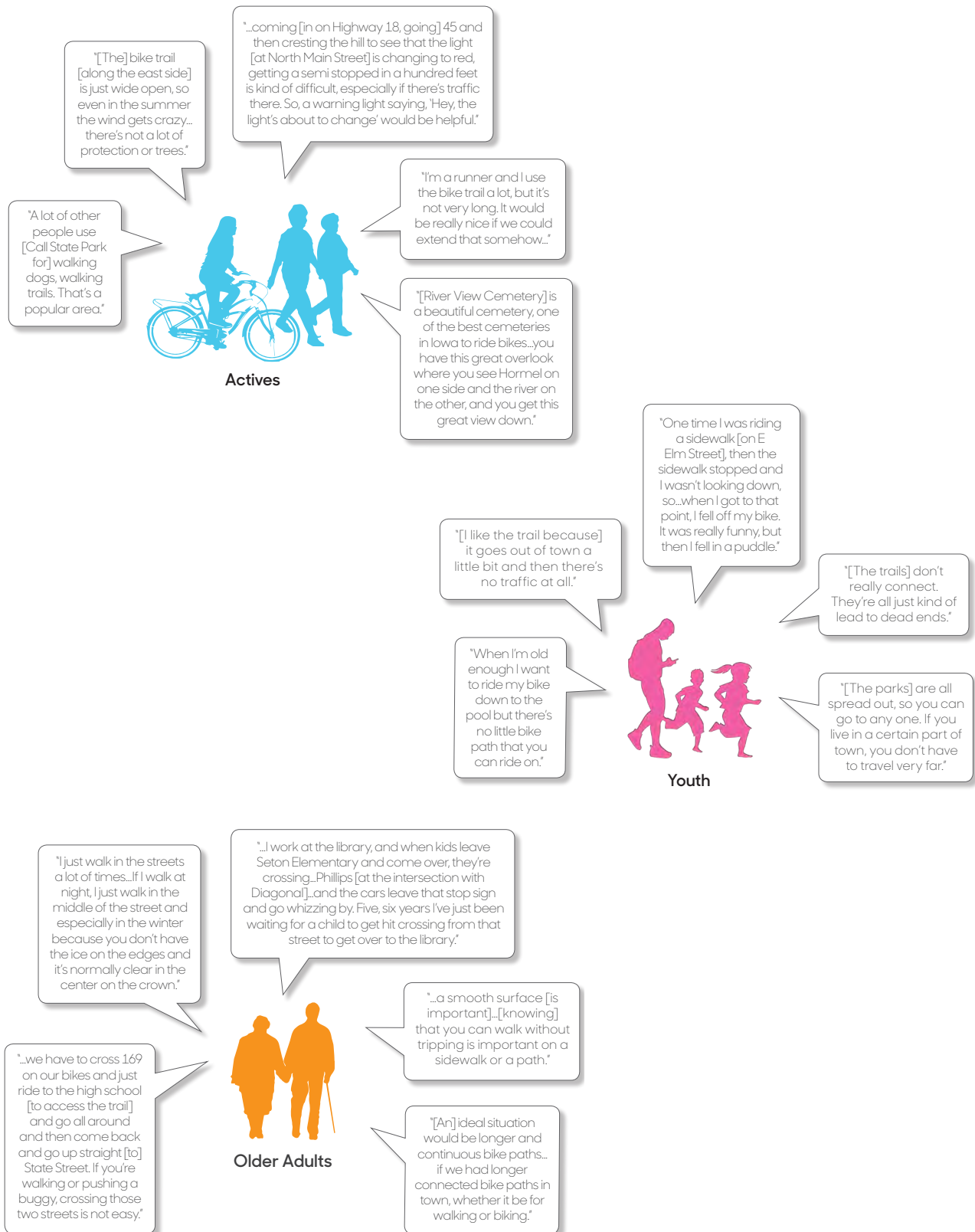



Well-maintained sidewalks along Overmeyer Drive provide safe, convenient access to the aquatic center and park .



Fast traffic and the absence of sidewalks make crossing Highway 169 at Chubb Street intimidating for pedestrians.

What People Said





Parents

"I really think the bike trail is an asset. One of the goals of the community is to continue to grow it and expand it and get people outdoors... It's a safe place for kids to ride, parents to ride, out of traffic for the most part."

"[Riverview Cemetery is] a wonderful place to walk if you're ever alone and just want to be in quiet."

"Highway 169 divides the schools and bus stops."

"[An] area that concerns me is the Bryant School... there [are] a lot of kids [who] are getting at that age where they can start walking either home [or to] day care...but there is a major highway that divides [the school] from most of the town."

"Our city is divided up with a lot of busy roads, we've got the highways that split the town. McGregor is a pass-through for agriculture, and so it's very difficult to find safe routes for young kids on bikes."



Mobility Challenged

"...when you come around the corner by the post office and you get to Call Street and there are cars parked on [the south side] side, you can't see. I practically have to get to the center of the street [to see]."

"I take my wheelchair for little walks and I would be going on [the] sidewalks and...I get down to the end of the block and it's not ramped [so] I can't get off...I would have to back up to some driveway and then get off their driveway to go to the next block."

"I think downtown is pretty good...all those sidewalks [have] ramps..."

"There needs to be a turn lane [on Highway 18] after the stoplight [at Main Street]...either going into Emeralds or...into Fareway. There always seems to be an accident there..."

"I too have a lot of problems with curb and gutters. To get [to the library] there was no ramp, and to step up is hard with a cane. I always fear falling."



Steering Committee

"For exercise...a little bit longer bike trail is nice if you're a more serious biker. It's a pretty short ride right now compared to some of the bigger cities have."

"[As] somebody that doesn't ride a bike, I don't use [the bike trail] because it doesn't go anywhere. It's not long enough, so I'm going to use the street or I'm going to use the blacktop."

"A lot of people have said they would like to see [the bike trail] go all of the way out to the nature center."

"I think that [Highway 169] going through town does kind of divide the city in two."

"I've ridden my bike Diagonal...I also let my children ride their bikes there because I feel like the bike lane does create that imaginary barrier."

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 drive, walk, and bike to local destinations. This group enjoys using the biking trail, but want trees and lighting along it. They enjoy the hills and tree canopy in Algona. Actives would like a trail along the river, as well as to Call State Park.







Mobility-challenged individuals rely on driving, walking, and wheelchairs to get around town. They appreciate it when the city clears sidewalks for ease of accessibility. This group would like curb ramps at intersections throughout town.

Older adults walk, drive, or bike to their destinations. They enjoy walking in the street for easier socializing. This group would like a crossing guard on Diagonal Street and 169 near the library during school release time. Public restrooms throughout town would be a welcomed addition.

Youth walk, bike and use their mopeds. Older kids also drive. Activities such as swimming at the pool, going to the parks, and riding bikes on the trails are enjoyable. They would appreciate wider paths at the Call State Park, a new skate park, and electric sidewalks.

Parents walk and drive through town. This group is concerned with the safety of their children. Crossing North Jones Street to Bryant School feels unsafe to parents. They also mentioned the lack of signage on McGregor Street to alert drivers to slow down for pedestrians.

Steering committee enjoys biking, walking, and driving as their mode of transportation. They also enjoy kayaking on the river. They expressed interest in a bike lane on McGregor Street and better walking access to Call State Park.

User Types	Destinations and Activities				Desirable Qualities and Features				Undesirable Qualities and Features				Most Desired Improvements and Activities			
	City Bike Trail	Parks	Riverview Cemetery	Natural Elements	Outdoor Recreation Opportunities	Good Infrastructure	Heavy Traffic	Lack of Quality Sidewalks	Difficult Intersections	Visibility Issues	Poor Biking Conditions	Trail Connectivity	Intersection Controls	Pedestrian/Cyclist Access	Sidewalk Improvements	
 Actives	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
 Mobility Challenged	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
 Older Adults	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
 Youth	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
 Parents	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
 Steering Committee	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	

Both adults and youth enjoy using the bike trail in east Algonia. The bridge along the trail is peaceful and offers a good connection to nature. Several options exist for people to access the trail including the YHCA. People appreciate the variety of parks and open space in and around Algonia South Park is popular among parents and youth because of the pool and other amenities. Other favored parks of the pool and park, Call State Park, Central Park, and Tatz Park. Most groups identified Riverview Cemetery as a nice place to walk and bike. Older adults and veterans reported beautiful views and access like to ride their bikes and run through the cemetery because there is little vehicular traffic. Residents value natural elements in the surrounding area. Older adults, parents, youth, and actives appreciate paths with trees and trimmed bushes. Older adults prefer paths with scenic views and actives appreciate including the trail, the cemetery, and walking and biking and fishing along the river. Participants cited several examples of how Algonia's infrastructure supports their park activities. Parents noted the connectivity of the park system. The mobility and older adults like the smooth sidewalks in some areas. Traffic has increased along many streets such as Algonia Park, and Seaton. The mobility challenged youth find the park at restaurants due to high traffic because of truck traffic. Missing or broken and uneven sidewalks are a barrier to all user types. Pedestrian links to Club Neighborhood, the pool, the hospital and schools don't exist. Both adult and youth noted the absence of pedestrian cycles identified in intersections in town where poor visibility was an issue reported by actives, youth and a light curve on Hall Street. Large trees and visibility issues, youth, and parents. Large trees and a light curve on Hall Street as a visibility issue. Biking conditions in Algonia are challenging. For example, McGregor has no shoulders, making parents worry about their children's safety. Youth called attention to the bike and curbs that make it hard to see traffic on recommended by residents. Older adults and steering committee members want to connect the two high school Actives want a safe connection to Call State Park and youth think a connection to the pool would be longer. Some user groups would like to alleviate traffic issues in town with a westbound turning lane on Highway 18 at the intersection of N Main and a stop sign along Highway 18 at E Club Street. Suggestions include a stop sign along Highway 18 at Club Street, a crossing at a stop sign along Highway 18 at Library, and a shoulder on Hall Street. The steering committee and youth would like a better sidewalk system on far street to provide smoother sidewalks. The mobility challenged want more pedestrian traffic sidewalks to avoid using wheelchairs on the streets.

Transportation Behaviors and Needs

Overview

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

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

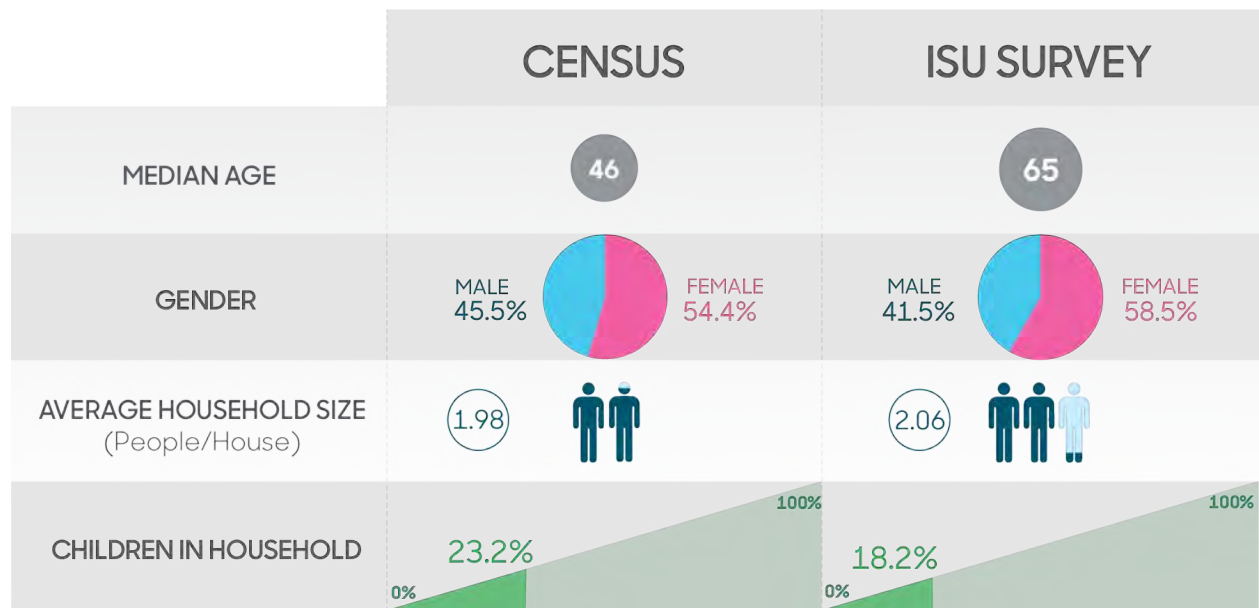
With assistance from Iowa State University's Survey Research Services staff in the Center for Survey Statistics and Methodology (CSSM-SRS), ISU visioning program staff conducted a survey to better understand the transportation patterns, behaviors, needs, and desires of Algona residents. Surveys were mailed to 500 randomly selected residents living in Algona and the surrounding area. To increase the response rate, the study was publicized through the local media and follow-up packets were mailed to nonrespondents. With adjustments for ineligible respondents (e.g., incorrect addresses, no longer living in the community), the final sample size was 438. A total of 145 people returned surveys, for a response rate of 33.1%. (A response rate of 20% is considered valid.)

We asked survey recipients what routes they use most often for going to work, walking, and biking. In addition, we asked what qualities and features are important to trail users. We also discovered what residents think is most important in terms of transportation enhancements that address issues such as accessibility, mobility, and safety. Finally, we learned whether or not residents are willing to contribute their time or their financial resources to making enhancements to Algona. This series of boards summarizes the results of the survey as follows:

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

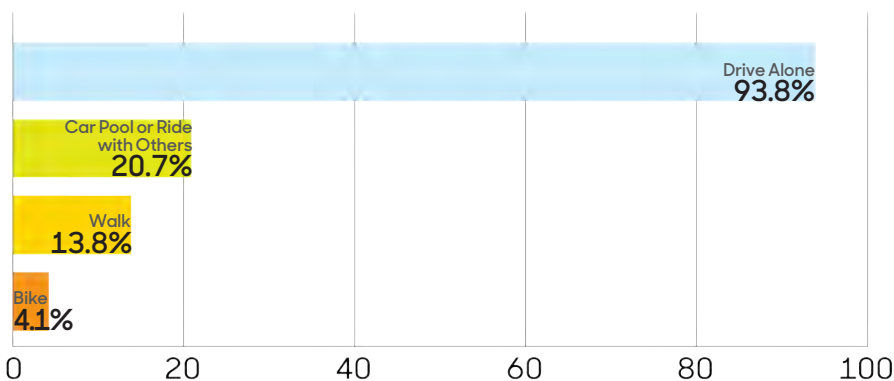
How We Did

The demographics of the respondents are somewhat different from those obtained from the 2020 US Census. For example, the survey respondents median age of 65 is significantly older than the 2020 average age for Algona residents of 46. In terms of gender, the percentages of male and female survey respondents are similar to that of the census. Average household size among survey respondents is somewhat higher than the 2020 census estimates, while the number of children in the households of survey responses is somewhat lower.



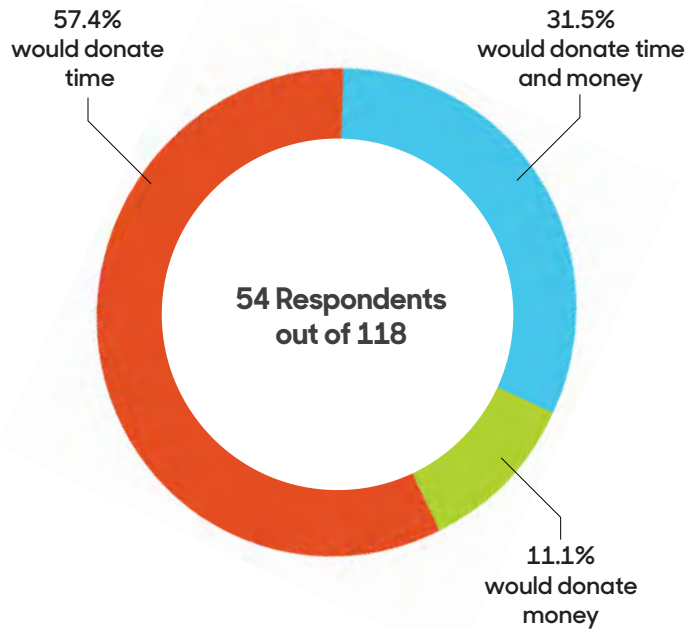
How Algona Residents Travel

Most survey respondents drive to important destinations such as the convenience store, the post office, school, and church (93.8%). More than 20% car pool or ride with someone else. Some people indicated that they walk (13.8%) and/or bike (4.1%), but the primary mode of transportation in Algona is by vehicle.



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

Willingness to Help



Most survey participants who answered this question are willing to contribute their time to community improvements (57.4%), while 31.5% would help financially and contribute their time. More than 11% of respondents indicated that they would be willing to contribute financially.

Compared to other small towns in Iowa, Algona residents are somewhat more willing to become involved in improving their community. In 2014, on average, 43% of residents in small, rural towns volunteered to help with a community project.¹ Algona exceeds this average by 2%.

How Do You Get People to Help?

Ask, Show, and Advertise Opportunities

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

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

Survey Participants Said...



"I appreciate and love the sense of community [in] Algona. It's been said Algona acts bigger than it is. It is true; Algona offers more than communities of similar size or bigger. We need to continue to work with younger generations to keep Algona growing and prosper[ing]."

"[The] city taxi provides a great way to get around. [I] fully support more of this."



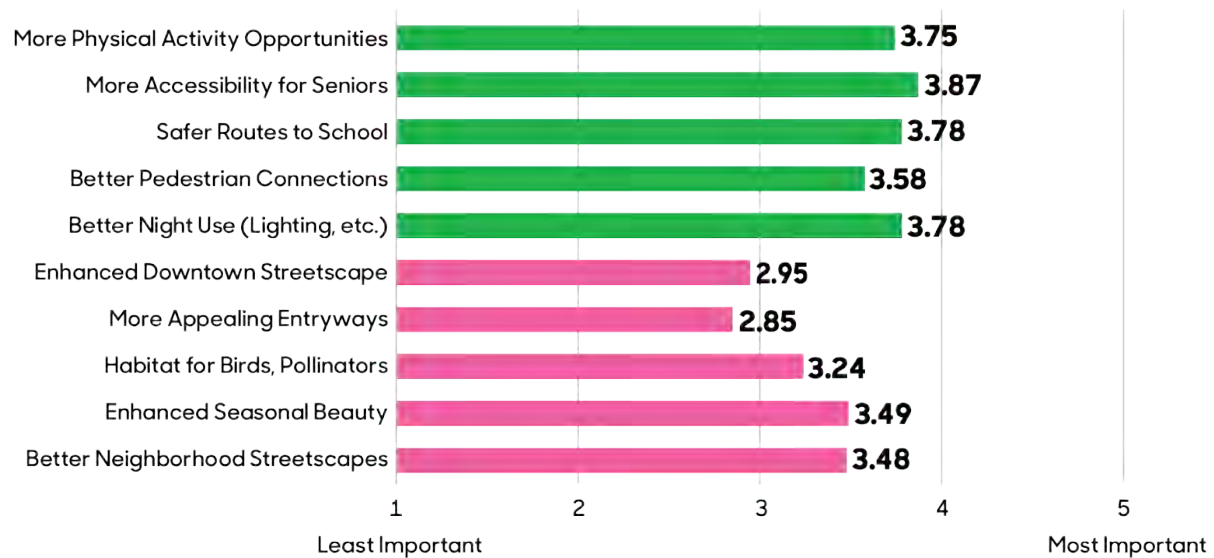
"Algona needs to focus on many basics. Some streets and infrastructure areas are in great need of improvement and repair."

Priorities

On a scale of 1 to 5, with 5 being the most important, participants in Algona ranked improving accessibility for seniors as most important, with a mean value of 3.87. Other types of transportation enhancements that address pedestrian mobility, health, and safety are also considered important, such as creating safer routes to school and improving areas for night use (both at 3.78), and providing more opportunities for physical activity (3.75). In terms of quality of the built environment, survey respondents consider enhancing seasonal beauty as most important (3.49), followed by creating better neighborhood streetscapes (3.48) and creating habitat for birds and pollinators (3.24).

