

Final Report and Feasibility Study West Burlington, Iowa



Planning and Design Consultant:

FLENKER
LAND ARCHITECTURE
CONSULTANTS, LLC

Professional Planning, Design &
Environmental Services

2023

Program Partners:

Iowa Department of Transportation
Trees Forever
Iowa State University



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About Flenker Land Architects

Flenker Land Architecture Consultants, L.L.C. (FLAC), aka Flenker Land Architects, is a full-service professional environmental, planning and landscape architectural firm that was founded in 1997 by Meg Flenker. Professionally licensed FLAC works with both public- and private-sector clients throughout all phases of its projects—from the conceptual stages of assessing project feasibility, evaluating alternatives, researching funding, performing site analysis, and creating schematic designs, to preparing final design and construction documents, including project administration and construction observation.

FLAC’s personnel are trained and committed to consider aesthetics, detail, scale, pedestrian and vehicular circulation and interaction, project context, environmental impact, user safety, functionality, and how humans interact with their surroundings—all things that FLAC considers inherent to the success and value of each project and essential to creating a “sense of place.” With FLAC, you get persons with knowledge and experience working on your project. Our “real-world” knowledge and understanding of the planning, design, permitting, and construction process, coupled with our understanding of the natural and built landscape is an asset to the services that we provide.

We are certified as an Iowa Targeted Small Business (TSB) and a Disadvantaged Business Enterprise (DBE) with the Iowa, Illinois, and Wisconsin Departments of Transportation.

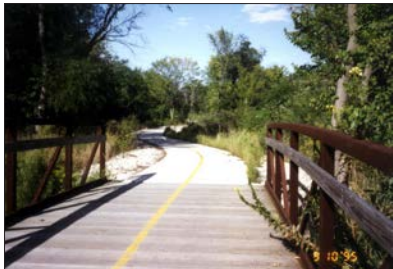
FLAC continually strives to create individualized and quality projects that create value—a guiding principle that has resulted in our involvement in the planning and design of various award-winning projects, both at the state and national levels.



Site Design: Dubuque, Ia.



Streetscape Design: Parkersburg, Ia.



Bike Path Design: Great River Trail



LID Design: Coralville, Ia.



Sport Field & Park Design: Eldridge, Ia.



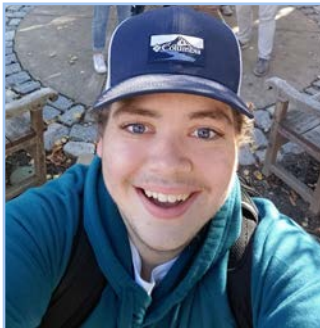
Native Habitat Design: Clinton, Ia.



Meg Flenker, PLA, ASLA, CPESC, CPSWQ

Meg Flenker is a registered landscape architect with more than 34 years of professional experience in the landscape architectural, engineering, planning, and environmental fields. In addition to holding various certifications in LID, sustainability, hardscape, and environmental planning and design, she is also a Certified Professional in Storm Water Quality (CPSWQ) and Certified Professional in Sediment & Erosion Control (CPSEC). Ms. Flenker holds her Bachelor of Landscape Architecture (BLA) degree from Iowa State University and her Master of Business Administration (MBA) degree from the University of Iowa. Meg worked for a Midwest engineering firm for 8 years before leaving to start Flenker Land Architecture Consultants in 1997, which is the same year that she became involved with the Iowa's Living Roadways Community Visioning Program.

A native of eastern Iowa, Meg returned to the Quad-City area after graduating from Iowa State University. Today, she resides just north of the Quad Cities on the family farm where she grew up and continues to be active in the community by serving as the township clerk, cemetery sexton, and treasurer for the board of directors of the local volunteer fire department.



Trevor Smith, Intern

Trevor is entering his 4th year in the five-year Landscape Architecture program at Iowa State University with a minor in environmental studies. He has been with Flenker Land Architects since June 2023 and Community Visioning since May 2022. Born in Ankeny, Iowa, Trevor found a love for building things, especially with Legos, and after many trips to the Omaha Zoo with his grandmother, he found a love for exotic animals as well.

Landscape Architecture has opened the door for him to design zoos or enter into the realm of conservation design in the future. Trevor firmly believes landscape architecture is not just for humans and would love to create spaces that animals and humans can enjoy.



Mikky Ojha, Intern

Mikky is an enthusiastic MLA aspirant who is entering her second year in the Master of Landscape Architecture (MLA) program at Iowa State University. A native of Nepal, she received her undergraduate degree in Architecture from Tribhuvan University Institute of Engineering Pulchowk Campus. Prior to starting her graduate studies at Iowa State, Mikky worked in Nepal as a professional architect on several residential, commercial, and public park projects. Her work provided her with a working knowledge of and experience in interior design, residential drawings, park designs, commercial buildings, and restaurants.

During her career in architecture, Mikky came to realize the importance that the outdoor environment has when integrating buildings into their surroundings and creating a sense of place. In addition, she saw the positive impact that public and green spaces have on improving the quality of life in an urban setting. This new understanding that outdoor space warranted the same, if not more, focus than the buildings during the design process led her to the path of landscape architecture.

Program Overview

West Burlington is one of 10 communities selected to participate in the 2023 Iowa's Living Roadways Community Visioning Program. The program, which selects communities through a competitive application process, provides professional planning and design assistance along transportation corridors to small Iowa communities (populations of fewer than 10,000).

Goals for the Visioning Program include:

- Developing a conceptual plan and implementation strategies with local communities
- Enhancing the natural, cultural, and visual resources of communities
- Assisting local communities in using external funds as leverage for transportation corridor enhancement

Each visioning community works through a planning process consisting of four phases of concept development:

1. Program initiation
2. Needs assessment and goal setting
3. Development of a concept plan
4. Implementation and sustained action

Each visioning community is represented by a steering committee of local residents and stakeholders who take part in a series of meetings that are facilitated by field coordinators from Trees Forever. Iowa State University organizes design teams of professional landscape architects, design interns, and ISU faculty and staff. The program is sponsored by the Iowa Department of Transportation.

Community Goals

The steering committee identified a number of goals and priority areas during the visioning process, that are reflective of what residents identified during their participation in the TAB workshops. The community goals focused on the following main initiatives:

- Improve pedestrian connectivity and accessibility
- Implement branded way-finding
- Enhance the West Burlington trail system

Capturing the West Burlington Vision

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



Focus Group (February, 18, 2023): Focus group participants listen to questions about transportation-related assets and barriers before providing their feedback.

Program Overview

The city of West Burlington is one of 10 communities selected to participate in the 2023 Iowa's Living Roadways Community Visioning Program.

The program, which selects communities through a competitive application process, provides professional planning and design assistance along transportation corridors to small Iowa communities (less than 10,000 residents).

Visioning Program Goals:

- Develop a conceptual plan and implementation strategies alongside local community residents.
- Enhance the natural, cultural and visual resources existing within communities.
- Assist local communities in using external funds as leverage for transportation corridor enhancement.

Each visioning community works through a planning process consisting of four phases of concept development:

1. Program initiation
2. Needs assessment and goal setting
3. Development of a concept plan
4. Implementation and sustained action



Design Workshop (July 4, 2023): The public design workshop was held during West Burlington's annual July 4th celebration, coinciding with the firm's annual pancake breakfast.

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's Department of Landscape Architecture and ISU Extension and Outreach, of which Community Visioning is part, manage the visioning process and the design team. In addition, ISU project staff and interns conduct a bioregional assessment and public input sessions, including transportation assets and barriers (TAB) focus groups and a random-sample survey. Iowa State University, along with Trees Forever and the Iowa Department of Transportation, select private-sector Professional Landscape Architects (PLA) to be part of the design team and work with the various communities in creating their "community vision" and transportation enhancement plan.

Iowa State University processes the information collected from the focus groups and surveys and provides the data to the steering committee and design team for their use in developing community-centered transportation enhancements based on the needs and desires expressed by residents participating in the focus groups and the public design workshop.

The Community Visioning program is sponsored by the Iowa Department of Transportation.

West Burlington

Program Overview



Design workshop (July 4, 2023): Participants had the opportunity to ask questions and provide feedback on the design team's draft plan and to fill out questionnaires and comments about desired enhancements.

Community Goals

The steering committee identified a number of goals and priority areas during the visioning process, that are reflective of what residents identified during their participation in the TAB workshops. The community goals focused on four main initiatives:

- Improve pedestrian connectivity and accessibility
- Implement branded way-finding to enhance the community's identity, user experience, and streetscape aesthetics
- Enhance the West Burlington trail system by
 - 1) extending it to create a connected system within the community, 2) connecting it to the regional Flint River Trail, 3) adding additional site amenities such as benches and shade trees to improve user comfort, and 4) creating a trailhead

Refer to board 6, "What, Where, & Why," for further details related to the main community goals summarized above.



Design Workshop (July 4, 2023): Community members participate in the interactive design workshop and talk with the design team.

Capturing the West Burlington Vision

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

1. Program Overview
2. Bioregional Assessments
3. Transportation Assets and Barriers
4. Transportation Behaviors and Needs
5. Transportation Inventory & Analysis
6. What, Where, & Why
7. Concept Plan
8. Community Identity & Entryways
9. Accessibility & Safety
10. Trailhead

Flenker Land Architects Consultants, LLC

LA: Meg Flenker, PLA, CPESC, CPSWQ
Interns: Mikky Ojha, Trevor Smith
Iowa State University | Trees Forever | Iowa Department of Transportation



Bioregional Assessment

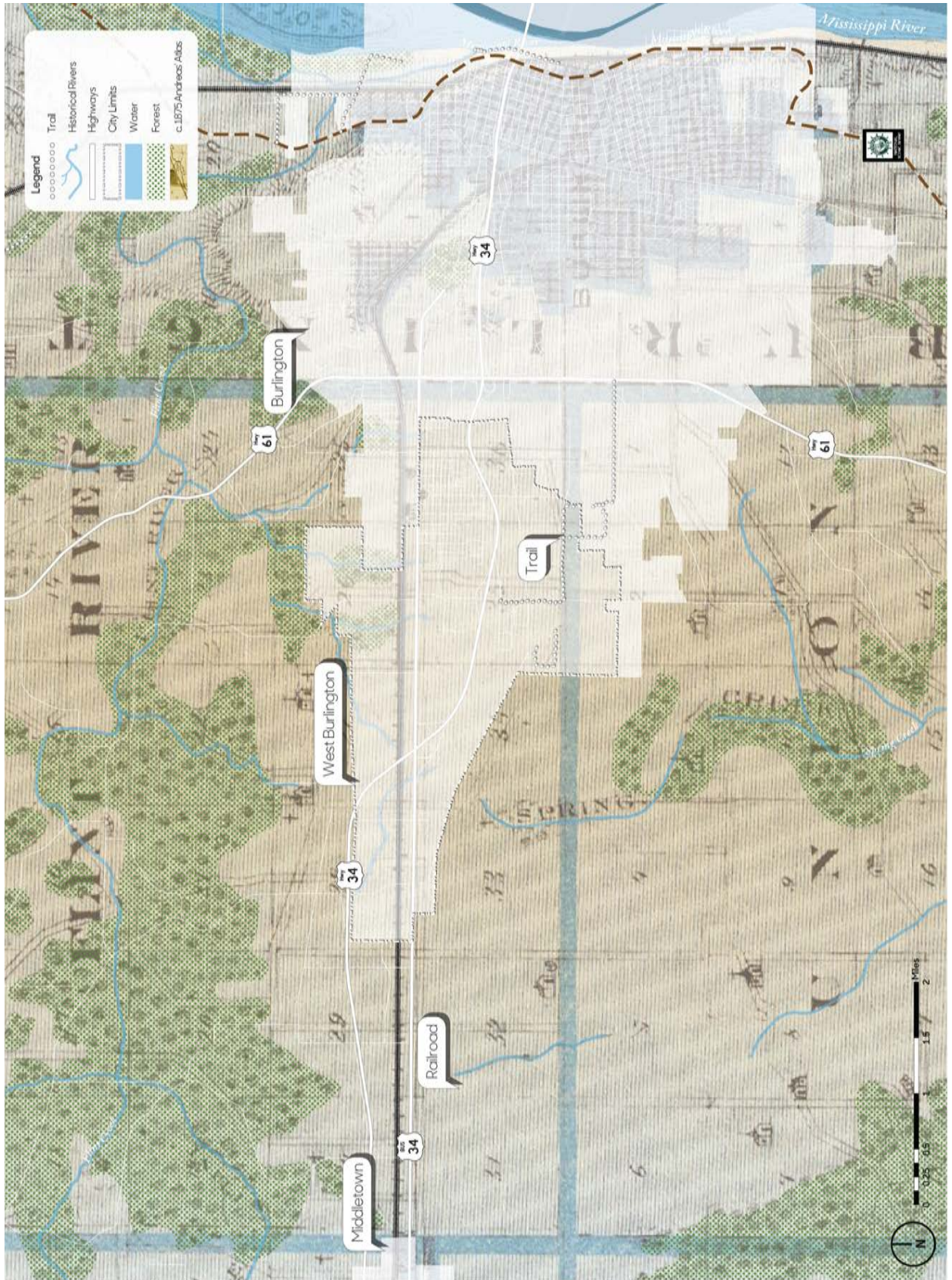
Historical Settlement Patterns

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

West Burlington 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?



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. This 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

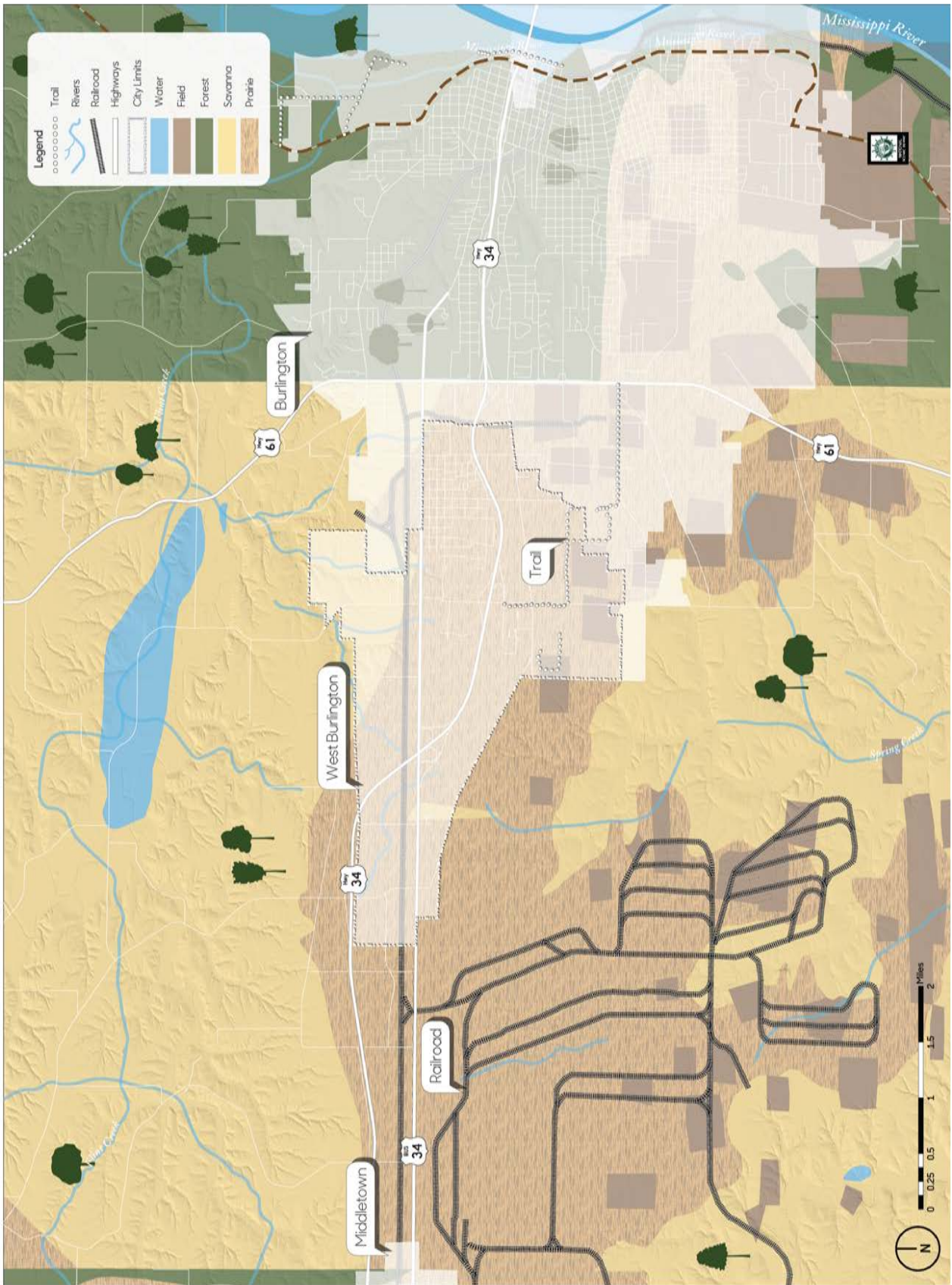
The plant community names mapped by the GLO surveyors varied. The original terminology they used has been preserved in the original data, but we have renamed them on this map to reflect names used to describe contemporary vegetation communities.

