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Iowa Department of Transportation Trees Forever Iowa State University





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About Jeffrey L. Bruce & Company

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



David A. Stokes, PLA, ASLA

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



Eric A. Doll, PLA, ASLA

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



Riley Dunn, Intern

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



Carol Joella Ustine. Intern

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

Program Overview

Clarion is one of 10 communities selected to participate in the 2017 lowa'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 lowa 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 Clarion visioning committee identified a number of goals and priority areas during the visioning process, which are included below:

- Comprehensive Trail System
- Trailheads and Trail Amenities
- City Park Enhancements
- Street and Sidewalk Improvements
- · Downtown Renovations

Capturing the Clarion 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.

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Community Goals

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Capturing the Clarion Vision

SUMMER 2017

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

- Program Overview
- Bioregional Assessments
- Transportation Assets and Barriers

 - Survey
- Transportation Inventory and Analysis
- Goal Setting: Assessing and Programming Community Needs
- Comprehensive Trail System Concept Overview 8a.
 - Trail Safety and Amenities 8b.
- Access to Recreation
- 10.
- Accessibility/Connectivity
- Smart Housing Growth 11.
- Downtown Infrastructure Highway 3 Conversion 12a. 12b.
- Identity/Signage Typologies 13.
- Stormwater BMP Strategies
- Hanson Park Renovation









Program Overview Clarion

Jeffrey L. Bruce and Company LLC

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

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Bioregional Assessment

Settlement Patterns

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

Clarion in Context

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

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



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Bioregional Context

Julia Badenhope, Matthew Gordy, Colby Fangman, Alysse Kirkman laws State University | These Forever | Nove Department of Transportation

Settlement Patterns

Clarion



Historical Vegetation

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

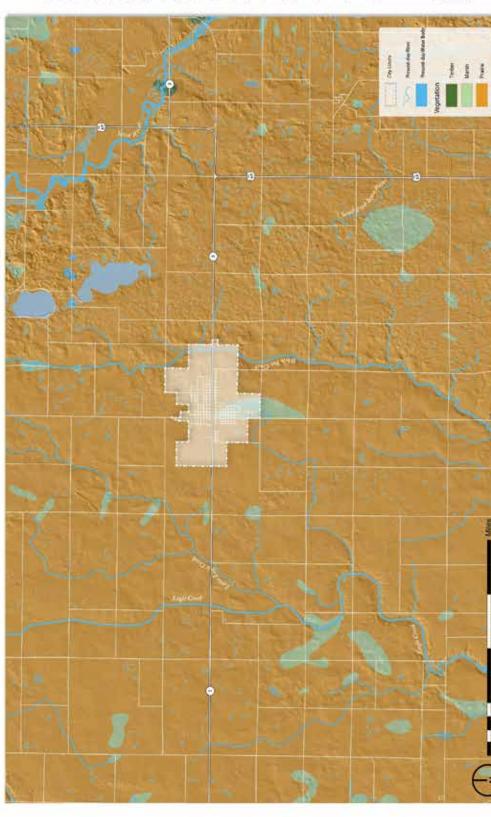
The plant communities mapped by the GLO surveyors varied in classification and the terminology from the original maps has been preserved.

The vegetation types are defined²:

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

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

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Historical Vegetation



Julia Badenhape, Matthew Gordy, Colby Fangman, Alysse Kirkman raws State University, I These Forever I lows Department of Transportation



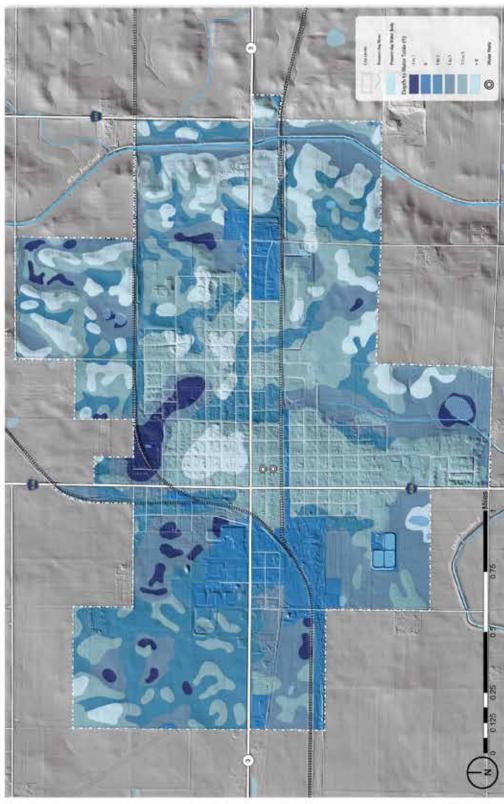
Depth to Water Table

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



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Clarion Depth to Water Table

Bioregional Context

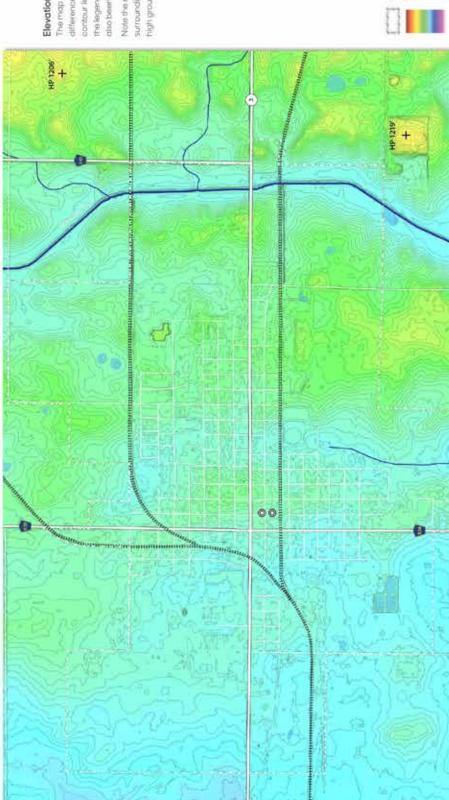
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Elevation and Flood Risk

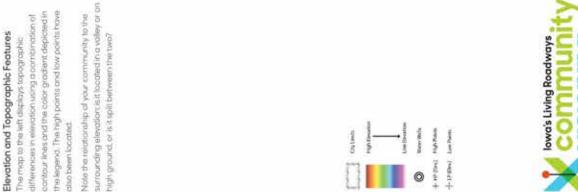
The map to the left displays topographic differences in elevation using a combination of contour lines and the color gradient depicted in the legend. The high points and low points have also been located.

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



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Bioregional Context

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Regional Watershed

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

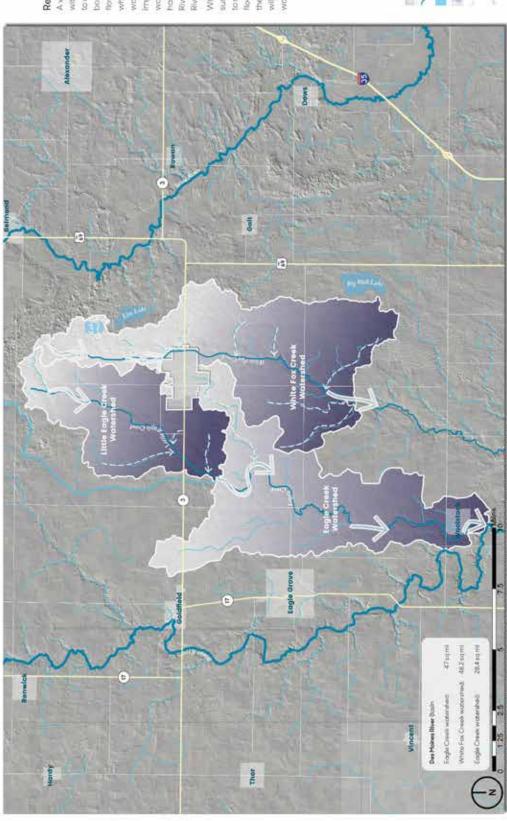
Where a community is located in relation to its surrounding watershed(s) determines its capacity to manage regional watershed issues such as flooding. For example, a community located near the end of a watershed (close to the outlet point) will have little capacity to reduce the amount of water draining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



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Clarion Regional Watershed

Bioregional Context

Julia Badenhope, Matthew Gardy, Colby Fangman, Alysse Kirkman laws State University I Trees Forever I lowe Department of Transportation

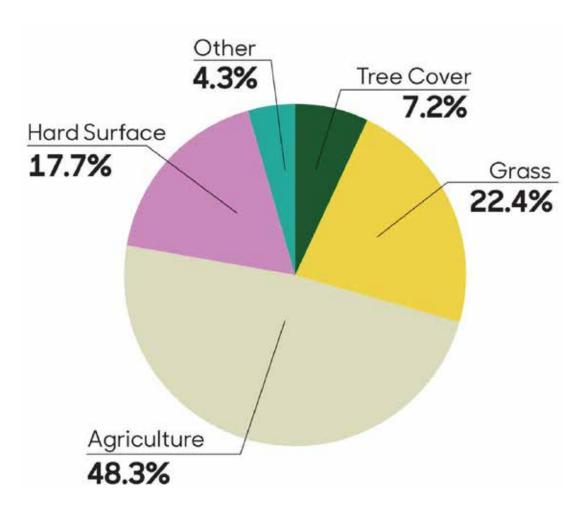


Present Day Land Cover

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

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

Percent Land Cover Type



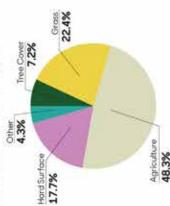


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AGRCULTARE 1038 Acres

Land Cover in Acres
ceasts 480 Acres



Clarion Present Day Land Cover

Bioregional Context Mila Badenhope, Matthew Go



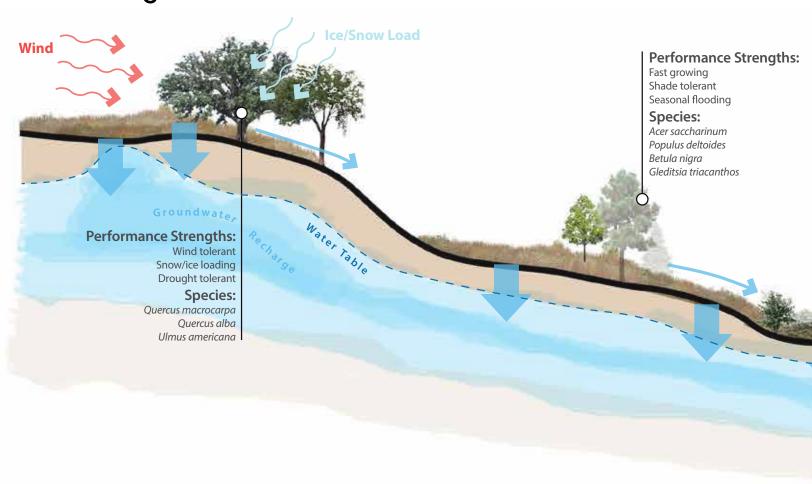


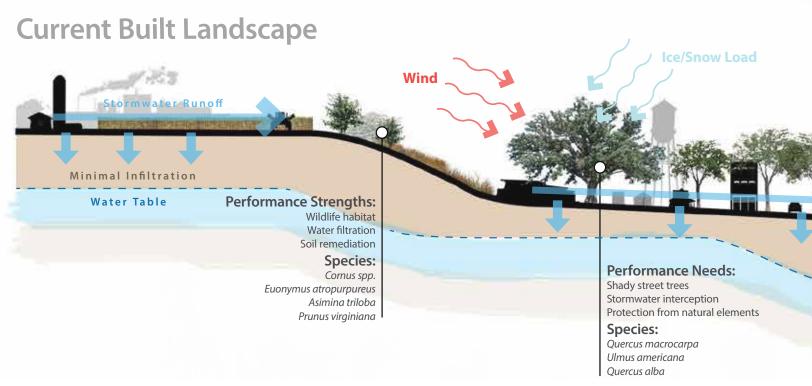
Present Day Vegetation

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

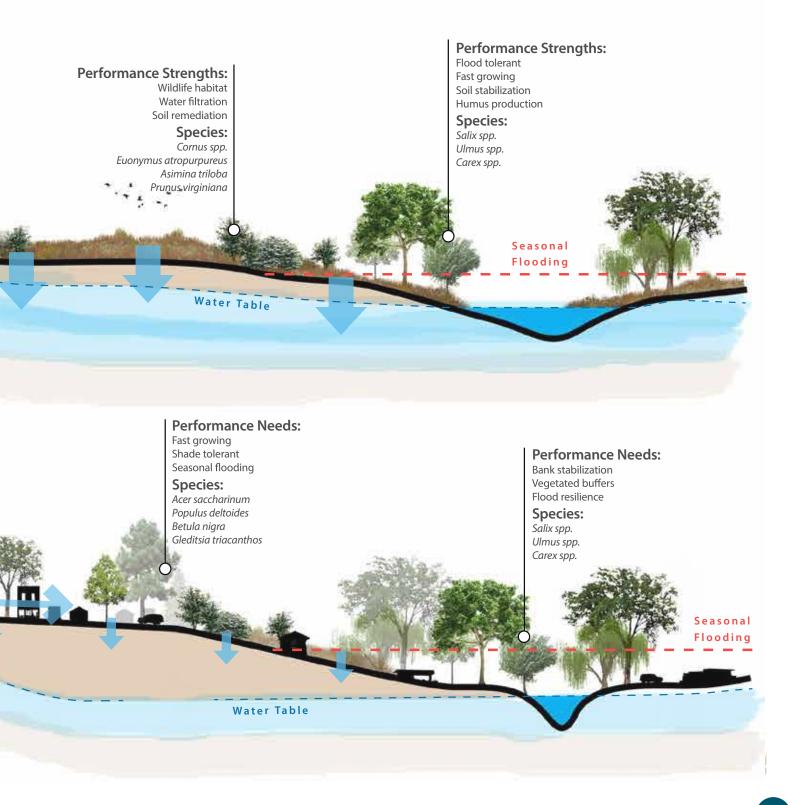


Using Native Plants



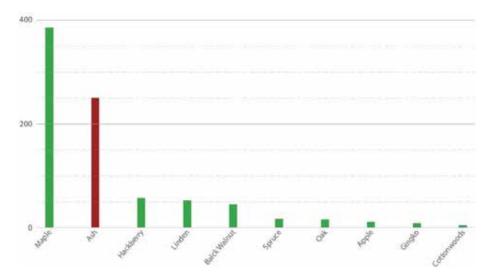


Pre-Settlement Landscape



The Urban Forest

The map on the left depicts public right-of-way trees that have been surveyed by the lowa Department of Natural Resources (Iowa DNR).¹ The trees are divided into three categories: healthy trees, hazard trees, and ash trees. Hazard trees were determined using the lowa DNR's priority rating. The ratings range from one to seven; trees with a rating of six or seven were classified as hazard trees.** A six rating is indicative of a tree that is "dangerous, dead, or dying, and no amount of maintenance will increase longevity or safety." A seven rating means there are "insects, pathogens, or parasites present and detrimental to tree longevity; treatment should be given to maintain longevity." Ash trees have been identified specifically due to imminent threats from the Emerald Ash Borer (EAB),* an invasive highly destructive beetle that has already killed tens of millions of ash trees in North America.² EAB was first discovered in lowa in 2010 and has been confirmed in 30 lowa counties and counting.³



The bar graph above depicts the breakdown of the tree species surveyed by the lowa DNR . Take note of the high number of ash and maple trees. Increasing species diversity in the urban forest will make the urban forest more resilient should a new bug or plant disease emerge. There is a strong possibility that 27% (255 ash trees) of Clarion's city owned trees will die once EAB becomes established in the community. With proper planning and management, the costs of removing dead and dying trees can be extended over years, mitigating public safety issues.