Transportation Enhancement Issues

- Pedestrian Mobility, Safety, and Health
- Quality of the Built Environment



Survey Participants Said...



"I feel safe using our trail, but it is very, very short and there is no parking near its access, so I do not use it very often at all."

"Walking trails are needed, but Algona also needs to work on transportation for its senior citizens. [The taxi] hours of 8–4, Monday through Friday leaves a large part of the week when its seniors cannot participate in community activities."



"As a...runner, it would be amazing to have a wood chip trail or grass loop to take some pounding off runners' legs to prevent injury. As a realist, increasing street access for bikes and runners in town [would] ensure safety of all and keep the flow of traffic."

"[The] safest place is the paved walking trail that starts at [the] K–8 building and ends just east of [the] football field. I also walk on the avenues at Rose Hill Cemetery—[it's a] very peaceful place!"



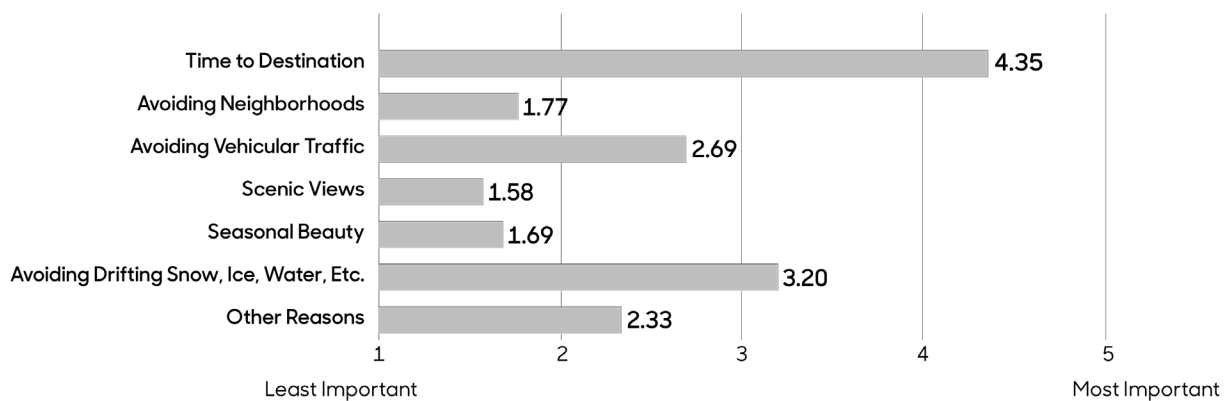
Commuting Routes

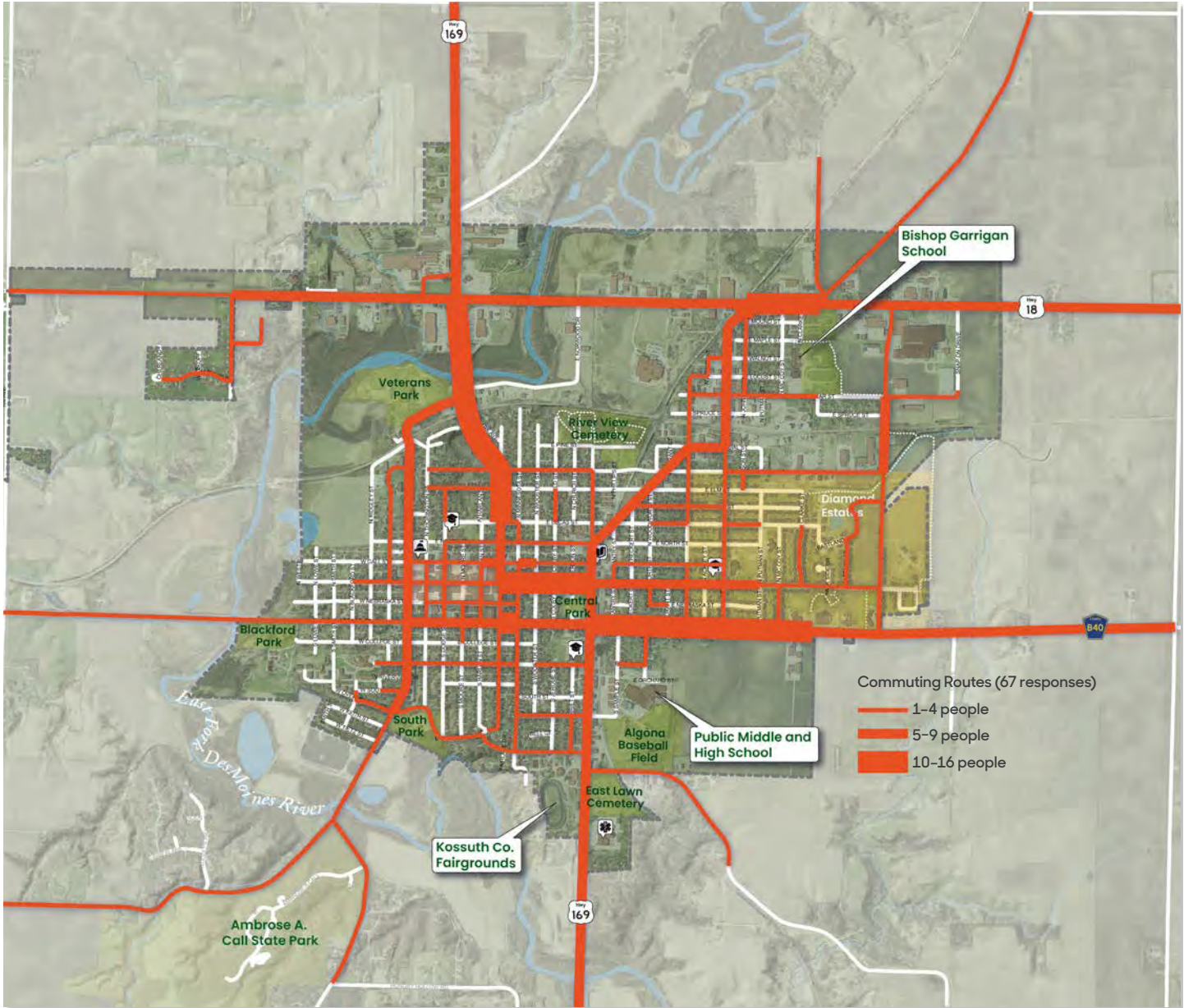
This map shows the commuting routes identified by 67 survey respondents. The frequency that the routes are used is depicted by their width, with most frequently used routes being the thickest. The primary east-west commuting corridors into and out of Algona are Highway 18 and County Road B40, and Highway 169 is the major north-south route. The most heavily used corridors in town are Highway 169 (N Jones and E State Streets), 210th Street from the Diamond Estates to S Phillips Street, and the section of Highway 18 connecting N Main Street to Plum Creek Road. N Main, Diagonal, and N Hall Streets are also frequently used.

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

Why They Go That Way

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that factored into their choice of commuting route. Among Algona participants, time to destination is the most important factor in determining commuting routes, with a mean value of 4.35. Avoiding weather-related issues such as snow and ice is also somewhat important (3.20). Avoiding vehicular traffic, scenic views, seasonal beauty, and avoiding neighborhoods are not critical factors in determining commuting routes.





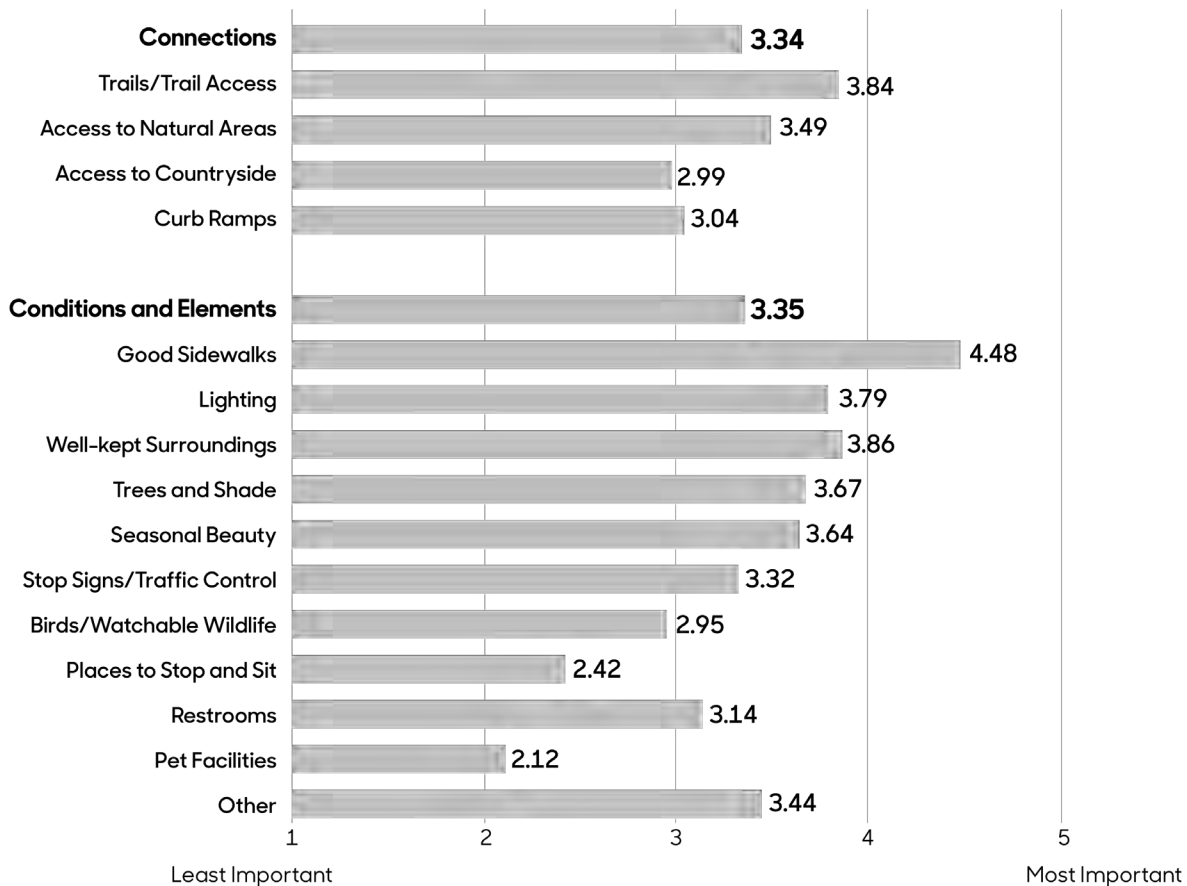
Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," <http://www.igsb.uiowa.edu/nrgislib/>.

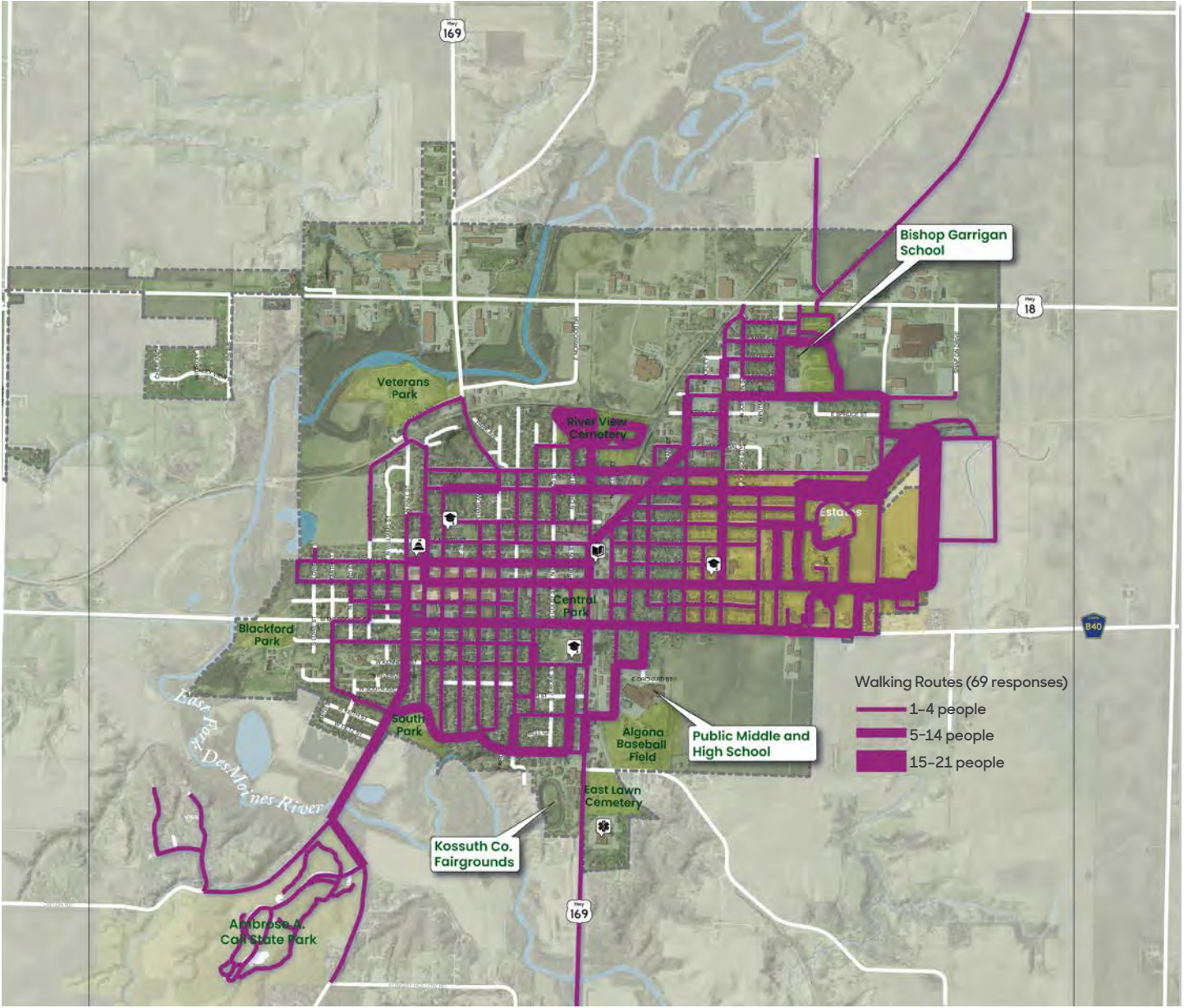
Walking Routes

This map shows the walking routes identified by 69 survey respondents. The frequency that the routes are used is depicted by their width, with most frequently used routes being the thickest. The trail at the Diamond Estates is the most popular walking venue among survey respondents. Riverview Cemetery and at Call State Park are also commonly used for walking. Streets in town frequented by walkers include McGregor (210th Street), State, Call, and Diagonal Streets. People also walk near both high schools and South Park, as well as to Call State Park.

Why They Go That Way

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their walking experience better. These features are categorized as either "connections" or "conditions and elements." Algona participants consider connections and conditions/elements nearly equally important, with mean values of 3.34 and 3.35, respectively. In terms of connections, access to trails is most important with a mean value of 3.84. Good sidewalks (4.48) are the most important condition/element to walkers, followed by well-kept surroundings (3.86) and lighting (3.79). Other significant factors include trees and shade (3.67) and seasonal beauty (3.64).





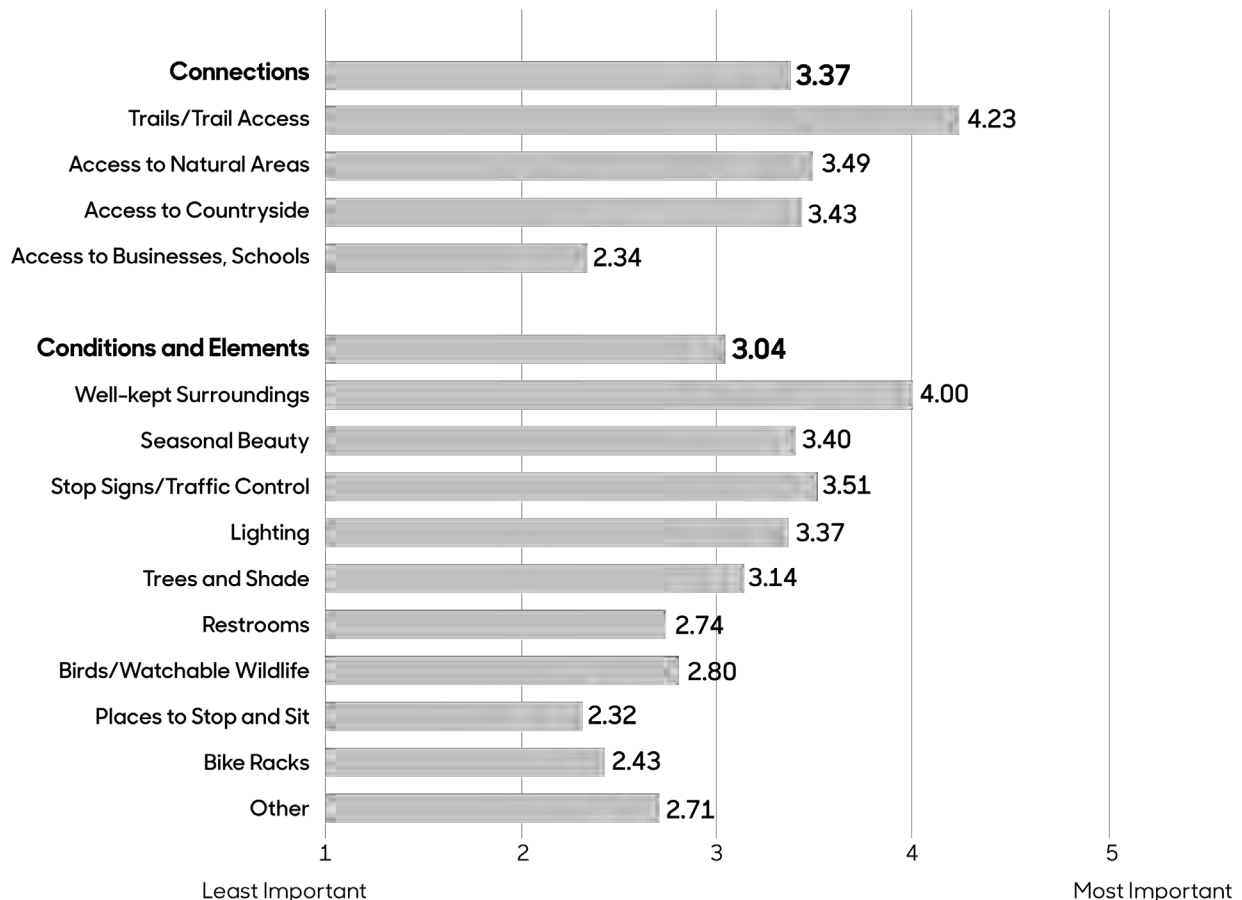
Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," <http://www.igsb.uiowa.edu/nrgislib/>.