Not all communities will have all vegetation types, because various conditions that affect vegetation—such as geology, wind exposure, seasonally high water or groundwater, and frequency of fire—differ from place to place. Early land surveyors mapped the following vegetation types, some of which may not be present in the vicinity of your community:

The vegetation types are defined¹:

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

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

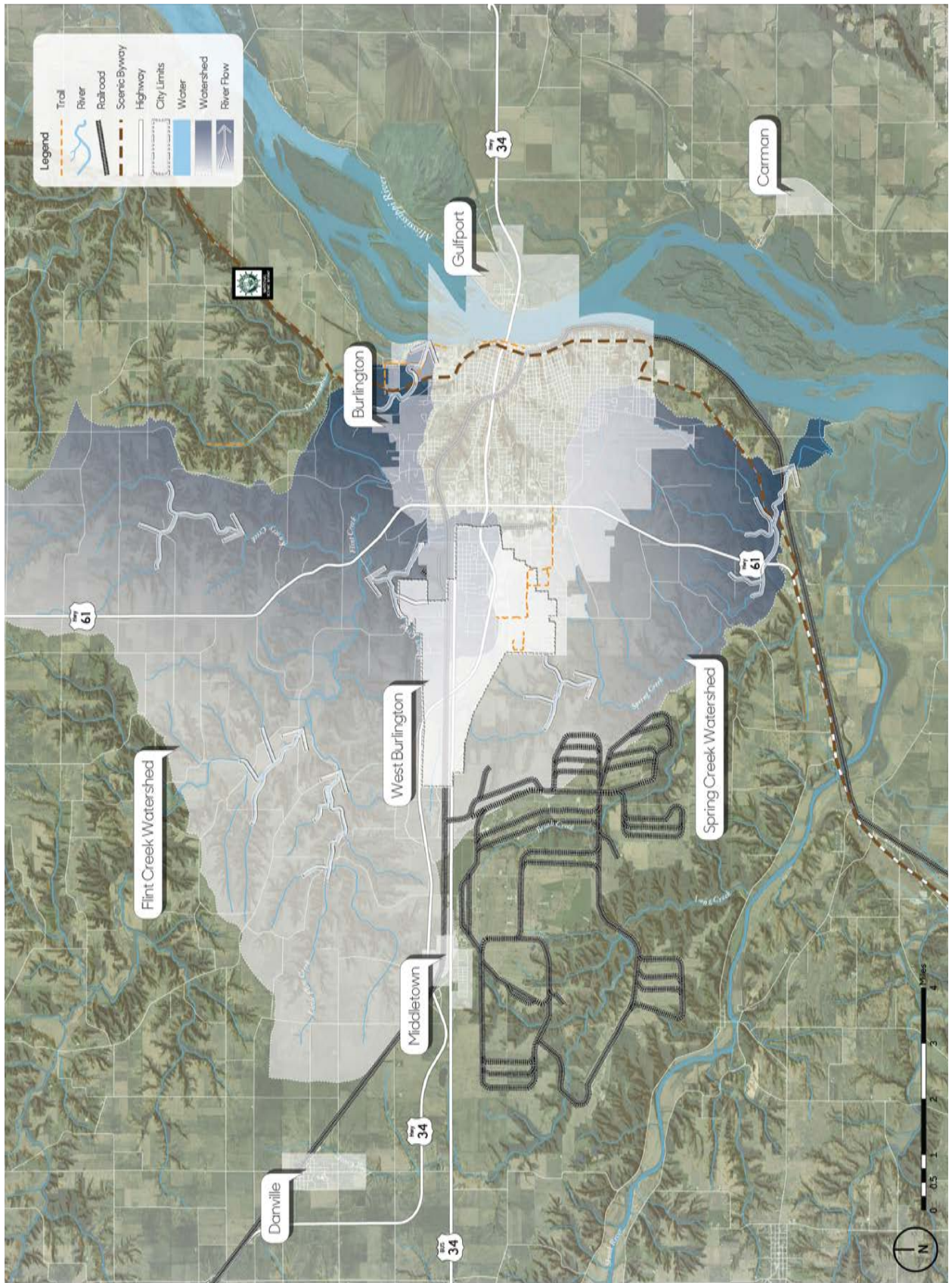


Regional Watershed

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

It is important to note that there are multiple levels of watersheds; for instance, the Iowa River watershed is composed of a dozen smaller watersheds, and the Iowa River watershed is a sub-basin of the Mississippi River watershed.

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

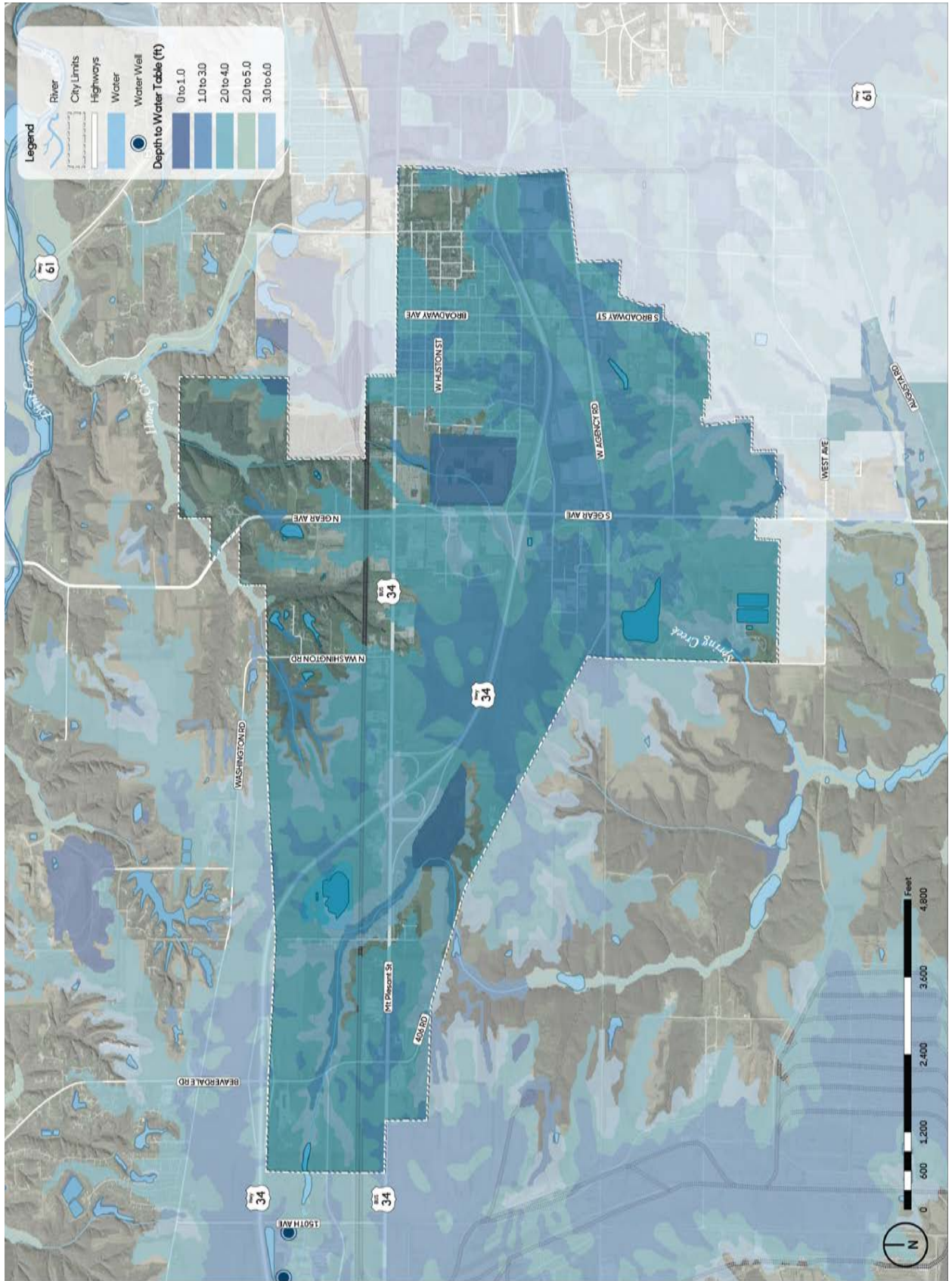


Depth to Water Table

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

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

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

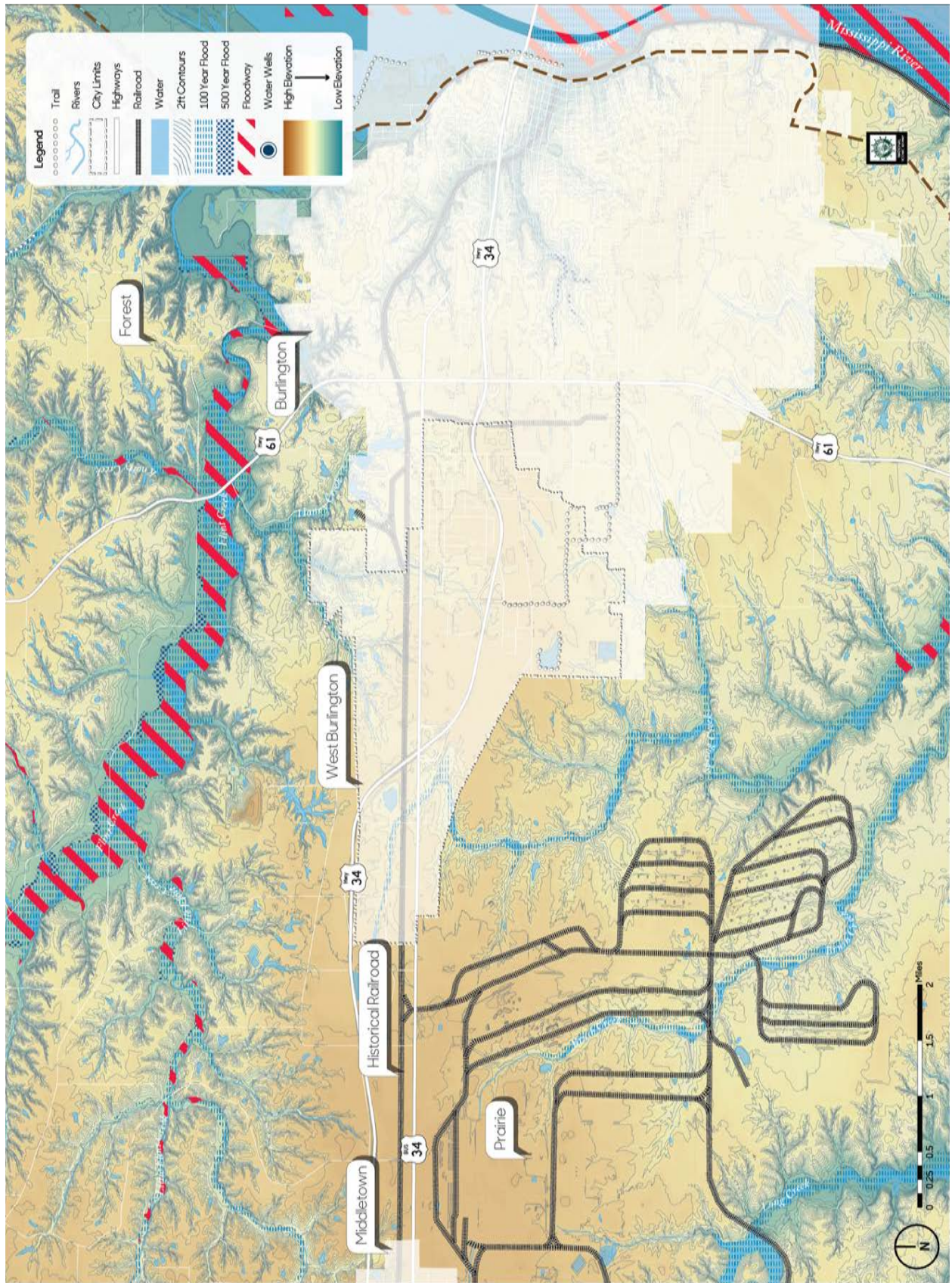


Elevation and Flow

This map displays topographic differences in elevation using a combination of contour lines and the color gradient depicted in the legend. The high and low points have also been located. Note the relationship of your community to the surrounding elevation. Is it located in a valley or on high ground, or is it split between the two?

If your community lies within or near a floodplain or floodway, the map reflects these features. Not all communities will have these elements; if they are absent on this map, none are present.

Flood risk is correlated to low-lying land. This map shows your community's flood risk as defined by the Federal Emergency Management Agency (FEMA) Flood Map Service Center. The map shows the two most important flood zones if present: the Base Flood and the Regulatory Floodway (consult legend). Base Flood is the zone having a 1% 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.



Present-day Land Cover

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

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

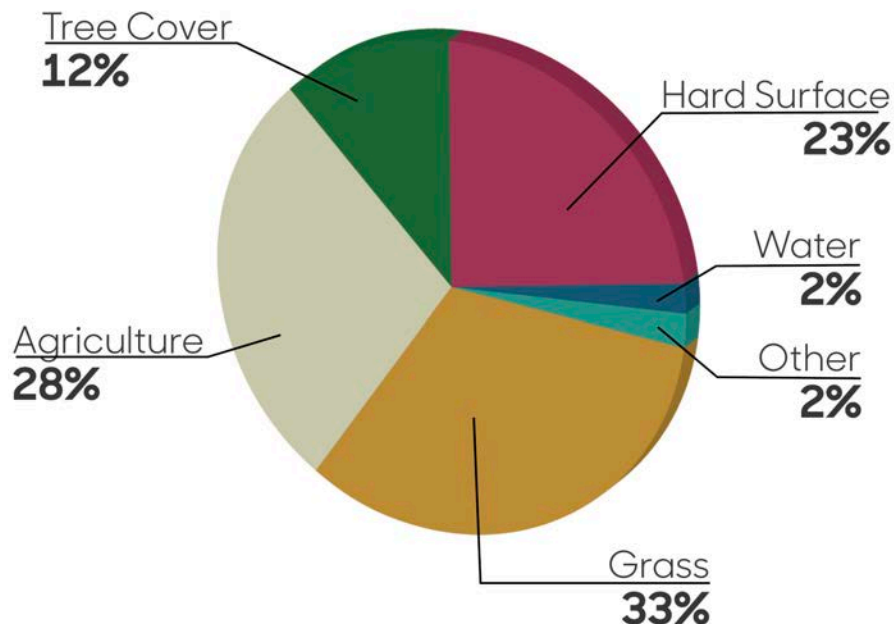
Where is the tree canopy most concentrated?

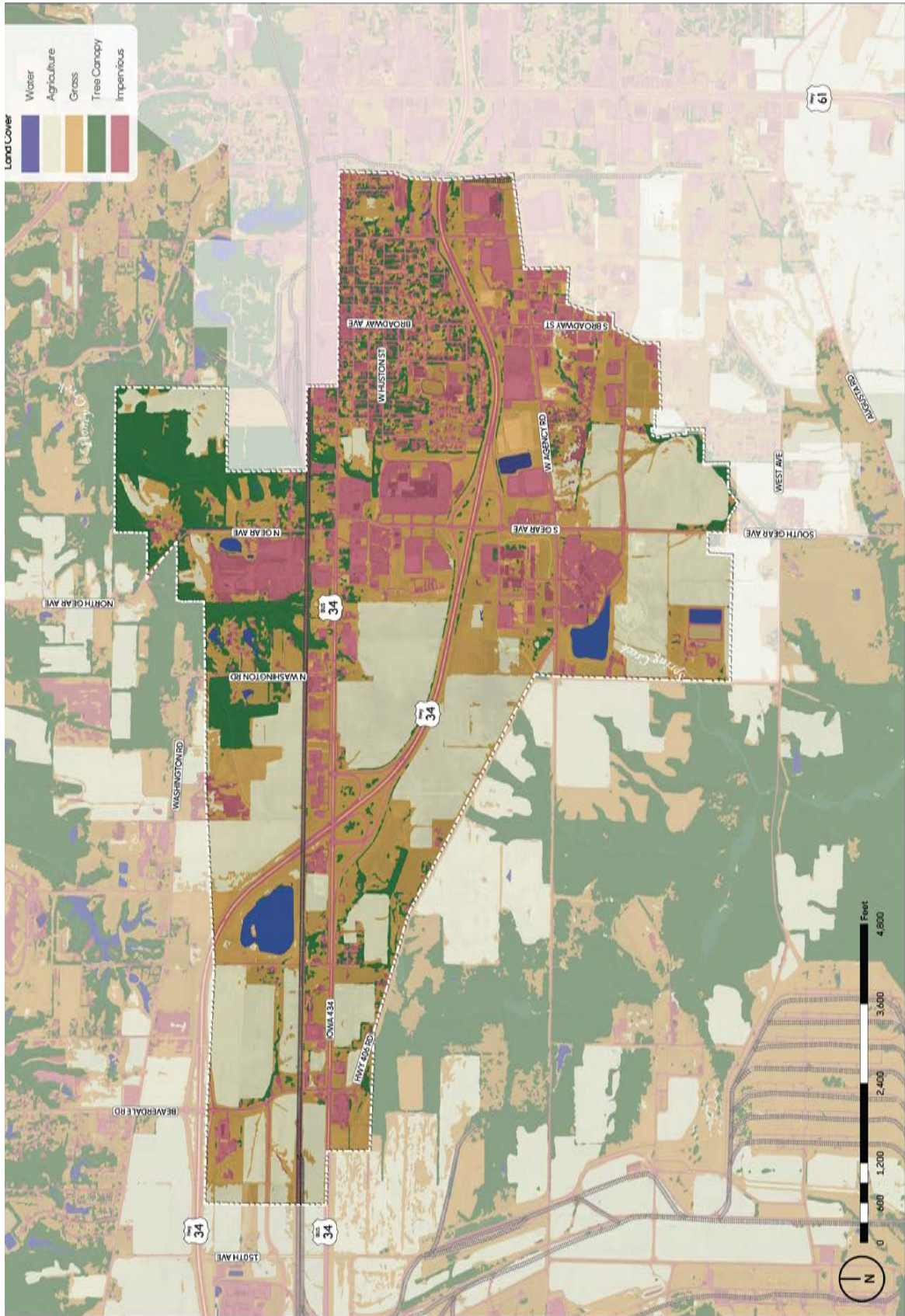
Look at how much of your community consists of impervious surfaces (e.g., parking lots, roads, buildings) compared to the other surfaces (e.g., water, grass, and agriculture).