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

² EAB is a significant threat to our urban, suburban, and rural forests because it kills stressed and healthy ash trees. EAB is so aggressive that ash trees may die within two or three years after they become infested. Ash trees are as important ecologically as they are economically in the forests of the eastern United States. Emerald Ash Borer the Green Menace, USDA Program Aid No. 1769, 2008, https://www.aphis.usda.gov publications/plant_health/content/printable_version/EAB-GreenMenace-reprint June09.pdf.

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

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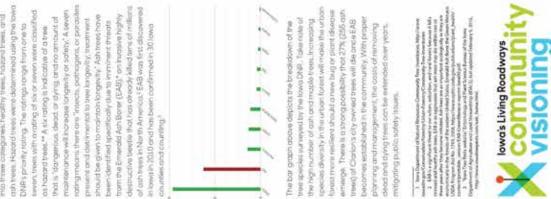
The Urban Forest

Bioregional Context

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Urban Forest Conditions

Clarion





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 Clarion, 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 Clarion'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 Clarion residents with different transportation needs to participate in focus groups. A total of 63 residents attended Clarion's workshop. Participants were separated into five user groups and the Clarion steering committee.



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.



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.



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.



This group uses primarily non-motorized modes of transportation, so pedestrianand 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.



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.



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.

Steering Committee











Sarrier: No Sidewalk on 5th Avenu



3arrier. No Crosswalk at the Intersection of Highway 3 and 6th Street



3arrier: Old Equipment in Fireman's Par

What Factors Affect Transportation in Clarion?

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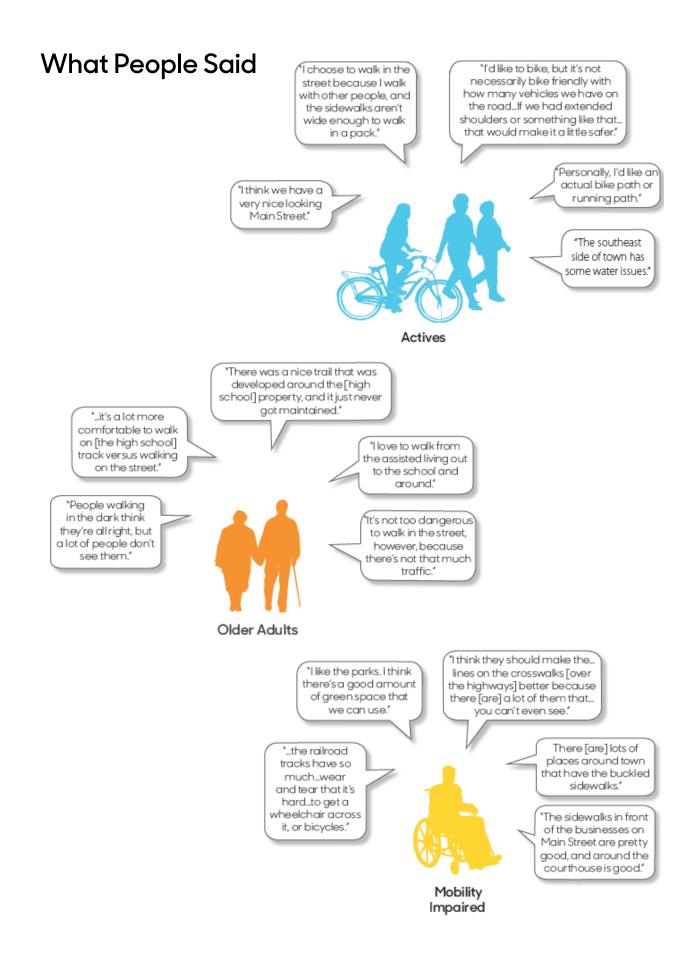
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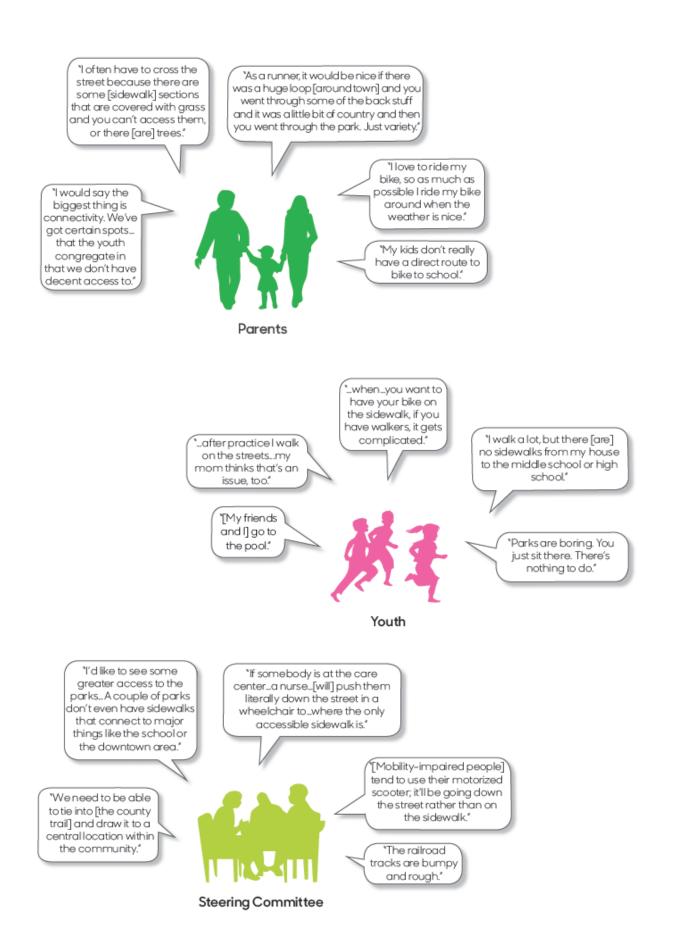
Transportation Assets and Barriers

Julia Badenhope, Sandra Oberbroeckling, Matthew Gordy, Zhi Chen

Iowa State University | Trees Forever | Iowa Department of Transportation







Emerging Themes

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

Actives walk, drive, and bike regularly, either as part of a daily commute or as recreational/sports training. This group would like improvements such as a trail to make walking and biking more comfortable.

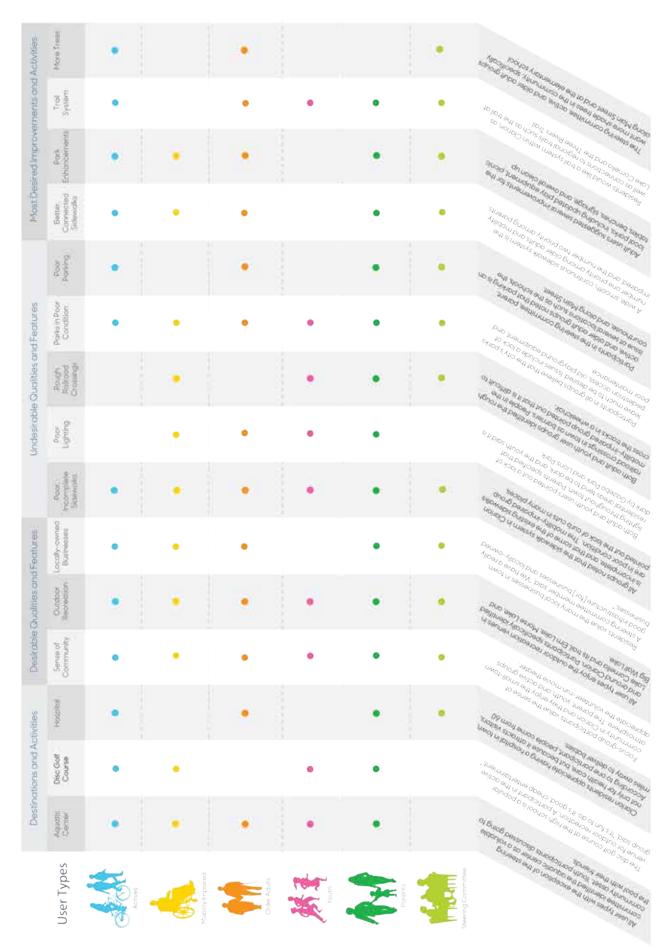
Mobility-impaired individuals often rely on motorized scooters and wheelchairs to get around. Therefore, smooth, wide surfaces are important. Lack of curb cuts throughout town is an issue for this group.

Older adults primarily drive and walk to destinations. They also bike. Although they don't mind walking in the street, they feel more comfortable walking on the track.

Youth mainly walk, bike, and run to get around the community. Some ride with their parents, and older youth drive. This group is interested in having more outdoor recreation opportunities.

Parents drive, walk, and bike. They are concerned about their children's safety as they travel throughout town. Of particular concern is the lack of sidewalks and poor lighting.

Steering committee members walk, drive, and bike. This group would like better access to the parks, a better sidewalk system, and connections to regional trail systems.



Analysis of Barriers

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

Participants in all groups identified the broken and disconnected sidewalks throughout town as a barrier; the mobility-impaired and active groups noted that many corners do not have curb cuts. Another common barrier cited by both adults and youth is rough railroad crossings that are difficult for wheelchair users and cyclists. Both adult and youth participants noted the lack of outdoor recreation venues such as sledding hills, an ice skating rink, a skate park, and a trail system.



Active recreationists are not comfortable cycling along the Highway 3 because of the traffic. They noted poor road conditions in general, and specifically identified 5th Avenue as a street that floods and gets muddy.



Mobility-impaired individuals see the rough railroad crossings and lack of curb cuts as significant barriers to their travel. They also pointed out poor lighting in town as a problem. This group see the need for better crosswalks, especially across the highway.



Older adults see the overall appearance of the community as a problem, specifically the east entrance along Highway 3. A lack of affordable transportation is also a barrier to this group. Older adults noted that the local parks are small and underutilized.



Youth perceive Highway 3 as a barrier because it is difficult to cross. This group also commented on the lack of parking at Lion's Park and poor visibility at certain intersections.



Parents see the highways as barriers and they do not feel comfortable biking there because of heavy truck traffic and a lack of bike lanes. This group pointed out visibility issues caused by poor lighting and parking configurations.

Clarion's Barriers: Common Factors

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

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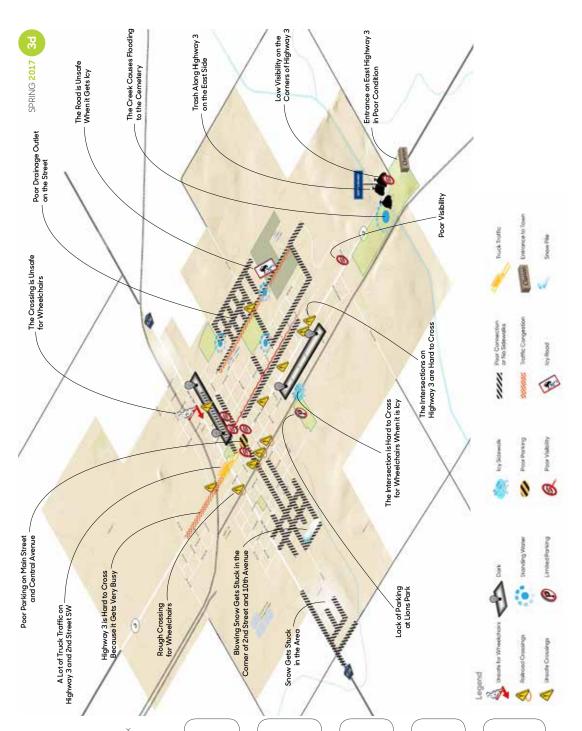


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Analysis of Assets

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

Low traffic in Clarion is an asset among adult users. All types of users appreciate the variety of businesses and services available in town, such as the hospital, library, movie theater, parks, and the many locally-owned businesses. Clarion residents value the many recreation venues available to them as well. Adults enjoy going to Lake Cornelia to use the 2.5-mile walking path. Participants in all groups identified the aquatic park, the fitness center, and the high school track as popular recreational destinations.



Active recreationists like to walk at the hospital and at the school during the winter and play disc golf in warmer weather. They like the hospital foot path as well as the community garden north of the hospital. This group appreciates the good snow removal in town.



Mobility-impaired individuals use the track at the football field for walking. They appreciate the fact that the sidewalks in front of the Main Street businesses and the courthouse are in good condition.



Impaired

Older adults walk the track at the football field, at the hospital, and the middle school. They value the shade, benches, and good maintenance on Main Street, as well as the public transportation system available on weekdays.



Clarion's outdoor recreation opportunities are important to youth. They engage in activities such as baseball in Hanson Park and near the high school and sledding east of the soccer field and off Willow Drive.



Parents appreciate that Clarion is a very active community. This group enjoys playing disc golf at the high school, cross country skiing on the north side of town, and biking and running along 6th Street and 210th Street.