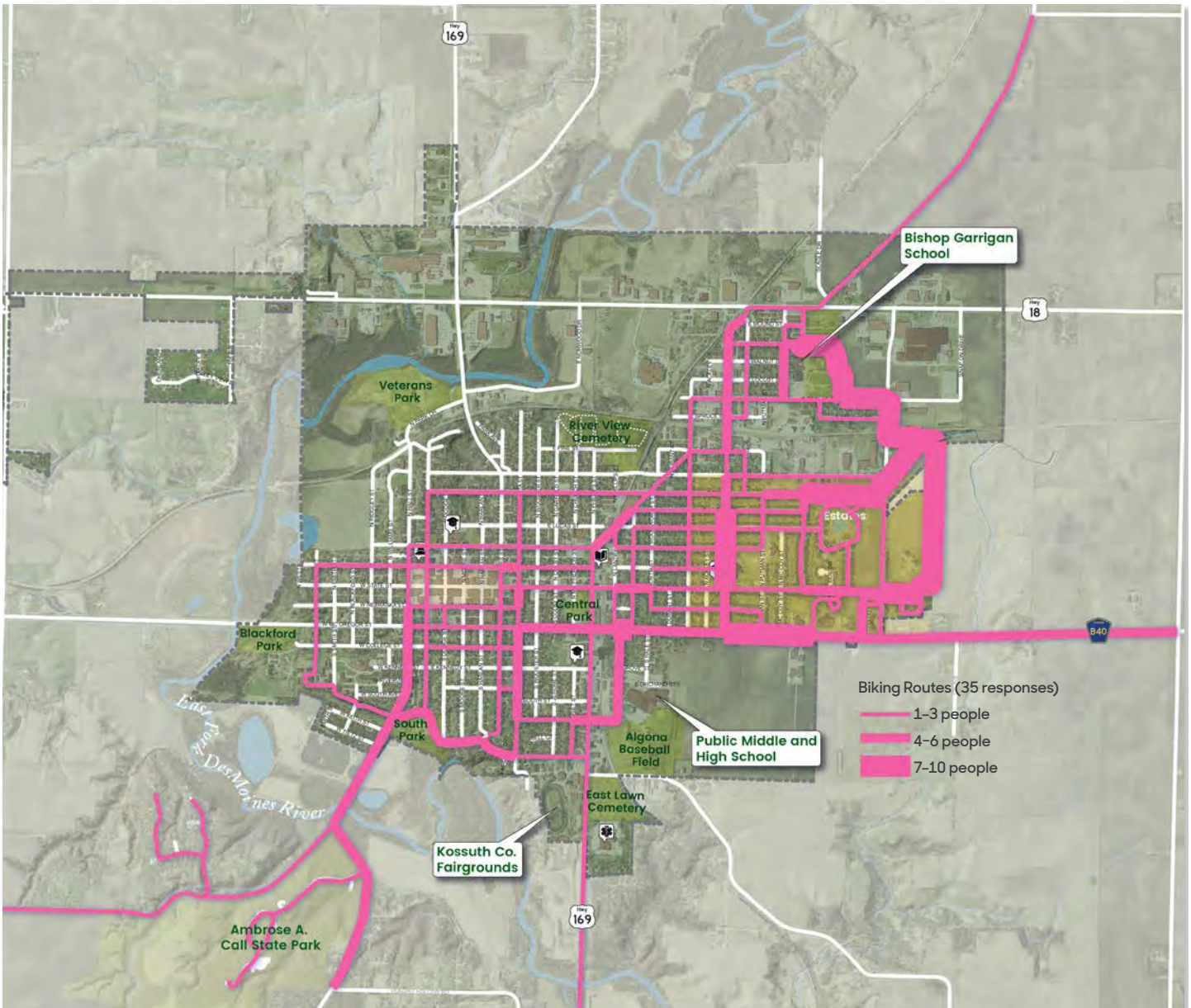
Biking Routes

This map shows the biking routes identified by 35 survey respondents. The frequency that the routes are used is depicted by their width, with most frequently used routes being the thickest. Like walkers, bikers most often use the trail at the Diamond Estates, as well as the segment connecting to the Bishop Garrigan School. N Main Street and 210th Street (McGregor) near Diamond Estates are also heavily traveled. Some people bike on Orlon Road to Call State Park, and some go east out of town on County Road B40. Bikers also ride the streets near the Algona High School and South Park.

Why They Go That Way

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their biking experience better. These features are categorized as either "connections" or "conditions and elements." Algona participants consider connections more important than conditions/elements, with mean values of 3.37 and 3.04, respectively. Access to trails is most important connection to survey respondents with a mean value of 4.23. In terms of conditions/elements, well-kept surrounding (4.00) are the most important among bikers, followed by stop signs/traffic control (3.86), seasonal beauty (3.40), and lighting (3.37).

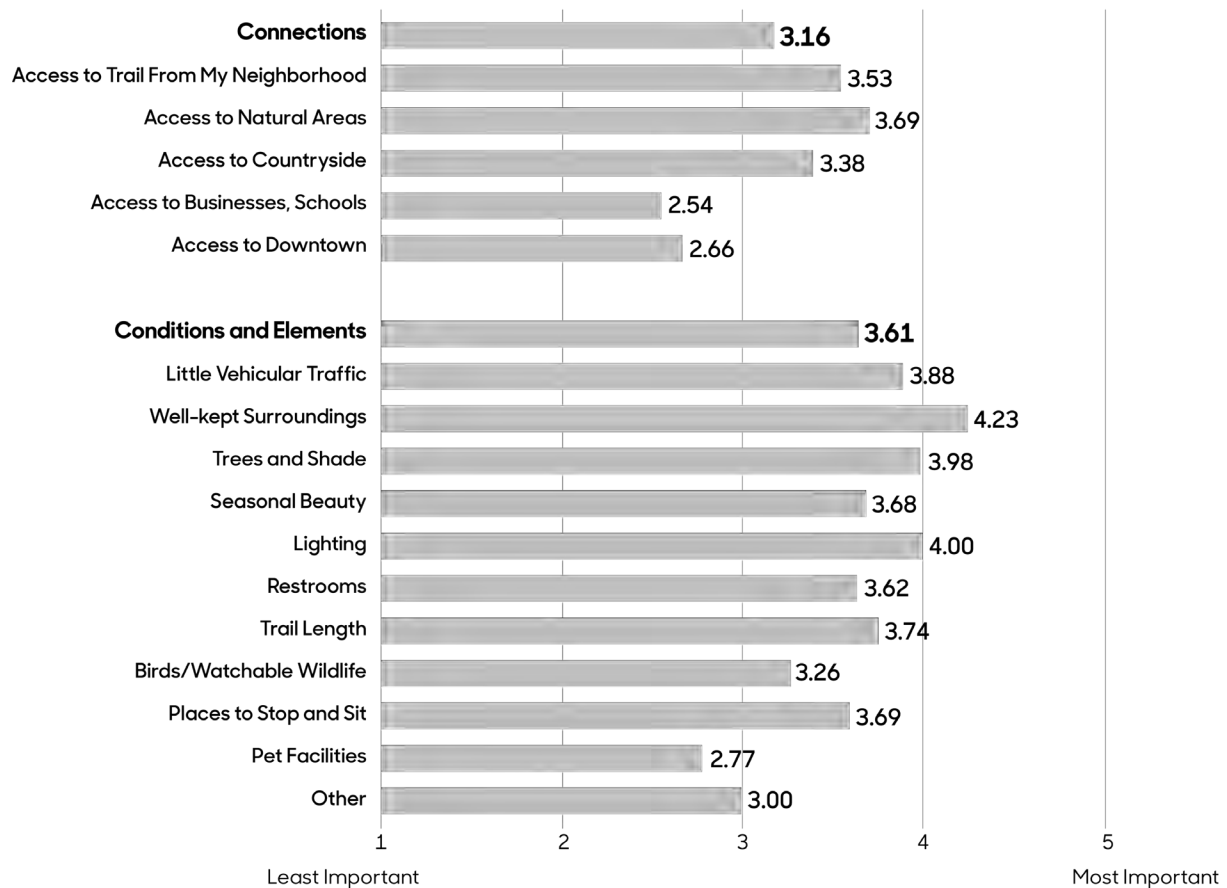




Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," <http://www.igsb.uiowa.edu/nrgislib/>.

Desired Trail Features

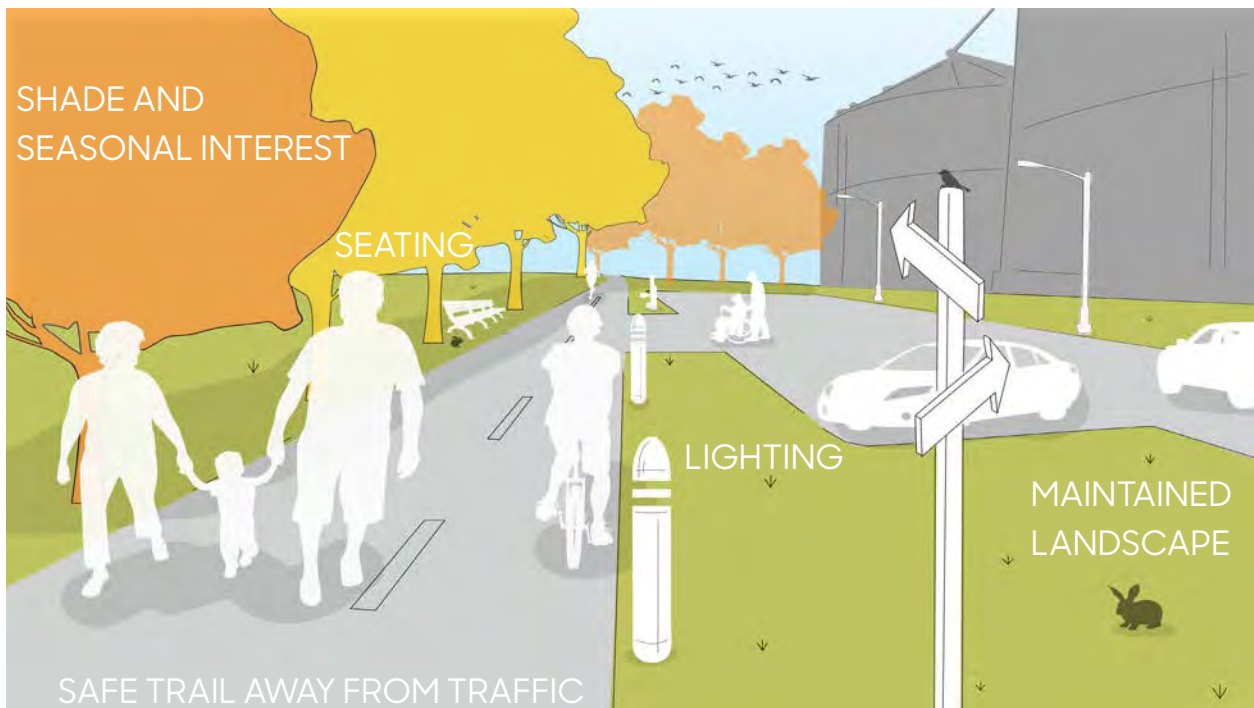
Trails are off-street paths that are paved or unpaved and can be used by pedestrians and cyclists. On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their trail experience better. Like the bike route features, they are categorized as either “connections” or “conditions and elements.” Conditions/elements are more important to Algona trail users than connections, with mean values of 3.61 and 3.16, respectively. Access to natural areas is most important connection among trail users, with a mean value of 3.69. In terms of conditions/elements, well-kept surroundings (4.23) is most important, followed by lighting (4.00). Trees and shade (3.98), trail length (3.74), places to stop and sit (3.69), and seasonal beauty (3.68) are also valued by trail users.





"[I] would love to see trails for biking, roller blading, walking, and cross-country skiing expanded in Algona and outward to Call Park/Oak Lake/Smith Lake...maybe to Whittemore and Sexton."

"From McGregor down S Hall Street to Call Park are a lot of walkers and bikers; it would be great to have a safe area for them to walk or ride!"



Transportation Inventory and Analysis

Knowledge of the transportation systems in and around a community is critical for sustainable transportation enhancement planning. Wheatland's transportation system includes roadways, sidewalks, and an active railroad.

The Algona visioning design team met with the local officials to identify existing, past, and future transportation system capital improvements, maintenance activities and issues, and other transportation-related constraints and opportunities in the area.

Overview

For the transportation inventory and analysis, the design team met with representatives from the Iowa DOT, the North Iowa Area Council of Governments (NIACOG), Kossuth County Conservation, county and local engineering departments, and city planning and administration. This meeting provided opportunities for each of these groups to discuss current and future transportation-related projects in which they are involved and that may impact the direction and outcomes of the visioning process. The following are key components of the transportation network that were discussed.

U.S. 169 (south end of town)

Improved pedestrian/bicycle access along U.S. 169 is desired; The current sidewalks are limited and not buffered from the road; Many intersections along here can feel unsafe to cross; There are potential plans to bury the electrical lines that run adjacent to the highway; Snow gets piled along the roadway, impeding access here and on the north end of town

U.S. 18

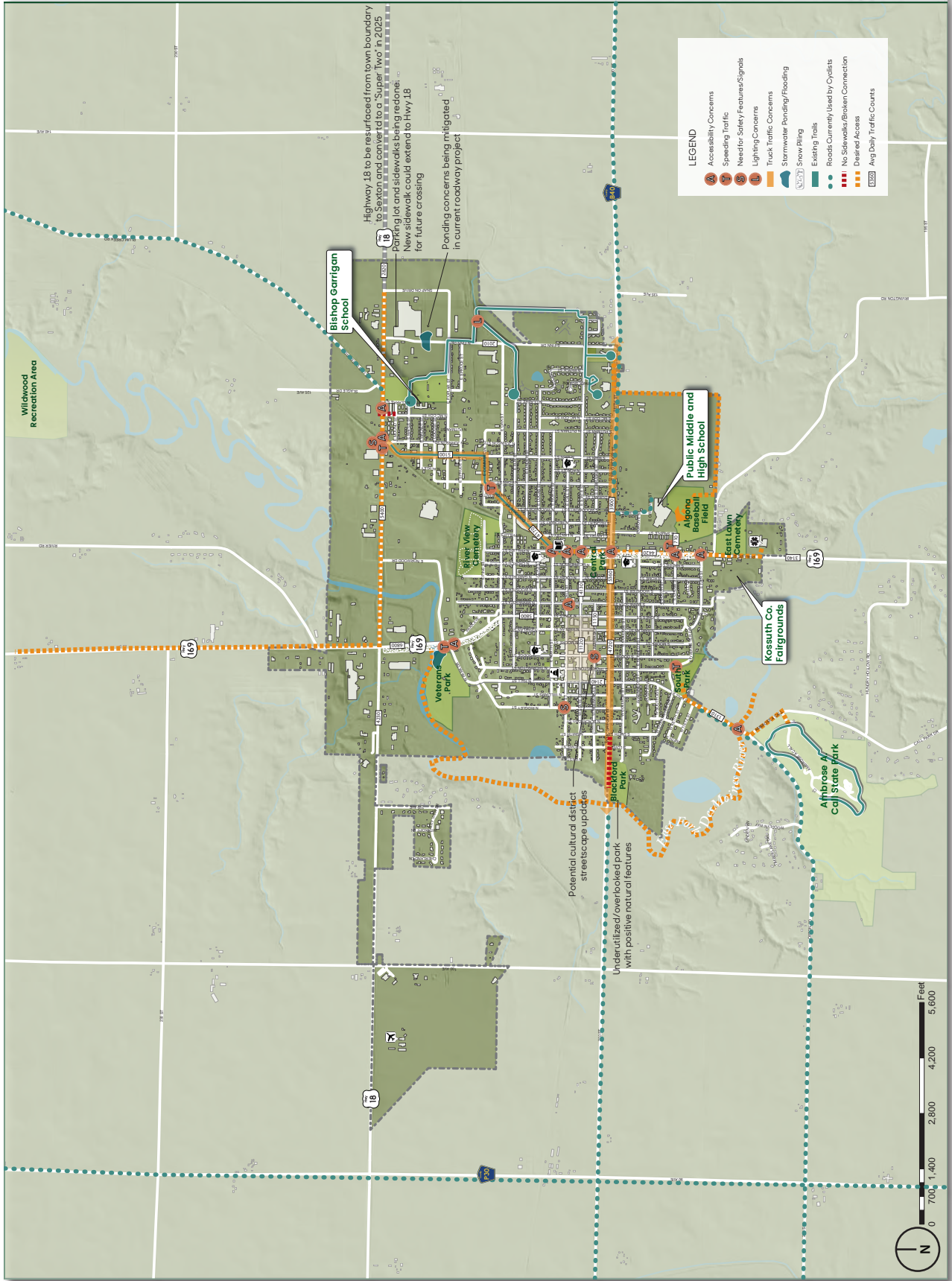
Resurfacing of the highway east of town to Sexton is scheduled for 2025
Pedestrian and bicycle access is desired along the highway with crossing opportunity to Fareway; New sidewalks along McCoy Street could be implemented up to the highway to initiate a crossing

Orton Road Bridge

Cyclists and pedestrians currently walk in the street to cross the bridge; Access on the existing bridge would be preferable if the current space permits; otherwise, a separate pedestrian bridge would be the next more affordable option

Trails

Connecting the existing trail on the east side of town to the high school is the highest priority; Future efforts to connect the parks and schools by trails is desired
Utilizing the greenway along the river would be desirable for a trail, but flooding conditions are prohibitive; Many county roads are already being utilized by cyclists even though they are not designated bike routes







Programming Objectives

The Programming Objectives meeting is a critical component in the development of a successful project. Setting and prioritizing goals allows us to focus our efforts and resources more effectively to help the community develop a vision for Algona based on its goals.

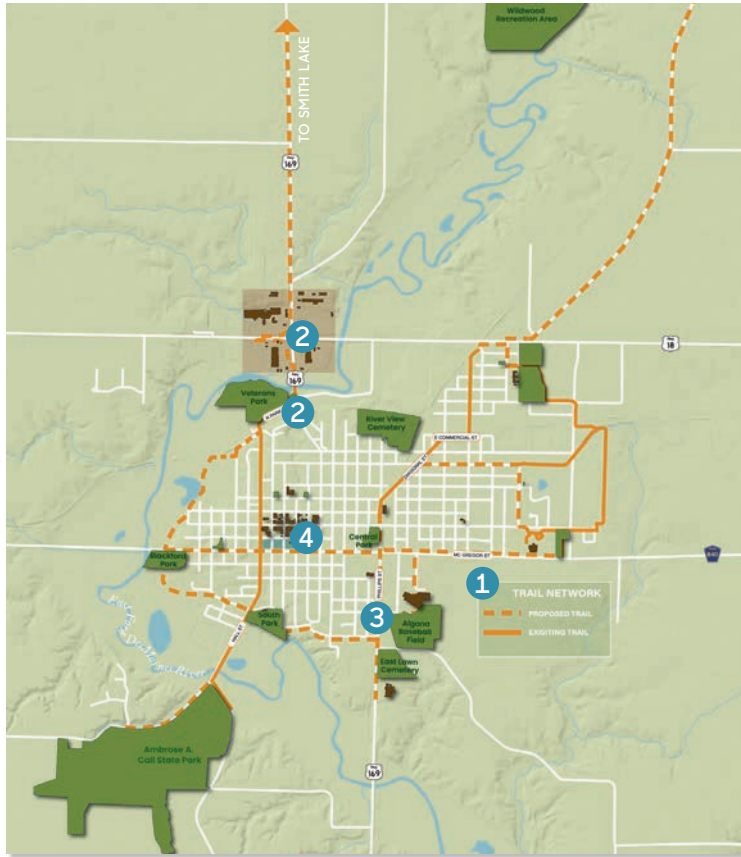
We met with the Algona visioning committee to discuss their goals. The steering committee presented its takeaways from previous discussions about the transportation assets and barriers, random-sample survey, transportation analysis, and bioregional information.

Using the nominal group method to organize the meeting and discussion, the committee identified goals and values based on information from the assessments. Each committee member also included reasoning for improvements around town and highlighted specific programming needs for areas of improvement. These objectives and desired improvements were recorded during an open discussion, followed by a vote to prioritize the major themes presented during the meeting.

The landscape architecture team organized programming themes for the city of Algona using the goals and desired improvements identified by the steering committee during the discussion, giving greater weight to those goals receiving more votes and common ideas presented multiple times. The following chart reflects a representation of the outcomes of the goal-setting process.