What does this mean for surface-water movement?

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

Percent Land Cover Type





Landscape Change Over Time

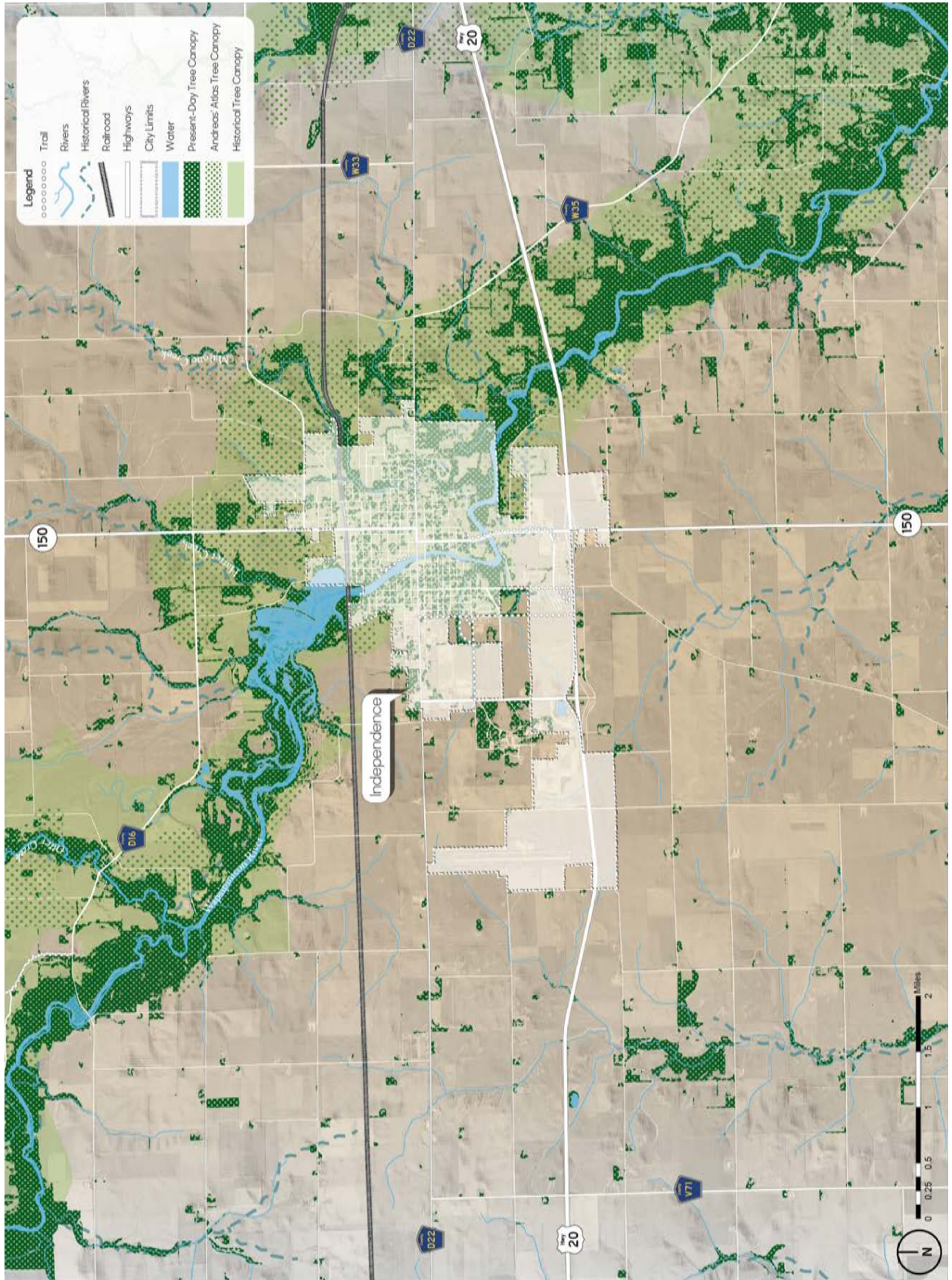
The map on this page shows how the landscape has changed over time, with an emphasis on vegetation and drainageways.¹ The map is helpful for understanding how landscapes change and considering how these changes might affect how well the landscape works to support human and ecological needs.

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

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

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

¹ This map shows the difference between the present day tree canopy gathered from the DNR's Land Cover data and past landscape cover, as defined in the General Land Office (GLO) surveys from 1836 through 1859 and the *A.T. Andreas' Illustrated Historical Atlas of the State of Iowa from 1875*.



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

Different Users = Different Needs

To capture insights about transportation from a variety of perspectives, we invited Independence residents with different transportation needs to participate in focus groups. A total of 56 residents attended West Burlington's workshop. Participants were separated into five user groups and the Independence steering committee.



Actives

This user group represents those in the community who engage in outdoor recreation, including cycling, walking, running, swimming, skiing, etc. The availability of multiple venues for outdoor recreation matters to this group.



Mobility Impaired

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



Older Adults

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



Youth

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



Parents

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



Steering Committee

The common denominator for this user group is that their observations are influenced by special knowledge of the transportation system acquired during the Community Visioning assessment process. As a result, this group is more representative of decision makers.



The hospital green space has a wide, paved path, ample seating, and shade. The site is a popular place to walk, bike, relax, and watch birds.



Mt. Pleasant Street is intimidating to both cyclists and pedestrians because the bike lane is too close to vehicular traffic and there is no sidewalk or trail.



Residents enjoy the Rec Plex for its wide, well-maintained trails and sports venues. Cyclists appreciate the bike repair station located there.



Pedestrians have trouble crossing at the intersection of Broadway Street and Agency Road because traffic is heavy and there is no crosswalk.



Beautiful plantings along the wide trail along Gear Ave provide great buffers from vehicular traffic on the side streets.



Pedestrians and cyclists find it difficult to access businesses and services along Agency Road, which has no sidewalk or developed shoulder.

What People Said



Youth

"I don't think there is a crosswalk [at the intersection of Agency Road and Broadway Avenue]...It's just a four-way stop and it's busy... That probably is actually the busiest intersection in West Burlington."

"A lot of people don't follow the 20 miles per hour limit [around the schools], and they speed past it..."

"Truthfully, they need to get a pedestrian bridge [across S Gear Avenue from the mall to Target]... [and] the bigger picture would be connecting to the bike path."

"If we had [a trail] down [Agency Road]...It might be pretty easy to then connect over to the library [in Burlington]."

"Most of the neighborhood [across from Luers Park] has sidewalks, but they're on, like, only one side of the street...It makes it pretty hard to get around."

"[After school, kids run] across [Ramsey] in-between parked cars and...parked cars on both sides of the street, plus a line trying to turn into the [school] pickup/drop-off lane, plus random cars [try] to squeeze their way through."

"There is a sidewalk [on] Gear [Avenue on the Highway 34 overpass], but it's super narrow and it's really rough, and then it turns to all grass on the other side..."

If I want to go walk the trails over at the Rec Plex, I have to drive there because... there's no sidewalk accessibility, particularly across [Highway] 34 [on Gear Avenue]."



Parents

"[On West Burlington Ave] by the pool, when kids are walking...there is hardly any [shade]... sometimes I see kids sitting underneath the [highway] overpass to take a break in the shade, and that's not really a great spot."

"...parents—or just everyday people—they want trails. They want pedestrian paths...a lot of people don't care for [the share-the-road] option. I, for one, don't like that with my kids."

"[The walkway on the Hwy 34 overpass on S Gear Ave is] really unlevel. The ramp...going north and then even the ramp coming south [are] just difficult... It's definitely not wheelchair accessible. Bik[ing] is no fun on it."

"[The trail at the Rec Plex is] peaceful. You just feel safe. You're separated from all the congestion of traffic. It's bright out there."



Actives

"There's a bike [lane on Mount Pleasant Street], but it's not a safe bike [lane]...It's...one painted line away [from traffic]."

"In the wintertime, under the overpass [on W Burlington Avenue gets] icy... No one removes the snow from the sidewalks, so the people...[are] walking in the street or...walking on ice."

"There [are Southeastern Community College] students who don't have cars... They have to walk anywhere they go... There's no sidewalk [along Agency Road] from the college to anywhere."



Older Adults

"I would like to see some benches. People walk and they need a rest...one place would be by the mall, because that's going to be a trail through there."

"From the [community] college to [Kohl's], people walk in the road [along Agency Road because there's no sidewalk]... And I have many times just about hit [someone]...at night, it's horrible."

"[My wish] would be [for] walking and bicycling trails, because in town, you're either walking on the crooked sidewalks or in the street..."

"The bike lane on Mt Pleasant Road is scary. It needed to be wider... it's close to the traffic... [and] the traffic doesn't respect the bikes."

"...on the south side of West Burlington... the traffic noise is so loud...[It's] just unreal [with] how bad the noise is. I don't know how [people living there] stand it."



Steering Committee

"[The trail around the lake is] wide and well-kept and I don't have to worry about... cars running over my kids if they get further ahead of me...But the problem is we have to drive to get there."

"...once you cross...Gear Ave on your bike...there's no way of riding a bike up over the [Hwy 34] bridge over to the mall...there's a pedestrian crossing there, but it's poorly kept. It's narrow. You'd really have a tough time if you met a cyclist, met a walker."

"We need more sidewalks. We need to fix sidewalks. We need to make sure they're all at least four-foot [wide]. There [are] two-foot [and] three-foot [sidewalks] and there [are] upheavals..."

"[On Broadway Avenue] there's a sidewalk on one side, but not on the other side...[so people] just traipse across the road..."

"...in regard to transportation, I'm looking more for accessibility. I'm looking at the benches, the water fountain[s], some shade...an oasis along the way."



Mobility Challenged

"...during school [pickup or drop-off] time... if you're leaving the parking lot from the [elementary] school, you cannot [turn left to] go...north. You literally have to go to the south to get out..."

"It would be really cool to have...a sidewalk going down Broadway...that connects to [the Rec Plex and Gear Avenue to make] a big loop around town to walk."

"...a lot of older people [and]...people with disabilities [live at Western Pines]...they can't [get anywhere] because there's no sidewalk...They're... stuck there, because [Agency Road] is such a busy street. If anybody's in a wheelchair or [using] a walker, they're not getting across Agency."

"I walk with my grandma almost every single day. So a walking path...in Luers Park—that would be nice to go out there and enjoy being outside."

"There is a sidewalk and a little bridge [over the creek in Luers Park] but it's not accessible, really, because you have to walk up stairs..."

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, bike, and run regularly for exercise and/or recreation. This group prefers to use multi-use trails that are separated from traffic. They do not feel safe riding in the designated bike lane along Mt. Pleasant Street because vehicular traffic is too close.

Mobility-challenged individuals walk and drive around town. Smooth, wide surfaces are important to this group. A more accessible, controlled crossing over West Burlington Avenue to the pool and a sidewalk or trail along Agency Road are two improvements this group desires.

Older adults drive, walk, and bike. This group talked about the traffic noise from Highway 34 disturbing residents living on adjacent residential streets and the traffic bottleneck at the intersection of Broadway Street and Agency Road. Older adults would like more parking downtown.

Youth walk, bike, and ride scooters or a Segway to get around town. Older youth also drive. Kids would like a bus route to the Rec Plex. They also want a longer crossing signal on S Gear Street near Target, more speed control around the school campus, and more shelters in the parks.

Parents walk, run, and bike, as well as drive personal vehicles and side-by-sides. They also enjoy riding Hoverboards and Onewheels. This group is concerned about the safety of their children. They suggested building walkways over busier intersections to make it safer and easier for walkers and cyclists to cross.

Steering committee drive, walk, and bike. This group would like attractive welcome signs at community entrances, safe pedestrian crossings at intersections, and bump-outs and medians to give pedestrians a safe spot when crossing the street. Committee members suggested road diet for Agency Road, Mt. Pleasant Street, and Gear Avenue.

User Types	Destinations and Activities			Valued Features			Undesirable Qualities and Features				Most Desired Improvements and Activities				Notes	
	Hospital Green Space	Rec Plex	City Trail	Local Parks	Pedestrian Access & Connectivity	Trees & Shade	Inadequate Sidewalk Infrastructure	Disconnected Trails	Difficult pedestrian/cyclist crossings	Heavy Traffic	School Traffic Congestion	Complete, ADA-Compliant Sidewalks	Trail Connections	Trail Amenities		More Trees
Actives 	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Actives walk, bike, and run regularly for exercise and/or recreation. This group prefers to use multi-use trails that are separated from traffic. They do not feel safe riding in the designated bike lane along the Pleasant Street because vehicular traffic is too dense.
Mobility Challenged 	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Mobility-challenged individuals walk and drive around town. Smooth, wide surfaces are important for them. They would like a controlled crossing over West Burlington Avenue to the pool and a sidewalk or trail along Agency Road are two improvements this group desires.
Older Adults 	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Older adults drive, walk, and bike. This group talked about the traffic noise from Highway 34 disturbing residents living on adjacent residential streets and the traffic bottleneck at the intersection of Agency Road and Highway Road. Older adults would like more parking downtown.
Youth 	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Youth walk, bike, and ride scooters or a Segway around town. They would like to see more sidewalks and more people walking. They would like a longer crossing signal on S Gear Street near Target, more speed control around the school campus, and more shelters in the parks.
Parents 	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Parents walk, run, and bike as well as drive around town. They would like to see more people enjoy riding Hoverboards and Onewheel. This group is concerned about the safety of their children. They suggested building walkways over busier intersections to make it safer and easier for walkers and cyclists to cross.
Steering Committee 	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Steering committee members drive, walk, and bike. This group would like attractive welcome signs at community entrances, safe pedestrian crossings at intersections, and bump-outs and medians to give pedestrians more space at the intersection. Steering Committee members suggested road diet for Agency Road, Mt Pleasant Street, and Gear Avenue.

The green space on the hospital campus is a popular destination among the user types. The wide, well-lit path and low-pressure bird watching... Residents like going to the Rec Plex because they feel safe using the trails, which are wide and well-maintained. While actives value the bike trail, people with mobility challenges value the blue trail station.

The steering committee, mobility-challenged older people often suffer from a variety of reasons including the Rec Plex has a wide trail, use and the West Burlington and vice versa. The local parks and two dining boards, as well as the local parks, Rec Plex, and the hospital.

People of ages and abilities enjoy the local parks and dining boards, as well as the local parks, Rec Plex, and the hospital.

West Burlington park is home to a local park, West Burlington and vice versa. The local parks and two dining boards, as well as the local parks, Rec Plex, and the hospital.

People of ages and abilities enjoy the local parks and dining boards, as well as the local parks, Rec Plex, and the hospital.

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Transportation Behaviors and Needs

Overview

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

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

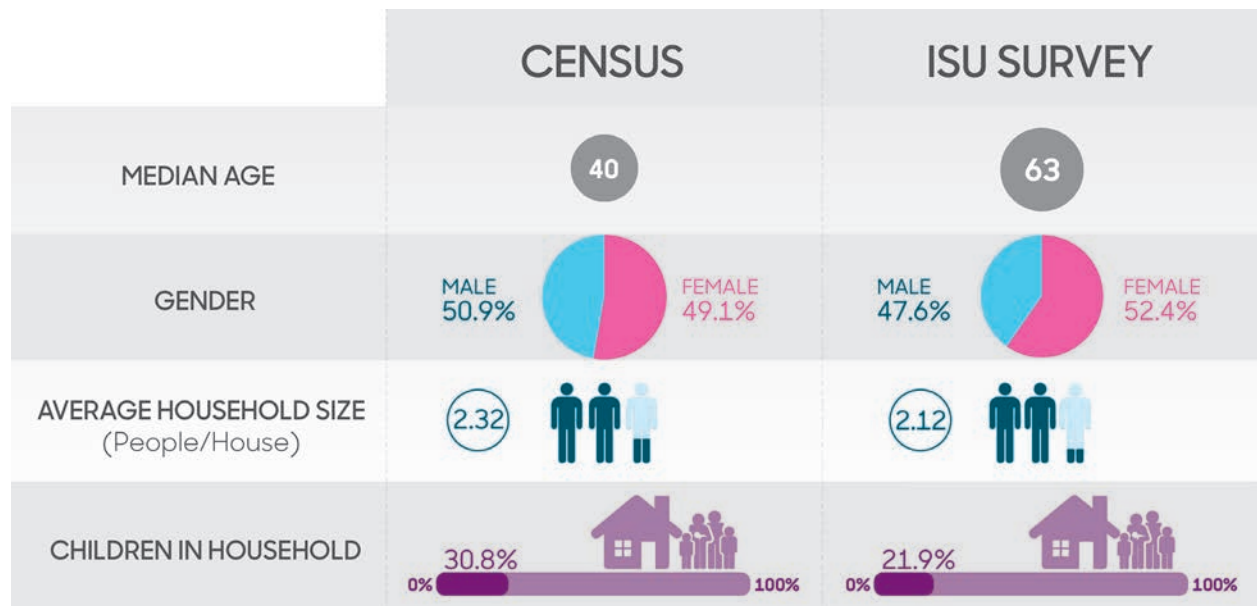
With assistance from Iowa State University's Survey Research Services staff in the Center for Survey Statistics and Methodology (CSSM-SRS), ISU visioning program staff conducted a survey to better understand the transportation patterns, behaviors, needs, and desires of West Burlington residents. Surveys were mailed to 400 randomly selected residents living in West Burlington 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 338. A total of 105 people returned surveys, for a response rate of 31.1%. (A response rate of 20% is considered valid.)