Clarion's Assets: Common Factors

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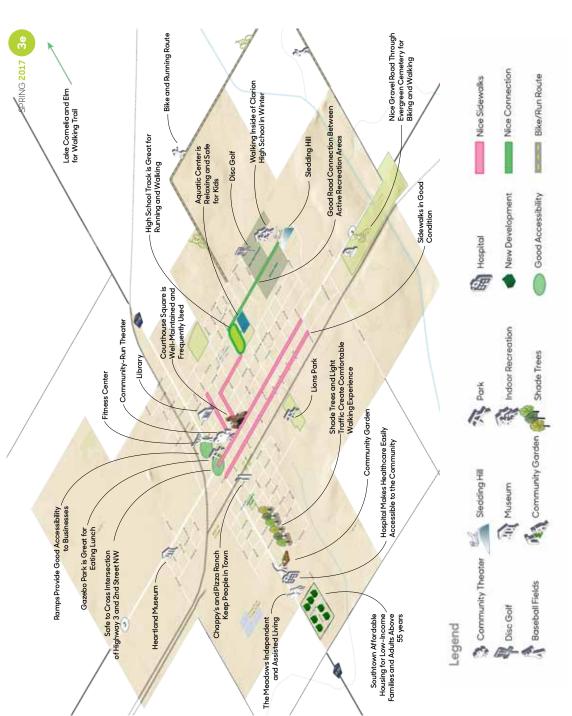


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Transportation Assets and Barriers

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Desired Improvements

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

All user types desire a trail in Clarion, perhaps using the old railbed. Some focus-group participants also want connections to regional trail systems and the trail at Lake Cornelia. Improving the sidewalk system throughout the community was also mentioned by all user types.



Active recreationists are interested in expanding the highway shoulders coming into town to make it safer for cycling. This group would also like a community center that provides indoor recreation venues such as a gym and a pool. Planting new trees and maintaining existing trees is a priority for actives as well.

In addition to a better and more connected sidewalk



system, mobility-impaired individuals would like downtown businesses to be more accessible. They also want the highways and the community in general to be cleaned up.



Older adults are interested in having public transportation available at night and on weekends. This group also wants some type of lighting at the track so walkers can use it early in the morning and at night.



The youth group focused it's desired improvements on the city's parks and on additional recreation opportunities. They want new play equipment, benches, a basketball court, and sand volleyball.



Parents are interested in having a trail connection to Lake Cornelia and a trail in town using the old railbed. This group also wants another stoplight on Highway 3 and shade trees at the elementary school playground.

Desired Improvements: Common Factors

PRING 2017 3f

Update Elementary School Playground

Plant Trees to Shade the Playground

Improve Accessibility for Main and 5th Street

Add Stoplight Along Highway 3 in Town

Add Safe Crosswalks to get to Gazebo Park

Plant New Trees to Shade the Trail

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and the trail at Lake Cornelia. Improving the sidewalk system throughout the All user types desire a trail in Clarion, perhaps using the old railbed. Some focus-group participants also want connections to regional trail systems community was also mentioned by all user types.



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V

Construct Sidewalks on 2nd Street SW



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Adopt Highway 3 to Clean up Litter

Improve Clarion's Entrance Experience

Construct Sidewalks 3rd Avenue NE

Add Safe Crosswalks across Highway 3

Build Tennis Courts in Lions Park

Desired Trail Loop Connection Route

Create Bike Route to Lake Cornelia

Improve Connection Between the Schools

Provide Amenities Along the Trail

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and a trail in town using the old railbed. This group also wants another Parents are interested in having a trail connection to Lake Cornelia stoplight on Highway 3 and shade trees at the elementary school playground.













Desired Bike Trail



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Desired Improvements

Carion



Transportation Behaviors and Needs

Overview

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

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

With assistance from Iowa State University's Survey Research Services staff in the Center for Survey Statistics and Methodology (CSSM-SRS), ISU visioning program staff conducted a survey to better understand the transportation patterns and behaviors, needs and desires of Clarion residents. Surveys were mailed to 400 randomly selected residents living in Clarion 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 345. A total of 174 people returned surveys, for a response rate of 50.4%. (A response rate of 20% is considered valid.)

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

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

Why Do A Survey?

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How Is It Done?

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What Did We Find Out?

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Willingness to Help

Commuting Routes

- Walking Routes
 - Enhancement Priorities
- Desired Trail Routes

Biking Routes

ClarionOverview

How Did We Do?

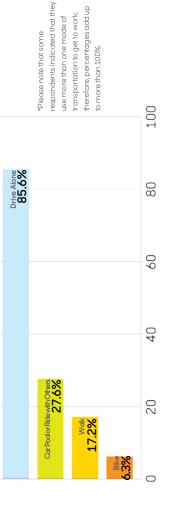
SPRING **2017** 4a

The demographics of the respondents are somewhat different from those obtained from the 2015 American Community Survey Five-Year Estimate. For example, the survey respondents median age of 62 is significantly older than the 2015 estimated average age for Clarion residents of 38. In terms of gender, males are overrepresented in the survey sample. The average household size from the survey sample is significantly higher than the 2015 estimates, but the number of children in the household is significantly lower.



How Do Clarion Residents Travel?

Most survey respondents drive to important destinations such as the convenience store, the post office, school, and church (85.6%). Nearly 30% car pool or ride with someone else. Some people indicated that they walk or bike, but the primary mode of transportation in Clarion is by vehicle.



Transportation Behavior and Needs Survey

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Willingness to Help

Most survey participants who answered this question are willing to contribute their time and talent to community improvements (46.2%), while just over 43% would contribute time and talent. More than 10% of respondents indicated that they would be willing to contribute financially.

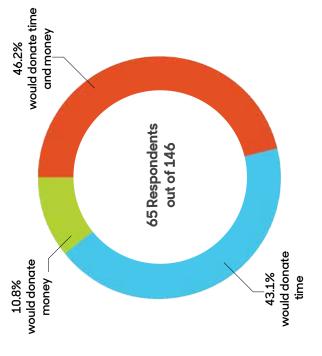
Compared to other small towns in Iowa, Clarion residents are more willing to become involved in improving their community. In 2014, on average, 43% of residents in small, rural towns volunteered to help with a community project.1 In 2014, on average, 43% of residents in small, rural towns volunteered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

In 2014, the most common reason residents in small-town lowa 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. 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).

ARE PEOPLE WILLING TO HELP?

More than 44% said YES!



Willingness to implement change

would contribute time and talent. More than 10% of respondents indicated that they would be Most survey participants who answered this question are willing to contribute their time and talent and provide financial help to community improvements (46.2%), while just over 43% willing to contribute financially. Compared to other small towns in lowa, Clarion residents are more willing to become involved in improving their community. In 2014, on average, 43% of residents in small, rural towns volunteered to help with a community project.¹



WHAT DID PEOPLE SAY THEY ARE WILLING TO DO?

SPRING 2017 4b

Survey Participants Said...



believe it would get used quite frequently and be [I would] really love a trail for biking/walking. I do enjoyed by community members.'

nice, and I would like to see the fitness trail redone." "Some type of bike trail to Lake Cornelia would be



HOW DO YOU GET PEOPLE TO HELP?

Opportunities Ask, Show, and Advertise (

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Priorities

On a scale of 1 to 5, with 5 being the most important, participants in Clarion ranked creating safer routes to school as most important, with a mean value of 3.84. Other transportation enhancements that address pedestrian mobility, health, and safety are also considered important. Environmental and aesthetic issues are less important among respondents, with mean values ranging from 3.04 to 3.47. These findings are consistent with the views expressed by focus group participants during the Transportation Assets and Barriers workshop held in March 2017.

What did people say they want?

"A walking/biking trail connecting the lake and town...is a definite need, as well as clean[ing] up the entrances to town."

"I would like to get out more. I can't walk very far—if I do go out I have to use a scooter or a wheelchair. My part of town does not have sidewalk curb ramps. I have to go on the street and that is not very safe."

"If we want to attract younger people here we need to have trails for both biking and walking!"

"I think it would be wonderful for younger people to have a trail for walking/jogging."

WHAT TYPES OF ENHANCEMENTS ARE IMPORTANT?

Mobility, Safety, and Health!





Importance of transportation enhancement by type (149 responses)

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WHAT DID THEY SAY?

SPRING 2017 4c

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Commuting Routes

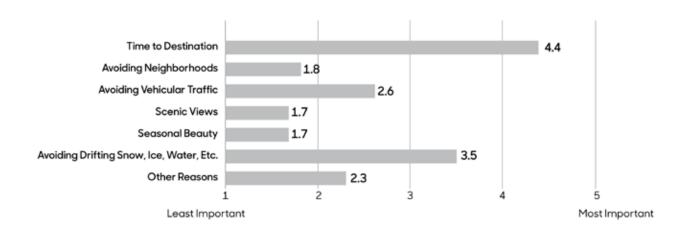
How They Get There

This map shows the commuting routes identified by 60 survey respondents. The frequency that the routes are used is depicted by their thickness, with most frequently used routes being the thickest. The primary commuting corridor in Clarion is Highway 3 east and west. Some people also go north and south on County Road R38. Commuters also frequently use Main Street and 6th Street.

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 Clarion participants, time to destination is clearly the most important factor, with a mean value of 4.4. Avoiding weather-related issues such as snow and ice are also considered important, with mean value of 3.5. Avoiding vehicular traffic, avoiding neighborhoods, scenic views, and seasonal beauty are not critical factors in determining commuting routes.





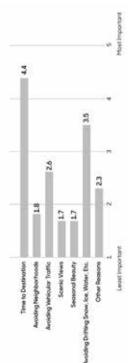
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Commuting Routes Carion

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

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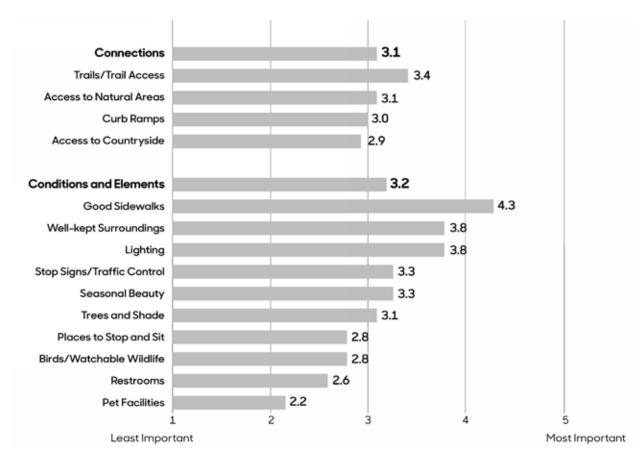
Walking Routes

Where They Go

This map shows the walking routes identified by 58 survey respondents. The frequency that the routes are used is depicted by their thickness, with most frequently used routes being the thickest. People primarily walk on streets that take them to outdoor recreation venues in town, such as Willow Drive, 11th Street NE, and 6th Street NE to the disc golf course, the soccer field, East Park, and the middle school. A number of survey participants walk the grid of streets throughout town. Main Street is a popular walking route, particularly between 1st and 3rd Avenues NE. East-west walking routes include 1st Avenue North, Central Avenue, and 1st Avenue South. A few people make a loop to the south that includes Nelson Avenue and 230th Street.

Why They Go That Way

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their walking experience better. These features are categorized as either "connections" or "conditions and elements." Among Clarion participants, connections and conditions/elements have nearly equal importance with mean values of 3.1 and 3.2, respectively. In terms of connections, access to trails is most important with a mean value of 3.4. Good sidewalks are the most important element to walkers (4.3), followed by well-kept surroundings and lighting (mean values of 3.8 each).





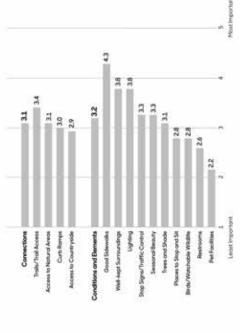
16-19 people

- 6-15 people

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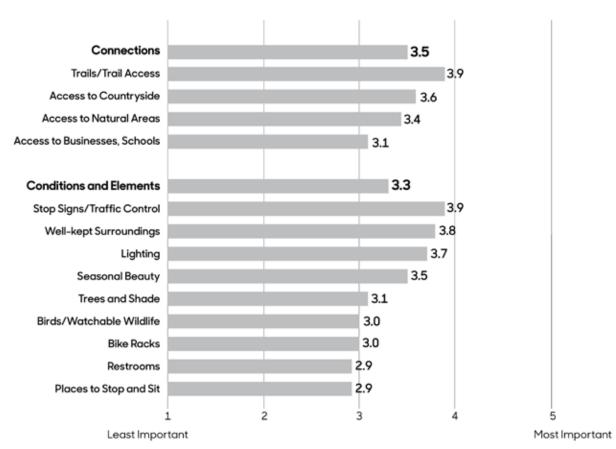
Biking Routes

Where They Go

This map shows the biking routes identified by 22 survey respondents. The frequency that the routes are used is depicted by their thickness, with most frequently used routes being the thickest. Like the walkers, Clarion bikers use streets that take them to outdoor recreation venues in town, such as Willow Drive, 11th Street NE, and 6th Street NE to the disc golf course, the soccer field, East Park, and the middle school. A number of survey participants bike the grid of streets throughout town. Popular north–south cycling routes include 2nd Street NW, Main Street between 3rd Avenue NE and 10th Avenue SE, and 2nd Street SE. A few people bike along the path adjacent to the railroad tracks running east-west located to the south of 1st Avenue South.

Why They Go That Way

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their walking experience better. These features are categorized as either "connections" or "conditions and elements." Among Adel participants, connections and conditions/elements have nearly equal importance with mean values of 3.5 and 3.4, respectively. In terms of connections, access to trails is most important with a mean value of 4.1. Good sidewalks are the most important element to walkers (4.4), followed by well-kept surroundings (4.1) and trees and shade (4.0).



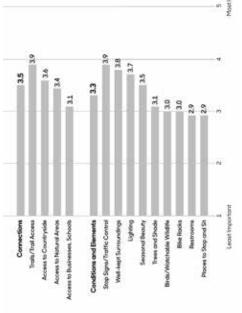


Where They Go

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Why They Go That Way

value of 3.9. Stop signs and traffic control are the most important element to bikers (3.9), followed categorized as either "connections" or "conditions and elements." Among Clarion participants, connections and conditions/elements have nearly equal importance with mean values of 3.5 and 3.3, respectively. In terms of connections, access to trails is most important with a mean characteristics and features that made their biking experience better. These features are On a scale of 1 to 5, with 5 being the most important, survey participants ranked the by well-kept surroundings (3.8) and lighting (3.7).