Community Values/ Themes Based on Assessments	Broad-Based Outcomes/Goals	Why Change Anything?	What Exactly and Where?
 <p>Trail Enhancements + Extension</p>	<ul style="list-style-type: none"> - Enhance existing features - Provide better lighting/easier access; make more visually appealing - Expand trail network - Make trail longer for cyclists - Improve way finding ability - Improve walkability - Attract people to Algona 	<ul style="list-style-type: none"> - Improved trails would encourage physical exercise - The trail system could be attractive to visitors - Need to improve safety for pedestrians and trail users - The current trail isn't long enough for a good bike ride - Connect community destinations 	<ul style="list-style-type: none"> - Extend current trail to Smith Lake - Provide pedestrian access to Call State Park from the Aquatic Center - Improve quality of sidewalks around town - Provide pedestrian access from McGregor Street to the hospital - Extend trails to reach the goal of 20+ total miles - Connect trail from the YMCA to Algona High School
 <p>Social Destinations</p>	<ul style="list-style-type: none"> - Attract people to Algona - Develop the river as a destination for visitors and residents - Establish a designated water trail 	<ul style="list-style-type: none"> - The city needs more options for recreation in the parks - Destinations should have better pedestrian interconnectivity 	<ul style="list-style-type: none"> - Install welcoming signage for a future kayak launch on the river at Veterans Park - Install extra lighting at Call State Park, the hospital, and the cemetery - Connect pedestrian systems to Call State Park and the hospital - Build more parking at Call State Park - Provide lighting at the cemetery and along trails to the hospital and Call State
 <p>Community Identity</p>	<ul style="list-style-type: none"> - Refurbish buildings - Improve cultural district - Provide more economic opportunity in town - Make use of river as cultural element - Shoreline management 	<ul style="list-style-type: none"> - Various elements of the community's identity could be better connected - The community's identity and history could be further represented in visible locations throughout town - Entrances into town could be more welcoming through greenspace enhancements - The river is currently an untapped resource 	<ul style="list-style-type: none"> - Build a sidewalk connection between the museum and the Carnegie Center for the Arts along the river. - Bury the power lines along Highway 169 - Create a distinct moment at the north entrance on Highway 169 - Manage river bank for public use at Veterans Park
 <p>Safety</p>	<ul style="list-style-type: none"> - Make the river accessible in various places - Activate major corridors for walking - Improve pedestrian crossings - Achieve ADA standards of accessibility - Enhance key intersections 	<ul style="list-style-type: none"> - Improve safety for pedestrians, cyclists, and motorists - Several important places across town are not connected to safe pedestrian routes - Supportive infrastructure would prevent people from needing to walk on Highway 169, Highway 18, and McGregor Street 	<ul style="list-style-type: none"> - Build sidewalks from the hospital to Central Park - Provide multiple safer crosswalks across Highway 169 - Improve visibility at the intersection of Highways 18 and 169 - Upgrade sidewalks along Highway 169

Community Concept Plan



The following design proposals showcase visions for the program objectives and goals established by the Algona visioning steering committee. These concepts represent potential design solutions to challenges and desires related to Algona's transportation system that have been expressed throughout the visioning process by residents of the community.

Four different topic areas will be explored through the designs, however there is a continuity created between these projects through their material and planting strategies as well as and connection to key amenities of the community that help to create an consistent identity

among them. All of the concepts strive to celebrate the strengths of Algona and provide updates that will improve the quality of life and transportation experience for residents and visitors to the community.

Community Project Estimates	
<i>Trail Network</i>	\$3,479,444.40
<i>Community Gateway (Intersection)</i>	\$365,280.00
<i>Community Gateway (Roadside Park & Trail)</i>	\$618,451.80
<i>Highway 169 Corridor Accessibility</i>	\$1,809,914.40
<i>Nebraska Street Corridor</i>	\$1,337,692.20
Total	\$7,610,782.80

1 Trail Network



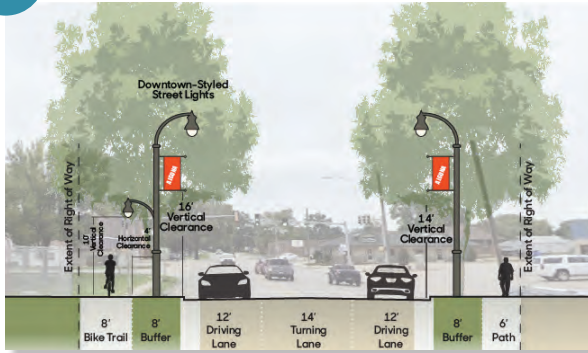
Extending and strengthening Algona’s trail network. Connecting important destinations such as the schools, parks, and areas beyond the city limits using a variety of trail typologies.

2 Community Gateway/Roadside Park



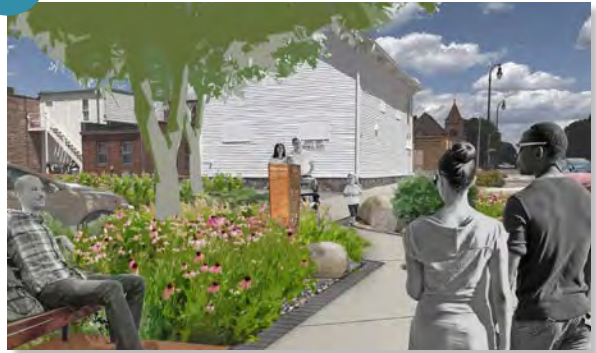
Enhancing the entry experience into Algona along Highways 169 and 18 with native plantings and gateway features. The East Fork Des Moines River is a major natural asset for the community and a large part of its identity. Roadside park updates adjacent to Highway 169 will create a welcoming destination and connect more people to the river.

3 Highway 169 Access



Increasing pedestrian and cyclist access on Highway 169 on the south side of town from Central Park down to the hospital. Streetscape updates will create a more inviting and safe experience for vehicles and pedestrians.

4 Nebraska Street



Improving Algona’s “cultural corridor” with green infrastructure and artful updates to the streetscape and pedestrian environment. These improvements showcase sustainable stormwater management practices while providing a vibrant streetscape filled with plants and art and history.

Trail Network

Focus-group and survey participants expressed interest in developing additional trails in and surrounding Algona. The addition of these trail routes would accomplish the key goals of extending recreational opportunities and increasing accessibility to schools, parks, downtown, the hospital, and the river. During the design workshop, residents were asked what trail typologies would make their recreational experience more comfortable. Most participants hoped to see an increase in shared-use paths that are buffered from the road. Separation from the roadway creates a safer and more accessible experience for cyclists of all ages and abilities. A recreation trail following the river is desired by many residents; a high water table, seasonal flooding and private lands limit this concepts feasibility. The proposed loop trail at Veteran's Park is an opportunity to experiment with new trail design methods on a smaller scale with the potential for future river trail development.

Primary Network

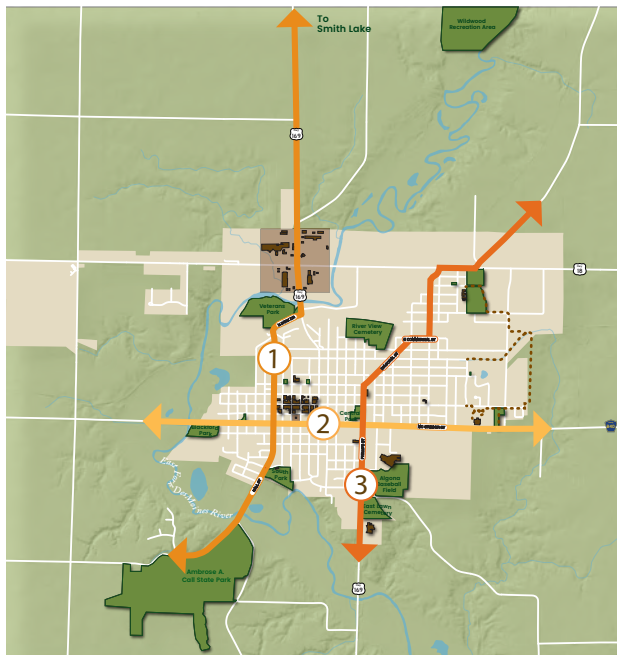
The primary moves in the trail network expansion, as shown in the map below, utilizes three primary routes to link the city parks, the middle and high schools and the larger park areas outside of town. The three routes are as follows:

- 1** North-South route: Ambrose A. Call State Park to Smith Lake (Orton Road/Hall Street/Northpark Drive/Highway 169)

 - Access under US 18 via viaduct to travel north on Highway 169 on a shoulder trail
 - Shared-use path on Hall Street transitions from East to West side of road at W Swetting Street heading south
 - East Fork Des Moines River crossing via bridge expansion or pedestrian bridge
 - Shared-use path from bridge to Call State Park; shoulder trail from bridge to Woodlyn Way neighborhood
- 2** East-West route: Blackford Park to Existing Trailhead in Tietz Park (McGregor Street)

 - Bike lane transitioning to a shared-use path at the intersection of Highway 169 with McGregor Street
- 3** North-South route: Access from US 18 and existing trail to Kossuth County Hospital (Highway 169/Phillips Street/ Diagonal Street)

 - Usage of existing bike-lane on Diagonal Street
 - Shared-use path to begin south of the intersection of North Street and Phillips Street and extending to Minnesota Street

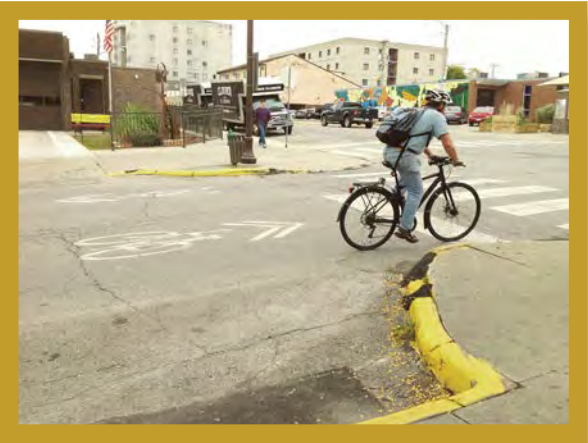


Trail Typologies

Trails come in different forms and offer a range of experiences. To make strong and easily accessible connections between key destinations while also avoiding major changes to the right-of-way, a variety of trail typologies will be necessary for Algona’s trail network. The following images represent examples of each typology used.



Shared-use paths or "Social Paths" can be near roadways, similar to a sidewalk, or be an independent right-of-way separate from roadways. Used primarily for recreation and fitness, these trails offer routes with a comfortable width to accommodate cyclist and pedestrian traffic in both directions.



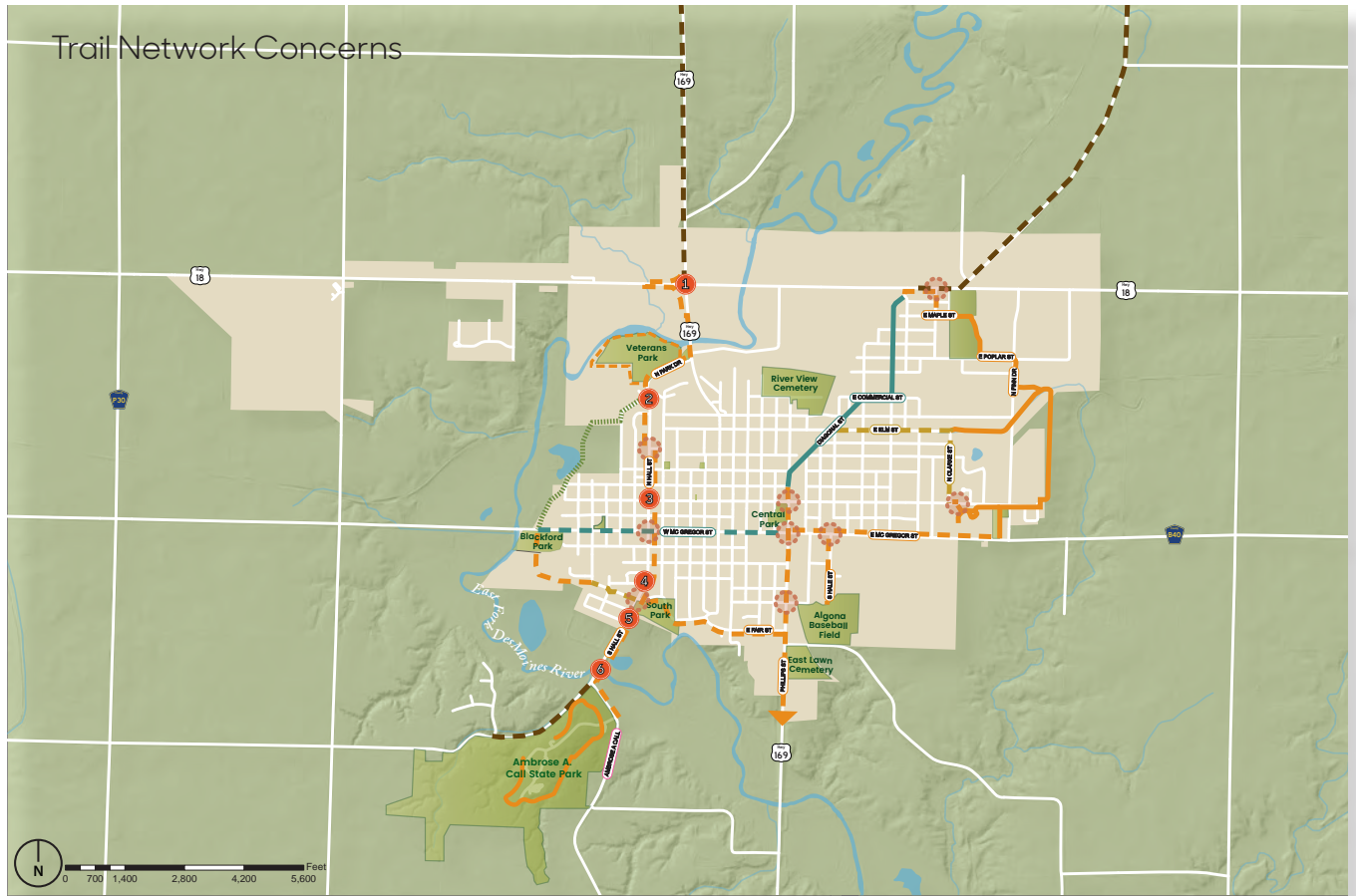
Streets with **sharrows** give motorized vehicles and bikes equal importance in the roadway. Markings on the pavement alert drivers that bikes may be present and let cyclists know that the road is a designated cycle route.



Increasing **road-shoulder** width, whether paved or granular surface, is an important component for bike safety. These paths are typically used for recreation or destination activities, and many events such as RAGBRAI follow highways and rural roads.



Bike lanes are dedicated routes within the street for cyclists. They utilize markings and/or painted surfaces to bring attention and importance to the cyclist area. They can also be protected from traffic through barriers and buffers between the bike lane and adjacent traffic.



1 Utility fence located in right-of-way



2 US Highway 18 crossing



3 Algona Police Department parking



4 Retaining wall



5 Steep ditches along Orton Road



6 Crossing East Fork Des Moines River



Trail Network
Hall Street Shared-Use Trail (Tietz Street to North Park Drive at Highway 169, & , +/- 6,980 LF)

Description	Quantity	Units	Unit Cost	Line Total	Totals
Site Preparation					\$91,105.00
Mobilization	1	AL	\$20,000.00	\$20,000.00	
Existing Sidewalk Demolition	4,130	SY	\$8.50	\$35,105.00	
Clearing and Grubbing	1	AL	\$20,000.00	\$20,000.00	
SWPPP Preparation	1	AL	\$6,000.00	\$6,000.00	
Traffic Control	1	AL	\$5,000.00	\$5,000.00	
Survey Allowance	1	AL	\$5,000.00	\$5,000.00	
Site Amenities					\$4,050.00
Bike Trail Guidance Signs	11	EA	\$150.00	\$1,650.00	
Pedestrian Alert Signs	16	EA	\$150.00	\$2,400.00	
Site Hardscape					\$528,640.00
8' Wide PCC Trail	55,840	SF	\$8.50	\$474,640.00	
High-Visibility Crosswalks	6,700	SF	\$4.00	\$26,800.00	
ADA Curb Ramp	32	EA	\$850.00	\$27,200.00	
Sub-Total					\$623,795.00
20% Contingency, Contractor Mark-Up, and Design Fees					\$124,759.00
Total					\$748,554.00

Highway 169 Shoulder Trail (Smith Lake to Highway 18, +/- 14,600 LF)

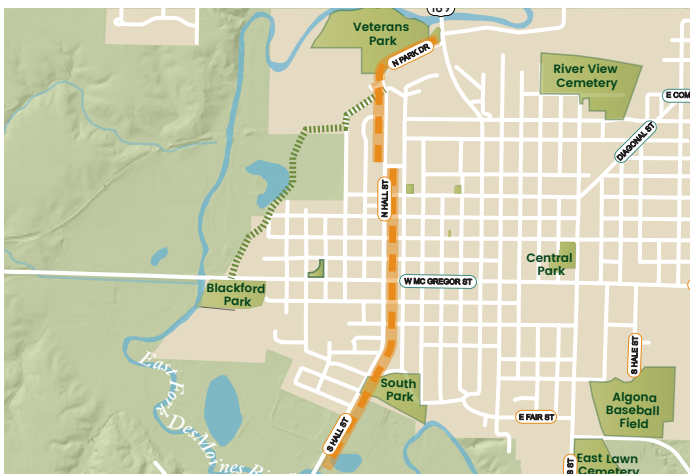
Description	Quantity	Units	Unit Cost	Line Total	Totals
Site Preparation					\$12,000.00
Mobilization	1	AL	\$6,000.00	\$6,000.00	
Traffic Control	1	AI	\$6,000.00	\$6,000.00	
Site Hardscape					\$116,800.00
Painted Buffer	29,200	LF	\$4.00	\$116,800.00	
Sub-Total					\$128,800.00
20% Contingency, Contractor Mark-Up, and Design Fees					\$25,760.00
Total					\$154,560.00

AC = Acre AL = Allowance CF = Cubic Foot CY = Cubic Yard
EA = Each LF = Linear Foot SF = Square Foot SY = Square Yard

Trail Network

Fairgrounds to Blackford Park Shared-Use Trail & Sharrows
(Overmeier Street & Fair Street to Philips Street, +/- 7,050 LF)

Description	Quantity	Units	Unit Cost	Line Total	Totals
Site Preparation					\$59,225.00
Mobilization	1	AL	\$13,000.00	\$13,000.00	
Existing Sidewalk Demolition	2850	SY	\$8.50	\$24,225.00	
Clearing and Grubbing	1	AL	\$14,000.00	\$14,000.00	
SWPPP Preparation	1	AL	\$5,000.00	\$5,000.00	
Traffic Control	1	AL	\$3,000.00	\$3,000.00	
Survey Allowance	1	AL	\$5,000.00	\$5,000.00	
Site Amenities					\$1,500.00
Bike Trail Guidance Signs	3	EA	\$150.00	\$450.00	
Pedestrian Alert Signs	2	EA	\$150.00	\$300.00	
Shared Lane Signs	5	EA	\$150.00	\$750.00	
Site Hardscape					\$376,916.00
<i>Shared-Use Trail</i>					\$376,256.00
8' Wide PCC Trail	42,000	SF	\$8.50	\$357,000.00	
High-Visibility Crosswalk Paint	2,264	LF	\$4.00	\$9,056.00	
ADA Curb Ramp	12	SF	\$850.00	\$10,200.00	
<i>Sharrows</i>					\$660.00
Sharrow Painted Markers	11	EA	\$60.00	\$660.00	
Sub-Total					\$437,641.00
20% Contingency, Contractor Mark-Up, and Design Fees					\$87,528.20
Total					\$525,169.20



Hall Street Shared-Use Trail



Hwy 169 Shoulder Trail

AC = Acre
EA = Each

AL = Allowance
LF = Linear Foot

CF = Cubic Foot
SF = Square Foot

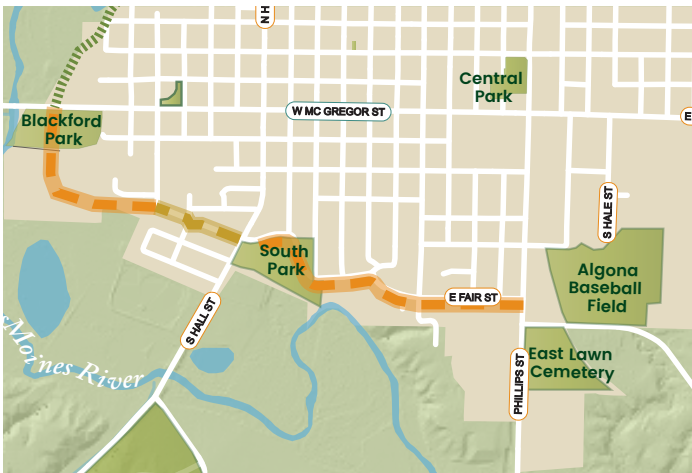
CY = Cubic Yard
SY = Square Yard

Trail Network

Elm and Clarke Sharrows (Elm Street & North Clarke Street, +/- 4500 LF)