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

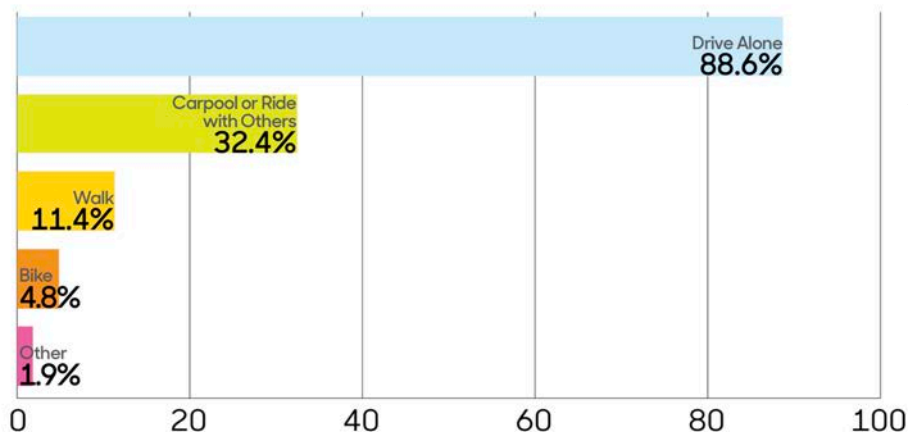
How We Did

The demographics of the respondents are somewhat different from those obtained from the 2021 American Community Survey (ACS). For example, the survey respondents median age of 63 is significantly older than the ACS estimated average age for West Burlington residents of 40. In terms of gender, the percentages of male and female survey respondents are similar to ACS estimates. Average household size among survey respondents and the percentage of households with children are somewhat lower than the ACS estimate.



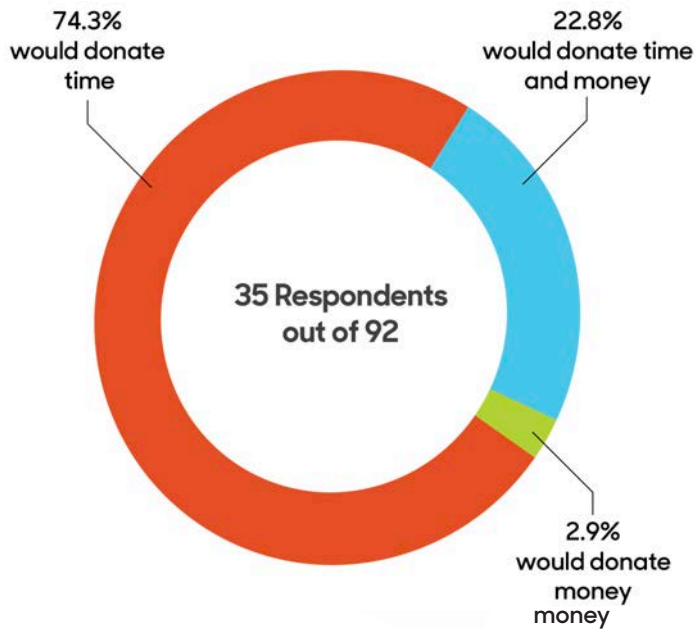
How West Burlington Residents Travel

Most survey respondents drive to important destinations such as the convenience store, the post office, school, and church (88.6%). More than 32% carpool or ride with someone else. Some people indicated that they walk (11.4%) and/or bike (4.8%), but the primary mode of transportation in West Burlington is by vehicle.



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

Willingness to Help



Most survey participants who answered “Yes” this question are willing to contribute their time to community improvements (74.3%), while 22.8% would help financially and contribute their time. Nearly 3% of respondents indicated that they would be willing to contribute financially.

Compared to other small towns in Iowa, West Burlington residents are somewhat less 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 The percentage of West Burlington residents is 5% lower than this average.

How Do You Get People to Help?

Ask, Show, and Advertise Opportunities

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

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

Survey Participants Said...



"The most important aspects, to me, for improving transportation and the community are to make the community more walkable and to do so in the most environmentally conscious way possible."

"While I don't need the bus, I want it to be available to those who do depend on it!"



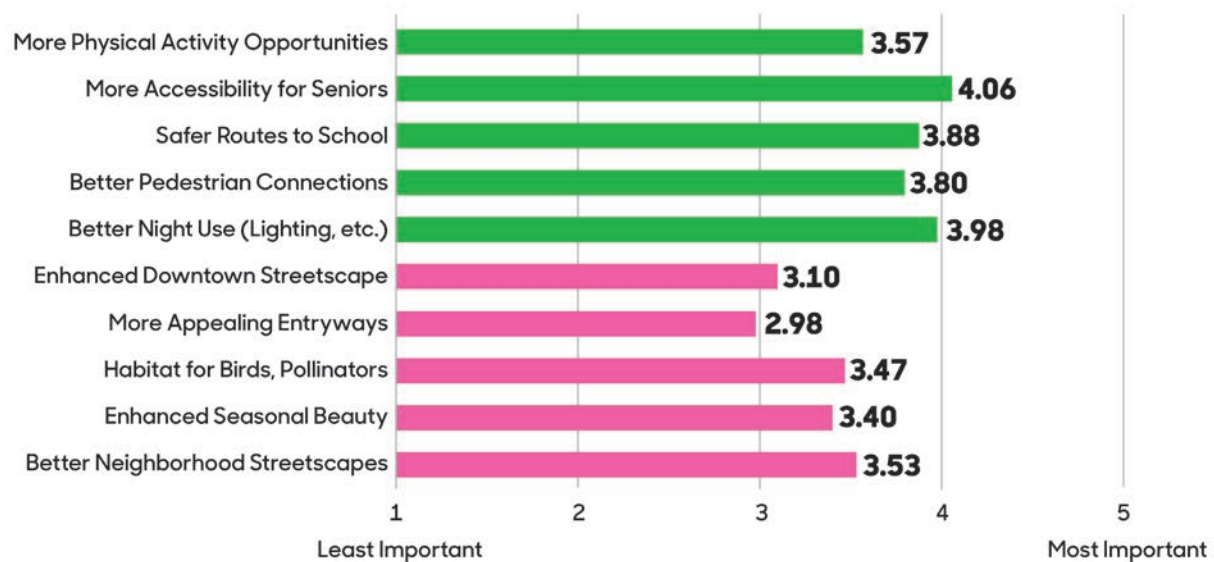
"[We need to] synchronize the stoplights for better traffic flow. A sidewalk [is needed] from the [community] college to Walmart [and] from Walmart [east] into Burlington along Agency Road."

Priorities

On a scale of 1 to 5, with 5 being the most important, participants in West Burlington ranked improving accessibility for seniors as most important, with a mean value of 4.06. Other types of transportation enhancements that address pedestrian mobility, health, and safety are also considered important, such as providing better lighting for night use (3.98), creating safer routes to school (3.88), and making better pedestrian connections (3.80). In terms of quality of the built environment, survey respondents consider improving neighborhood streetscapes as most important (3.53), followed by creating habitat for birds and pollinators (3.47), and enhancing seasonal beauty (3.40). These findings are consistent with the views expressed by focus-group participants during the Transportation Assets and Barriers workshop held in February 2023.

Transportation Enhancement Issues

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



Survey Participants Said...



Please use a street sweeper on the bike lanes on Mt. Pleasant! Your streets are in good physical repair, but the debris makes it unusable for bikes.

"[I feel safe walking] during the day, [but] lighting at night isn't very good."



"[I don't feel safe] because you have to walk in the street on north side or cross to south side on Longmeadow between Broadway and the elementary school."

"West Burlington has nice walking areas. There are sidewalks that could be installed yet or improved—especially for kids to walk to and from school."



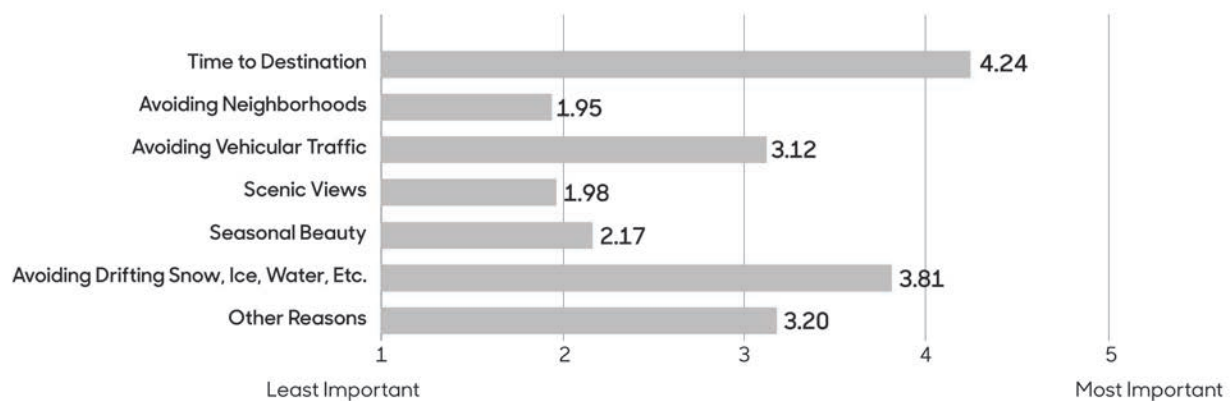
Commuting Routes

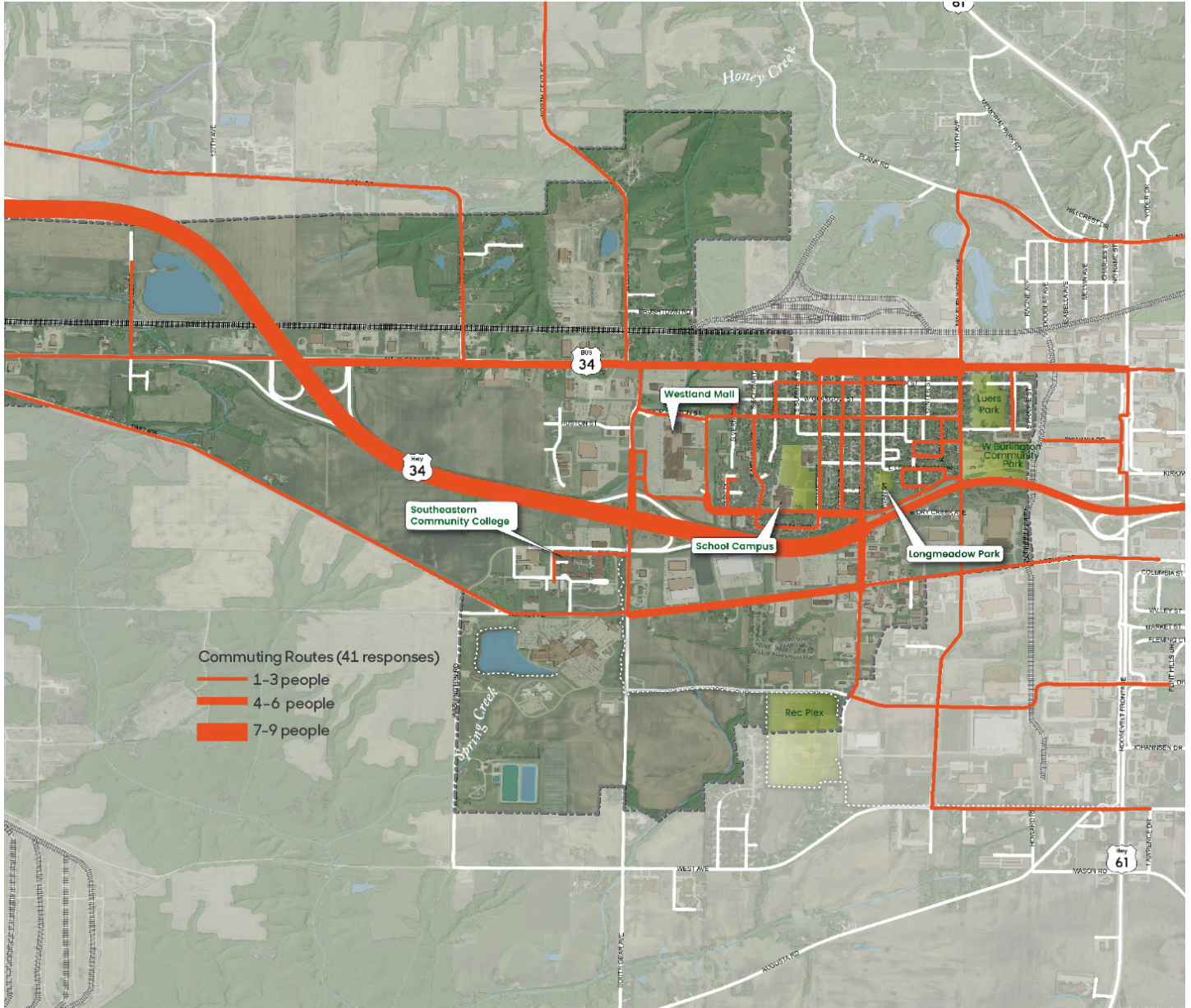
This map shows the commuting routes identified by 41 survey respondents. The frequency that the routes are used is depicted by their width, with most frequently used routes being the thickest. The primary commuting corridor into and out of West Burlington is Highway 34. Other east-west routes identified by respondents include W Mt. Pleasant Street, especially through the downtown area, and W Agency Road. West Burlington Avenue, N Gear Avenue, and Washington Road are the north-south routes commuters take.

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 West Burlington participants, time to destination is the most important factor in determining commuting routes, with a mean value of 4.24. Avoiding weather-related issues such as snow and ice is also significant (3.81). Scenic views, seasonal beauty, and avoiding neighborhoods are not critical factors in determining commuting routes.





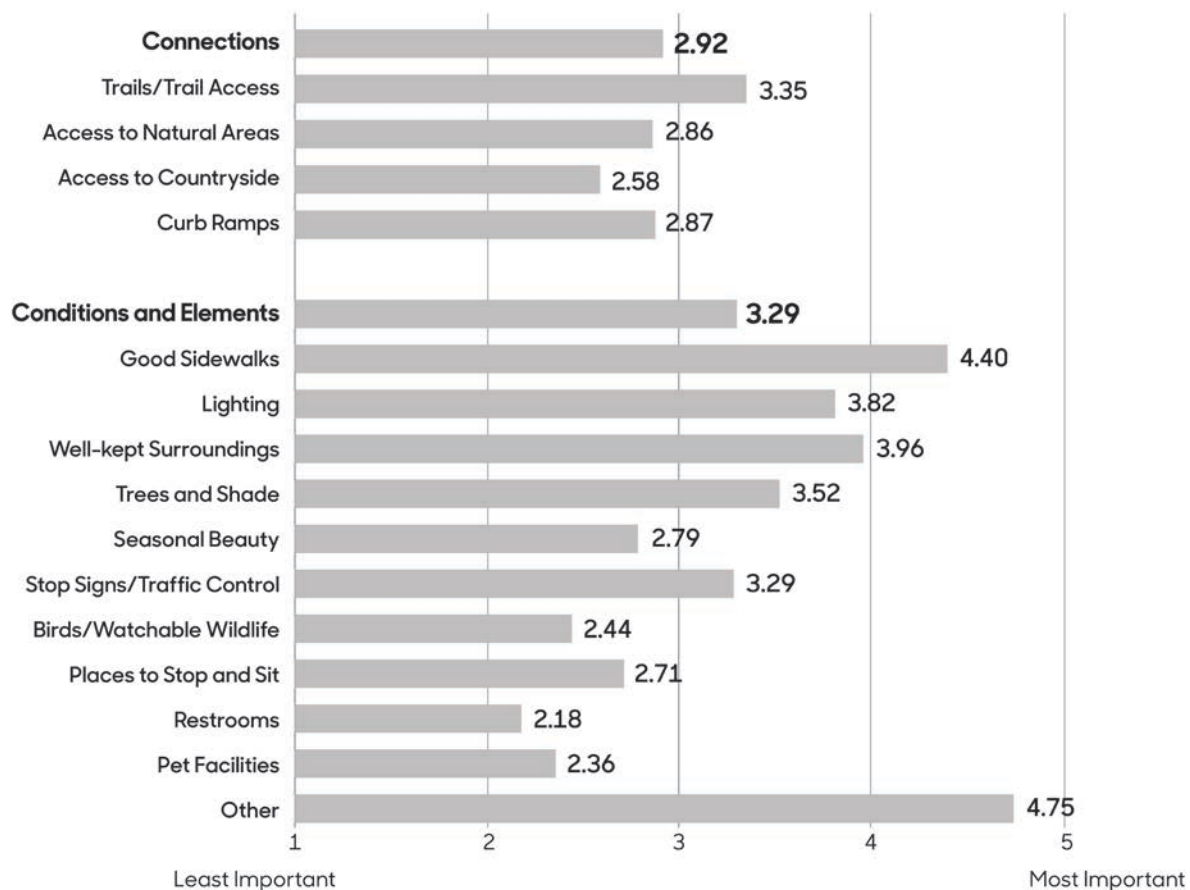
Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," <http://www.igsb.uiowa.edu/nrgislib/>.