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



Julia Badenhope, Sandra Oberbroeckling, Matthew Gordy, Miao Fangzhou Transportation Behavior and Needs Survey



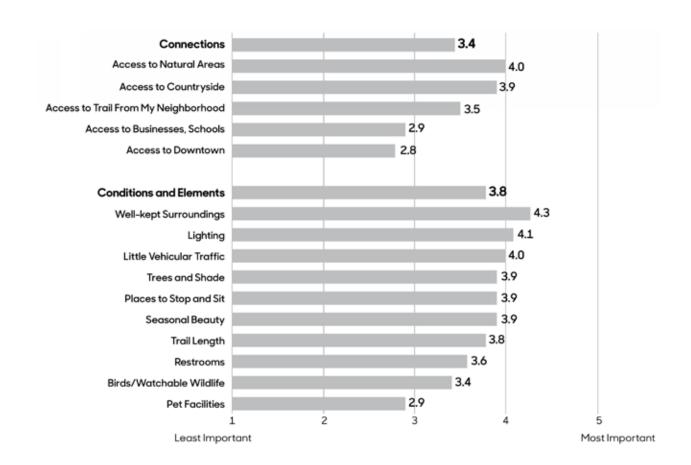
Desired Trail Routes

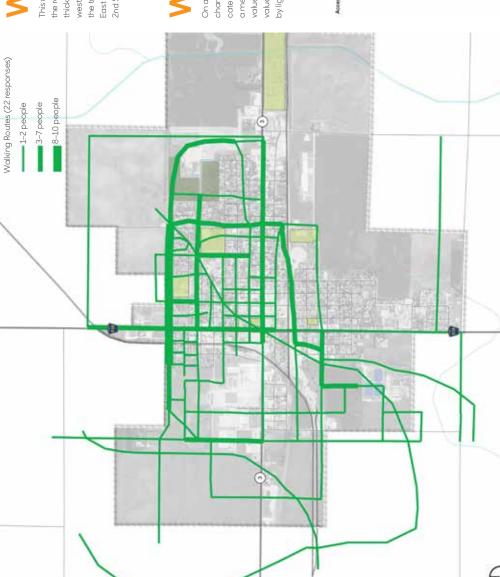
Where They Go

This map shows the desired trail routes identified by 22 survey respondents. The frequency that the routes are used is depicted by their thickness, with most frequently used routes being the thickest. Most survey participants who responded to this question would like a trail running east-west north of Hanson Park and looping past the disc golf course at the high school. A number of the trail routes identified would connect outdoor recreation venues such as the disc golf course, East Park, and Hanson Park. Several people would like trails along Highway 3 through town and 2nd Street NW. Some people drew routes that make loops around the outside of the community.

What Trail Features Are Important

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their trail experience better. These features are categorized as either "connections" or "conditions and elements." Conditions and elements, with a mean value of 3.8, are more important to Clarion survey participants than connections (mean value of 3.4). In terms of connections, access to natural areas is most important with a mean value of 4.0. Well-kept surroundings are the most important element to trail users (4.3), followed by lighting (4.1) and little vehicular traffic (4.0).





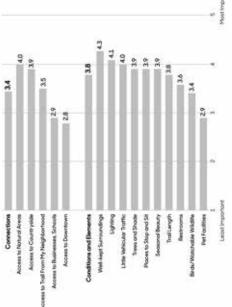
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Where They Go

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Mhy They Go That Way

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Transportation Behavior and Needs Survey

Julia Badenhope, Sandra Oberbroeckling, Matthew Gordy, Miao Fangzhou

lowa State University | Trees Forever | Iowa Department of Transportation



Carion

Transportation Inventory and Analysis

Knowledge of the transportation systems in and around a community is critical for sustainable transportation enhancement planning. Clarion's transportation systems include roadways, pedestrian and bike trails, railways, and snowmobile routes. Clarion is bisected by two primary roadways, State Highway 3 (Central Avenue) running east to west and County Road R38 (referred to as County K) running north and south. There are several Union Pacific railroad tracks traversing Clarion that are entering/exiting the community from the west, north and east.

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

Several transportation-related assets and opportunities include the community entry signs on the east and west ends of town. A paved shoulder road construction project was completed along Nelson Avenue to the Elm Lake area. The community also identified some areas of vegetation alongside rail corridors which provide visual interest and have the potential to become areas for passive recreation.

Items of concern related to the transportation systems include a variety of vehicular and pedestrian constraints such as street crossings, poor visibility, vehicular speed, and ADA accessibility. There are several areas noted throughout the community with poor drainage and prone to snow drifting. Heavy truck traffic was also noted along the west and north areas of town.

transportation systems include roadways, pedestrian and bike trails, railways,

and snowmobile routes.

critical for sustainable transportation enhancement planning. Clarion's

Transportation Inventory and Analysis

Avenue) running east to west and County Road R38 (referred to as County

Clarion is bisected by two primary roadways, State Highway 3 (Central

K) running north and south. There are several Union Pacific railroad tracks traversing Clarion that are entering/exiting the community from the west,

road construction project was completed along Nelson Avenue to the Elm Lake corridors which provide visual interest and have the potential to become areas area. The community also identified some areas of vegetation alongside rail for passive recreation.

community entry signs on the east and west ends of town. A paved shoulder

Several transportation-related assets and opportunities include the

The visioning design team met with lowa Department of Transportation (DOT)

personnel, the Wright County Engineer, and local officials to identify existing,

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Turning Movement Traffic Count Summary Annualized Daily Traffic for All Vehicles Count Year:

Location Description: IA 3 and Main Street

2015

Transportation Inventory & Analysis

Clarion

Map of Clarion highlighting and analyz

Jeffrey L. Bruce and Company LLC

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

lowa State University | Trees Forever | Iowa Department of Transportation



Goal Setting and Programming

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

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

Community Values/ Themes Based on Assessments	Broad-Based Outco	mes/Goals
Housing (New/Old)	Ser Ne	ality rental properties nior housing (upscale) w affordable housing novation
Accessibility/Connectivity	De:	mplete sidewalk system and safe crossings signated biking routes gns" nnecting residents to commercial areas A accessible routes
Recreation	Far Imp You	alking, biking and other outdoor activities mily recreation facility (center) proved parks and an amphitheater uth refuge destrian bridges (for access)
Improved Infrastructure	Imp	proved sidewalks prove street lighting throughout town proved water infrastructure ctrical grid/utilities
Aesthetics	Pla	rry Signs nting neral cleaning of public spaces
Environment	Tre	panding green space be planting master plan ills connecting the community assets (parks, sinesses, etc.) siries/wetlands/rain gardens
Branding/Identity	De	go and slogan fine identity mprehensive update

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







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

Branding/Identity

Goal Setting

Combined Results from the Goal Setting and Programming Worksheets

Represents individuals who voiced the same goal.	

SUMMER 2017

Community Values/ Themes Based on Assessments	Broad-Based Outcomes/Goals	Why Change Anything?	What Exactly and Where?
Housing (New/Old)	Quality rental properties Senior housing (upscale) New affordable housing Renovation	Compatibility Attracting younger generation into the community Attracting families into the community (school)	Senior housing near hospital Family housing near schools and recreational areas
Accessibility/Connectivity	Complete sidewalk system and safe crossings Sidewalks encourage walking (healthier lifestyles) Designated biking routes	Sidewalks encourage walking (healthier lifestyles)	. 1st Avenue SE (1 block south of highway), County K and Main Street

	Complete sidewalk system and safe crossings	Designated biking routes	"Signs"	Connecting residents to commercial areas	ADA accessible routes
--	---	--------------------------	---------	--	-----------------------

	"Signs"
	Connecting residents to commercial areas
	ADA accessible routes
0000	Walking, biking and other outdoor activities
	Family recreation facility (center)
	Improved parks and an amphitheater
	Youth refuge

Recreation

Walking, biking and oth
Family recreation facilit
Improved parks and an
Youth refuge
Pedestrian bridges (for

· Pedestrian bridge across White Fox Creek to access Nelson New park at White Fox Landing (clean up undeveloped lots at WFL)

Community groups/interactions Pedestrian access to Nelson

· Social gatherings

At or near the aquatic center

Sidewalks on 5th Ave. NE to Willow Drive to high school

Crosswalks on Highway 3

Increase accessibility and

community investment

Sidewalks on Central Ave. west to Heartland Museum

Throughout town (South and around track) lighting – solar and LED

Growth of the community

Enhance function

Healthy living

Lions Park and Fireman's Park



Improved Infrastructure





Aesthetics





Environment

Near developments (White Fox

Landing) - West side

 Signs remodeled vs. DOT regulations - East side

· Updated signs · Hospital

· Tourism (museum)

Attractiveness

Parks, 4-H building, museum

and near residential areas

Emerald Ash Borer - shade/canopy loss

Sustainability

· Education

Water issues Aesthetics









· Community pride

Visitors



lowa State University | Trees Forever | Iowa Department of Transportation Interns: Riley Dunn and Carol Joella Ustine





Community Concept Plan

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

Trail System

A proposed trail will utilize the recently paved shoulders on Nelson Ave. and the abandoned railway on the north boundary of Clarion. It aims to connect all the parks in town.

Recreation

Clarion is planning for a new recreation center at the heart of the community and with that comes planning for accessibility and identification signage.

Accessibility/Connectivity

Connecting all areas of town and improving pedestrian crossings at the railroad tracks is an important value. Pedestrian safety with improved sidewalks and signage are the primary focus of this theme.

Housing/Infrastructure

Clarion's impending housing needs create challenges as well as opportunities. Identifying potential development areas for specific user groups will aid in this process.

Environment

Sustainable stormwater practices such as biocells and rain gardens will increase retention in impermeable areas, leading to decreased pressures on existing city infrastructure.

Identity/Signage

An attractive and cohesive signage scheme incorporate elements of existing community signage and enhance Clarion's visual appearance and legibility.

Concept Overview

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

Improve community navigation and the community identity.

Identity/Signage

Trail System

railway on the north boundary of Clarion. It aims shoulders on Nelson Ave. and the abandoned A proposed trail will utilize the recently paved to connect all the parks in town.

Recreation

with that comes planning for accessibility and center at the heart of the community and Clarion is planning for a new recreation identification signage.

assets for community Rec Center will be an members and visitors.

Recreation

Housing/Infrastructure Forward thinking to plan for increased population in the coming years.

Positive treatment of ecologic systems in all projects will be a priority.

SUMMER 2017

Accessibility/Connectivity Better crossings and access make for a comfortable pedestrian experience.

Accessibility/Connectivity

Connecting all areas of town and improving pedestrian crossings at the railroad tracks is an important value. Pedestrian safety with improved sidewalks and signage are the primary focus of this theme.

Housing/Infrastructure

challenges as well as opportunities. Identifying potential development areas for specific user Clarion's impending housing needs create groups will aid in this process.

parks and sidewalk enhancements.

Trail System

Environment

biocells and rain gardens will increase retention in impermeable areas, leading to decreased Sustainable stormwater practices such as pressures on existing city infrastructure.

Identity/Signage

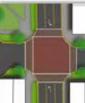
incorporate elements of existing community An attractive and cohesive signage scheme signage and enhance Clarion's visual appearance and legibility.





30ard 12b

3oard 8b











Jeffrey L. Bruce and Company LLC

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

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Cost Opinion Summary

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

Comprehensive Trail System		
Asphalt Trail from County K to High School along Unused Rail Line (1 mile)		
Base Bid Total	\$	413,067.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$	99,136.00
Total	\$	512,203.00
Asphalt Trail from High School to Nelson Ave along Unused Rail Line (0.50 miles)		
Base Bid Total	\$	243,333.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$	58,400.00
Total	\$	301,733.00
8' Wide Concrete Trail from High School South to Cemetery (0.50 Miles)		
Base Bid Total	\$	221,080.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$	53,059.00
Total	\$	274,139.00
8' Wide Paved Trail from Cemetery to Nelson Ave (0.40 Miles)		
Base Bid Total	\$	206,889.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$	49,653.00
Total	\$	256,542.00
5' Wide Paved Shoulder and Separate Trail from Cemetery to Lions Park along 5th Street	SE (0.80 Mile	es)
Base Bid Total	\$	244,653.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$	58,717.00
Total	\$	303,370.00
8' Wide Granular Trail Surface from Lions Park South to Hospital Parking Lot (0.90 Miles)		
Base Bid Total	\$	132,815.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$	31,876.00
Total	\$	164,691.00
6' Wide Concrete Sidewalk Connecting Routes (General Pricing per 100 lf)		
Base Bid Total	\$	6,800.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$	1,632.00
Total	\$	8,432.00
Comprehensive Trail System Total	\$	1,812,678.00

Trailband		
Trailhead		
Trailhead	•	000 400 00
Base Bid Total	\$	383,100.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$	91,944.00
Total	\$	475,044.00
Trailhead Total	\$	475,044.00
Access to Recreation		
8' Wide Concrete Sidewalk from Hanson Park East to the High School via 5th Ave. NE an	d Willow Dr.	(0.60 Miles)
Base Bid Total	\$	334,052.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$	80,172.00
Total	\$	414,224.00
Access to recreation Total	\$	414,224.00
Accessibility/Connectivity		
6' Wide Concrete Sidewalk from Rail Tracks West to Shopko (0.50 Miles on North Side of	Hwv 3)	
Base Bid Total	\$	184,760.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$	44,342.00
Total	\$	229,102.00
6' Wide Concrete Sidewalk from Rail Tracks West to Heartland Museum (0.35 Miles on So		· ·
Base Bid Total	\$	150,900.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$	36,216.00
Total	\$	187,116.00
Pedestrian Crossing at Railroad Tracks North of Lions Park	*	
Base Bid Total	\$	48,100.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$	11,544.00
Total	\$	59,644.00
Accessibility/Connectivity Total	\$	475,862.00
Highway 3 Conversion		
Highway 3 Streetscape Renovations from Main Street to 1st Street NE		
Base Bid Total	\$	610,453.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$	146,509.00
Total	\$	756,962.00
Highway 3 Conversion Total	\$	756,962.00
Hanson Park Renovation		
Hanson Park Renovation		
Base Bid Total	\$	266,928.00
24% Contingency, Contractor Mark-Up, and Design Fees	\$	64,063.00
Total	\$	330,991.00
Hanson Park Renovation Total	\$	330,991.00
Trained Full Removation Fotol	Ψ-	- 333,331.00
Grand Total	\$	4,265,761.00

Comprehensive Trail System

Clarion currently has no designated trails within the community. The nearest recreation trail is the Lake Cornelia Path approximately 5 miles north of town. This area is more accessible for Clarion residents with the newly paved shoulders along Nelson Avenue. The regional map to the left highlights existing trails within each county surrounding Clarion. Clarion has much potential to be a major trail connector from the eastern Rolling Prairie Trail, western Three Rivers Trail, and northern Franklin Grove Heritage Trail and beyond.

As identified at the community assessment and goal setting workshops, many residents desire a walking trail in-and-around Clarion. The proposed community trails options on the map to the left are a combination of existing sidewalks, planned future sidewalks, old railroad corridor, new separated trails, and paved shoulders. A much closer look at property ownership, roadway rights of way, and City planned projects is needed to further plan and prioritize trail route options.