Description	Quantity	Units	Unit Cost	Line Total	Totals
Site Preparation					\$6,000.00
Mobilization	1	AL	\$4,000.00	\$4,000.00	
Traffic Control	1	AL	\$2,000.00	\$2,000.00	
Site Amenities					\$5,160.00
Shared Lane Signs	16	EA	\$150.00	\$2,400.00	
Sharrow Painted Markers	46	EA	\$60.00	\$2,760.00	

Sub-Total	\$11,160.00
20% Contingency, Contractor Mark-Up, and Design Fees	\$2,232.00
Total	\$13,392.00

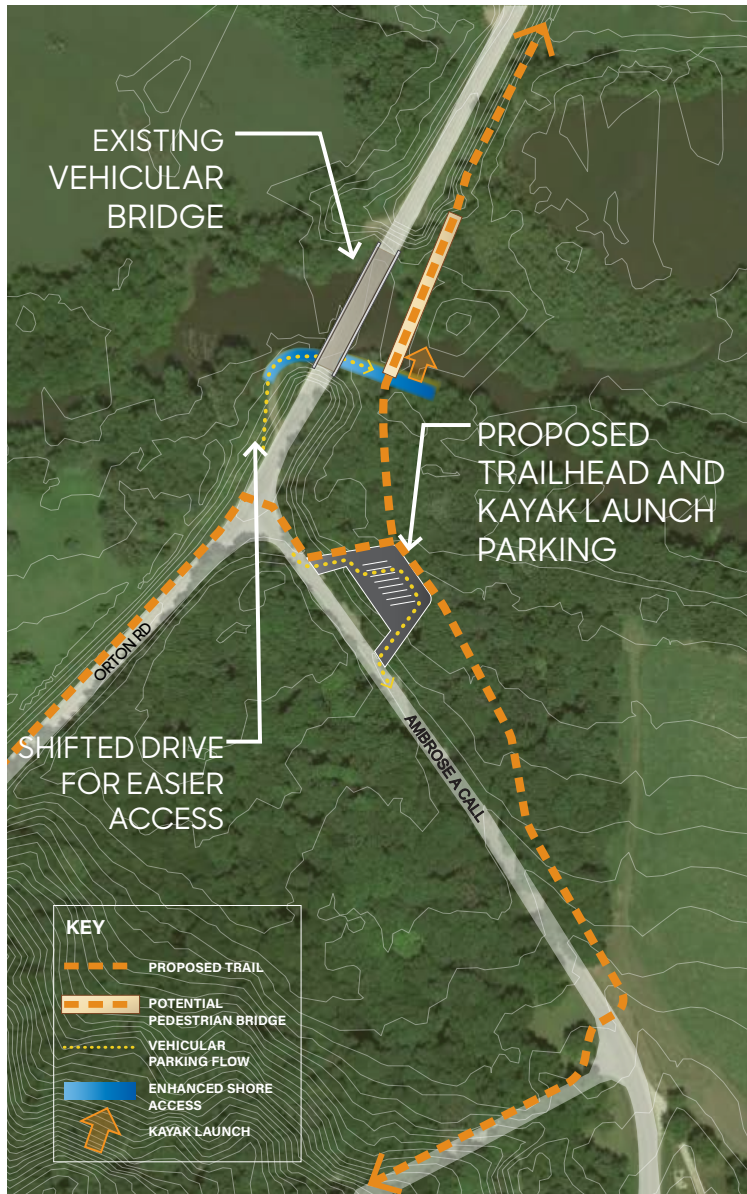


Fairgrounds to Blackford Park Shared-Use Trail



Elm & Clarke Street Sharrows

AC = Acre AL = Allowance CF = Cubic Foot CY = Cubic Yard
 EA = Each LF = Linear Foot SF = Square Foot SY = Square Yard



Proposed trail connection with pedestrian bridge at river

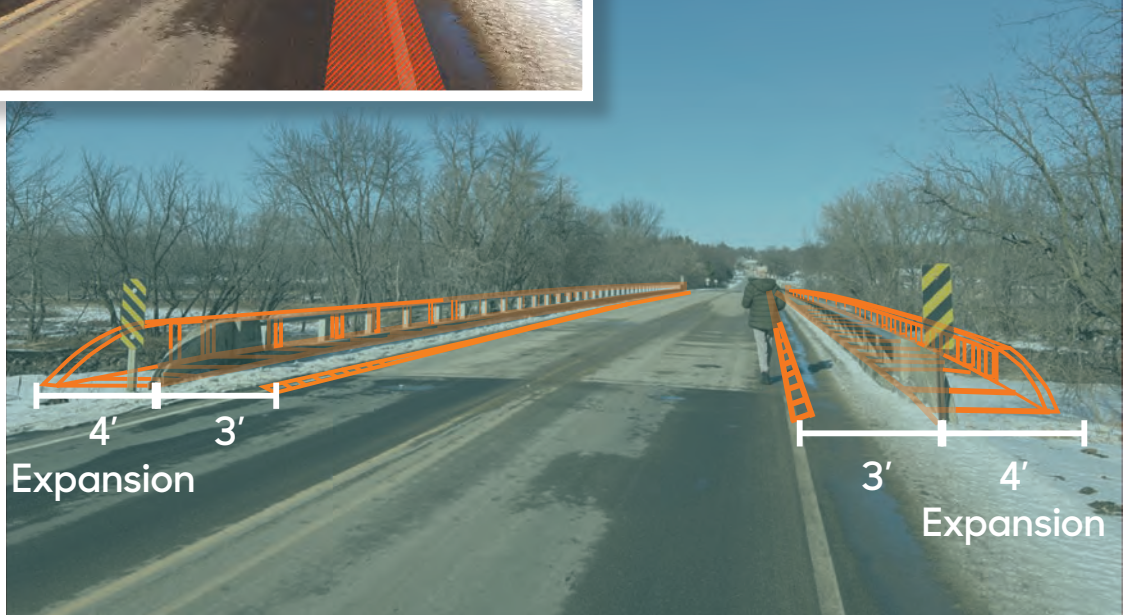
or fishing from the shore. The trail and parking lot shown are located within state owned property. Further development of these concepts in collaboration with the Iowa DNR would be necessary. The location of the parking lot is approximately 200 feet from the shore, which serves to reduce impact on the river and the surrounding habitat, and will allow the lot to stay at the high end of the 100-year floodplain and out of areas with high water tables that can impair the parking surface.

There is currently a drive down to the water on the east side of Orton Road that could be made more accessible by reducing the slope. This can be achieved by adding length to the drive. The entry would allow vehicles easy access to the launch.

River Crossing

Residents of all ages highly desire a pedestrian and bicyclist connection between Call State Park and South Park/Aquatic Center. The current bridge and roadway right-of-way on Orton Road/Hall Street is not wide enough to support a trail, to create this connection a river crossing update and modifications to the ditch on the east side of the road will be necessary. There is a potential that the existing vehicular bridge could support a wider deck, allowing bike lanes to be added to it. If the existing bridge cannot be modified to accommodate bike lanes, a new pedestrian bridge is proposed just east of the vehicular bridge.

The bridge landing on the south side of the river would feature shore access with a canoe/kayak launch area. The trail would link the proposed parking area just off Call Park Drive. The parking lot would serve as both a trailhead and a parking area for people using the launch



Potential Orton Road bridge expansion would accommodate a 6' wide bike lane on each side with a painted buffer



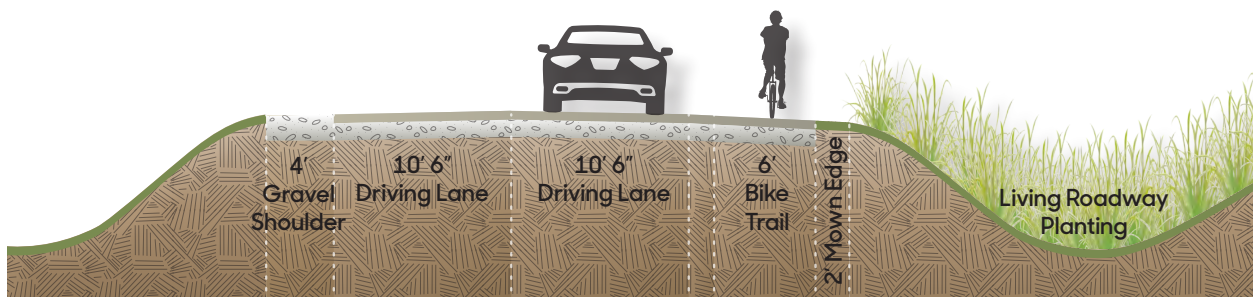
View of proposed pedestrian bridge and kayak launch on the south side of the river



Hall Street

Making the needed trail connection along Hall Street/Orton Road and across the river will require utilization of the right-of-way on the east side of the road. Due to the recent widening of this street, the proposed trail can be implemented without major revisions to the roadway. This concept includes reducing travel lane-widths on Hall Street from 12 feet to 10.5 feet and paving the existing

four-foot shoulder. A rumble strip paired with a painted buffer in addition to painted bike-lane markers on the shoulder help to alert drivers of possible trail users sharing the road space. These safety features are on the road surface which, allows larger vehicles access to this road by using some of the shoulder when trail users are not present. The trail in this stretch, from the bridge to W Tietz Street, would be six feet wide, allowing the slope on the east side of the street to be unaltered while developing this trail. Planting native grasses and wildflowers in the existing ditch will create a bioswale. Bioswales reduce erosion and pollution by slowing stormwater from the roadway and field and filtering it before it reaches the river.



Proposed road/shoulder trail section for Hall Street

Trail Network*

Call State Park Zone Shoulder Trail and Pedestrian Bridge (Orton Road from Tietz Street to Woodlyn Way, and Call Park Drive from Orton Road to Call State Park Entrance +/- 3200 LF)

Description	Quantity	Units	Unit Cost	Line Total	Totals
Site Preparation					\$27,000.00
Mobilization	1	AL	\$10,000.00	\$10,000.00	
SWPPP Preparation	1	AL	\$5,000.00	\$5,000.00	
Traffic Control	1	AL	\$2,000.00	\$2,000.00	
Survey Allowance	1	AL	\$10,000.00	\$10,000.00	
Site Earthwork					\$400,000.00
Regrading of Shoulder/Ditch	50,000	SF	\$8.00	\$400,000.00	
Site Hardscape					\$865,600.00
<i>Shoulder Trail</i>					<i>\$197,600.00</i>
5' Wide Paved Shoulder	20,800	SF	\$8.50	\$176,800.00	
Rumble Strips	4,160	LF	\$1.00	\$4,160.00	
Painted Buffer	4,160	LF	\$4.00	\$16,640.00	
<i>Pedestrian Bridge**</i>					<i>\$600,000.00</i>
Pedestrian Bridge**	1	AL	\$600,000.00	\$600,000.00	
<i>Shared Use Trail***</i>					<i>\$68,000.00</i>
8' Wide PCC Trail	8,000	SF	\$8.50	\$68,000.00	
Site Vegetation					\$134,250.00
Living Roadways Prairie Seed Mix/Install	0.6	AC	\$5,000.00	\$3,000.00	
Soil Amendment Allowance	26,250	SF	\$5.00	\$131,250.00	

Sub-Total	\$1,426,850.00
20% Contingency, Contractor Mark-Up, and Design Fees	\$285,370.00
Total	\$1,712,220.00

* This proposal does not include a cost for expanding the current bridge deck. An engineering assessment of the bridge would be needed to determine what is possible of the existing structure.

** Cost of bridge structure only. This total does not include site prep needed for installation, bridge support footings or earthwork needed to construct the bridge as the exact position has not been determined.

***The shared-use trail from the river south to Call State Park through the wooded state-owned land on the north side of Call Park Drive is a suggested scenario that will need to be a collaboration with the Iowa DNR.

AC = Acre
EA = Each

AL = Allowance
LF = Linear Foot

CF = Cubic Foot
SF = Square Foot

CY = Cubic Yard
SY = Square Yard

McGregor Street Route to School

Connecting the existing recreational trail to Algona's public middle and high school was identified as a primary objective of the trail network expansion. The existing trail ends in Teitz Park on the far east side of town. E McGregor Street is the most direct connection between the school and the trail. The north side of E McGregor Street has a wide right-of-way that currently supports a four-foot-wide sidewalk. The large right-of-way allows for widening the path to eight feet while keeping a significant buffer from the road and minimizing the need for removing existing tree canopy that helps create an inviting corridor.



At S Hale Street a marked crossing with a flashing warning sign to alert drivers of kids walking to school already exists. In the trail concept,

sidewalks along the west side of S Hale Street would be widened to eight feet. Some trees would need to be removed to accommodate that change. The trail would then extend to the school cutting through the existing parking lot island and linking a high-visibility crosswalk and pedestrian zone.



View looking south toward the school on the Hale Street trail



Trail Network

E McGregor Shared-Use Path (Route to School)
(E McGregor Street from South Finn Drive to Philips Street; South Hale Street, +/- 6170 LF)

Description	Quantity	Units	Unit Cost	Line Total	Totals
Site Preparation					\$49,930.00
Mobilization	1	AL	\$11,000.00	\$11,000.00	
SWPPP Preparation	1	AL	\$5,000.00	\$5,000.00	
Clearing and Grubbing	1	AL	\$4,000.00	\$4,000.00	
Existing Sidewalk Demolition	2,580	SY	\$8.50	\$21,930.00	
Traffic Control	1	AL	\$3,000.00	\$3,000.00	
Survey Allowance	1	AL	\$5,000.00	\$5,000.00	
Site Amenities					\$2,700.00
Bike Trail Guidance Signs	5	EA	\$150.00	\$750.00	
Pedestrian Alert Signs	13	EA	\$150.00	\$1,950.00	
Site Hardscape					\$448,426.00
8' Wide PCC Trail	49,392	SF	\$8.50	\$419,832.00	
High-Visibility Crosswalks	3,536	SF	\$4.00	\$14,144.00	
ADA Ramp	17	EA	\$850.00	\$14,450.00	
Sub-Total					\$501,056.00
20% Contingency, Contractor Mark-Up, and Design Fees					\$100,211.20
Total					\$601,267.20



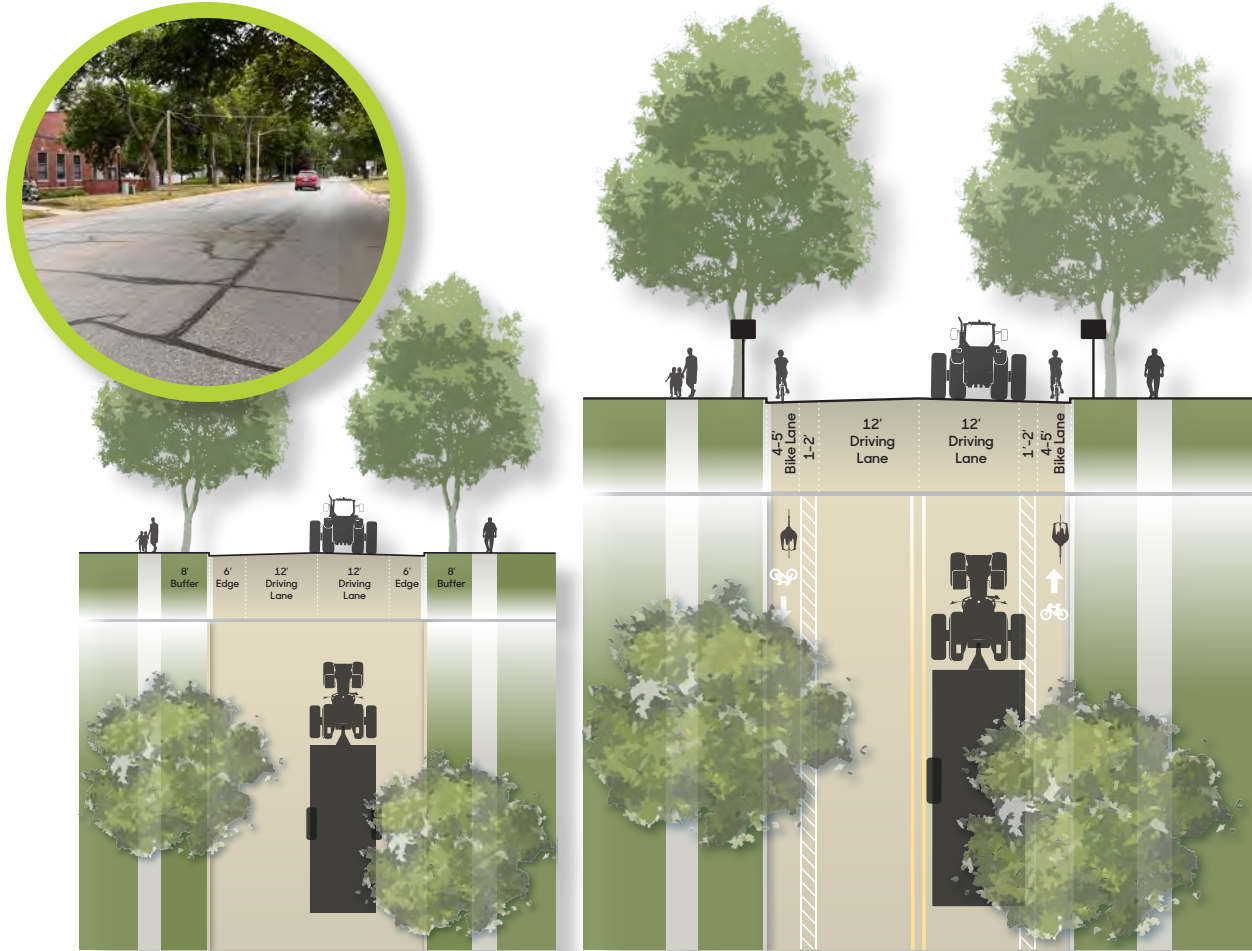
E. McGregor Street Shared-Use Trail

AC = Acre
EA = Each

AL = Allowance
LF = Linear Foot

CF = Cubic Foot
SF = Square Foot

CY = Cubic Yard
SY = Square Yard



Typical section of existing road conditions on W McGregor Street *Proposed bicycle enhancements and lane width alterations*

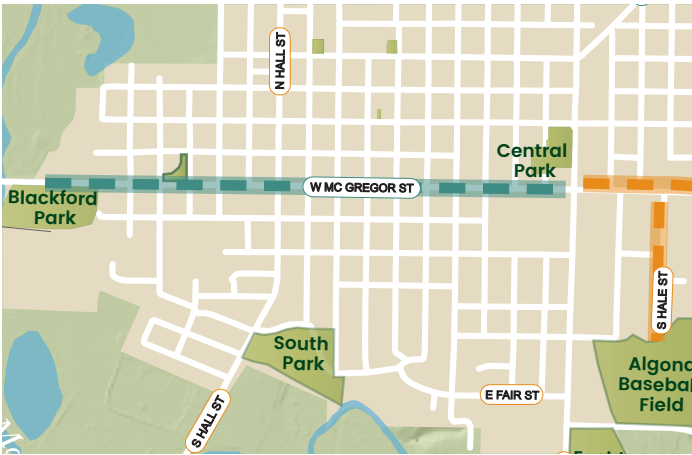
West McGregor Street

McGregor Street is a vital east-west axis in Algona. It feels welcoming with its large, mature trees and its links to many destinations. Blackford Park, Maple Park, Carnegie Centre for the Arts, Central Park, the YMCA, Tietz Park, the existing trail, and the S Hale Street route to school are all located on or at most a block away from this important street. McGregor Street is extra wide because it used to support on-street parking. That underutilized road width offers potential for bicycle infrastructure. However, many participants in the focus groups and design workshop expressed concerns over sharing the road with the fast-moving and large vehicles that use this route. There are also concerns that making trail updates to the road would limit its farm-to-market capacity. To address these concerns, this design proposes a minimum four-foot-wide, marked bike lane with a one-to two-foot-wide painted buffer to help alert drivers to cyclists on the road. Because these features are all on the road surface, larger vehicles using the farm-to-market route could easily get over into the bike-lane zone when needed if cyclists are not present. If desired, additional vertical barriers, such as flexible bike-lane safety posts, could be implemented. The road width varies along the length of W McGregor Street. Where the road is wider, the buffer and the bike-lane widths should be expanded. Pedestrians would continue to use the sidewalks that line both sides of the street.