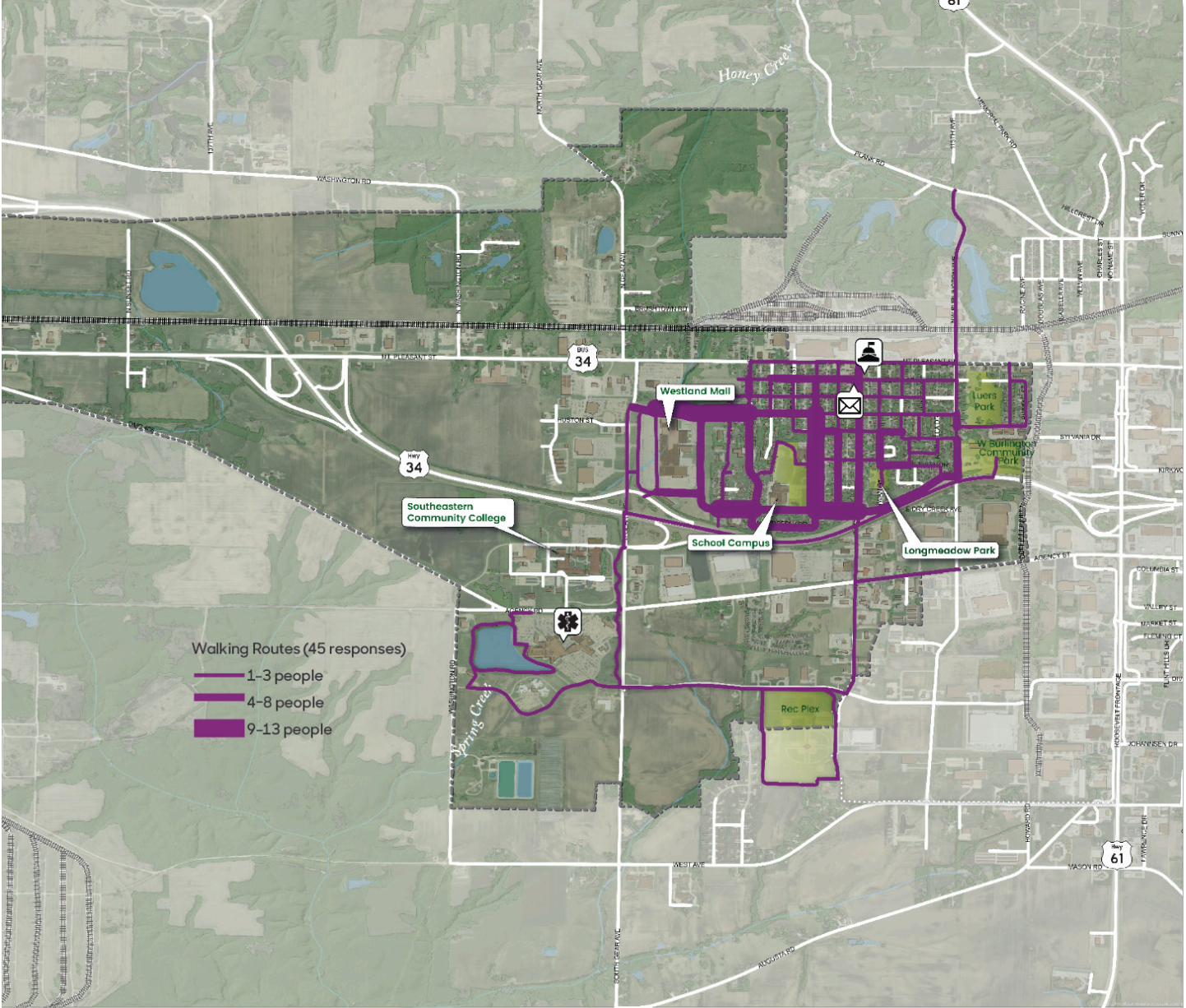
Walking Routes

This map shows the walking routes identified by 45 survey respondents. The frequency that the routes are used is depicted by their width, with most frequently used routes being the thickest. The most heavily traveled routes among walkers are Ramsey Street, particularly the blocks adjacent to the schools; Huston W from Melville Avenue west to the mall; and sections of Van Weiss Boulevard. Other popular routes include portions of Wheeler Street, Leffler Avenue, Kimberly Drive, and parts of West Burlington Avenue. Some people walk the trail along S Gear Avenue and Division Street and loop around the Rec Plex, and some walkers enjoy the path around the lake on the hospital campus.

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." West Burlington participants consider conditions/elements as more important than connections, with mean values of 3.29 and 2.92, respectively. In terms of connections, access to trails is most important with a mean value of 3.35. Other factors—namely safety, low noise, wider sidewalks, and snow removal in winter—are the most important conditions/elements, with a mean value of 4.75, followed by good sidewalks (4.40), well-kept surroundings (3.96), and lighting (3.82).





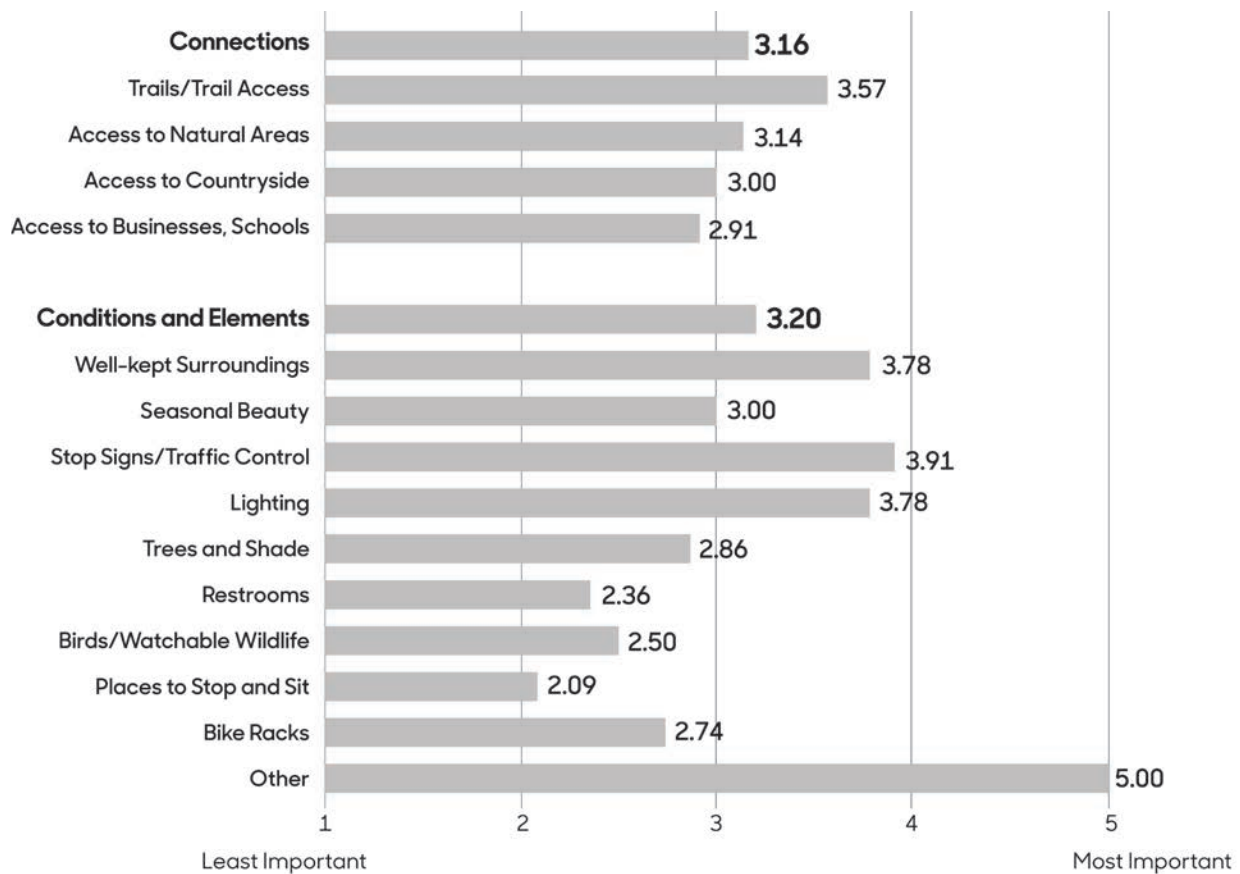
Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," <http://www.igsb.uiowa.edu/nrgislib/>.

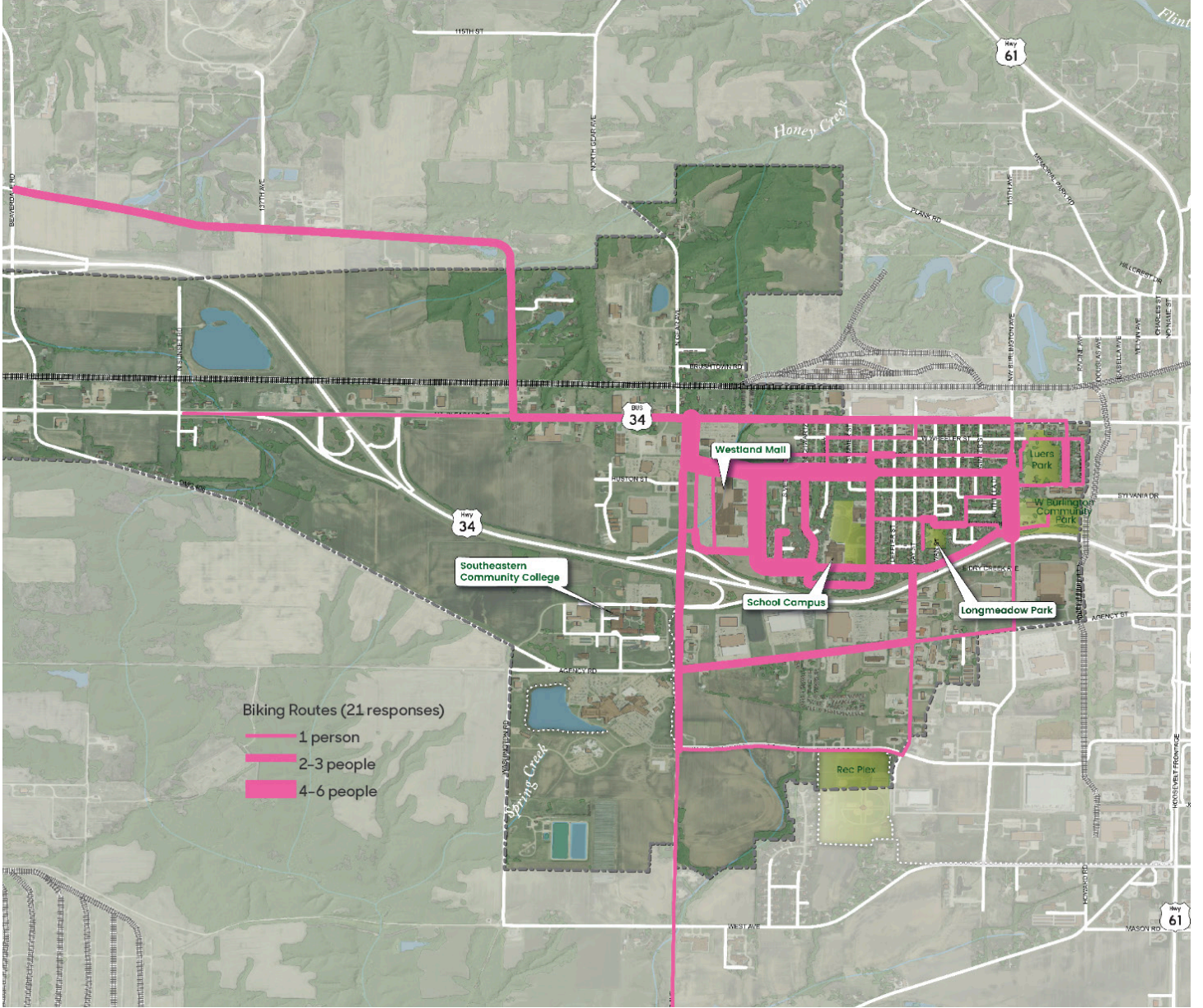
Biking Routes

This map shows the biking routes identified by 21 survey respondents. The frequency that the routes are used is depicted by their width, with most frequently used routes being the thickest. Similar to walkers, cyclists most often ride on Huston Street from Ramsay Street to the mall, Autumn Lane, W Van Weiss Boulevard, and West Burlington Avenue. People also bike on S Gear Avenue, Agency Road, Division Street, and Broadway Street. Some bikers take advantage of the bike lane on W Mt. Pleasant Street and some ride out of town on Washington Road.

Why They Go That Way

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their biking experience better. These features are categorized as either "connections" or "conditions and elements." West Burlington participants consider conditions/elements somewhat more important than connections, with mean values of 3.20 and 3.16, respectively. Access to trails is most important connection to survey respondents with a mean value of 3.57. In terms of conditions/elements, other factors, which were not identified by respondents, are most significant, with a mean value of 5.00, followed by stop signs/traffic control (3.91), and well-kept surroundings and lighting (both at 3.78).

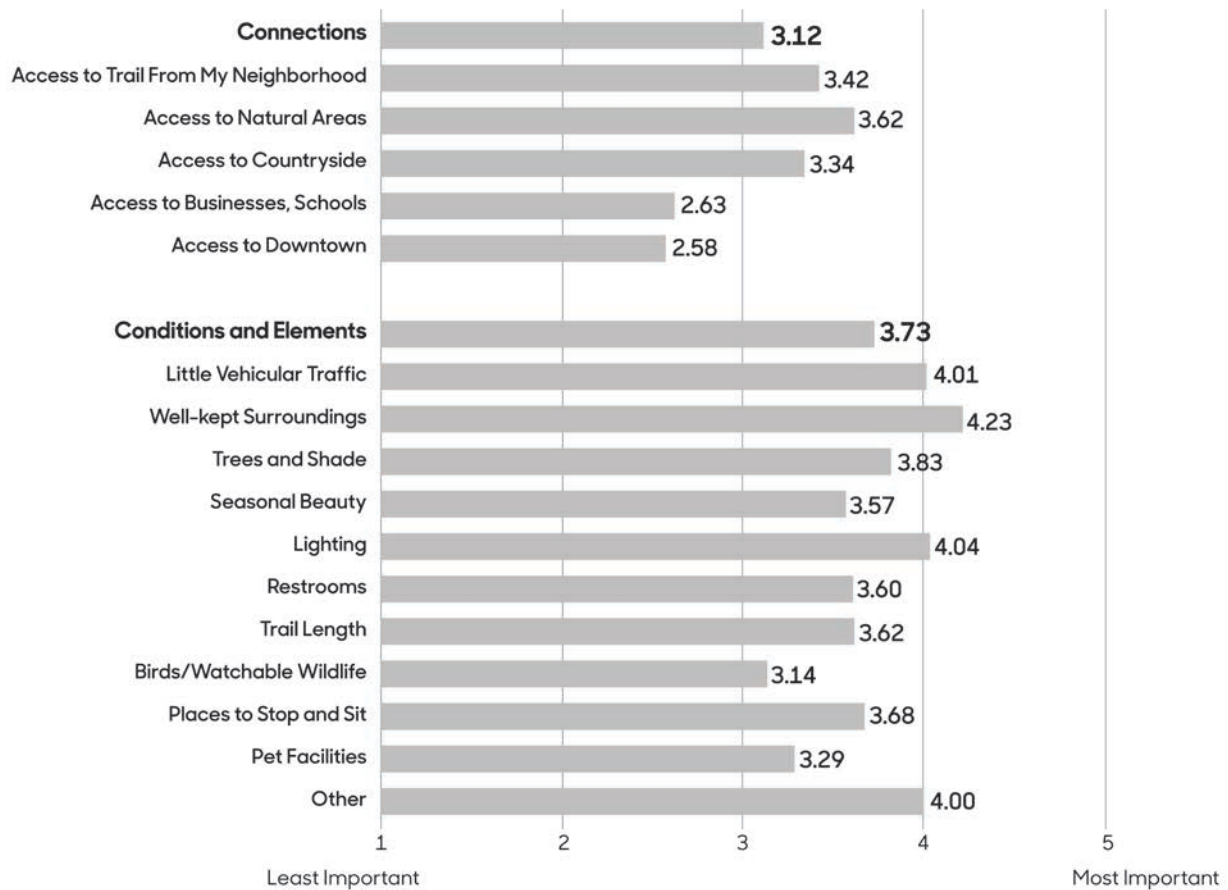




Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," <http://www.igsb.uiowa.edu/nrgislib/>.

Desired Trail Features

Trails are off-street paths that are paved or unpaved and can be used by pedestrians and cyclists. On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their trail experience better. Like the bike route features, they are categorized as either “connections” or “conditions and elements.” Conditions/elements are more important to West Burlington trail users than connections, with mean values of 3.73 and 3.12, respectively. Access to natural areas is the most important connection among trail users, with a mean value of 3.62. In terms of conditions/elements, well-kept surroundings are most important, with a mean value of 4.23, followed by lighting (4.04), and little vehicular traffic (4.01). Other factors such as handicapped accessibility, consistent availability of restrooms, and safety are desirable conditions, with a mean value of 4.00. Also of significance to trail users are trees and shade (3.83) places to stop and sit (3.68), trail length (3.62), and restrooms (3.60).