Design Expertise Recommended

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

Project Scope and Cost Opinion

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

Abbreviations used in the following opinions of probable cost include:

ac = acre cf = cubic foot cy = cubic yard ea = each

Asphalt Trail from County K to High School along Unused	a Raii Line (1 mile)				
Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					\$96,000.00
Mobilization	1	ls	\$10,000.00	\$10,000.00	
SWPPP Preparation/Documentation	1	ls	\$6,000.00	\$6,000.00	
Removal of Tracks (salvage materials as necessary)	1	ls	\$80,000.00	\$80,000.00	
Site Utilities					\$25,000.00
Electrical Service (Outlet and Circuiting for Lighting)	1	ls	\$25,000.00	\$25,000.00	
Site Sedimentation and Erosion Control					\$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
Site Earthwork					\$5,000.00
Rough Grading	1	Is	\$5,000.00	\$5,000.00	
Trail Surfacing					\$234,667.00
8' Wide Asphalt Paved Separate Trail (1 mile)	4,693	sy	\$50.00	\$234,667.00	
Site Plant Material					\$5,000.00
Overstory Trees (1 Tree every 500 Feet Average along Trail)	10	ea	\$500.00	\$5,000.00	
Site Amenities					\$42,400.00
Pedestrian LED Lighting along Trail	4	ea	\$8,000.00	\$32,000.00	
Trail Signage (every 1/2 mile)	2	ea	\$500.00	\$1,000.00	
Trail Benches	4	ea	\$1,200.00	\$4,800.00	
Trash/Recycling Receptacle	2	ea	\$600.00	\$1,200.00	
Street Crossing Signage	1	ea	\$500.00	\$500.00	
ADA Curb Ramps	2	ea	\$800.00	\$1,600.00	
Truncated Domes	2	ea	\$150.00	\$300.00	
Bollards	4	ea	\$250.00	\$1,000.00	<u> </u>
Sub-Total Sub-Total					\$413,067.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$99,136.00
Total					\$512,203.00

Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					\$35,500.00
Removal of Tracks (salvage materials as necessary)	1	ls	\$10,000.00	\$10,000.00	
Mobilization	1	ls	\$8,000.00	\$8,000.00	
Site Survey	1	ls	\$10,000.00	\$10,000.00	
Clearing and Grubbing	1	ls	\$2,500.00	\$2,500.00	
SWPPP Preparation/Documentation	1	ls	\$5,000.00	\$5,000.00	
Site Utilities					\$10,000.00
Electrical Service (Outlet and Circuiting for Lighting)	1	ls	\$10,000.00	\$10,000.00	
Site Sedimentation and Erosion Control					\$2,500.00
Inlet Protection and Erosion Mitigation	1	ls	\$2,500.00	\$2,500.00	
Site Earthwork					\$5,000.00
Rough Grading	1	ls	\$5,000.00	\$5,000.00	
Trail Surfacing					\$117,333.00
8' Wide Asphalt Paved Separate Trail (0.50 miles)	2,347	sy	\$50.00	\$117,333.00	
Site Plant Material	· ·				\$2,500.00
Overstory Trees (1 Tree every 500 Feet Average along Trail)	5	ea	\$500.00	\$2,500.00	
Site Amenities					\$70,500.00
Pedestrian LED Lighting along Trail	2	ea	\$8,000.00	\$16,000.00	
Bridge over White Fox Creek	1	ea	\$50,000.00	\$50,000.00	
Trail Signage (every 1/2 mile)	1	ea	\$500.00	\$500.00	
Trail Benches	2	ea	\$1,200.00	\$2,400.00	
Trash/Recycling Receptacle	1	ea	\$600.00	\$600.00	·
Street Crossing Signage	1	ea	\$500.00	\$500.00	
Bollards	2	ea	\$250.00	\$500.00	
Sub-Total Sub-Total					\$243,333.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$58,400.00
Total					\$301,733.00

8' Wide Concrete Trail from High School South to Cemetery (0.50	Miles)				
Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					\$30,500.00
Existing Sidewalk Removal	1	ls	\$5,000.00	\$5,000.00	
Mobilization	1	ls	\$8,000.00	\$8,000.00	
Site Survey	1	ls	\$10,000.00	\$10,000.00	
Clearing and Grubbing	1	Is	\$2,500.00	\$2,500.00	
SWPPP Preparation/Documentation	1	ls	\$5,000.00	\$5,000.00	
Site Utilities					\$15,000.00
Electrical Service (Outlet and Circuiting)	1	ls	\$15,000.00	\$15,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$10,000.00	\$10,000.00	
Site Sedimentation and Erosion Control					\$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
Site Earthwork					\$6,000.00
Rough Grading	1	Is	\$6,000.00	\$6,000.00	
Trail Surfacing					\$137,280.00
8' Wide Concrete Separate Trail (0.50 miles)	21,120	sf	\$6.50	\$137,280.00	
Site Plant Material					\$2,500.00
Overstory Trees (1 Tree every 500 Feet Average along Trail)	5	ea	\$500.00	\$2,500.00	
Site Amenities					\$24,800.00
Pedestrian LED Lighting along Trail	2	ea	\$8,000.00	\$16,000.00	
Trail Signage (every 1/2 mile)	1	ea	\$500.00	\$500.00	
Trail Benches	2	ea	\$1,200.00	\$2,400.00	
Trash/Recycling Receptacle	1	ea	\$600.00	\$600.00	
Street Crossing Signage	1	ea	\$500.00	\$500.00	
ADA Curb Ramps	4	ea	\$800.00	\$3,200.00	
Truncated Domes	4	ea	\$150.00	\$600.00	
Bollards	4	ea	\$250.00	\$1,000.00	
Sub-Total Sub-Total					\$221,080.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$53,059.00
Total					\$274,139.00

Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation			<u> </u>		\$19,500.00
Mobilization	1	ls	\$5,000.00	\$5,000.00	
Site Survey	1	ls	\$8,000.00	\$8,000.00	
Clearing and Grubbing	1	ls	\$1,500.00	\$1,500.00	
SWPPP Preparation/Documentation	1	ls	\$5,000.00	\$5,000.00	
Site Utilities					\$15,000.00
Electrical Service (Outlet and Circuiting)	1	ls	\$15,000.00	\$15,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$10,000.00	\$10,000.00	
Site Sedimentation and Erosion Control					\$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
Site Earthwork					\$6,000.00
Rough Grading	1	ls	\$6,000.00	\$6,000.00	
Trail Surfacing			<u> </u>		\$88,889.00
8' Wide Asphalt Paved Separate Trail (0.40 miles)	1,778	sy	\$50.00	\$88,889.00	
Site Plant Material					\$2,000.00
Overstory Trees (1 Tree every 500 Feet Average along Trail)	4	ea	\$500.00	\$2,000.00	
Site Amenities					\$70,500.00
Pedestrian LED Lighting along Trail	2	ea	\$8,000.00	\$16,000.00	
Bridge over White Fox Creek	1	ea	\$50,000.00	\$50,000.00	
Trail Signage (every 1/2 mile)	1	ea	\$500.00	\$500.00	
Trail Benches	2	ea	\$1,200.00	\$2,400.00	
Trash/Recycling Receptacle	1	ea	\$600.00	\$600.00	
Street Crossing Signage	1	ea	\$500.00	\$500.00	
Bollards	2	ea	\$250.00	\$500.00	
Sub-Total					\$206,889.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$49,653.00
Total					\$256,542.00

Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					\$16,500.0
Mobilization	1	ls	\$5,000.00	\$5,000.00	
Site Survey	1	ls	\$5,000.00	\$5,000.00	
Clearing and Grubbing	1	ls	\$1,500.00	\$1,500.00	
SWPPP Preparation/Documentation	1	ls	\$5,000.00	\$5,000.00	
Site Utilities					\$15,000.0
Electrical Service (Outlet and Circuiting)	1	ls	\$15,000.00	\$15,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$10,000.00	\$10,000.00	
Site Sedimentation and Erosion Control					\$4,000.0
Inlet Protection and Erosion Mitigation	1	ls	\$4,000.00	\$4,000.00	
Site Earthwork					\$8,000.0
Rough Grading	1	ls	\$8,000.00	\$8,000.00	
Trail Surfacing					\$159,653.0
5' Wide Asphalt Paved Shoulder Trail Connector (0.50 Miles)	1,467	sy	\$50.00	\$73,333.00	
8' Wide Concrete Trail Connector (0.30 Miles)	13,280	sf	\$6.50	\$86,320.00	
Site Plant Material					\$3,000.0
Overstory Trees (1 Tree every 500 Feet Average along All Trails)	6	ea	\$500.00	\$3,000.00	
Site Amenities					\$38,500.0
Pedestrian LED Lighting along Trail	4	ea	\$8,000.00	\$32,000.00	
Trail Signage (every 1/2 mile)	2	ea	\$500.00	\$1,000.00	
Trail Benches	2	ea	\$1,200.00	\$2,400.00	
Trash/Recycling Receptacle	1	ea	\$600.00	\$600.00	
Street Crossing Signage	2	ea	\$500.00	\$1,000.00	
Bollards	6	ea	\$250.00	\$1,500.00	•
Sub-Total					\$244,653.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$58,717.00
Total					\$303,370.00

Description	Quantity	Unit	Unit Cost	Line Total	Totals
Land Acquisition					\$20,000.00
General Purchase of Land	1	ls	\$20,000.00	\$20,000.00	
Demolition/Site Preparation					\$21,500.00
Mobilization	1	ls	\$5,000.00	\$5,000.00	
Site Survey	1	ls	\$8,000.00	\$8,000.00	
Clearing and Grubbing	1	ls	\$2,500.00	\$2,500.00	
SWPPP Preparation/Documentation	1	ls	\$6,000.00	\$6,000.00	
Site Utilities					\$10,000.00
Electrical Service (Outlet and Circuiting)	1	ls	\$10,000.00	\$10,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$10,000.00	\$10,000.00	
Site Sedimentation and Erosion Control					\$4,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$4,000.00	\$4,000.00	
Site Earthwork					\$10,000.00
Rough Grading	1	ls	\$10,000.00	\$10,000.00	
Trail Surfacing					\$34,815.00
8' Wide Unpaved Granular Surface Trail (0.90 Miles)	696	су	\$50.00	\$34,815.00	
Site Plant Material					\$3,000.00
Overstory Trees (1 Tree every 500 Feet Average along All Trails)	6	ea	\$500.00	\$3,000.00	
Site Amenities					\$29,500.00
Pedestrian LED Lighting along Trail	3	ea	\$8,000.00	\$24,000.00	
Trail Signage (every 1/2 mile)	2	ea	\$500.00	\$1,000.00	
Trail Benches	2	ea	\$1,200.00	\$2,400.00	
Trash/Recycling Receptacle	1	ea	\$600.00	\$600.00	
Street Crossing Signage	1	ea	\$500.00	\$500.00	
Bollards	4	ea	\$250.00	\$1,000.00	
Sub-Total					¢422 045 00
					\$132,815.00
24% Contingency, Contractor Mark-Up, and Design Fees Total					\$31,876.00 \$164.691.00

Description	Quantity	Unit	Unit Cost	Line Total	Totals
Mobilization					\$1,750.0
Clearing and Grubbing	1	ls	\$500.00	\$500.00	
SWPPP Preparation/Documentation	1	ls	\$250.00	\$250.00	
Mobilization	1	ls	\$1,000.00	\$1,000.00	
Site Sedimentation and Erosion Control					\$150.0
Inlet Protection and Erosion Mitigation	1	ls	\$150.00	\$150.00	
Site Earthwork					
Rough Grading	1	ls	\$500.00	\$500.00	
Trail Surfacing					\$3,900.0
6' Wide Reinforced Concrete Sidewalk (100 lf)	600	sf	\$6.50	\$3,900.00	
Site Plant Material					\$500.0
Overstory Trees (1 Tree every 100 Feet Average)	1	ea	\$500.00	\$500.00	
Sub-Total Sub-Total					\$6,800.0
24% Contingency, Contractor Mark-Up, and Design Fees					\$1,632.0
Total					\$8,432,0

Regional Trails

community. The nearest recreation trail is the Lake Cornelia Path approximately 5 miles north of town. This area is more accessible for Clarion residents with the newly paved Clarion currently has no designated trails within the shoulders along Nelson Avenue.

Rolling Prairie Trail, western Three Rivers Trail, and northern The regional map to the left highlights existing trails within potential to be a major trail connector from the eastern each county surrounding Clarion. Clarion has much Franklin Grove Heritage Trail and beyond.

Regional Trails Legend

- Existing Separate Trail (Paved or Unpaved) Existing Paved Shoulder
- Nearby Communities
- County Boundaries



Community Trails

and City planned projects is needed to further existing sidewalks, planned future sidewalks, and paved shoulders. A much closer look at and goal setting workshops, many residents desire a walking trail in-and-around Clarion property ownership, roadway rights of way, As identified at the community assessment The proposed community trails options on old railroad corridor, new separated trails, the map to the left are a combination of plan and prioritize trail route options.

影

and a

← 0.4 miles to



6' Existing/ Proposed Widen Sidewalk Connector

5' Existing Paved Shoulder 8' Unpaved Separate Trail

8' Paved Separate Trail

Proposed Trailhead

Park Boundaries Critical Crossing

5' Proposed Paved Shoulder

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Community Trails Legend



Jeffrey L. Bruce and Company LLC

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

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Comprehensive Trail System Clarion

Trailhead

The unused railway that traverses the northern edge of Clarion is a great opportunity for a walking/bike trail. There are several parcels owned by the local Co-op where the trailhead and a parking area is sited. Located in close proximity to County K, visitors park on the south side of 6th Avenue and walk across to the trailhead area. Pedestrians coming from the east are able to enter from the southeast corner.

At the center of the space is a trail map kiosk showing the route it takes throughout town. Surrounding the kiosk is a bike repair station, various seating options, and artwork commemorating the decommissioned railroad.

Environmental concerns are present with any new project. Permeable pavers are used in the primary gathering area and bio cells capture excess stormwater from the street. Prairie plantings within those bio cells help with soil remediation and provide year-round color and fragrances.

Art Columns

In order to guarantee pedestrians a safe crossing from the parking lot to the trailhead and provide a strong visual element, these columns are proposed. Drawing from the preexisting rail line, reclaimed materials are used to appear as railroad ties that spiral into a vertical column. LED lights are installed at the ends for nighttime visual interest.