Trail Network

McGregor Street Bike Lane (Blackford Park Road to Highway 169. +/- 5260 LF)

Description	Quantity	Units	Unit Cost	Line Total	Totals
Site Preparation					\$64,360.00
Mobilization	1	AL	\$6,000.00	\$6,000.00	
Traffic Control	1	AL	\$6,000.00	\$6,000.00	
Site Amenities					\$2,400.00
Bike Lane Guidance Signs	16	EA	\$150.00	\$2,400.00	
Site Hardscape					\$55,960.00
Bike Lane Painted Buffer	10,520	LF	\$4.00	\$42,080.00	
Bike Lane Marker Stencils	56	EA	\$60.00	\$3,360.00	
Street Centerline	5,260	LF	\$2.00	\$10,520.00	
Sub-Total					\$64,360.00
20% Contingency, Contractor Mark-Up, and Design Fees					\$12,872.00
Total					\$77,232.00



W. McGregor Street Bike Lane

Trail Network	
Hall Street Shared-Use Trail	\$748,554.00
Highway 169 Shoulder Trail	\$154,560.00
Blackford Trail	\$525,169.20
Elm and Clarke Sharrows	\$13,392.00
Call State Park Shoulder Trail/Bridge	\$1,712,220.00
McGregor Street Shared-Use Trail (Route to School)	\$601,267.20
McGregor Street Bike Lane	\$77,232.00
Total	\$3,479,444.40

AC = Acre
EA = Each

AL = Allowance
LF = Linear Foot

CF = Cubic Foot
SF = Square Foot

CY = Cubic Yard
SY = Square Yard

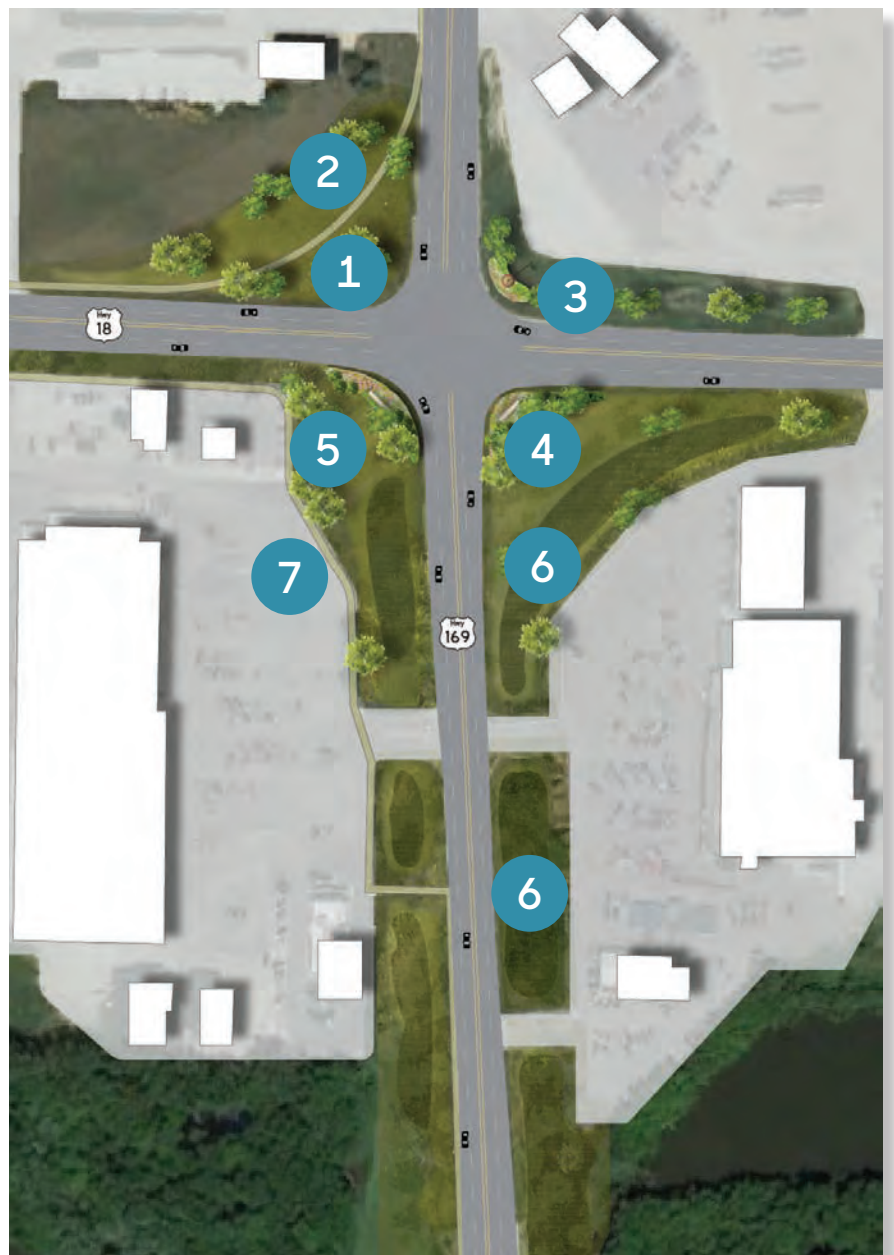
Community Gateway (Intersection)

Living Roadway Intersection Update

When Algona went through the visioning process in 2006, plans were proposed for wildflower plantings and signage in the southern corners of the intersection of Highways 169 and 18. Native plantings in these low-lying drainage areas would be beneficial for slowing and filtering stormwater as it makes its way south to the East Fork Des Moines River. This proposal builds on the 2006 plan, utilizing a native plant mix throughout the ditches, but using a seed mix specific to drainageways in the lower channel of the ditch to increase infiltration. In addition, a more refined planting design of native trees, shrubs and perennials, along with dual entry signs will create a welcoming gateway feature. This proposal also extends the design to all four corners and envisions burying the utilities.

Because of limited space, the northeast corner will have a refined yet minimal planting that will maintain open views to the businesses. The northwest corner will have a more savanna-like environment with short-grass prairie plantings and clusters of trees, which the proposed bike path will pass through as it connects north to follow Highway 169.

- 1 Trail
- 2 Savanna Hillside
- 3 Designed Bed around Flagpole
- 4 Designed Bed with Entry Sign
- 5 Prairie Grass and Wildflower Mix
- 6 Drainageway Plantings
- 7 Trail on Edge of Parking Lot





View looking west at Highway 18 and Highway 169 intersection with native plantings in the right-of-way and gateway landscape utilizing the existing entry sign



Community Gateway

Intersection

Description	Quantity	Units	Unit Cost	Line Total	Totals
Site Preparation					\$27,000.00
Mobilization	1	AL	\$5,000.00	\$5,000.00	
Stormwater Pollution Prevention Plan Preparation	1	AL	\$5,000.00	\$5,000.00	
Traffic Control	1	AL	\$2,000.00	\$2,000.00	
Survey Allowance	1	AL	\$5,000.00	\$5,000.00	
Grading Allowance	1	AL	\$10,000.00	\$10,000.00	
Site Amenities					\$25,000.00
Moving Existing Sign	1	AL	\$5,000.00	\$5,000.00	
Building New Sign	1	AL	\$20,000.00	\$20,000.00	
Site Hardscape					\$135,100.00
Shared-Use Path	9,400	SF	\$8.50	\$79,900.00	
Painted Bike-Lane/Buffer	1,300	LF	\$4.00	\$5,200.00	
Viaduct Passage Allowance	1	AL	\$50,000.00	\$50,000.00	
Site Vegetation					\$117,300.00
Mulched Bed Plantings	1	AL	\$10,000.00	\$10,000.00	
Native Prairie Seed Mix/Install	9	AC	\$5,000.00	\$45,000.00	
Shrubs	15	EA	\$120.00	\$1,800.00	
Trees	60	EA	\$400.00	\$24,000.00	
Soil Amendment Allowance	11,000.00	SF	\$1.50	\$16,500.00	
Prairie Planting Preparation Allowance	1	AL	\$20,000.00	\$20,000.00	
Sub-Total					\$304,400.00
20% Contingency, Contractor Mark-Up, and Design Fees					\$60,880.00
Total					\$365,280.00

AC = Acre
EA = Each

AL = Allowance
LF = Linear Foot

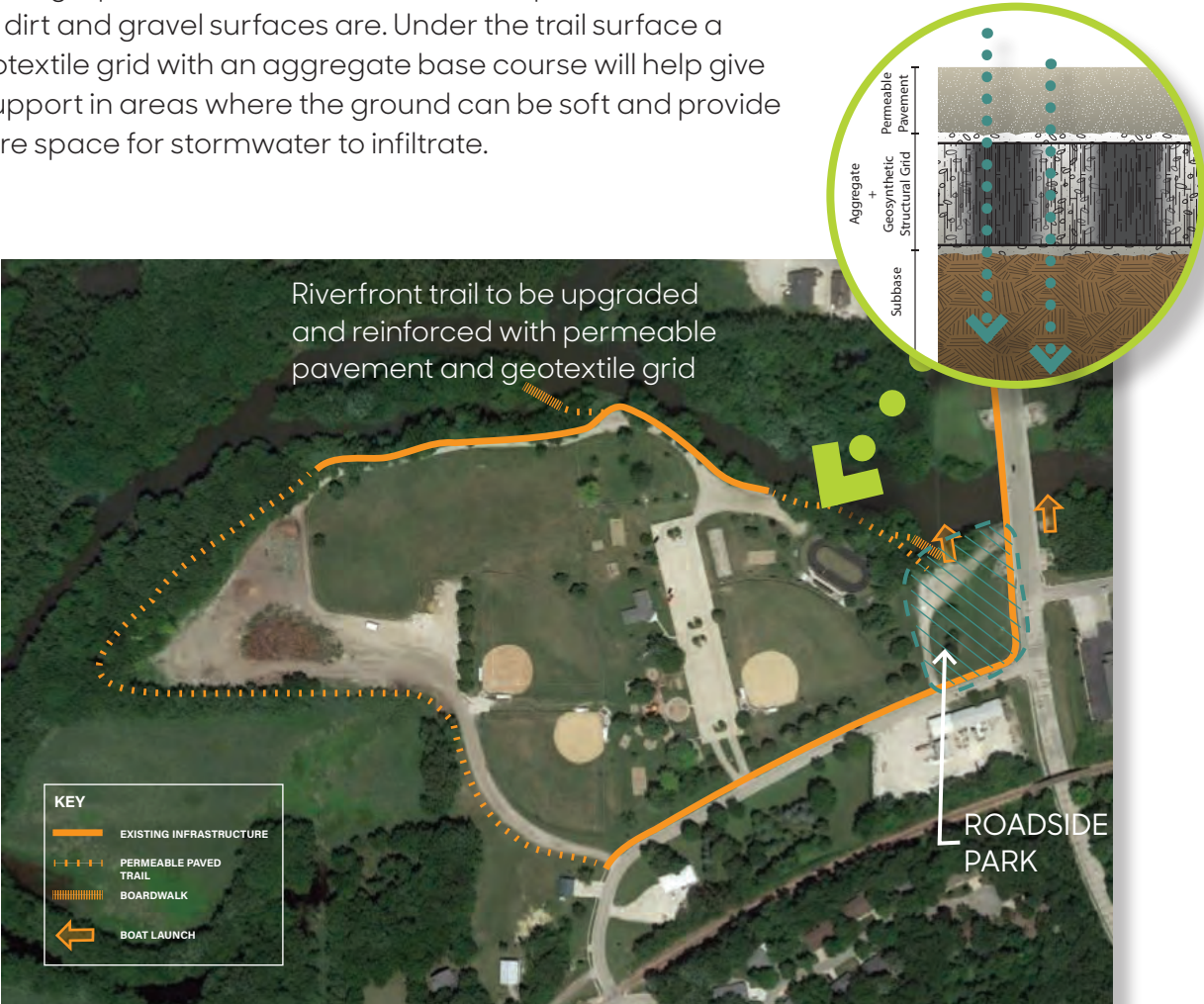
CF = Cubic Foot
SF = Square Foot

CY = Cubic Yard
SY = Square Yard

Community Gateway (Roadside Park)

Roadside Park Trail

One of the visioning committee’s objectives is to create a stronger relationship with the river. Veterans Park is located along the river and offers opportunities to enhance the visibility of and access to the river. There are currently informal paths that meander down to the river, but there is not a continuous path or clear access points. High water table and occasional flooding can limit the ability to have a sustainable trail along the river. These concepts propose a loop trail that would build on current informal paths and existing infrastructure, and test new methods and materials for establishing trails in the floodplain. Permeable asphalt or resin-bound surfaces will allow water to infiltrate, reducing runoff. By using a poured surface it is not as susceptible to erosion like dirt and gravel surfaces are. Under the trail surface a geotextile grid with an aggregate base course will help give it support in areas where the ground can be soft and provide more space for stormwater to infiltrate.



Roadside Park Site

Keith's Landing on the far east side of Veterans Park is an underutilized area. Some participants in the design workshop noted that they didn't know what was in that portion of the park or had not ventured over there. This parcel of the park is adjacent to Highway 169 and is very visible from the road. Enhancements to this location would not only increase the roadway experience, but would also bring more attention to Veterans Park and its amenities, which are not clearly visible from the highway.

The proposed improvements to the hillside park area of Keith's Landing include large swaths of native grasses and wildflowers, a modern shelter, an entry feature with a stone council ring, nature playscapes, and open areas for picnics and other gatherings.

Roadside Park Experience

During the design workshop most participants expressed a desire to have Keith's Landing developed in a style that was naturalistic and tied into the beauty and character of the river.

Many people noted that they would like to see this site offer an experience not found in the many other parks found throughout town. Below, we have proposed a landing made for food truck festivities, a retaining wall made for seating, a nature play area, a picnic area, and areas designated to native plantings.



Accessible Launch

To improve connections to the river, an updated canoe and kayak launch is proposed. This launch would have features such as a handrail and wooden slats that would increase accessibility for a wider audience of water trail users. The updated features would be located at the launch immediately off the main parking area, with a more informal launch located east of the bridge. Native vegetation plantings along the bank will help with erosion and create a connection with the other swaths of plantings proposed for the hillside park area.



annotations.blog



epictravelplans.com



naturalplaygrounds.com

- 1 Boardwalk/Overlook
- 2 Accessible Launch
- 3 Lawn Plaza with Stone Seating Wall
- 4 Parking
- 5 Nature Playscape
- 6 Native Plantings
- 7 Native Planting Buffer
- 8 Open Lawn
- 9 Gateway Feature/ Entry Landscape

Community Gateway

Roadside Park

Description	Quantity	Units	Unit Cost	Line Total	Totals
Site Preparation					\$16,000.00
Mobilization	1	AL	\$5,000.00	\$5,000.00	
Stormwater Pollution Prevention Plan Preparation	1	AL	\$5,000.00	\$5,000.00	
Survey Allowance	1	AL	\$5,000.00	\$5,000.00	
Traffic Control	1	AL	\$1,000.00	\$1,000.00	
Site Amenities					\$148,552.00
Boardwalk	800	SF	\$100.00	\$80,000.00	
Stone Seat Wall	500	SF	\$20.00	\$10,000.00	
Gateway	1	AL	\$3,000.00	\$3,000.00	
Nature Play Area	1	AL	\$2,000.00	\$2,000.00	
Picnic Shelter	1	AL	\$50,000.00	\$50,000.00	
<i>Kayak Launch</i>					\$3,552.00
Concrete Slab	120	SF	\$8.50	\$1,020.00	
Aluminum Railing	30	LF	\$80.00	\$2,400.00	
Wooden 4in x 4in x 12ft Post	6	EA	\$22.00	\$132.00	
Site Earthwork					\$17,000.00
Entry Drive Grading	17,000	SF	\$1.00	\$17,000.00	
Site Hardscape					\$5,892.00
Concrete Pavers	114	LF	\$ 18.00	\$ 2,052.00	
Crosswalk Paint	320	SF	\$ 12.00	\$ 3,840.00	
Site Vegetation					\$47,932.50
Native Prairie & Wildflower Seed Mix	1	AC	\$ 5,000.00	\$ 5,000.00	
Overstory Trees	10	EA	\$400.00	\$ 4,000.00	
Shrubs	20	EA	\$120.00	\$ 2,400.00	
Soil Amendment Allowance	24,355	SF	\$1.50	\$ 36,532.50	
Sub-Total					\$235,376.50
20% Contingency, Contractor Mark-Up, and Design Fees					\$47,075.30
Total					\$282,451.80

AC = Acre
EA = Each

AL = Allowance
LF = Linear Foot

CF = Cubic Foot
SF = Square Foot

CY = Cubic Yard
SY = Square Yard

Community Gateway
Roadside Park Trail

Description	Quantity	Units	Unit Cost	Line Total	Totals
Site Preparation					\$15,000.00
Mobilization	1	AL	\$5,000.00	\$5,000.00	
Stormwater Pollution Prevention Plan Preparation	1	AL	\$5,000.00	\$5,000.00	
Survey Allowance	1	AL	\$5,000.00	\$5,000.00	
Site Earthwork					\$25,000.00
Rough Grading	1	AL	\$25,000.00	\$25,000.00	
Site Hardscape					\$240,000.00
8' Wide Resin Bonded Aggregate Trail	20,000	SF	\$12.00	\$240,000	
Sub-Total					\$280,000.00
20% Contingency, Contractor Mark-Up, and Design Fees					\$56,000.0
Total					\$336,000.00

Community Gateway	
Intersection	\$365,280.00
Roadside Park	\$282,451.80
Roadside Park Trail	\$336,000.00
Total	\$983,731.80

AC = Acre AL = Allowance CF = Cubic Foot CY = Cubic Yard
 EA = Each LF = Linear Foot SF = Square Foot SY = Square Yard

Highway 169 Corridor Accessibility

Highway 169 Corridor

The character, conditions, and programming along Highway 169 vary greatly from the entrance into town to the transition onto State Street where Phillips Street continues north. The design team carefully considered these existing conditions to determine what type of enhancements are appropriate for each of the three general zones of the highway corridor.