"It would be wonderful if you connected the trail routes from the hospital, SCC, [and the] Rec Plex and made a 'loop' around West Burlington to exercise—walking, running, biking, etc."

"I think a long and accessible trailway (like the Rock Island Trail in and around Peoria, IL) would enhance travel, activity, and increase visitors to the area."



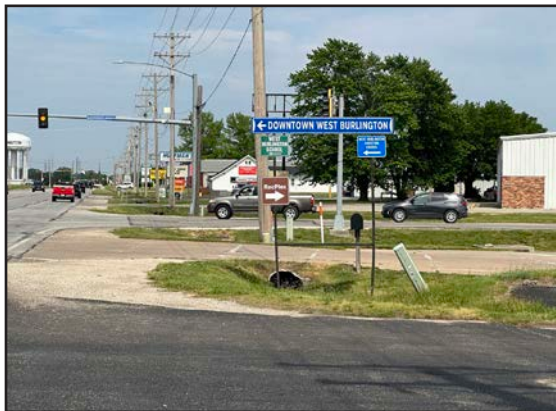
Transportation Inventory and Analysis

Knowledge of the transportation systems in and around a community is critical for sustainable transportation enhancement planning. West Burlington's transportation system includes roadways, sidewalks, and recreational trails.

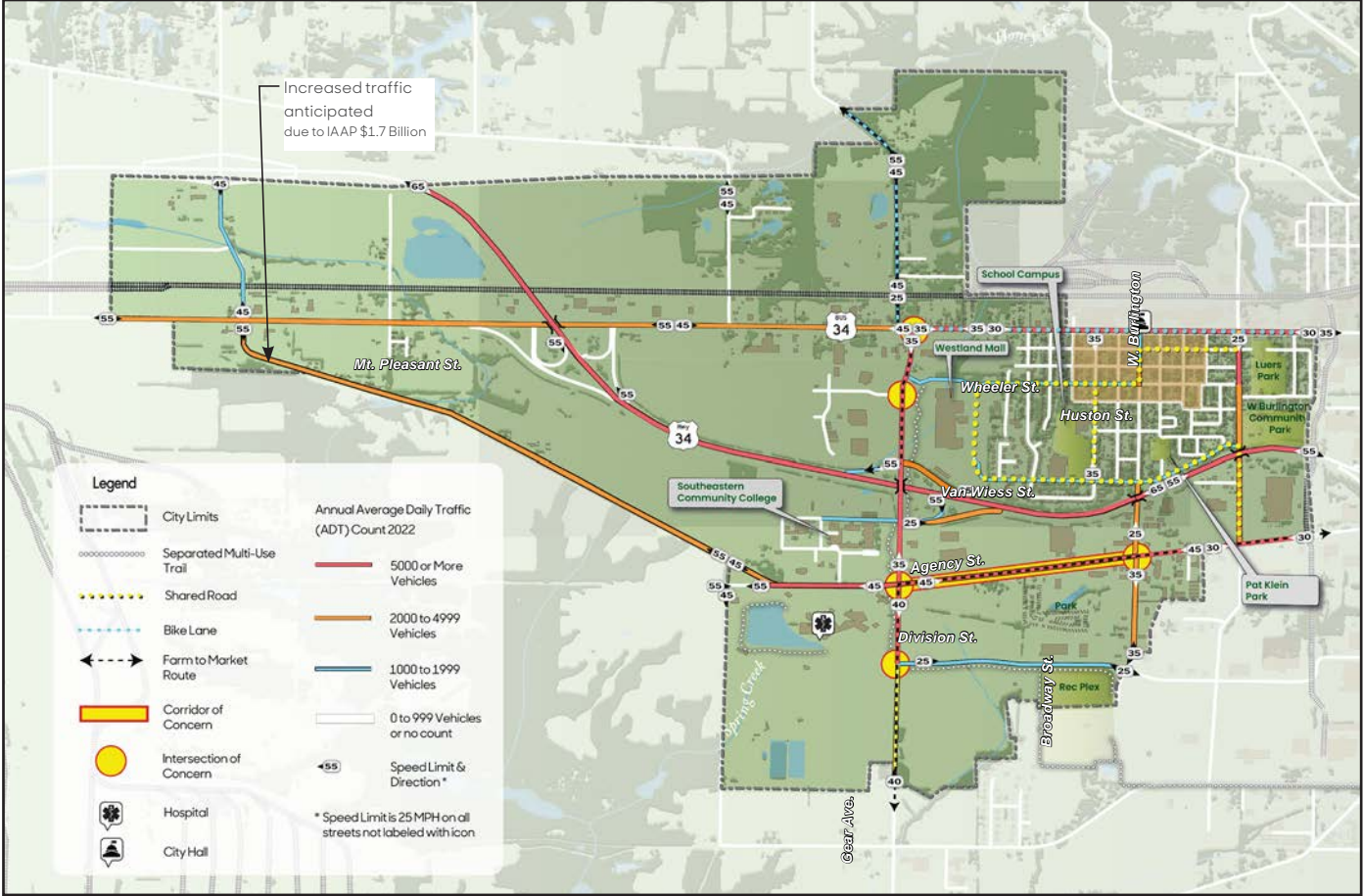
The West Burlington visioning design team and representatives of the visioning steering committee met with personnel from the Iowa Department of Transportation (IDOT), South Eastern Iowa Regional Planning Commission, Des Moines County Conservation, and local city officials in order to identify current and future transportation-system capital improvements. Also discussed during this meeting were maintenance and other transportation-related issues or obstacles that might influence the designs coming out of the visioning process.

Several transportation-related opportunities include creating a trailhead at the northeast quadrant of the intersection of Gear St. and the Highway 34 west bound exit ramp, enhancing vehicular and pedestrian circulation throughout the community with branding and way-finding signage, and distinguishing West Burlington from Burlington by addressing entryways.

Items of concern related to West Burlington's transportation system included: incomplete and narrow sidewalks; lack of accessibility at some intersections; intersection crossings at Agency St. & W. Burlington Ave., Agency St. & Broadway Ave., Agency St. & Gear Ave., and Gear Ave. & the Highway 34 west bound exit ramp; and pedestrian circulation and connectivity along Gear Ave. from the north side of Highway 34 to Mt. Pleasant St.



Existing way-finding signage at intersection of Agency St. and Broadway Ave. looks cluttered and disorganized



Map illustrating existing transportation conditions and areas of concern

What, Where, & Why

The What, Where, & Why (goal setting) meeting is a critical component in the development of a successful project. Setting and prioritizing goals allows us to focus our efforts and resources more effectively to help the community develop a vision for West Burlington. The design team met with West Burlington's visioning committee to discuss its goals. The steering committee members presented to the design team their interpretations of the data presented in the transportation assets and barriers board, random-sample survey and bioregional information.

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

The landscape architecture design team organized the themes for the city of West Burlington using the goals and desired improvements identified by the steering committee during the discussion, giving greater weight to those goals receiving more votes and common ideas presented multiple times. The following reflect a representation of the outcomes of the goal-setting process – the what, where, and why.

Community Values /Themes Based on Assessments



Connectivity & Accessibility

Goals:

- Achieve ADA standards of accessibility
- Improve walkability
- Provide safe and accessible routes to community destinations and businesses, including the college and hospital

WHY Change Anything?

- ADA-compliant sidewalks would provide the opportunity for all user groups to travel safely throughout West Burlington
- Encourage more physical activity
- Supportive infrastructure would eliminate the need for people to walk in the streets and in the grass along roadways

WHAT Exactly and WHERE?

- Make sidewalks ADA compliant, well drained, the appropriate width for use and location, level, complete, and in good repair
- Construct wide, ADA-compliant sidewalks along primary corridors and major collector streets: Gear Ave., Broadway St., W. Burlington Ave., Mt. Pleasant St., Huston St., Van Weiss Blvd., and Agency St.
- Prioritize ADA compliance and 6-foot wide sidewalks on the Safe Routes To School route

Community Values /Themes Based on Assessments



Community Identity + Entryways

Goals:

- Guide visitors to key places
- Clearly and uniformly identify community destinations
- Direct passersby and help them navigate to points of interest throughout the city
- Enhance user comfort
- Reduce "cluttered" signage
- Reinforce city branding efforts

WHY Change Anything?

- Direct visitors to where you want them more efficiently
- Way-finding signage exposes visitors to places they might otherwise miss, thus encouraging extended stays
- Well maintained signs, transportation corridors, and infrastructure reassure visitors that they are safe and on the right path
- Consolidate messages onto fewer signs and improve the visual environment
- Consistent graphics in way-finding signage create a unified and organized look
- Brand-supportive way-finding celebrates the community's unique character and creates a unified, memorable experience for visitors
- When branding is supported throughout the community, residents feel a stronger sense of place and take pride in knowing they are part of a unique community

WHAT Exactly and WHERE?

- Incorporate community caps that reinforce identity (branding) of West Burlington into way-finding signage
- Way-finding signage with placement focused along primary and secondary corridors: Gear Ave., Ramsey St., Broadway St., W. Burlington Ave., Mt. Pleasant St., Huston St., Van Weiss Blvd., and Agency St.
- Create community gateways with new entryway signage at north and south entryways on Gear Ave. and W. Burlington Ave., and east and west entryways on Mt. Pleasant St. and Agency St.

Community Values /Themes Based on Assessments



Trail Extension + Enhancements

Goals:

- Expand trail system network for greater local and regional connectivity
- Enhance existing trails with site amenities such as benches and shade trees
- Improve connectivity within town, including along main corridors
- Create a trailhead

WHY Change Anything?

- Create a recreational trail that loops in and around the city linking public parks, the schools and college, and hospital and commercial districts, and extends beyond the city limits to connect to the Flint River Trail system
- Enhance user safety and comfort by adding site amenities such as shade trees, benches, and lighting
- Construct a trailhead that provides a welcoming environment, is park-like, and provides ample parking for visitors

WHAT Exactly and WHERE?

- Encourage physical activity
- Enhance recreational opportunities
- Improve the user's experience and comfort
- Create a destination that is functional, aesthetic, and draws visitors



Safety

Goals:

- Provide safe pedestrian road crossings
- Ensure sidewalks meet ADA accessibility standards
- Add lighting to main pedestrian routes
- Maintain roadways and sidewalks

WHY Change Anything?

- Provide safe pedestrian street crossings with ADA-compliant ramps on all streets, prioritizing the following corridors: Gear Ave., Ramsey St., Broadway St., W. Burlington Ave., Mt. Pleasant St., Huston St., Van Weiss Blvd., and Agency St., and also the streets that are part of the Safe Routes To School route
- Install high-visibility crossings at intersections
- Correct drainage issues that impact the safety, health, and welfare of residents, especially on streets, sidewalks, and trails
- Repair streets and sidewalks that are in disrepair
- Ensure existing sidewalks and future sidewalks meet ADA-accessibility standards





WHAT Exactly and WHERE?

- Improve safety for pedestrians, cyclists, and motorists
- Improve vehicular and pedestrian circulation
- Enhance the aesthetics of the community
- Keep roadways, sidewalks, and trails in good repair

What, Where, & Why?
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The nominal group technique process was used for this meeting. Through this method, the committee identified goals and values based on information from the assessments. Each committee member also included reasoning for improvements around town and highlighted specific needs for areas of improvement. These objectives and desired improvements were recorded during an open discussion, followed by a vote to prioritize the major themes presented during the meeting.

The landscape architecture design team organized the themes for the city of West Burlington using the goals and desired improvements identified by the steering committee during the discussion, giving greater weight to those goals receiving more votes and common ideas presented multiple times. The chart on this board reflects a representation of the outcomes of the goal-setting process - the what, where, and why.

Community Values / Themes Based on Assessments	Broad-Based Outcomes and Goals	WHAT Exactly and WHERE?	WHY Change Anything?
 <p>Connectivity & Accessibility</p>	<ul style="list-style-type: none"> Achieve ADA standards of accessibility Improve walkability Provide safe and accessible routes to community destinations and businesses, including the college and hospital 	<ul style="list-style-type: none"> Make sidewalks ADA compliant, well drained, the appropriate width for use and location, level, complete, and in good repair Construct wide, ADA-compliant sidewalks along primary corridors and major collector streets: Gear Ave, Broadway St, W Burlington Ave, Mt. Pleasant St, Huston St, Van Weiss Blvd, and Agency St. Prioritize ADA compliance on 6-foot width (5-foot minimum) of sidewalks on the Safe Routes To School route 	<ul style="list-style-type: none"> ADA-compliant sidewalks would provide the opportunity for all user groups to travel safely throughout West Burlington Encourage more physical activity Supportive infrastructure would eliminate the need for people to walk in the streets and in the grass along roadways
 <p>Community Identity + Entryways</p>	<ul style="list-style-type: none"> Guide visitors to key places Clearly and uniformly identify community destinations Direct passersby and help them navigate to points of interest throughout the city Enhance user comfort Reduce "cluttered" signage Reinforce city branding efforts 	<ul style="list-style-type: none"> Incorporate community caps that reinforce identity (branding) of West Burlington into way-finding signage Way-finding signage with placement focused along primary and secondary corridors: Gear Ave, Ramsey St, Broadway St, W Burlington Ave, Mt. Pleasant St, Huston St, Van Weiss Blvd, and Agency St. Create community gateways with new entryway signage at north and south entryways on Gear Ave and W Burlington Ave, and east and west entryways on Mt. Pleasant St, and Agency St. 	<ul style="list-style-type: none"> Direct visitors to where you want them more efficiently Way-finding signage exposes visitors to places they might otherwise miss, thus encouraging extended stays Well maintained signs, transportation corridors, and infrastructure reassure visitors that they are safe and on the right path Consolidate messages onto fewer signs and improve the visual environment Consistent graphics in way-finding signage create a unified and organized look Brand-supportive way-finding celebrates the community's unique character and creates a unified, memorable experience for visitors When branding is supported throughout the community, residents feel a stronger sense of place and take pride in knowing they are part of a unique community
 <p>Trail Extension + Enhancements</p>	<ul style="list-style-type: none"> Expand trail system network for greater local and regional connectivity Enhance existing trails with site amenities such as benches and shade trees Improve connectivity within town, including along main corridors Create a trailhead 	<ul style="list-style-type: none"> Create a recreational trail that loops in and around the city linking public parks, the schools and college, and hospital and commercial districts, and extends beyond the city limits to connect to the Flint River Trail system Enhance user safety and comfort by adding site amenities such as shade trees, benches, and lighting Construct a trailhead that provides a welcoming environment, is park-like, and provides ample parking for visitors 	<ul style="list-style-type: none"> Encourage physical activity Enhance recreational opportunities Improve the user's experience and comfort Create a destination that is functional, aesthetic, and draws visitors
 <p>Safety</p>	<ul style="list-style-type: none"> Provide safe pedestrian road crossings Ensure sidewalks meet ADA accessibility standards Adelighting to main pedestrian routes Maintain roadways and sidewalks 	<ul style="list-style-type: none"> Provide safe pedestrian street crossings with ADA-compliant ramps on all streets prioritizing the following corridors: Gear Ave, Ramsey St, Broadway St, W Burlington Ave, Mt. Pleasant St, Huston St, Van Weiss Blvd, and Agency St, and also the streets that are part of the Safe Routes To School route Install high-visibility crossings at intersections Correct drainage issues that impact the safety, health, and welfare of residents, especially on streets, sidewalks, and trails Repair streets and sidewalks that are in disrepair Ensure existing sidewalks and future sidewalks meet ADA-accessibility standards 	<ul style="list-style-type: none"> Improve safety for pedestrians, cyclists, and motorists Improve vehicular and pedestrian circulation Enhance the aesthetics of the community Keep roadways, sidewalks, and trails in good repair

West Burlington

What, Where & Why

Flenker Land Architects Consultants, LLC
 LA: Meg Flenker, PLA, CPESC, CPSWQ
 Interns: Mikky Ojha, Trevor Smith
 Iowa State University | Trees Forever | Iowa Department of Transportation



Community Concept Plan

The concept master plan shows the proposed location for various enhancements ("projects") that are showcased in the visions illustrated on the following boards. These concepts represent potential design solutions to various challenges and desires related to West Burlington's transportation system that residents identified throughout the visioning process. The icons shown on the plan represent the enhancements that provide solutions to meet one or more of each specific value/theme detailed on Board 6 with the same icon. This plan and the enhancements illustrated in this set of boards identify opportunities for effective placemaking.