Design Expertise Recommended

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

Project Scope and Cost Opinion

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

Abbreviations used in the following opinions of probable cost include:

ac = acre cf = cubic foot cy = cubic yard ea = each

Trailhead					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition/Site Preparation					\$16,500
Mobilization	1	ls	\$5,000.00	\$5,000.00	
Site Survey	1	ls	\$8,000.00	\$10,000.00	
Clearing and Grubbing	1	ls	\$1,500.00	\$1,500.00	
Railroad Closing			·		\$50,000
Official Closing of Railline and General Demolition of Tracks	1	ls	\$50,000.00	\$50,000.00	
Site Utilities					\$35,000
Electrical Service (Outlet and Circuiting)	1	Is	\$25,000.00	\$25,000.00	
Storm Drainage Systems - Pipe and Connections	1	Is	\$10,000.00	\$10,000.00	
Site Sedimentation and Erosion Control					\$5,000
nlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
Site Earthwork					\$9,000
Rough Grading	1	ls	\$5,000.00	\$5,000.00	
Fine Grading	1	Is	\$4,000.00	\$4,000.00	
Site Hardscape					\$176,000
10' Wide Colored Concrete Trail (275 lf)	2,750	sf	\$8.00	\$22,000.00	
Concrete Trailhead Area (3,400 sf)	3,400	sf	\$6.50	\$22,100.00	
Permeable Paver Parking Lot (7,000 sf)	7,000	sf	\$10.00	\$70,000.00	
Brick Crosswalks	6	ea	\$2,400.00	\$14,400.00	
Concrete Curb and Gutter	500	lf	\$25.00	\$12,500.00	
20' x 80' Canvas Shade Structure	1	ls	\$35,000.00	\$35,000.00	
Site Plant Material					\$17,900
Planting Bed Preparation	1	Is	\$1,000.00	\$1,000.00	
Native Prairie and Wildflower Mix	1	Is	\$6,500.00	\$6,500.00	
Overstory Trees	4	ea	\$500.00	\$2,000.00	
Evergreen Trees	12	ea	\$500.00	\$6,000.00	
Ornamental Trees	6	ea	\$400.00	\$2,400.00	
Site Amenities	<u>_</u>				\$73,700
Sculpture with Lighting	2	ea	\$8,000.00	\$16,000.00	
Pedestrian LED Lighting along Trail	4	ea	\$8,000.00	\$32,000.00	
Limestone Slab Benches	2	ea	\$1,500.00	\$3,000.00	
Frash/Recycling Receptacle	2	ea	\$600.00	\$1,200.00	
Bike Repair Station	1	ea	\$2,000.00	\$2,000.00	
Carousel Table with Seats	3	ea	\$4,000.00	\$12,000.00	
Bike Racks	2	ea	\$1,000.00	\$2,000.00	
Bollards	2	ea	\$250.00	\$500.00	
Park Entry Sign	1	ea	\$2,500.00	\$2,500.00	
Trailhead Kiosk	1	ea	\$2,500.00	\$2,500.00	
Sub-Total					\$383,100
24% Contingency, Contractor Mark-Up, and Design Fees					\$91,944.
Total					\$475,044.

New Trailhead

The unused railway that traverses the northern edge of Clarion is a great opportunity for a walking/bike trail. There are several porcels owned by the local Co-op where the trailhead and a parking area is sited. Located in close proximity to County K, visitors park on the south side of 6th Avenue and walk across to the traillead area. Pedestrians coming from the east are able to enter from the southeast corner.





At the center of the space is a trail map kiosk showing the route it takes throughout town.
Surrounding the kiosk is a bike repair station, various seating options, and artwork commemorating the decommissioned railroad.

Environmental concerns are present with any new project. Permeable pavers are used in the primary gathering area and bio cells capture excess stormwater from the street. Prairie plantings within those bio cells help with soil remediation and provide year-round color and fragrances.

Art Columns

SUMMER 2017 8b

In order to guarantee pedestrians a safe crossing from the parking lot to the trailhead and provide a strong visual element, these columns are proposed. Drawing from the preexisting rail line, reclaimed materials are used to appear as railroad ties that spiral into a vertical column. LED lights are installed at the ends for nighttime visual interest.



Crossing Art Column -Trail Map

s eye view of the trailhead, looking southwest.

Jeffrey L. Bruce and Company LLC

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

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trail along old railbed

Access to Recreation

Recreation Hub

The nearly 8 blocks of land containing the middle school, football field, aquatic center, and a proposed recreation center is the primary focus for recreation in Clarion. Currently, there are major limitations for safe pedestrian access along the north side of this property as portrayed on the Transportation Assets and Barriers Boards.

The lack of sidewalks and designated crosswalks force pedestrians to walk in the street. The recreation user group survey results from the focus groups identified Clarion residents desiring a wider sidewalk/trail along the north side of the school and park. This walking surface and improved crosswalks are integral for connections to the trail at the unused railroad north on 6th Street, the high school to the east, and new/future residential developments.

Shown to the left is the northeast intersection (6th St. NE and 5th Ave. NE/Willow Dr.). Sidewalks have been added on all sides as well as crosswalks with pedestrian signage. Making this area safe for users of all ages and abilities was one of the primary goals of this project.

There are also areas with bike racks, vegetation, and permeable paving, promoting many qualities of an environmentally-friendly community.

Design Expertise Recommended

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

Project Scope and Cost Opinion

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

Abbreviations used in the following opinions of probable cost include:

ac = acre cf = cubic foot cy = cubic yard ea = each

8' Wide Concrete Sidewalk from Hanson Park East to					
Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition					\$29,000.0
Mobilization	1	ls	\$6,000.00	\$6,000.00	
Site Survey	1	ls	\$8,000.00	\$8,000.00	
SWPPP Preparation/Documentation	1	ls	\$5,000.00	\$5,000.00	
Existing Sidewalk Removal	1	ls	\$10,000.00	\$10,000.00	
Site Utilities	· ·				\$35,000.0
Electrical Service (Outlet and Circuiting)	1	ls	\$25,000.00	\$25,000.00	
Storm Drainage Systems - Pipe and Connections	1	ls	\$10,000.00	\$10,000.00	
Site Sedimentation and Erosion Control					\$5,000.0
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
Site Earthwork					\$10,000.0
Rough Grading	1	ls	\$10,000.00	\$10,000.00	
Trail Surfacing					\$162,552.0
8' Wide Concrete Trail Connector (0.60 Miles)	25,008	sf	\$6.50	\$162,552.00	
Site Plant Material					\$10,500.0
Overstory Trees	13	ea	\$500.00	\$6,500.00	
General Site Seeding	1	ls	\$4,000.00	\$4,000.00	
Site Amenities					\$82,000.0
Pedestrian LED Lighting along Trail	8	ea	\$8,000.00	\$64,000.00	
Trail Signage (every 1/2 mile)	2	ea	\$500.00	\$1,000.00	
Trail Benches	2	ea	\$1,200.00	\$2,400.00	
Trash/Recycling Receptacle	2	ea	\$600.00	\$1,200.00	
Street Crossing Signage	4	ea	\$500.00	\$2,000.00	
ADA Curb Ramps	12	ea	\$800.00	\$9,600.00	
Truncated Domes	12	ea	\$150.00	\$1,800.00	•
Sub-Total					\$334,052.0
24% Contingency, Contractor Mark-Up, and Design Fees					\$80,172,0

school, football field, aquatic center, and a proposed recreation center is the primary focus for recreation

The nearly 8 blocks of land containing the middle

Recreation Hub

in Clarion. Currently, there are major limitations for

safe pedestrian access along the north side of this

property as portrayed on the Transportation Assets

and Barriers Boards.





There are also areas with bike racks, vegetation, and

permeable paving, promoting many qualities of an

environmentally-friendly community.

of all ages and abilities was one of the primary goals

of this project.

pedestrian signage. Making this area safe for users

St. NE and 5th Ave. NE/Willow Dr.). Sidewalks have been added on all sides as well as crosswalks with

Shown to the left is the northeast intersection (6th

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railroad north on 6th Street, the high school to the

east, and new/future residential developments.

sidewalk/trail along the north side of the school and park. This walking surface and improved crosswalks

recreation user group survey results from the focus groups identified Clarion residents desiring a wider

The lack of sidewalks and designated crosswalks

force pedestrians to walk in the street. The

ection of 6th St. NE and 5th Aue. NE/Willow Dr., looking northeas

Clarion

Access to Recreation

Jeffrey L. Bruce and Company LLC

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

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Accessibility/Connectivity

It is clearly shown on the Transportation Assets and Barriers Boards that Clarion residents have limited safe access to community resources such as parks and stores. A comprehensive trail and sidewalk plan coupled with small, site specific improvements like signage and pavement markings create better pedestrian circulation. For more information on the trails and sidewalk plan see Board 8a.

Lions Family Park is one of the only parks on the south side of Highway 3. There are railroad tracks directly north of the park, making it unsafe for pedestrian access. Additionally, vehicular access from the north is non existent. Warning signage, park signage, pavement markings and a new paved shoulder offer a much safer crossing condition.

Design Expertise Recommended

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

Project Scope and Cost Opinion

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

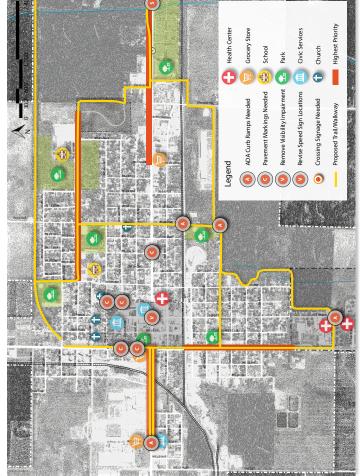
Abbreviations used in the following opinions of probable cost include:

ac = acre cf = cubic foot cy = cubic yard ea = each

Accessibility/Connectivity					
6' Wide Concrete Sidewalk from Rail Tracks We	est to Shopko (0.	50 Miles	s on North Side	of Hwy 3)	
Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition					\$22,000.00
Mobilization	1	ls	\$6,000.00	\$6,000.00	
Site Survey	1	ls	\$6,000.00	\$6,000.00	
SWPPP Preparation/Documentation	1	ls	\$5,000.00	\$5,000.00	
Existing Sidewalk Removal	1	ls	\$5,000.00	\$5,000.00	
Site Utilities					\$15,000.00
Electrical Service (Outlet and Circuiting)	1	ls	\$15,000.00	\$15,000.00	
Site Sedimentation and Erosion Control					\$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
Site Earthwork					\$6,000.00
Rough Grading	1	ls	\$6,000.00	\$6,000.00	
Trail Surfacing					\$102,960.00
6' Wide Concrete Paved Separate Trail (0.50 miles)	15,840	sf	\$6.50	\$102,960.00	
Site Plant Material					\$10,000.00
Overstory Trees	12	ea	\$500.00	\$6,000.00	
General Site Seeding	1	ls	\$4,000.00	\$4,000.00	
Site Amenities					\$23,800.00
Pedestrian LED Lighting along Trail	2	ea	\$8,000.00	\$16,000.00	
Trail Signage (every 1/2 mile)	1	ea	\$500.00	\$500.00	
Trail Benches	2	ea	\$1,200.00	\$2,400.00	
Trash/Recycling Receptacle	1	ea	\$600.00	\$600.00	
Street Crossing Signage	1	ea	\$500.00	\$500.00	
ADA Curb Ramps	4	ea	\$800.00	\$3,200.00	
Truncated Domes	4	ea	\$150.00	\$600.00	
Sub-Total					\$184,760.00
24% Contingency, Contractor Mark-Up, and Design Fees	;				\$44,342.00
Total					\$229.102.00

6' Wide Concrete Sidewalk from Rail Tracks West	to Heartland	Museun	n (0.35 Miles on	South Side of H	lwy 3)
Description	Quantity	Unit	Unit Cost	Line Total	Totals
Demolition					\$22,000.00
Mobilization	1	ls	\$6,000.00	\$6,000.00	
Site Survey	1	ls	\$6,000.00	\$6,000.00	
SWPPP Preparation/Documentation	1	ls	\$5,000.00	\$5,000.00	
Existing Sidewalk Removal	1	ls	\$5,000.00	\$5,000.00	
Site Utilities					\$15,000.00
Electrical Service (Outlet and Circuiting)	1	ls	\$15,000.00	\$15,000.00	
Site Sedimentation and Erosion Control					\$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	
Site Earthwork					\$6,000.00
Rough Grading	1	ls	\$6,000.00	\$6,000.00	
Trail Surfacing					\$70,200.00
6' Wide Concrete Paved Separate Trail (0.35 miles)	10,800	sf	\$6.50	\$70,200.00	
Site Plant Material					\$5,500.00
Overstory Trees	6	ea	\$500.00	\$3,000.00	
General Site Seeding	1	ls	\$2,500.00	\$2,500.00	
Site Amenities					\$27,200.00
Pedestrian LED Lighting along Trail	2	ea	\$8,000.00	\$16,000.00	
Trail Signage (every 1/2 mile)	1	ea	\$500.00	\$500.00	
Trail Benches	2	ea	\$1,200.00	\$2,400.00	
Trash/Recycling Receptacle	1	ea	\$600.00	\$600.00	
Street Crossing Signage	4	ea	\$500.00	\$2,000.00	
ADA Curb Ramps	6	ea	\$800.00	\$4,800.00	
Truncated Domes	6	ea	\$150.00	\$900.00	
Sub-Total					\$150,900.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$36,216.00
Total					\$187,116.00

Description	Quantity	Unit	Unit Cost	Line Total	Totals	
Demolition					\$3,000.0	
Existing Sidewalk Removal	1	ls	\$3,000.00	\$3,000.00		
Site Utilities					\$5,000.0	
Electrical Service (Outlet and Circuiting)	1	ls	\$5,000.00	\$5,000.00		
Site Sedimentation and Erosion Control					\$1,000.0	
Inlet Protection and Erosion Mitigation	1	ls	\$1,000.00	\$1,000.00		
Site Earthwork					\$4,000.0	
Rough Grading	1	ls	\$4,000.00	\$4,000.00		
Trail Surfacing					\$11,700.0	
6' Wide Concrete Sidewalk (300 lf)	1,800	sf	\$6.50	\$11,700.00		
Site Plant Material						
Overstory Trees	2	ea	\$500.00	\$1,000.00		
General Site Seeding	1	ls	\$500.00	\$500.00		
Site Amenities					\$21,900.0	
Pedestrian LED Lighting along Trail	2	ea	\$8,000.00	\$16,000.00		
Lions Park Sign	1	ea	\$2,500.00	\$2,500.00		
Trail Signage (every 1/2 mile)	1	ea	\$500.00	\$500.00		
Rail Crossing Signage	2	ea	\$500.00	\$1,000.00		
ADA Curb Ramps	2	ea	\$800.00	\$1,600.00		
Truncated Domes	2	ea	\$150.00	\$300.00		
Sub-Total Sub-Total					\$48,100.00	
24% Contingency, Contractor Mark-Up, and Design Fees					\$11,544.00	
Total					\$59,644.00	



Accessibility and Connectivity

information on the trails and sidewalk plan It is clearly shown on the Transportation Assets and Barriers Boards that Clarion and stores. A comprehensive trail and and pavement markings create better sidewalk plan coupled with small, site residents have limited safe access to community resources such as parks specific improvements like signage pedestrian circulation. For more see Board 8a.







pedestrian access. Additionally

vehicular access from the

the park, making it unsafe for

pavement markings and a new northis non existent. Warning

signage, park signage,

paved shoulder offer a much

safer crossing condition.

railroad tracks directly north of

side of Highway 3. There are the only parks on the south

Lions Family Park is one of

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Jeffrey L. Bruce and Company LLC

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



Smart Housing Growth

Single Family/Affordable Housing

Clarion is and will continue to be experiencing a substantial increase in residential housing needs. There is a strong desire to attract the younger generation and bring more families into the school system. There are many critical factors driving attractive and affordable single family housing.