Town Zone



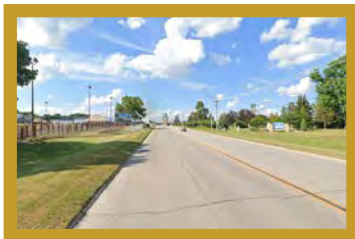
Mature tree canopy and close proximity to cultural spaces

Business Zone

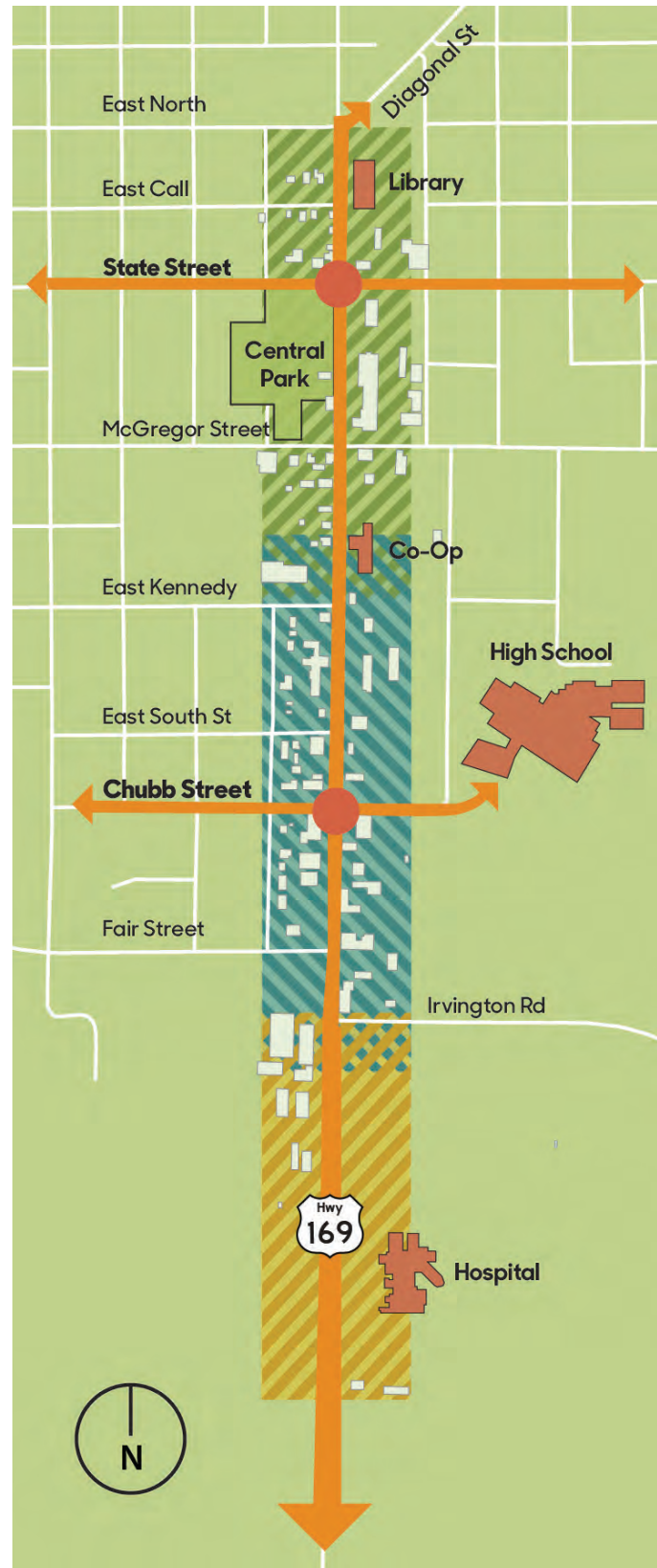


Large amounts of vehicular traffic and economic activity

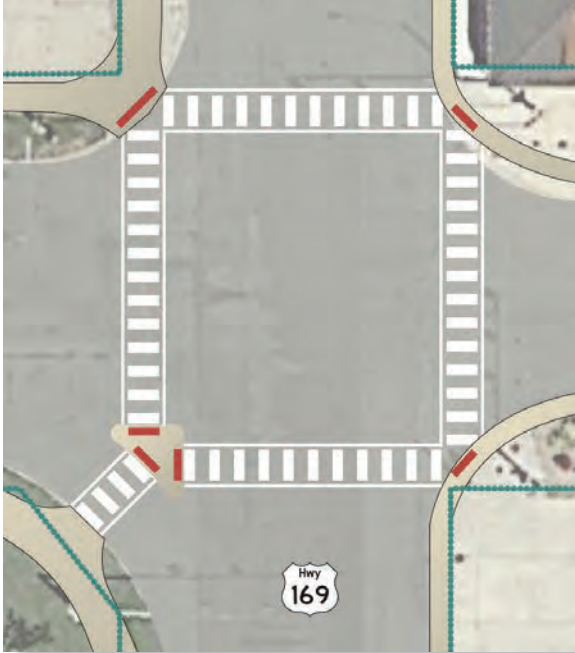
Rural Zone



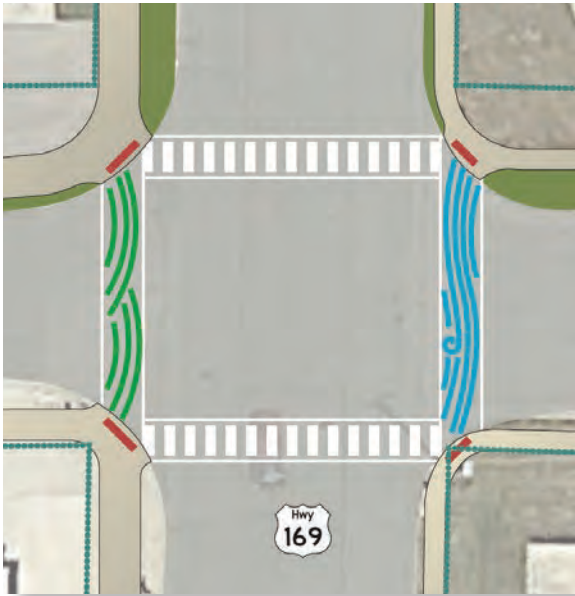
Wide vegetated right-of-way, pastoral character



Zonal Map of Highway 169



State Street Intersection



Chubb Street Intersection

Intersection Updates

Participants in the focus groups and the survey identified safety concerns about crossing Highway 169. Many of the intersections along the highway were highlighted as problematic, with State Street and Chubb Street being the most prominent. Some parents said that Central Park is underused because to access it their kids would have to cross the highway. Chubb Street was identified because there is a lack of sidewalks, safety features, and traffic calming devices.

These designs aim to improve the crossings with high-visibility crosswalks, signage, and safety islands, as well as potential for the right-of-way to be reduced to a three-lane road in the future to further ease the crossing of the road.

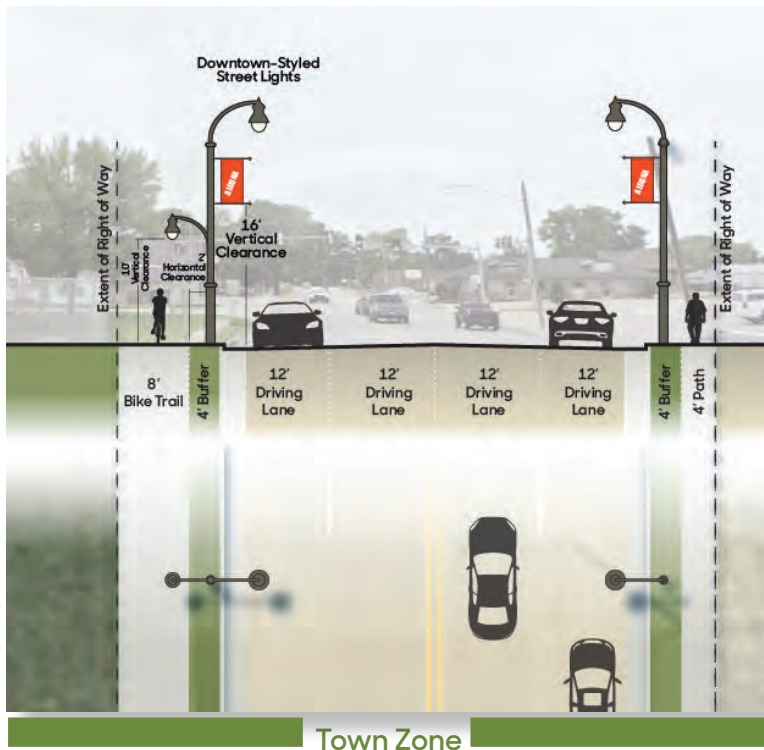
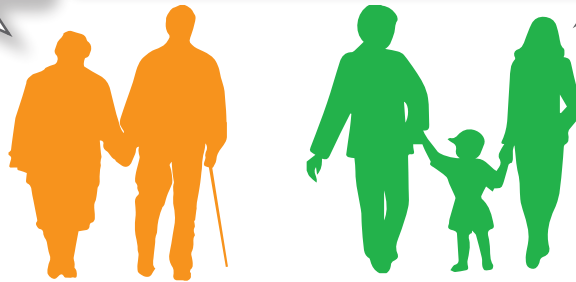
The crossings on Chubb Street have the potential to involve students and the wider community in designing and painting artistic crosswalk features.



"...we have to cross 169 on our bikes and just ride to the high school [to access the trail] and go all around and then come back and go up straight [to] State Street. If you're walking or pushing a buggy, crossing those two streets is not easy."

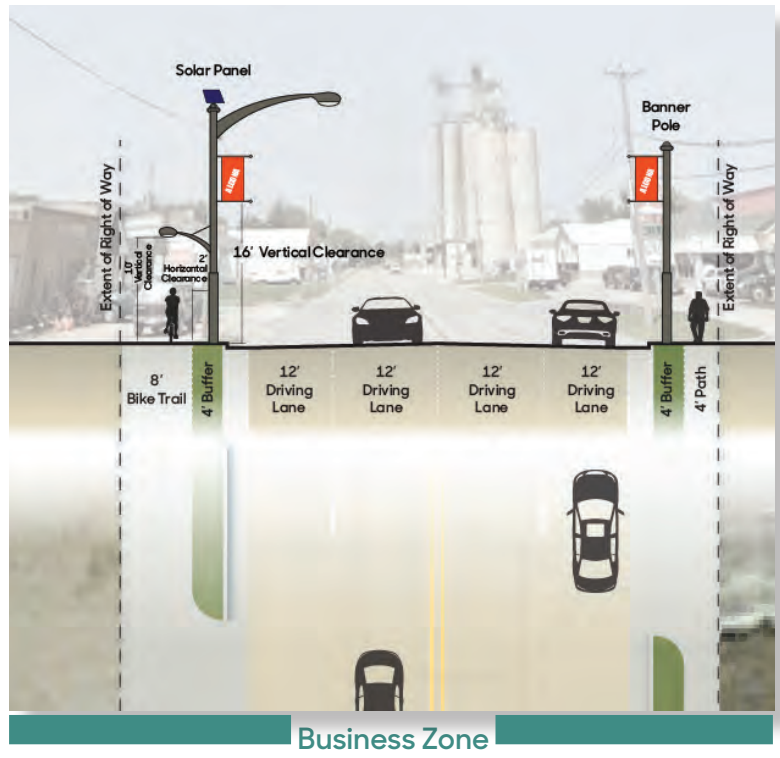
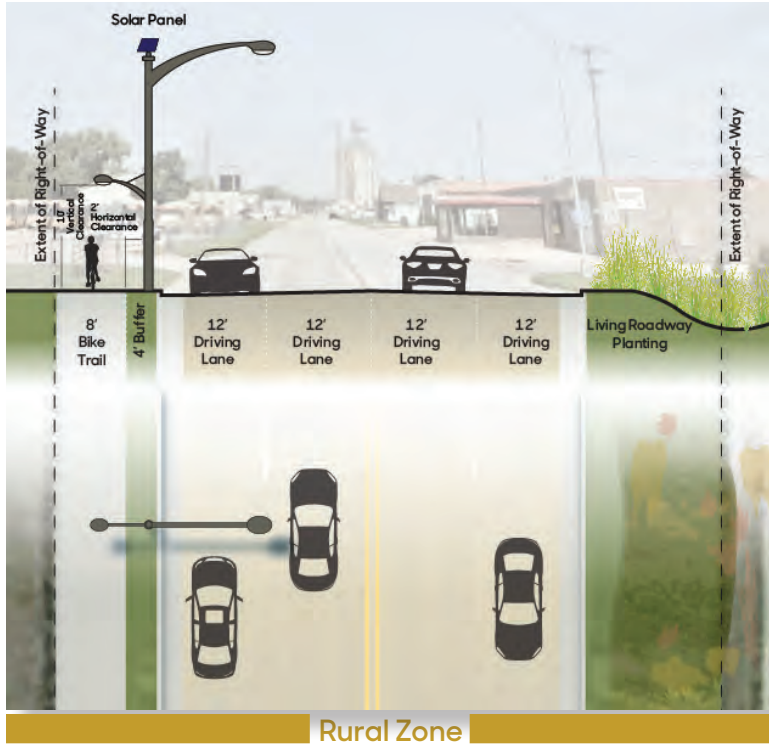


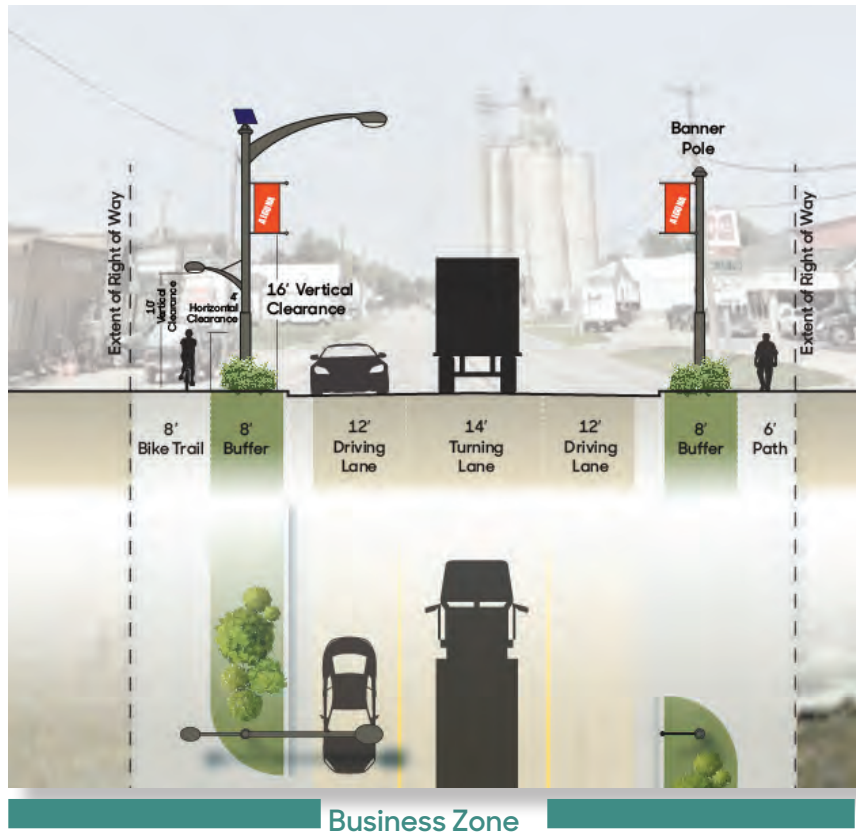
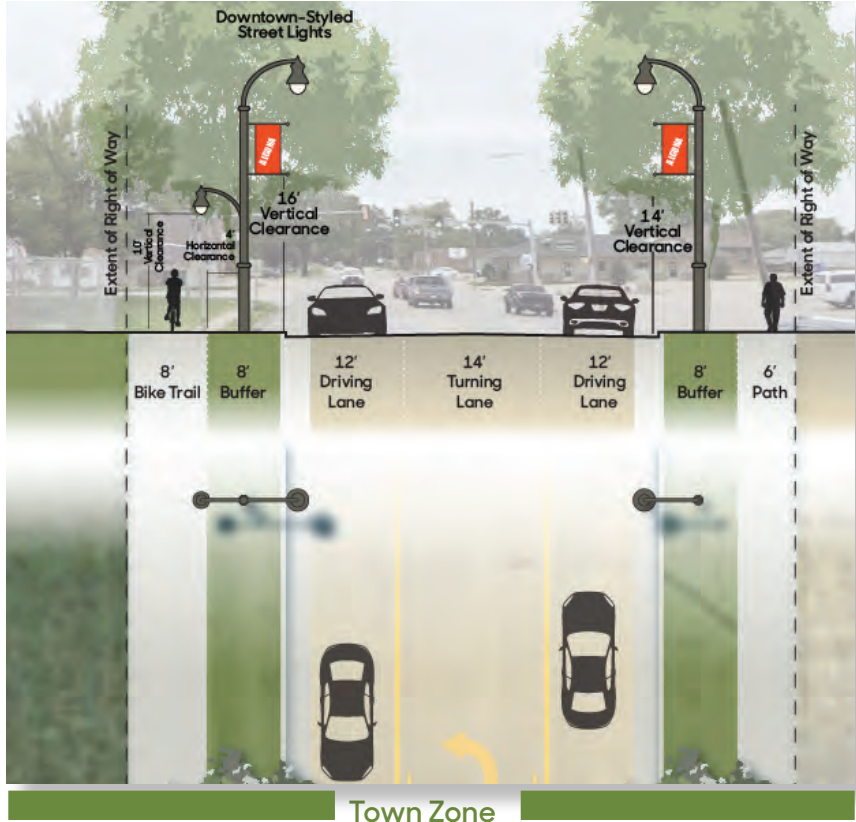
"Highway 169 divides the schools and bus stops."

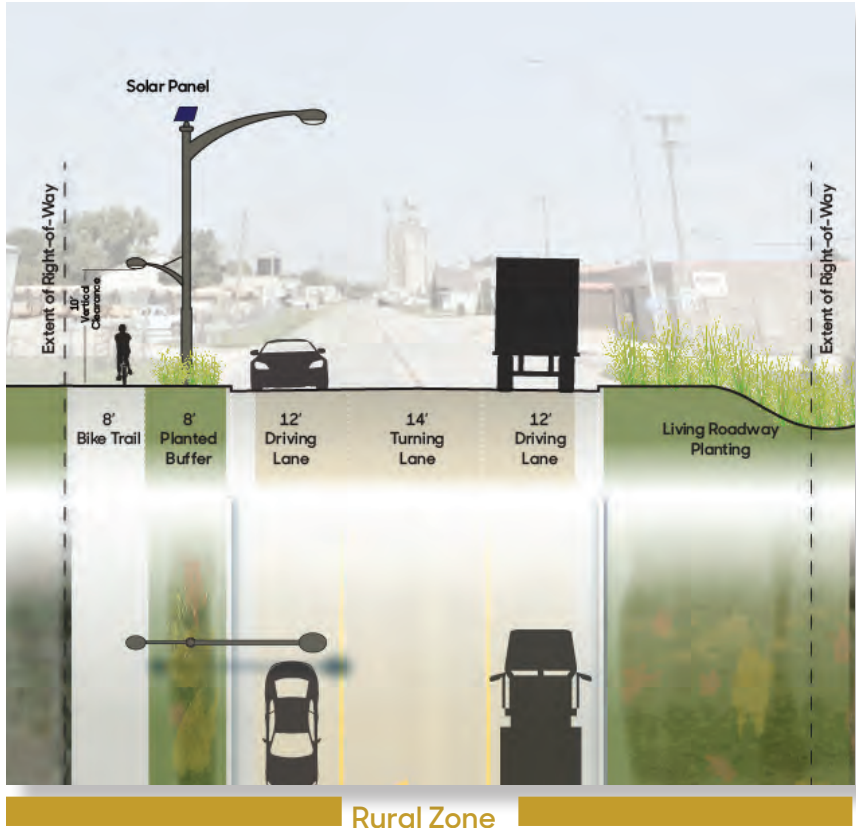


Four-Lane Enhancements

Working with the four-lane option allows for changes to take place more easily because it does not require road reconstruction or reconfiguration. Both design options propose burying the utility lines to accommodate the required space necessary for clear, safe access along the highway with a vegetated buffer. The trail would also feature a crossing at South Minnesota Street into the hospital.







Three-Lane Potential

The potential of a three-lane road opens up many additional possibilities. Reducing the number of lanes provides an additional 10 feet of right-of-way that can be used to improve accessibility and increase safety and the pedestrian experience with an additional buffer width. This proposal envisions a four-lane option occurring first with modifications for the three-lane, also known as the "road diet", as a future phase. This allows the proposed trail extension on the west side of the road in the four-lane version to remain the same in the three-lane version, reducing infrastructure costs. The expanded buffer increases the space between the vehicles and pedestrians and provides a location for vegetation enhancements such as street trees.