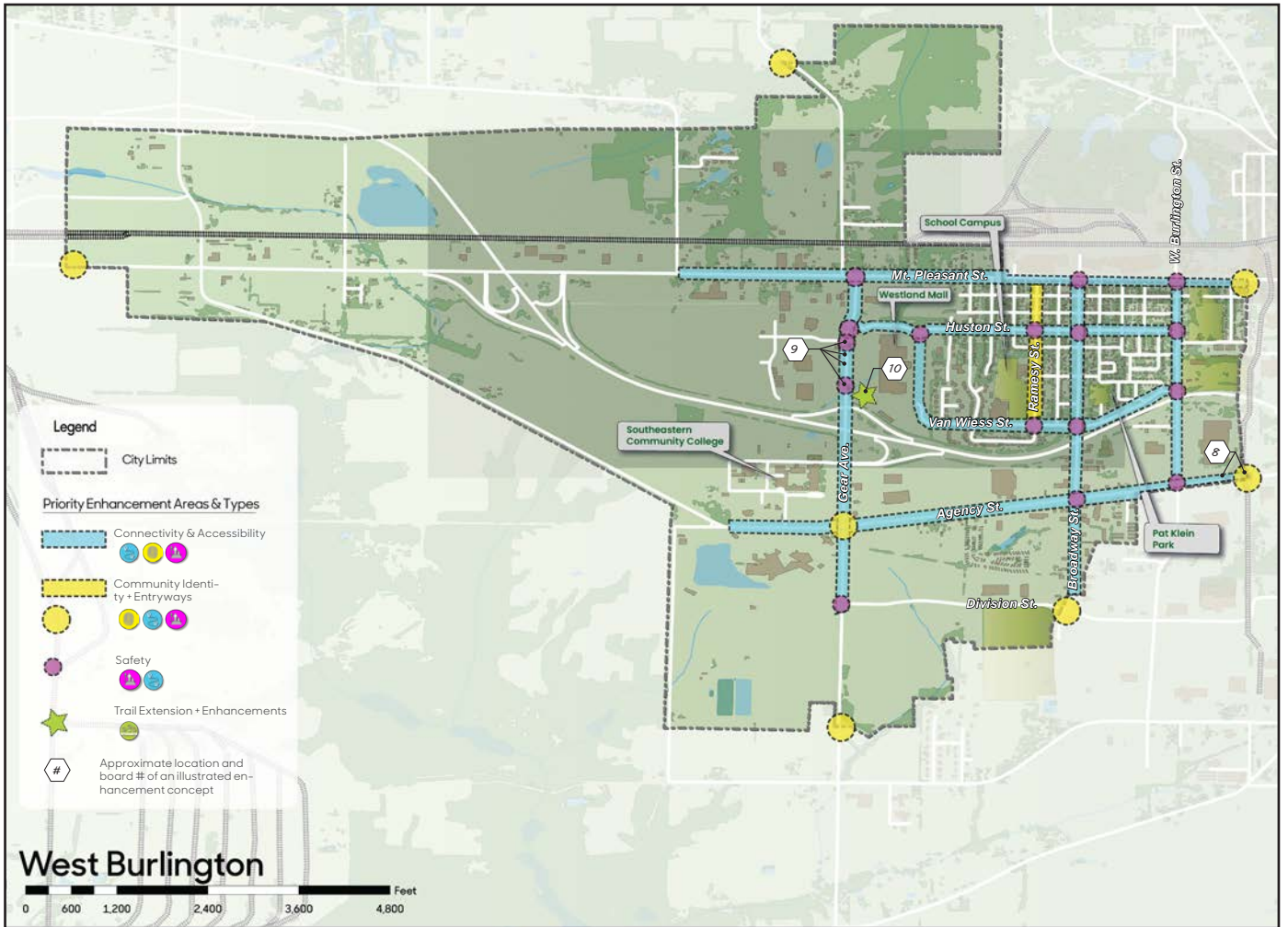
Placemaking

Perhaps one of the best definitions of placemaking is from Wikipedia: *"Placemaking is a multi-faceted approach to the planning, design and management of public spaces. Placemaking capitalizes on a local community's assets, inspiration, and potential, with the intention of creating public spaces that improve urban vitality and promote people's health, happiness, and well-being....Good placemaking makes use of underutilized space to enhance the urban experience at the pedestrian scale to build habits of locals."*

What, Where, and Why?

As can be seen on the concept plan and in the concepts that follow, a project designed to address one concern has the potential to improve and/or solve other issues. As an example, enhancements that improve connectivity and accessibility can aid in strengthening community identity and improving safety and traffic control.

Adopting and utilizing a "complete streets" approach to planning, designing, building, operating, and maintaining streets enables safe access for all user types, including pedestrians, bicyclists, and motorists of all ages and abilities. The visions shown on the following boards were created following the complete streets methodology as part of placemaking efforts.



Concept Master Plan

Community Identity & Entryways

Entryways are a visitor's first impression of a community. The entrance sign is an integral part of the entryway, as it identifies the community to passersby and clearly defines the city's boundaries. An effective entryway sign is clear and concise so that it can be quickly and easily read by motorists who have minimal reading and comprehension time.

To enhance community identity, it is important that the city logo is incorporated and that the sign utilizes colors and materials taken from a designated palette of colors and hardscape and landscape materials that are replicated elsewhere in public areas within the community – this applies to site amenities as well. The replication of color, material, and style is critical to create a unified, aesthetic appearance and enhance community branding efforts.

Project Scope and Cost Opinion

The following cost opinion is based on estimated material quantities and contracted installation prices. Project costs can decrease with donated materials, reduced cost materials, and volunteer labor for appropriate projects. Area takeoffs, square-footages, and linear footages used to calculate and quantify amounts are approximate and based on the concept design. A site survey should be provided prior to the final design and preparation of construction documents for the following projects to validate and verify the line items and quantities shown in these cost opinions.

Abbreviations used in the following opinions of probable cost include:

Ac= acre	Cf = cubic foot	Cy = cubic yard	Ea = each	Lf = linear foot
Ls = lump sum	Sf = square foot	Sy = square yard	Tbd = to be determined	

Design Expertise Recommended

Projects may require help beyond the capability of the West Burlington visioning steering committee or available city staff. For the Agency Corridor Enhancement improvement project the steering committee should expect to engage the services of a landscape architect, surveyor, and electrical & civil engineer.

COMMUNITY IDENTITY & ENTRYWAYS (See Board #8 for Visual)					Summer 2023
Description	Est. Qty.	Unit	Estimated Unit Cost	Estimated Line Total	Estimated Totals
COMMUNITY IDENTITY*					
Vehicular Directional Way-Finding Signage					TBD
- One Destination	TBD	EA	\$ 1,800.00		
- Two Destinations	TBD	EA	\$ 2,800.00		
- Three Destinations	TBD	EA	\$ 3,200.00		
Park Identity Signage					\$ 750.00
- Pollinator Park	1	EA	\$ 750.00	\$ 750.00	
Agency Corridor Enhancements					TBD
Site Lighting					
- Decorative Pedestrian Lighting	TBD	EA	\$ 4,000.00	TBD	
- Vehicular Lighting	TBD	EA	\$ 10,000.00	TBD	
- Combo Pedestrian and Vehicular Lighting	TBD	EA	\$ 12,000.00	TBD	
Site Amenities					
- Bench	TBD	EA	\$ 1,500.00	TBD	
- Site Amenity PCC Pads	TBD	SY	\$ 85.00	TBD	
- Bike Rack	TBD	EA	\$ 1,000.00	TBD	
- Trash Receptacle	TBD	EA	\$ 600.00	TBD	
Landscaping					
- Street Trees	TBD	EA	\$ 350.00	TBD	
- Plantings (around benches & along sidewalk)	TBD	SF	\$ 12.00	TBD	
- Planting Soil (Trees and Planting Beds)	TBD	CY	\$ 50.00	TBD	
- Shredded Hardwood Mulch	TBD	CY	\$ 65.00	TBD	
- Bed Prep/Fertility	TBD	SF	\$ 4.00	TBD	
- Mowing Edge	TBD	LF	\$ 18.00	TBD	
- Sodding	TBD	SF	\$ 0.75	TBD	
Pedestrian Pavement					
- ADA Detectable Warnings	TBD	SF	\$ 55.00	TBD	
- PCC Sidewalk, 5-inch	TBD	SY	\$ 85.00	TBD	
- Removal of Sidewalk	TBD	SY	\$ 20.00	TBD	
- Earth Excavation	TBD	CY	\$ 21.00	TBD	
- Decorative Crosswalks	TBD	SY	\$ 220.00	TBD	
Mobilization & Demolition					
- Selective Demolition	TBD	LS	TBD	TBD	
- Mobilization	TBD	LS	TBD	TBD	
Other Miscellaenous					
- Permanent Traffic Control	TBD	LS	TBD	TBD	
- Temporary Traffic Control	TBD	LS	TBD	TBD	
- Site & Construction Survey	TBD	LS	TBD	TBD	
- SWPPP Preparation/Documentation	TBD	LS	TBD	TBD	
- Erosion & Sediment Control	TBD	LS	TBD	TBD	
- Earthwork/Grading	TBD	LS	TBD	TBD	
- Utility Modifications	TBD	LS	TBD	TBD	
- Roadway Modifications**	TBD	TBD	TBD	TBD	

*35% Contingency and Design Fees will need to be added to total costs

** Modifications of roadway for improved vehicular and pedestrian circulation, ADA compliance, and/or traffic calming, as appropriate

COMMUNITY IDENTITY & ENTRYWAYS (See Board #8 for Visual)					Summer 2023
<i>Description</i>	<i>Est. Qty.</i>	<i>Unit</i>	<i>Estimated Unit Cost</i>	<i>Estimated Line Total</i>	<i>Estimated Totals</i>
COMMUNITY ENTRYWAY (At East Agency St.)					
Mobilization & Demolition					\$ 7,500.00
- Mobilization	1	LS	\$ 2,500.00	\$ 2,500.00	
- Selective Demolition	1	LS	\$ 2,500.00	\$ 2,500.00	
- Traffic Control	1	LS	\$ 1,500.00	\$ 1,500.00	
- Construction Survey	1	LS	\$ 1,000.00	\$ 1,000.00	
Entrance Sign Foundation					\$ 6,200.00
- Earth Excavation	1	LS	\$ 2,400.00	\$ 2,400.00	
- Suitable Backfill and Base	1	LS	\$ 800.00	\$ 800.00	
- Concrete Footing	1	LS	\$ 3,000.00	\$ 3,000.00	
Entrance Sign					\$ 16,500.00
- Style 1*	1	LS	\$ 16,500.00	\$ 16,500.00	
- Sign Lighting	1	LS	TBD	TBD	TBD
Sign Plant Material					\$ 4,330.00
- Planting (Around Sign)	158	SF	\$ 12.00	\$ 1,896.00	
- Planting Soils (Sign Plant Bed)	14	CY	\$ 50.00	\$ 700.00	
- Bed Prep/Fertility (Sign Plant Bed)	158	SF	\$ 4.00	\$ 632.00	
- Mowing Edge (Around Sign Plant Bed)	54	LF	\$ 18.00	\$ 972.00	
- Shredded Hardwood Mulch (Sign Plant Bed)	2	CY	\$ 65.00	\$ 130.00	
<i>Subtotal</i>					\$ 34,530.00
<i>35% Contingency and Design Fees</i>					\$ 12,085.50
Opinion of Total Probable Construction Cost**					\$ 46,615.50

* Entrance Sign Style 2: +/- \$18,500; Entrance Sign Style 3: \$ +/- +/- \$15,000

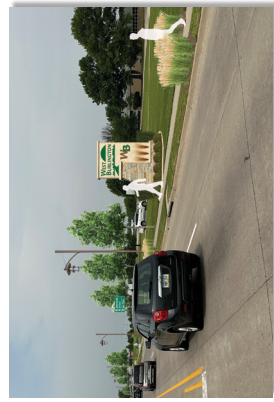
** Estimate does not include property easements/land acquisition, utility modifications, or topographic/boundary survey which may be required.

Design Expertise Recommended

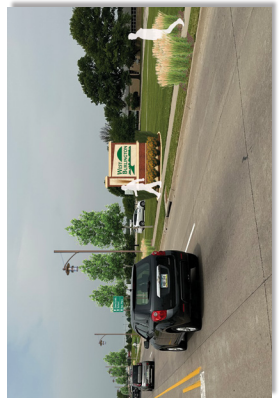
The community entryway enhancement project may require help beyond the capability of the West Burlington visioning committee or available city staff. For this improvement project, the visioning committee should expect to engage the services of a landscape architect, electrical and structural engineer.



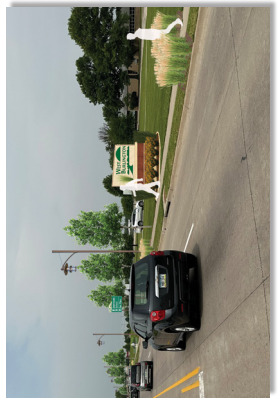
Existing entryway photo taken from Agency St, looking northerly toward the existing entryway signage and westerly along Agency St, on the east side of town just to the west side of the railroad



Proposed entryway concept A: Illustration incorporates proposed entryway signage style 1.



Proposed entryway concept B: Illustration incorporates proposed entryway signage style 2.



Proposed entryway concept C: Illustration incorporates proposed entryway signage style 3.



Proposed entryway sign concept style 1



Proposed entryway sign concept style 3

Signage Elements

Way-Finding Signage With Community Cap

- Color of sign panel (B) Iowa DOT (DOT) standard green.
- Community cap (A); Both options shown in corporate the city's existing logo and prairie grass like that used on the entryway signage; the background color is cream with a DOT green colored border.
- Sign posts (C); IDOT-compliant metal breakaway posts, color to match light posts.

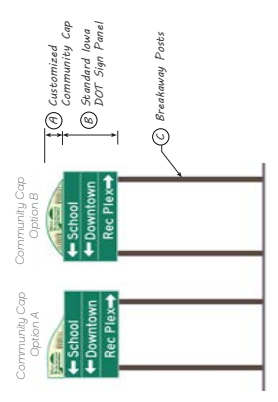
Entryway Signage

- Sign Style 1: sign materials include natural colored tumbled field stone and limestone; grasses, logo and WB constructed of metal - all backlit for nighttime viewing.
- Sign Style 2: sign materials include brick and limestone; grass, logo constructed of metal - all backlit for nighttime viewing.
- Sign Style 3: sign materials include brick and limestone with engraved colored border around limestone; grass; logo constructed of metal and backlit for nighttime viewing.

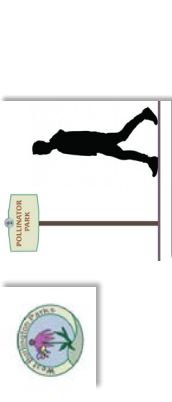
Community Identity & Entryways

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To enhance community identity, it is important that the city logo is incorporated and that the sign utilizes colors and materials taken from a designated palette of colors and hardscape and landscape materials that are replicated elsewhere in public areas within the community - this applies to site amenities as well. The replication of color, material, and style is critical to create a unified, aesthetic appearance and enhance community branding efforts.



Proposed way-finding signage with community cap



A new proposed logo to be incorporated into park identity & park signage. The logo is to be used for park pre-development prairie heritage through the use of graphics and colors.

Community Entryway Concept Elements

- Decorative Lighting: enhances aesthetics and nighttime pedestrian safety and use; assists in traffic calming, reinforces branding efforts, and serves as an element of way-finding when placed along main corridor routes; bronze/brown color integrates with signage color palette
- Street Trees: provide needed shade to pedestrians, improve streetscape aesthetics, assist in traffic calming, and direct/screen views
- Community Branded Way-Finding Signage: provides guidance to important destinations within the community, enhances community identity
- ADA-Compliant Sidewalk Along Agency St. Corridor: enhances pedestrian safety and accessibility
- Entryway Signage: Landscaping: simple landscaping in mass to accent and not distract from the sign; low maintenance, native plant material; mowing edge and mulch bed to minimize maintenance
- Ornamental Grass Group Plantings: assist in carrying out grass element of signage, improve streetscape aesthetics while being low maintenance, create more visual interest for both the pedestrian and motorists, and assist in traffic calming
- Landscaped Seating Area 'Pods': provide seating along long stretches of walking routes, enhance user comfort, and integrate landscaping into the corridor
- New Entryway Signage: defines boundaries of community and forms first impression to visitors

West Burlington

Community Identity & Entryways

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 LA: Meg Flenker, PLA, CPESC, CPSWQ
 Interns: Mikky Ojha, Trevor Smith
 Iowa State University | Trees Forever | Iowa Department of Transportation



Accessibility & Safety

In the focus groups and the survey, as well as at the design workshop, residents consistently cited the same major transportation-related concerns and desired enhancements.

Concerns focused on pedestrian accessibility and safety, from the lack of curb ramps and existing sidewalks that are too narrow and/or in disrepair throughout the community, to the lack of ADA-compliant sidewalks, safe pedestrian crossings, lighting, and shade trees along the main corridors. Desired enhancements include ADA-compliant sidewalks, pedestrian lighting, trees, benches, safe road crossings and separated recreational trails.

Gear Avenue

The Gear Avenue corridor concept shown on Board 9 addresses all of the residents' concerns and desired enhancements by incorporating "Complete Street" principals. Complete streets are designed to meet the needs of all users, regardless of their age and ability, or whether they walk, bike, drive, or take public transportation.

Three options are shown for the location of a crosswalk on Gear Ave.. See board 9b for information regarding these options and the traffic calming measures that are integrated into them. Board 9b also shows examples of other types of traffic calming strategies that can be integrated into roadways within West Burlington to enhance pedestrian and motorist safety.

Project Scope and Cost Opinion

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

Abbreviations used in the following opinions of probable cost include:

Ac= acre	Cf = cubic foot	Cy = cubic yard	Ea = each	Lf = linear foot
Ls = lump sum	Sf = square foot	Sy = square yard	Tbd = to be determined	

Design Expertise Recommended

Projects may require help beyond the capability of the West Burlington Visioning Steering Committee or available city staff. For the Gear Corridor Enhancement improvement project the steering committee should expect to engage the services of a landscape architect, surveyor, and electrical & civil engineer.