Housing Renovations/Rental Properties

Clarion has several areas in the community with aged housing in need of renovation. Improvements increase the value of the homes but also the vitality of the neighborhood.

Senior Housing

Clarion is in need of a diverse array of senior housing including higher-end living quarters. A majority of Clarion's health services are located at the far end of town, making the adjacent spaces for senior living too distant from other desired community amenities.

Design Expertise Recommended

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

Single Family/Affordable Housing

attract the younger generation and bring more families into the school system. There are many critical factors driving attractive increase in residential housing needs. There is a strong desire to Clarion is and will continue to be experiencing a substantial and affordable single family housing.



Desired Adjacent Services:















Contextual Obstacles:

- 1 No access to trails and recreation facilities.
- 2 Limited access to school facilities.
- 3 Far removed from downtown core and city amenities.
- 4 Loss of identity from the rest of the community.

Potential Solutions

- Provide trail access and amenities at old rail line. See Board 8b
- 2 Provide new sidewalk along Willow/ 5th Ave. See Board 9
- Provide safe pedestrian access across town. See Board 9
- 4 Provide unified wayfinding and identity signage. See Board 13.

• Clarion is in need of a diverse array of senior housing including higher-end living quarters. A majority of distant from other desired community amenities. Senior Housing

town, making the adjacent spaces for senior living too Clarion's health services are located at the far end of



Jeffrey L. Bruce and Company LLC

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

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Smart Housing Growth

Clarion





Housing Renovations/Rental Properties





Desired Adjacent Services







Contextual Obstacles:

- 5 Railroad, Co-op, and County Kact as a barrier.
- 6 Drainage issues cause flooding.

Potential Solutions

- 5 Provide trail access and amenities at old rail line. See Board 8b
- 6 Upgrades to City storm sewer infrastructure. See Board 4

Desired Adjacent Services:







Contextual Obstacles:

- Limited ADA accessibility route options on south side of town.
- 8 Drainage issues cause flooding.

Potential Solutions

- 7 Provide ADA curb ramps with new City sidewalks. See Board 9
- 8 Upgrades to City storm sewer infrastructure. See Board 4



Highway 3 Conversion

Highway 3 Conversion/Bump Outs

Reassessing Clarion's downtown area, especially around the courthouse, increases the comfortability of the space. It's important to place value on the pedestrian rather than the vehicle at the heart of the community. Looking at the entire Highway 3 corridor, the primary alteration to the street is repainting the lines. There is one lane of traffic in both directions with a turning lane in the middle.

However, in the block south of the courthouse more changes are proposed since it's in the heart of downtown Clarion. To the left is what that block would look like with the addition of bump outs, curb extensions, and new crosswalks.

These areas provide better visual quality and safety for the pedestrian. Material changes within the crosswalk draw drivers' attention to people crossing. Additionally, street trees, vegetated buffers, and biocells slow traffic speeds and provide more shade.

Design Expertise Recommended

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

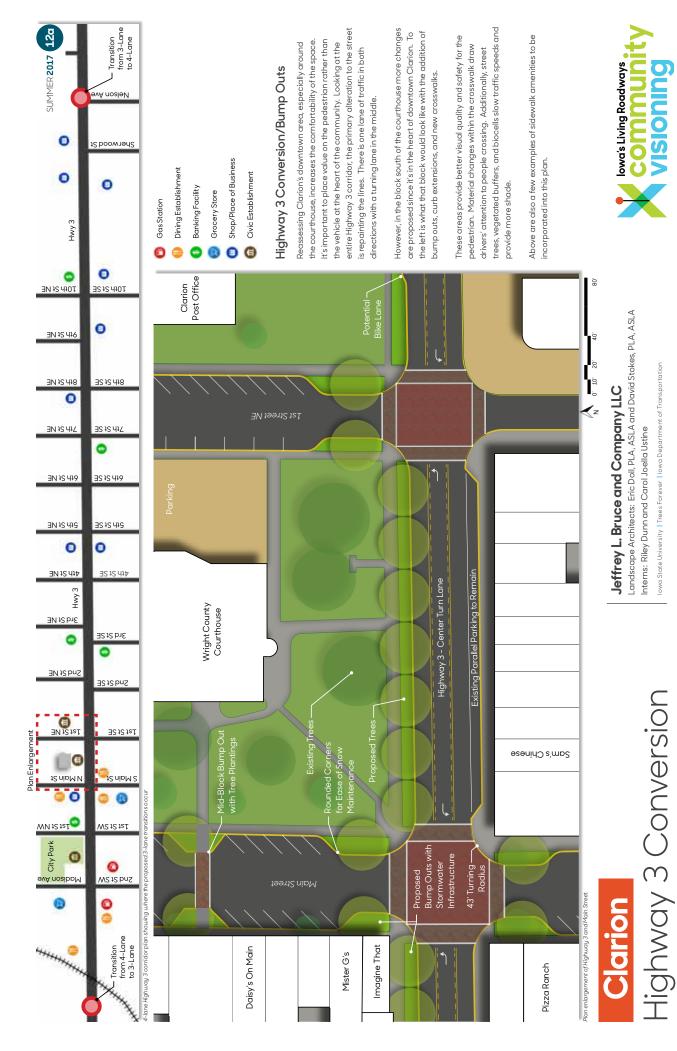
Project Scope and Cost Opinion

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

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ac = acre cf = cubic foot cy = cubic yard ea = each

Converting Highway 3 from Four Lanes to Three Lanes from	n The Railroad	Tracks	to Nelson Aven	IIE	
Description	Quantity	Unit	Unit Cost	Line Total	Totals
Remove and Replace Pavement Markings	Quantity	Oint	Onit Oost	Line rotar	\$100,000.00
Remove and Replace Pavement Markings Only	1	ls	\$100,000.00	\$100,000.00	Ψ100,000.00
rismore and replace ratement manange emp			ψσσ,σσσ.σσ	Ψ.00,000.00	
Highway 3 Streetscape Renovations from Main Street to 1st	t Street NF				
Description	Quantity	Unit	Unit Cost	Line Total	Totals
Site Demolition	quantity	1 0		2	\$46,600.0
Site Survey	1	ls	\$10,000.00	\$10,000.00	+ 10,000101
SWPPP Preparation/Documentation	1	ls	\$6.000.00	\$6,000.00	
Mobilization/Traffic Control	1	ls	\$8,000.00	\$8,000.00	
Soil Suitability Testing	1	Is	\$1,500.00	\$1,500.00	
Removal of Pavement for Bump-Outs	583	sy	\$20.00	\$11,660.00	
Removal of Pavement for Repaying Intersections	472	sv	\$20.00	\$9,440.00	
Site Utilities		<u> </u>	+ 20.00	40,110.00	\$100,000.00
Electrical Service (Outlet and Circuiting)	1	ls	\$50,000.00	\$50,000.00	Ψ100,000.00
Storm Drainage Systems - Pipe and Connections	1	ls	\$50,000.00	\$50,000.00	
Site Sedimentation and Erosion Control		1 10	ψου,υσυ.συ	ψου,σου.σο	\$5,000.00
Inlet Protection and Erosion Mitigation	1	ls	\$5,000.00	\$5,000.00	ψο,σσσ.στ
Site Earthwork		1 .0	ψο,σσσ.σσ	40,000.00	\$20,000.00
Rough Grading	1	ls	\$10,000.00	\$10,000.00	Ψ20,000.00
Fine Grading	1	ls	\$10,000.00	\$10,000.00	
Site Hardscape			ψ10,000.00	\$10,000.00	\$176,100.00
Permeable Paver Intersection at Main and Hwy. 3 (5,250 sf)	5,250	sf	\$10.00	\$52,500,00	+ c , . c c
Permeable Paver Intersection at 1st Street NE and Hwy. 3 (4,500 sf)	4,500	sf	\$10.00	\$45,000.00	
Curb Ramps and Truncated Domes	18	ea	\$950.00	\$17,100.00	
Permeable Paver Crosswalks	9	ea	\$3,500.00	\$31,500.00	
Concrete Curb and Gutter	1,200	If	\$25.00	\$30,000.00	
Stormwater BMPs at Bumpouts	.,200	<u></u>	\$20.00	400,000.00	\$65,153.00
Planting Bed Preparation	1	ls	\$2,500.00	\$2,500.00	, , , , , , , , , , , , , , , , , , ,
Perennial Bioswale Plugs	5,250	sf	\$2.50	\$13,125.00	
Designed Soil (5,250 sf 24" Depth)	389	cy	\$75.00	\$29,167.00	
Fine Drainage Aggregate (5,250 sf @ 6" Depth)	97	cy	\$50.00	\$4,861.00	
Drainage Aggregate (5,250 sf @ 12" Depth)	175	cy	\$50.00	\$8,750.00	
Educational Signage	1	Is	\$750.00	\$750.00	
Overstory Trees	12	ea	\$500.00	\$6,000.00	
Site Amenities			Ψ000.00	ψ0,000.00	\$55,600.00
Pedestrian Scale 'Spencer' Street Light Attached to Existing Poles	12	ea	\$3,600.00	\$43,200.00	-
Spencer Pedestrian Bench	2	ea	\$1,200.00	\$2,400.00	
Spencer Trash/Recycling Receptacle	2	ea	\$1,400.00	\$2,800.00	
Spencer Planter Small	2	ea	\$1,200.00	\$2,400.00	
Spencer Planter Large	2	ea	\$1,400.00	\$2,800.00	
Bike Racks	2	ea	\$1,000.00	\$2,000.00	
			ψ.,σσσ.σσ	\$2,000.00	
Sub-Total Sub-Total					\$568,453.00
24% Contingency, Contractor Mark-Up, and Design Fees					\$136,429.00
Total					\$704,882.00



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Downtown Infrastructure

The Pedestrian Zone

It is a priority to make downtown more pedestrian friendly-primarily along the Highway 3 corridor. Altering the road from four (4) to three (3) lanes and adding site furnishings take the emphasis off vehicles. Shown here is a before and after depicting these design improvements.

Bump-outs are one example that help limit the distance walkers have to cross the street. It also increases vegetation in the downtown area and provides an environmentally-conscious method of handling stormwater by allowing the plants to absorb much of the runoff within the biocell.

This proposal slows vehicle traffic while providing ample room for trucks and large vehicles. Safe pedestrian spaces are increased an accommodated through the use of wider sidewalks, colored crossings, and a vegetated buffer.

Design Expertise Recommended

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

Project Scope and Cost Opinion

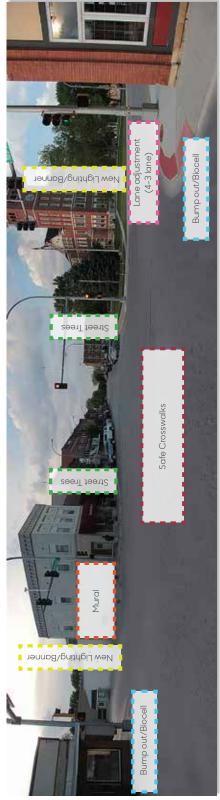
See cost opinion for Highway 3 Conversion on page 76.

The Pedestrian Zone

It is a priority to make downtown more pedestrian Altering the road from four (4) to three (3) lanes friendly-primarily along the Highway 3 corridor. and adding site furnishings take the emphasis off vehicles. Shown here is a before and after depicting these design improvements.

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Downtown Infrastructure

Jeffrey L. Bruce and Company LLC

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



Identity/Signage Typologies

Clarion has many existing signs with their logo throughout the community. A major priority for the community is to define their identity. Clarion defines their identity with consistent use of a family of site furniture and visually cohesive signage. On this page are several options for alternative branding and the various applications for their use.

Design Expertise Recommended

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

Project Scope and Cost Opinion

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1 1 101 /147 60 10 60						
Identity/Wayfinding Signage						
Signage						
Description	Quantity	Unit	Unit Cost	Line Total	Totals	
Entry Signs						
Stone Community Entry Sign Option	1	ea	\$5,000.00	\$5,000.00		
Stone Foundation Park Sign	1	ea	\$1,800.00	\$1,800.00		
Two-Post Arch Park Sign	1	ea	\$2,500.00	\$2,500.00		
Brown Park Sign	1	ea	\$1,500.00	\$1,500.00		
Custom Entry Sign Topper The Iowa DOT Directional Sign	1	ea	\$1,250.00	\$1,250.00		
Trail Kiosk with Community Sign	1	ea	\$2,000.00	\$2,000.00		
Custom Banners on Light Poles	1	ea	\$400.00	\$400.00		
Wayfinding Signs						
Wayfinding Signs on Post	1	ea	\$1,800.00	\$1,800.00		
Parking Wayfinding Sign Only	1	ea	\$100.00	\$100.00		
Safety Signs						
City Safety Sign	1	ea	\$100.00	\$100.00		
Clarion's 'Spencer' Theme Site Furnishings						
Pedestrian Scale 'Spencer' Street Light Attached to Existing Poles	1	ea	\$3,600.00	\$3,600.00		
Spencer Pedestrian Bench	1	ea	\$1,200.00	\$1,200.00		
Spencer Trash/Recycling Receptacle	1	ea	\$1,400.00	\$1,400.00		
Spencer Planter Small	1	ea	\$1,200.00	\$1,200.00		
Spencer Planter Large	1	ea	\$1,400.00	\$1,400.00		

Identity/Signage

signage. On this page are several options define their identity. Clarion defines thei for alternative branding and the various A major priority for the community is to heir logo throughout the community. identity with consistent use of a family of site furniture and visually cohesive Clarion has many existing signs with applications for their use.