Highway 169 Corridor Accessibility*

Diagonal Street to Minnesota Street, +/- 4,850 LF

Description	Quantity	Units	Unit Cost	Line Total	Totals
Site Preparation					\$35,396.00
Mobilization	1	AL	\$8,000.00	\$8,000.00	
Existing Sidewalk Demolition	1,576	SY	\$8.50	\$13,396.00	
Clearing and Grubbing	1	AL	\$4,000.00	\$4,000.00	
SWPPP Preparation	1	AL	\$3,000.00	\$3,000.00	
Traffic Control	1	AL	\$2,000.00	\$2,000.00	
Survey Allowance	1	AL	\$5,000.00	\$5,000.00	
Site Amenities					\$4,050.00
Bike Trail Guidance Signs	6	EA	\$150.00	\$900.00	
Pedestrian Alert Signs	21	EA	\$150.00	\$3,150.00	
Site Lighting					\$432,000.00
Decorative Vehicular & Pedestrian Combo	14	EA	\$12,000.00	\$168,000.00	
Vehicular (Cobra) & Pedestrian Combo	22	EA	\$12,000.00	\$264,000.00	
Site Hardscape					\$738,972.00
8' Wide PCC Trail	38,608	SF	\$8.50	\$328,168.00	
4' Wide PCC Sidewalk	39,136	SF	\$8.50	\$332,656.00	
High-Visibility Crosswalk	8,512	SF	\$4.00	\$34,048.00	
Crosswalk Murals (Chubb St.)	848	SF	\$25.00	\$21,200.00	
Painted Pedestrian Safety Island (State St.)	200	SF	\$4.00	\$800.00	
ADA Ramp	26	EA	\$850.00	\$22,100.00	
Site Vegetation					\$297,844.00
Grass Seed	33,248	SF	\$0.50	\$16,624.00	
Living Roadways Prairie Seed Mix/Install	0.5	AC	\$5,000.00	\$2,500.00	
Soil Amendment Allowance	55,744	SF	\$5.00	\$278,720.00	
Sub-Total					\$1,508,262.00
20% Contingency, Contractor Mark-Up, and Design Fees					\$301,652.40
Total					\$1,809,914.40

* The costs developed for this estimate are for accessibility updates that utilize the four-lane option only.

AC = Acre
EA = Each

AL = Allowance
LF = Linear Foot

CF = Cubic Foot
SF = Square Foot

CY = Cubic Yard
SY = Square Yard

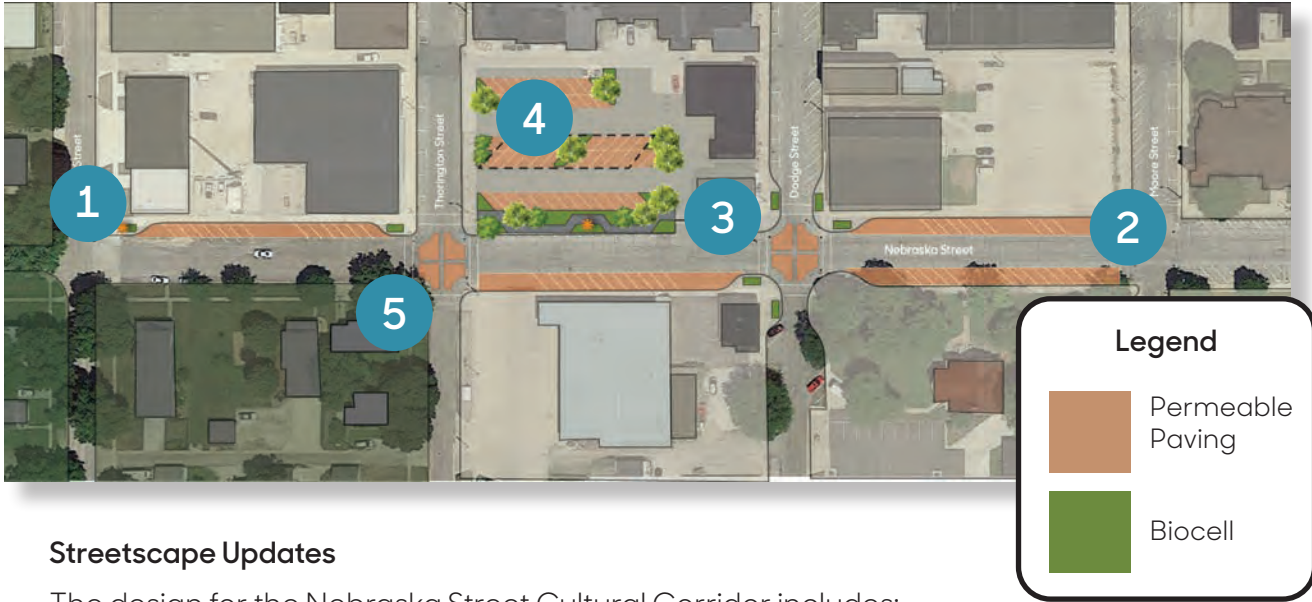
Nebraska Street Corridor

Cultural Corridor

In a downtown assessment report conducted by the Iowa Economic Development Authority in 2019, portions of the Nebraska Street corridor were identified as part of a "cultural corridor." Multiple civic amenities including the Historical Museum, POW museum, and Carnegie Library are connected via this corridor. Additionally the downtown has great historical architecture and multiple large murals that add to the arts and history relevance of this area.

This proposal seeks to enhance the environmental sustainability and pedestrian experience of the Nebraska Street corridor with permeable paving updates, increased connectivity, and vegetation updates in underutilized parking areas.





Streetscape Updates

The design for the Nebraska Street Cultural Corridor includes:

- 1 Entry Landscape at Hall Street with bulb-out to reflect existing streetscape design
- 2 Permeable paving updates to the on-street parking
- 3 Green Corridor
- 4 Green infrastructure enhancements to the public parking lot
- 5 Paving details that mimic existing conditions at the Dodge Street intersection.

Hall Street Entry

Hall Street is proposed as a major north-south trail connection. Enhancing the northeast corner of Hall and Nebraska Streets with plantings and artwork can establish this corner as a gateway into the corridor. This proposal's branding takes inspiration from the flower mural in downtown to create a playful entry sign, paving details, and small art pieces that could be repeated along the corridor.



Nebraska Street Corridor

Nebraska Street and Hall Street Entry

Description	Quantity	Units	Unit Cost	Line Total	Totals
Site Preparation					\$13,768.50
Mobilization	1	AL	\$2,000.00	\$2,000.00	
Traffic Control	1	AL	\$1,000.00	\$1,000.00	
SWPPP Prep	1	AL	\$1,000.00	\$1,000.00	
Demolition Allowance	561	SY	\$8.50	\$4,768.50	
Survey Allowance	1	AY	\$5,000.00	\$5,000.00	
Site Earthwork					\$560.00
3' Deep Excavation	5	CY	\$100.00	\$500.00	
2' Deep Fill Soil	3	CY	\$12.00	\$36.00	
1' Deep Topsoil	2	CY	\$12.00	\$24.00	
Site Hardscape					\$10,225.50
PCC Concrete	435	SF	\$8.50	\$3,697.50	
Brick Paving Detail	126	SF	\$20.00	\$2,520.00	
PCC Concrete Curb	44	LF	\$35.00	\$1,540.00	
Crosswalk Paint	192	SF	\$4.00	\$768.00	
ADA Ramp	2	EA	\$850.00	\$1,700.00	
Site Vegetation/Elements					\$11,054.00
3" Deep Mulch	1	CY	\$54.00	\$54.00	
Perennial Plantings	1	AL	\$1,000.00	\$1,000.00	
Art Features	1	AL	\$10,000.00	\$10,000.00	

Sub-Total	\$35,608.00
20% Contingency, Contractor Mark-Up, and Design Fees	\$7,121.60
Total	\$42,729.60

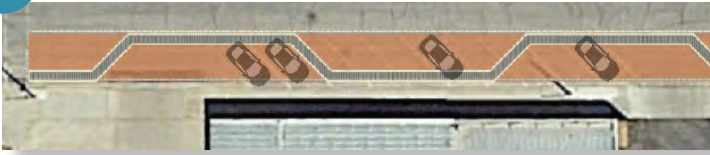
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2 OPTION A: Corridor Shift



OPTION B: Angled Railroad Pattern



OPTION C: Angled Stripes



Paving Options

Multiple options are proposed for the design of paving patterns. Option A responds to the design of the green corridor while options B and C aim to imply the angled parking arrangement to maintain organization, while still providing a unique character for the street.

Nebraska Street Corridor

On-Street Parking Paving Details

Description	Quantity	Units	Unit Cost	Line Total	Totals
Site Preparation					\$23,597.00
Mobilization	1	AL	\$3,000.00	\$3,000.00	
Traffic Control	1	AL	\$2,000.00	\$2,000.00	
SWPPP Prep	1	AL	\$1,000.00	\$1,000.00	
Demolition Allowance	1482	SY	\$8.50	\$12,597.00	
Survey Allowance	1	AL	\$5,000.00	\$5,000.00	
Site Earthwork					\$99,800.00
2' Deep Excavation	998	CY	\$100.00	\$99,800.00	
Site Hardscape					\$373,640.00
Permeable Pavers	13340	SF	\$20.00	\$266,800.00	
Drainage Aggregate Fill (1.5' Depth)	742	CY	\$100.00	\$74,200.00	
Intersection Paving Detail	1540	SF	\$20.00	\$30,800.00	
Parking Lines	920	LF	\$2.00	\$1,840.00	
Sub-Total					\$497,037.00
20% Contingency, Contractor Mark-Up, and Design Fees					\$99,407.40
Total					\$596,444.40

AC = Acre
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Green Corridor site plan noting materiality and placement for seating and artwork/interpretive signage

Green Corridor

The green corridor replaces currently underutilized angled parking with a needed pedestrian connection immersed in vegetation. This linear plaza is a great location to continue to celebrate Algona’s culture and history.

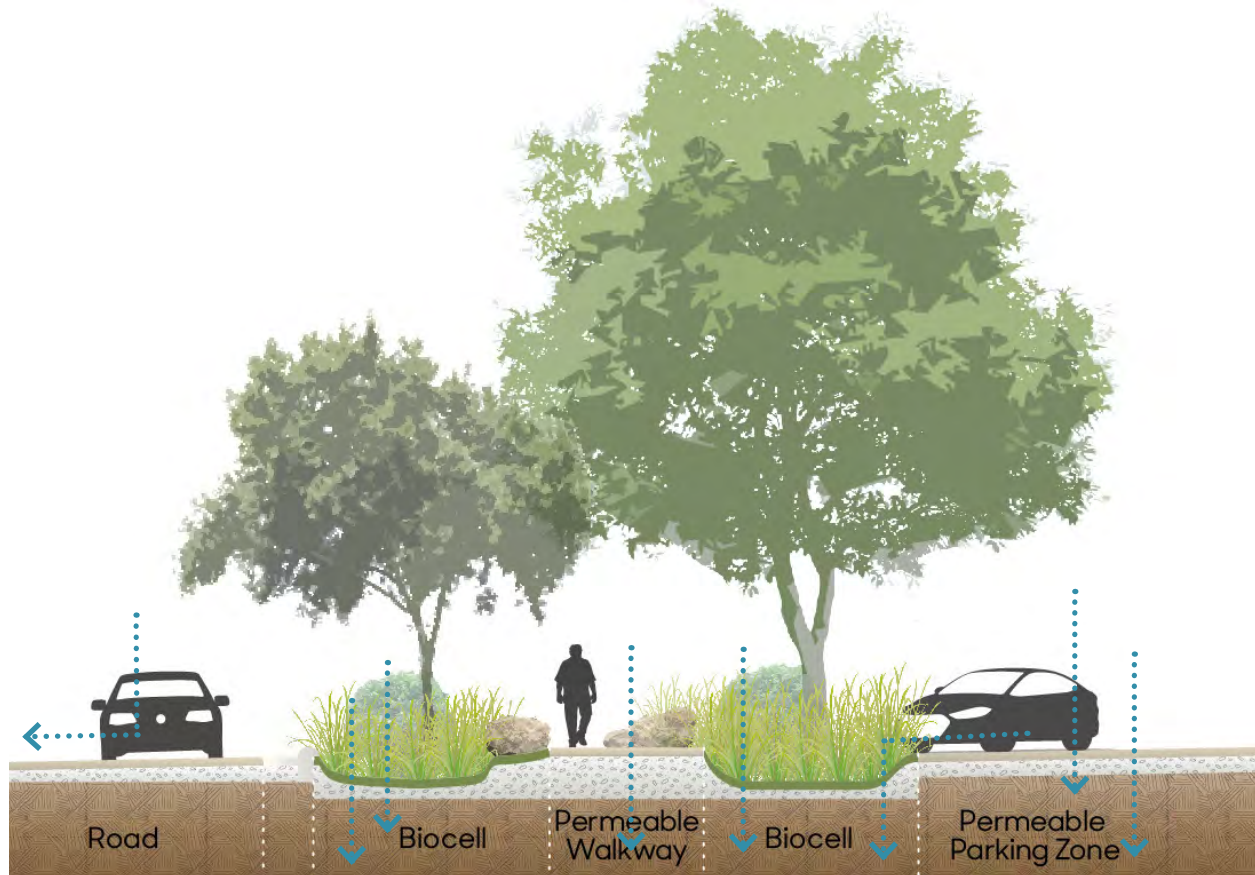
- 3a Artwork or interpretive panels intermingled into the plantings will create a more inviting and educational space.
- 3b Benches will be situated within small, brick-paver alcoves under the shade of the trees to provide places to pause and enjoy the plantings.
- 3c Multiple trees are proposed for the corridor to create shade, but are spaced to allow for framing of the large mural that adorns the back of the buildings to the north.



View looking east down the Green Corridor on Nebraska Street

Pedestrian Experience

Visitors passing through the corridor will meander like the river past native plantings that help infiltrate and filter stormwater. Stories will be told through artwork tucked into the landscape. The shade of the trees will make this a welcoming place to pass through or stop and people watch.



Cross-section of proposed green corridor and green infrastructure updates for the parking lot

Green Infrastructure

Biocells and permeable paving zones will capture, filter, and infiltrate stormwater runoff from the adjacent parking lot.

Nebraska Street Corridor

Green Corridor*

Description	Quantity	Units	Unit Cost	Line Total	Totals
Site Preparation					\$15,250.00
Mobilization	1	AL	\$3,000.00	\$3,000.00	
Traffic Control	1	AL	\$2,000.00	\$2,000.00	
SWPPP Preparation	1	AL	\$1,000.00	\$1,000.00	
Demolition Allowance	500	SY	\$8.50	\$4,250.00	
Survey Allowance	1	AL	\$5,000.00	\$5,000.00	
Site Amenities					\$63,000.00
Artwork Allowance	1	AL	\$60,000.00	\$60,000.00	
Benches	3	EA	\$1,000.00	\$3,000.00	
Site Earthwork					\$52,740.00
Soil Fill (4' Depth)	362	CY	\$12.00	4,344.00	
Topsoil (1' Depth)	90	CY	\$12.00	1,080.00	
5' Deep Excavation	452	CY	\$100.00	45,200.00	
2' Deep Excavation	101	CY	\$100.00	10,100.00	
Site Hardscape					\$60,724.00
8' Wide Permeable Concrete Path	1360	SF	\$9.00	12,240.00	
Drainage Aggregate Fill (2' Depth)	435	SY	\$42.00	18,270.00	
Brick Paving Detail	340	SF	\$20.00	6,800.00	
PCC Curb	436	LF	\$35.00	15,260.00	
Site Vegetation					\$9,350.00
Mulch (3" Depth)	25	CY	\$54.00	\$1,350.00	
Trees	10	EA	\$400.00	\$2,400.00	
Shrubs	20	EA	\$80.00	\$1,600.00	
Perennials	1	AL	\$4,000.00	\$4,000.00	
Sub-Total					\$201,064.00
20% Contingency, Contractor Mark-Up, and Design Fees					\$40,212.80
Total					\$241,276.80

* The green infrastructure costs are for creating the rain gardens/biocells and the vegetation, but do not include costs for overflow drainage and tying into the city's stormwater network.

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Parking lot layout highlighting zones for permeable pavers and vegetated biocells

dailyhive.com

Thornington-Nebraska Parking Lot

The Thornington-Nebraska parking lot has itself been identified as a place of potential improvement by the steering committee. This design aims to expand on the parking lot's usage through the addition of biocells and shade trees to allow the lot to accommodate community events such as the farmer's market and reduce wear to the Carnegie lawn.

Solar-Panel Carport

A solar-panel carport has been identified by the steering committee as a potential feature for the public parking lot at Thornington and Nebraska Streets that could both provide shade and electricity for nearby streetlights.

Nebraska Street Corridor
Green Parking Lot Updates**

Description	Quantity	Units	Unit Cost	Line Total	Totals
Site Preparation					\$24,537.50
Mobilization	1	AL	\$3,000.00	\$3,000.00	
Traffic Control	1	AL	\$2,000.00	\$2,000.00	
SWPPP Prep	1	AL	\$2,000.00	\$2,000.00	
Demolition Allowance	1475	SY	\$8.50	\$12,537.50	
Survey Allowance	1	AL	\$5,000.00	\$5,000.00	
Site Earthwork					\$98,043.00
5' Deep Excavation (for planters)	545	CY	\$100.00	\$54,500.00	
4' Deep Amended Soil	436	CY	\$12.00	\$5,232.00	
1' Deep Topsoil	109	CY	\$12.00	\$1,308.00	
2' Deep Excavation (for pavers)	370	CY	\$100.00	\$37,000.00	
Site Hardscape					\$249,160.00
Permeable Pavers	10332	SF	\$20.00	\$206,640.00	
2' Deep Gravel Drainage Basin	370	CY	\$40.00	\$14,800.00	
Parking Line Paint	1400	LF	\$2.00	\$2,800.00	
Planter Edging	712	LF	\$35.00	\$24,920.00	
Site Vegetation					\$9,258.00
3" Deep Mulch	27	CY	\$54.00	\$1,458.00	
Trees	7	EA	\$400.00	\$2,800.00	
Perennial Plantings	1	EA	\$5,000.00	\$5,000.00	
Sub-Total					\$381,034.50
20% Contingency, Contractor Mark-Up, and Design Fees					\$76,206.90
Total					\$457,241.40

Nebraska Street Corridor	
Nebraska and Hall Street Entry	\$42,729.60
On-Street Parking Paving Details	\$596,444.40
Green Corridor*	\$241,276.80
Green Parking Lot Updates**	\$457,241.40
Total	\$1,337,692.20

* The green infrastructure costs are for creating the rain gardens/biocells and the vegetation, but do not include costs for overflow drainage and tying into the city's stormwater network.

**Costs only reflect updates to the parking lot that go beyond the scope of what the city is already planning in terms of resurfacing.

AC = Acre AL = Allowance CF = Cubic Foot CY = Cubic Yard
EA = Each LF = Linear Foot SF = Square Foot SY = Square Yard

Implementation Strategies

Step One

Identify a Community Steering Committee to continue the momentum of the Community Visioning process. This group or groups will oversee the selection, planning and development of the projects.

Step Two

Define a ranking for the projects outlined in the feasibility study. This list will help prioritize goal setting, planning, funding. Remember that each concept outlined in the feasibility study can be broken down in to smaller parts. Also there are ways of testing ideas to see how the community will respond to change, such as using temporary paint to mark potential bike lanes and trails or establishing small plantings of native vegetation at key locations to gauge community response.

Step Three

Identify a project to be implemented. Start with a small scale project such as plantings or crosswalks, or an addition to a project that the city is already planning. Implementation of a small project can have a larger catalytic effect. It creates a visible statement that change is happening, keeps the momentum going and can be a great motivation for building support and funding for future projects. Determine whether further design or planning is needed.

Step Four

With each project, identify potential funding sources to finance the implementation of a small scale catalyst project and the higher priority projects.

Step Five

Once a grant, loan or other funding source has been secured, develop a plan for contracting for additional design, advertising for bid and contracting for construction of the project.

Step Six

Select and contract with a landscape architect or design professional as your lead design consultant for the identified community improvement project. Allow 3–6 months in the project timeline for design and construction documentation development.

Step Seven

Select and execute a contract with a general contractor as your construction manager for the identified community improvement project. Allow 6 months in the project timeline for construction administration.

Repeat the steps as each new project is determined.

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)