Downtown Banner Design Options



Design 1



Hagie Manufactur

JONE PARK



Vehicular wayfinding signage

Identity/Signage Typologies

Clarion

Jeffrey L. Bruce and Company LLCLA: Eric Doll, PLA, ASLA and David Stokes, PLA, ASLA

Interns: Carol Joella Ustine, Riley Dunn

Iowa State University | Trees Forever | Iowa Department of Transportation



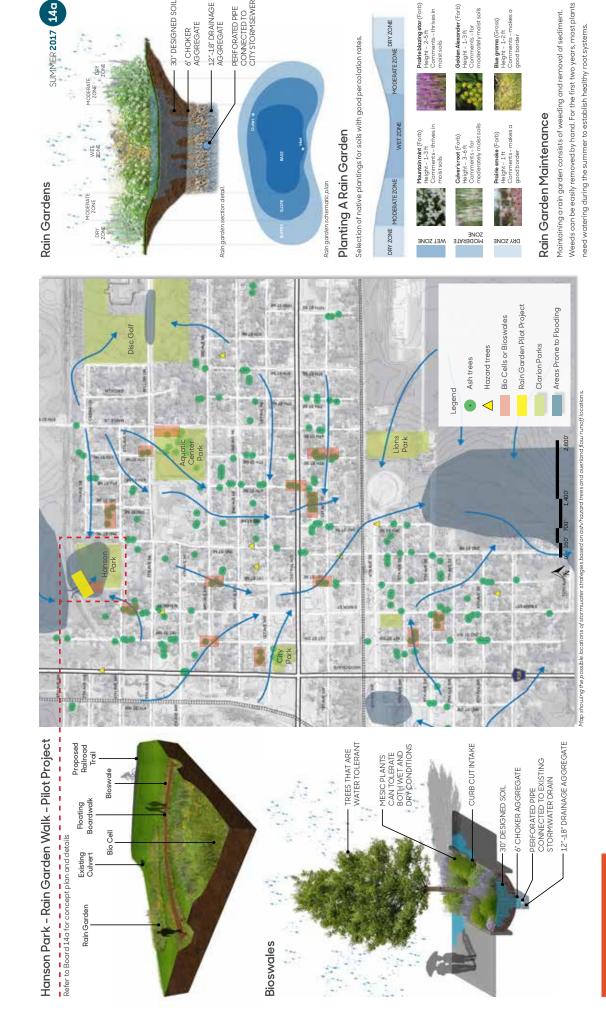
Stormwater BMP Strategies

Rain Garden Maintenance

Maintaining a rain garden consists of weeding and removal of sediment. Weeds can be easily removed by hand. For the first two years, most plants need watering during the summer to establish healthy root systems.

Design Expertise Recommended

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



PERFORATED PIPE CONNECTED TO CITY STORM SEWER

DRY ZONE

MODERATEZONE

12"-18" DRAINAGE AGGREGATE

- 30" DESIGNED SOIL

- 6" CHOKER AGGREGATE

SUMMER 2017 14a

Jeffrey L. Bruce and Company LLC

LA: Eric Doll, PLA, ASLA and David Stoke, PLA, ASLA

Interns: Carol Joella Ustine, Riley Dunn

Iowa State University | Trees Forever | Iowa Department of Transportation



Stormwater BMP Strategies Clarion

Hanson Park Renovation

Rain Garden Walk/Baseball Fields

The proposed trail for Clarion runs along all the major recreational spaces/parks. This trail, gives both residents and outside trail users an opportunity to have a memorable experience at Clarion. Hanson Park, on the northern side of town, has the proposed trail bordering its two sides. This park floods because it's a low point and there's a culvert leading all the water on the other side of the railroad tracks to this space.

This issue is now an opportunity to create a 'Rain Garden Walk' by the side of the existing baseball fields. A sub path from the trail loops around the park in the form of floating boardwalks through the rain gardens for a refreshing and educational experience. An outdoor exercise station space and improved parking are proposed to increase park usage.

These rain gardens are located in such a way that they intercept the stormwater runoff from the culvert, thus aiding to improved water infiltration before it reaches the baseball field. The bioswale runs along one side of the parking lot leading to the largest rain garden. These best management practices (BMP) capture and filter pollutants that the runoff contains before it reaches the groundwater.

Design Expertise Recommended

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

Project Scope and Cost Opinion

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Description ite Demolition ite Survey WPPP Preparation/Documentation oil Suitability Testing oil Excavation for Stormwater BMPs ite Utilities lectrical Service (Outlet and Circuiting) torm Drainage Systems - Pipe and Connections ite Sedimentation and Erosion Control let Protection and Erosion Mitigation	Quantity	Unit	\$10,000.00 \$6,000.00 \$1,500.00 \$20.00	\$8,000.00 \$6,000.00 \$1,500.00 \$9,440.00	Totals \$24,940.00
ite Survey WPPP Preparation/Documentation oil Suitability Testing oil Excavation for Stormwater BMPs ite Utilities lectrical Service (Outlet and Circuiting) torm Drainage Systems - Pipe and Connections ite Sedimentation and Erosion Control	1 472	Is Is sy	\$6,000.00 \$1,500.00	\$6,000.00 \$1,500.00	\$24,940.00
WPPP Preparation/Documentation oil Suitability Testing oil Excavation for Stormwater BMPs ite Utilities lectrical Service (Outlet and Circuiting) torm Drainage Systems - Pipe and Connections ite Sedimentation and Erosion Control	1 472	Is Is sy	\$6,000.00 \$1,500.00	\$6,000.00 \$1,500.00	
oil Suitability Testing oil Excavation for Stormwater BMPs ite Utilities lectrical Service (Outlet and Circuiting) torm Drainage Systems - Pipe and Connections ite Sedimentation and Erosion Control	1 472	ls sy	\$1,500.00	\$1,500.00	
oil Excavation for Stormwater BMPs ite Utilities lectrical Service (Outlet and Circuiting) torm Drainage Systems - Pipe and Connections ite Sedimentation and Erosion Control	1 1	sy			
ite Utilities lectrical Service (Outlet and Circuiting) torm Drainage Systems - Pipe and Connections ite Sedimentation and Erosion Control	1 1		\$20.00	\$9,440.00	
lectrical Service (Outlet and Circuiting) torm Drainage Systems - Pipe and Connections ite Sedimentation and Erosion Control	1	ls	•		
torm Drainage Systems - Pipe and Connections ite Sedimentation and Erosion Control	1	ls			\$30,000.00
ite Sedimentation and Erosion Control			\$5,000.00	\$5,000.00	
		ls	\$25,000.00	\$25,000.00	
let Protection and Frosion Mitigation	,				\$5,000.00
	1	ls	\$5,000.00	\$5,000.00	
ite Earthwork					\$20,000.00
ough Grading	1	ls	\$10,000.00	\$10,000.00	
ine Grading	1	ls	\$10,000.00	\$10,000.00	
ite Hardscape					\$70,544.00
Wide Decomposed Gravel Walking Trail (2,000 lf)	198	су	\$50.00	\$9,877.00	
esurfaced and Reorganized Gravel Parking Lot (18,000 sf @ 6" Depth)	333	су	\$50.00	\$16,667.00	
loating Boardwalk (100 lf @ 8' Wide)	800	sf	\$55.00	\$44,000.00	
tormwater BMPs/Rain Gardens					\$90,444.00
lanting Bed Preparation	1	ls	\$2,500.00	\$2,500.00	
erennial Bioswale Plugs	12,000	sf	\$2.50	\$30,000.00	
esigned Soil (10,000 sf 12" Depth)	444	су	\$75.00	\$33,333.00	
ine Drainage Aggregate (10,000 sf @ 6" Depth)	222	су	\$50.00	\$11,111.00	
rainage Aggregate (10,000 sf @ 12" Depth)	175	су	\$50.00	\$8,750.00	
ducational Signage	1	ls	\$750.00	\$750.00	
verstory Trees	8	ea	\$500.00	\$4,000.00	
ite Amenities					\$26,000.00
edestrian LED Lighting	2	ea	\$8,000.00	\$16,000.00	
edestrian Bench	2	ea	\$1,200.00	\$2,400.00	
rash/Recycling Receptacle	2	ea	\$800.00	\$1,600.00	·
ock Boulders for Parking Bollards	40	ea	\$150.00	\$6,000.00	
ub-Total					\$266,928.00
4% Contingency, Contractor Mark-Up, and Design Fees otal					\$64,063.00 \$330.991.00





Hanson Park Rain Garden Walk / Baseball Fields

The proposed trail for Clarion runs along all the major recreational spaces/parks. This trail, gives both residents and outside trail users an opportunity to have an emenatoble experience at Clarion. Hanson Park, on the northern side of town, has the proposed trail bordering its two sides. This park floods because it's a low point and there's a culvert leading all the water on the other side of the railroad tracks to this space.

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Clarion

Hanson Park Renovation

Jeffrey L. Bruce and Company LLC

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

Iowa State University | Trees Forever | Iowa Department of Transportation



Implementation Strategies

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

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

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

Available Resources

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

Funding Opportunities

- · Grants
- Partnerships (private and public)
- · Trusts and endowments
- · Fund-raising and donations
- Memorials
- · Volunteer labor
- I ow-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
- · lowa Department of Agriculture and Land Stewardship
- · 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
- · lowa DOT Living Roadways Trust Fund Program
- · Iowa DOT Pedestrian Curb Ramp Construction Program
- · Iowa DOT Statewide Transportation Enhancement Funding
- · Iowa DNR Recreation Infrastructure Program
- · Land and Water Conservation Fund
- · National Recreational Trails Program
- · Pheasants Forever
- · Revitalization Assistance for Community Improvement (RACI) Grant Program
- · State Recreational Trails Program
- · Transportation Alternatives Program (TAP)

Community Project Funding Options

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

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

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

	Iowa Department	t of Transportation	on (IDOT	
FUNDING PROGRAM	PROGRAM DESCRIPTION	CONTACT	SUBMISSION DEADLINE	WEBSITE
Revitalize lowa's Sound Economy (RISE)	Created by the lowa legislature to assist in promoting economic development in lowa through the construction or improvement of lowa roads. City or county governments as well as the lowa Department of Transportation may apply for funding, imitate projects, and receive money. The applicant (city r county) involved must assure the dedication of the road to public use and ensure adequate future maintenance	Jennifer Kolacia (515) 239–1738 Jennifer.Kolacia	February 1 and September 1	http://www.iowadot. gov/systems_planning/ rise.htm
Pedestrian Curb Ramp Construction Program	Assist cities in complying with the Americans with Disabilities Act (ADA) on primary roads in lowa cities	Tony Lararowicz, P.E. District Engineer, Iowa DOT 2800 Gordon Drive, P.O. Box 987 Sioux City, IA 51102-0987 (712) 276-1451	Ongoing	(Use Contact Information)
Iowa DOT/DNR Fund	Roadside beautification of primary system corridors with plant materials	lowa Department of Transportation Office of Design 800 Lincoln Way Ames, Iowa 50010 (515) 239-1424	Ongoing	(Use Contact Information)
lowa's Living Roadway Projects Program	Aid lowa's small communities in funding enhancements to transportation related landscape corridors. Goals include: Beautification of transportation corridors (including trails) and entryways Promoting environmental stewardship Encouraging the use of professional design services to enhance the quality of projects Promoting the use of native species	Leslie Berckes Trees Forever 770 7th Avenue Marion, Iowa 52302 (515) 681 - 2295 Iberckes@treesforever.org	(Multiple Dates)	http://www.treesforever. org/ILR_Projects
Living Roadway Trust Fund	Implement Integrated Roadside Vegetation Management programs (IRVM) on city, county, or state right of-way or publicly owned areas adjacent to traveled roadways.	Troy Siefert, PLA Living Roadway Trust Fund 800 Lincoln Way Ames, IA 50010 (515) 239 - 1768 troy.siefert@dot.iowa.gov	Early June	http://www.iowadot. gov/lrtf/grants.html
Keep lowa Beautiful Community Beautification Grants	This Grant Program is intended to leverage local dollars, support volunteer efforts and encourage the work of communities with the desire for improving the image and appearance of their areas.	Gary Schnepf 300 E. Locust St. Ste 100 Des Moines, Iowa 50309 (515) 323 - 6507 gschnepf@keepiowabeautiful.com	Mid March	http://www. keepiowabeautiful. comrants. beautification-grant
Paint Iowa Beautiful	Keeping up the appearance of our buildings and facilities is an important component of viable communities. Well-maintained and painted buildings reflect pride in our communities. Through a partnership with diamond Vogel Paint of Orange City, Iowa.	Bill Jackson 300 E. Locust St. Ste 100 Des Moines, Iowa 50309 (515) 323 - 6507 bjackson@keepiowabeautiful.com	Mid-February	http://www. keepiowabeautiful.com/ grants/paint-iowa- beautiful
Recreational Trails Program (State)	Program established to provide trail systems for public use.	Yvonne Diller (515)239-1252 800 Lincoln Way Ames, IA 50010 yvonne.diller@dot.iowa.gov	July	http://www.iowadot. gov/systems_planning/ fedstate_rectrails.htm
Recreational Trails Program (Federal)	Program established to provide trail systems for public use.	Yvonne Diller (515)239-1252 800 Lincoln Way Ames, IA 50010 yvonne.diller@dot.iowa.gov	December	http://www.iowadot. gov/systems_planning/ fedstate_rectrails.htm

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

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

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

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

	County Grants							
Wright County Charitable Foundation	The mission of the Wright County Charitable Foundation is to foster and promote private giving, to strengthen volunteer and nonprofit service providers, and to improve the condition and quality of life for the citizens of Wright County on a sustainable basis. Toward this objective, the Foundation will promote endowment building; facilitate community betterment projects and programs; analyze and prioritize community needs; initiate focused and meaningful grant making; encourage collaboration, cooperation, communication and partnership among nonprofit groups; and, support active public, private and volunteer leadership for the benefit of the greater community in Wright County, lowa.	Wright County Charitable Foundation 115 North Main Street Clarion, IA 50525 515-532-6422	Spring: March 15-April 17, 2017 Fall: September 15-October 16, 2017	http://www. wrightcounty.org/ departments/ economic_ development/ wright_county_ charitable_ foundation.php				

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

Black Hills Energy							
Power of Trees	Black Hills Energy provides matching grants of \$500 to \$7,000 per project. Trees Forever administers and facilitates the program, providing on-site technical and planning support.	Meredith Borchardt 641-430-3854	June 1 November 1	http://www.treesforever.org/Power_of_Trees			