Accessibility & Safety (See Board #9a for Visual)					Summer 2023
<i>Description</i>	<i>Est. Qty.</i>	<i>Unit</i>	<i>Estimated Unit Cost</i>	<i>Estimated Line Total</i>	<i>Estimated Totals</i>
Gear Avenue from Hwy. 34 Ramp to Huston Street					
Vehicular Directional Way-Finding Signage					TBD
- One Destination	TBD	EA	\$ 1,800.00	TBD	
- Two Destinations	TBD	EA	\$ 2,800.00	TBD	
- Three Destinations	TBD	EA	\$ 3,200.00	TBD	
Site Lighting					TBD
- Decorative Pedestrian Lighting	TBD	EA	\$ 6,000.00	TBD	
- Vehicular Lighting	TBD	EA	\$ 12,000.00	TBD	
- Combo Pedestrian and Vehicular Lighting	TBD	EA	\$ 13,500.00	TBD	
Site Amenities					\$ 10,270.00
- Bench	4	EA	\$ 1,500.00	\$ 6,000.00	
- Trash Receptacle	4	EA	\$ 600.00	\$ 2,400.00	
- Site Amenity PCC Pads	22	SY	\$ 85.00	\$ 1,870.00	
Landscaping					\$ 40,017.75
- Planting Soil (Trees and Planting Beds)	60	CY	\$ 50.00	\$ 3,000.00	
- Bed Prep/Fertility	1272	SF	\$ 4.00	\$ 5,088.00	
- Street Trees	51	EA	\$ 350.00	\$ 17,850.00	
- Plant Material (around benches)	252	SF	\$ 12.00	\$ 3,024.00	
- Shredded Hardwood Mulch	15	CY	\$ 65.00	\$ 975.00	
- Mowing Edge	120	LF	\$ 18.00	\$ 2,160.00	
- Sodding	10561	SF	\$ 0.75	\$ 7,920.75	
Accessibility & Safety					\$ 14,700.00
- ADA Detectable Warnings	180	SF	\$ 55.00	\$ 9,900.00	
- Permanent Traffic Control (Signage & Pvt. Mrkings)	1	LS	\$ 4,800.00	\$ 4,800.00	
Sidewalk					\$ 138,875.00
- PCC Sidewalk, 5-inch	1575	SY	\$ 85.00	\$133,875.00	
- Earthwork/Grading	1	LS	\$ 5,000.00	\$ 5,000.00	
Mobilization & Demolition					\$ 30,000.00
- Selective Demolition	1	LS	\$ 5,000.00	\$ 5,000.00	
- Mobilization	1	LS	\$ 25,000.00	\$ 25,000.00	
Other Miscellaneous					\$ 8,000.00
- Temporary Traffic Control	1	LS	\$ 1,500.00	\$ 1,500.00	
- Construction Survey	1	LS	\$ 4,000.00	\$ 4,000.00	
- Erosion & Sediment Control	1	LS	\$ 2,500.00	\$ 2,500.00	
				<i>Subtotal</i>	\$ 241,862.75
				<i>35% Contingency and Design Fees</i>	\$ 84,651.96
				Opinion of Total Probable Construction Cost*	\$ 326,514.71

* Estimate does not include property easements/land acquisition, utility modifications, or topographic/boundary survey which may be required. Enhancements associated with each option for the Gear Ave. crosswalk location are not included and will need to be added.

Accessibility & Safety (See Boards #9a & #9b for Visual)					Summer 2023
Description	Est. Qty.	Unit	Estimated Unit Cost	Estimated Line Total	Estimated Totals
Gear Ave. Option 1 Crosswalk Location Add On					\$ 72,170.00
- Selective Demolition	130	SY	\$ 22.50	\$ 2,925.00	
- Earthwork/Grading	1	LS	\$ 1,650.00	\$ 1,650.00	
- PCC Sidewalk, 5-inch	25	SY	\$ 85.00	\$ 2,125.00	
- ADA Ramp W/Tactile	22	SF	\$ 55.00	\$ 1,210.00	
- Raised Median	1	LS	\$ 8,550.00	\$ 8,550.00	
- Median Planting Bed Amended Soil	30	CY	\$ 50.00	\$ 1,500.00	
- Median Plant Bed Prep & Fertility	385	SF	\$ 4.00	\$ 1,540.00	
- Median Landscaping	385	SF	\$ 12.00	\$ 4,620.00	
- Permanent Traffic Control	1	LS	\$ 2,400.00	\$ 2,400.00	
- Decorative Crosswalk	55	SY	\$ 220.00	\$ 12,100.00	
- Raised Median	1	LS	\$ 8,550.00	\$ 8,550.00	
- Temporary Traffic Control	1	LS	\$ 15,000.00	\$ 15,000.00	
- Mobilization	1	LS	\$ 10,000.00	\$ 10,000.00	
				<i>Option 1 Subtotal</i>	\$ 72,170.00
				<i>35% Contingency and Design Fees for Option 1</i>	\$ 25,259.50
				Opinion of Total Probable Construction Cost for Option 1 Add-On*	\$ 97,429.50
Gear Ave. Option 2 Crosswalk Location Add On					\$ 119,360.00
- Selective Demolition	341	SY	\$ 22.50	\$ 7,672.50	
- Earthwork/Grading	1	LS	\$ 8,000.00	\$ 8,000.00	
- PCC Vehicular Pavement	50	SY	\$ 145.00	\$ 7,250.00	
- ADA Ramp W/Tactile	30	SF	\$ 55.00	\$ 1,650.00	
- PCC Curb & Gutter	490	LF	\$ 75.00	\$ 36,750.00	
- Sodding	1250	SF	\$ 0.75	\$ 937.50	
- Amended Soil & Prep For Sod	1	LS	\$ 5,500.00	\$ 5,500.00	
- Permanent Traffic Control	1	LS	\$ 5,200.00	\$ 5,200.00	
- Decorative Crosswalk	70	SY	\$ 220.00	\$ 15,400.00	
- Temporary Traffic Control	1	LS	\$ 15,000.00	\$ 15,000.00	
- Mobilization	1	LS	\$ 10,000.00	\$ 10,000.00	
- Construction Survey	1	LS	\$ 6,000.00	\$ 6,000.00	
				<i>Option 2 Subtotal</i>	\$ 119,360.00
				<i>35% Contingency and Design Fees for Option 2</i>	\$ 41,776.00
				Opinion of Total Probable Construction Cost for Option 2 Add-On*	\$ 161,136.00
Gear Ave. Option 3 Crosswalk Location Add On					\$ 50,287.50
- Selective Demolition	75	SY	\$ 22.50	\$ 1,687.50	
- Earthwork/Grading	1	LS	\$ 2,500.00	\$ 2,500.00	
- Decorative Crosswalk	75	SY	\$ 220.00	\$ 16,500.00	
- Rapid Flash Beacon	2	EA	\$ 5,700.00	\$ 11,400.00	
- Solar Flashing Beacon	2	EA	\$ 3,500.00	\$ 7,000.00	
- Permanent Traffic Control	1	LS	\$ 1,200.00	\$ 1,200.00	
- Temporary Traffic Control	1	LS	\$ 3,500.00	\$ 3,500.00	
- Mobilization	1	LS	\$ 5,000.00	\$ 5,000.00	
- Construction Survey	1	LS	\$ 1,500.00	\$ 1,500.00	
				<i>Option 3 Subtotal</i>	\$ 50,287.50
				<i>35% Contingency and Design Fees for Option 3</i>	\$ 17,600.63
				Opinion of Total Probable Construction Cost for Option 3 Add-On*	\$ 67,888.13

* Option estimates do not include property easements/land acquisitions, utility modifications, or topographic/boundary surveys which may be required.

Accessibility & Safety

In the focus groups and the survey, as well as at the design workshop, residents consistently cited the same major transportation-related concerns and desired enhancements.

Concerns focused on pedestrian accessibility and safety, from the lack of curb ramps and existing sidewalks that are too narrow and/or in disrepair throughout the community, to the lack of ADA-compliant sidewalks, safe pedestrian crossings, lighting, and shade trees along the main corridors. Desired enhancements include ADA-compliant sidewalks, pedestrian lighting, trees, benches, safe road crossings and separated recreational trails.

Gear Avenue

The Gear Avenue corridor concept shown below addresses all of the residents' concerns and desired enhancements by incorporating "Complete Street" principals. Complete streets are designed to meet the needs of all users, regardless of their age and ability, or whether they walk, bike, drive, or take public transportation.

Three options are shown for the location of a crosswalk on Gear Ave. See board 9b for information regarding these options and the traffic calming measures that are integrated into them. Board 9b also shows examples of other types of traffic calming strategies that can be integrated into roadways within West Burlington to enhance pedestrian and motorist safety.

Gear Avenue Corridor Plan Notes

- Street trees enhance streetscape aesthetics, provide shade, reduce heat-island effects, assist with water and air quality, and direct views, their vertical structure and spacing can also help with traffic calming.
- Widened and ADA-compliant sidewalks and designated crosswalks enhance streetscape aesthetics, improve pedestrian accessibility, increase safety, strengthen connectivity to commercial businesses along Gear Avenue, and reinforce the importance of the corridor. Decorative crosswalks create a unified appearance when the hardscape materials and colors replicate those found in the streetscape signage.
- Raised roadway median on each side of crosswalk minimizes pedestrian and motorist interactions, increasing safety and user comfort. The median can be planted with short, salt-tolerant plants or surfaced with decorative pavement.
- Landscaped seating area 'pods' adjacent to the sidewalk (on pavement) provide accessible seating along walking routes, enhance user comfort, and incorporate landscape into the corridor to improve the streetscape aesthetics. The use of native plantings or hardy ornamentals and mowing edges will minimize maintenance.

9a

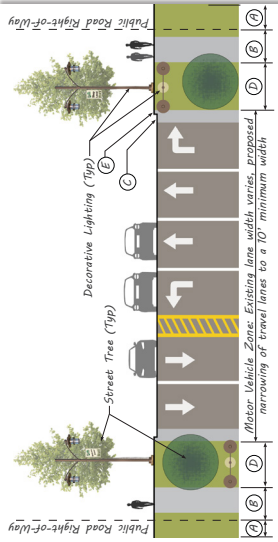
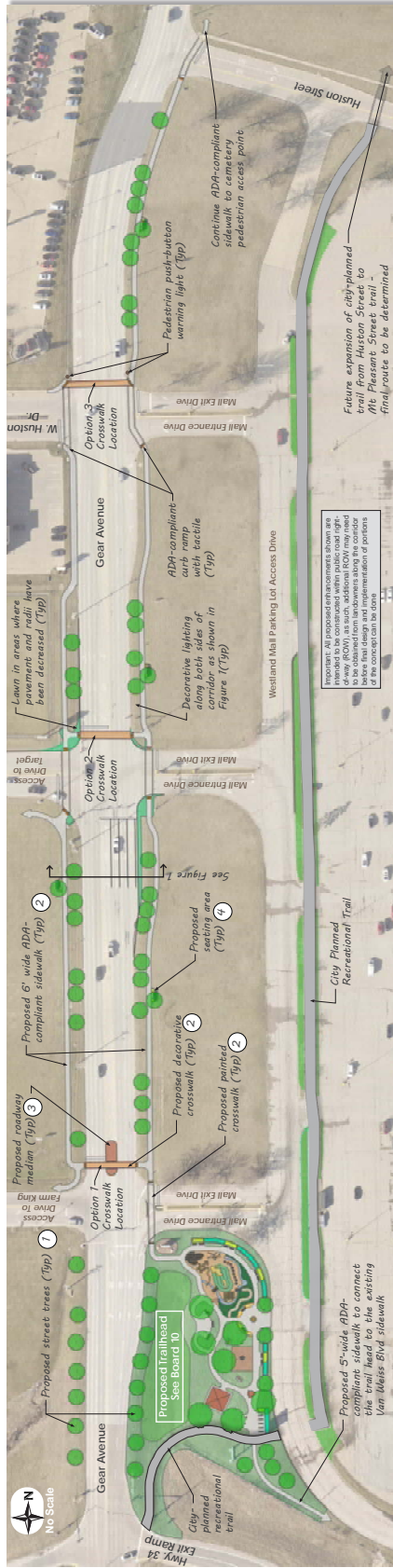


Figure 1: Proposed typical section for Gear Avenue

Typical Section Notes

- Commercial Zone
- Pedestrian Zone: Width varies from 6' wide for sidewalk to 15' wide in seating areas
- Green Zone: Width varies (recommend 10' - 15' wide); location of decorative plants, lighting, signs, way-finding signs, and utilities
- Curb



Proposed concept plan for Gear Avenue from Hwy. 34 to Huston Street

West Burlington
Accessibility & Safety

Flenker Land Architects Consultants, LLC
LA: Meg Flenker, PLA, CPESC, CPSWG
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Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways
community
visioning 2023

TRAFFIC CALMING EXAMPLES

Raised Median (Figure B)
This is a street-width reduction, traffic-calming measure. A raised curb median is installed in the center of the road where it was otherwise marked for no traffic; the roadway cuts through the median, maintaining ADA-compliant accessibility.

- Creates shorter crossings for pedestrians
- Provides a safe, protected waiting area in the middle of the four-lane road for pedestrians who can't make the full crossing in one attempt
- Provides a space to integrate plantings or decorative pavements into the streetscape to enhance the aesthetics

Curb Extension (Figure C)
This is also a street-width reduction, traffic-calming measure. Curb extensions extend the pedestrian zone farther out into the roadway (staying out of the travel-way) for the purpose of narrowing the road visually and physically.

- Creates shorter crossings for pedestrians
- Protects vehicles parked along a street when there is on-street parking and prevents parking too close to intersection
- Tightens intersection curb radii to encourage lower turning speeds
- Increases the overall visibility of pedestrians
- Serves as a visual cue to motorists that they are entering an area of slower traffic speeds
- Visually and physically narrows roadway to slow down traffic
- Provides space to incorporate plantings into the streetscape and/or stormwater management and water quality treatments

Raised Intersection (Figure D)
This traffic-calming measure is considered to be a vertical deflection. A raised intersection is flush with the sidewalk, and road (lane) approaches to intersection are gradually sloped. Intersection corners are protected with bollards to keep motorists from crossing into pedestrian space.

- Tightens intersection curb radii to encourage lower turning speeds
- Increases the overall visibility of pedestrians, which helps reinforce slow speeds and encourages users to yield to pedestrians at the crosswalk
- Serves as visual and physical cue to slow down

Raised Crosswalk (Figure E)
This traffic-calming measure is also considered to be a vertical deflection and essentially functions the same as a raised intersection, except that it only spans the width of the crosswalk - the top elevated portion is generally .12 wide and centered on the the crosswalk-marking.



Figure B: Raised median with crosswalk cut-through (aka refuge island). Photo source: highways.dot.gov



Figure C: Curb Extension (also referred to as bulb-out or bump-out). Photo credit: Dujan Passmore



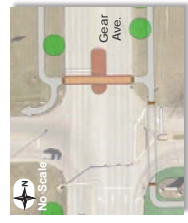
Figure D: Raised intersection. Photo source: space4galinghne.com



Figure E: Raised crosswalk. Photo source: sjbatterstreets.org

Gear Avenue Crosswalks
Following are thumbnail drawings of the three options proposed for potential crosswalks on Gear Ave.

Option 1: Having the least amount of pedestrian/motorist interaction, this crosswalk is supported by the vertical traffic calming measure of a raised median with a crosswalk cut-through, which slows traffic and increases pedestrian safety by providing a center refuge on which to wait.



Option 1 Gear Ave. Crossing



Option 2 Gear Ave. Crossing

Option 2: Located at a traffic light controlled intersection, this option utilizes two traffic-calming techniques to support the crosswalk: 1) road diet (lane narrowing) which reduces speeds and minimizes accidents by making drivers more cognizant of traffic and other users, and 2) radii reduction, which decreases vehicle turning speeds and pedestrian crossing distances. The radius on the southwest corner of the intersection is not reduced to allow delivery semi's to have access to Target from the south.

Option 3: This option consists of supporting the crosswalk with pedestrian-activated signals to alert approaching vehicles on Gear Ave. of pedestrian use.



Option 3 Gear Ave. Crossing

Traffic Calming
"A variety of definitions are commonly used in the traffic calming field and although the exact wording may differ, the essence remains: traffic calming reduces automobile speeds or volumes, mainly through the use of physical measures, to improve the quality of life in both residential and commercial areas and increase the safety and comfort of walking and bicycling."
- U.S. Department of Transportation Federal Highway Administration

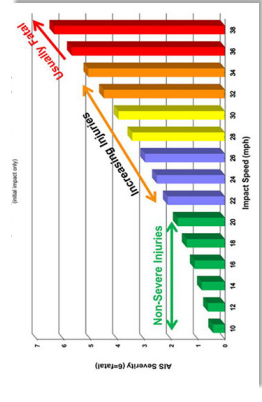


Figure A: Speed/Pedestrian Injury Severity Correlation. Source: USDOT FHWA - C.E. Rick Chalmers

Traffic calming is an integral component of complete streets, contributing to safety and improved quality of life and creating a sense of place in a community. There are numerous design tools available for calming traffic in urban areas like West Burlington, whether it is along a primary corridor like Gear Ave., or along a residential street.

This board illustrates various types of traffic-calming treatments that are shown in the concepts, and/or if not, are still applicable to various locations within West Burlington. Some of these approaches will require little to no major modifications to the roadways, and some may require more extensive modifications that are more appropriate for new construction or street reconstruction/rehabilitation.

It is the intent that all of the pedestrian crossings support a safe, walkable environment.

West Burlington
Accessibility & Safety

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Trailhead

The city's newly acquired property on the northeast quadrant of the intersection of Highway 34 and Gear Avenue was deemed by the steering committee to be the perfect place for a trailhead. The site has access to ample parking, it is easily accessible to visitors, and the Gear Ave. trail extension that is scheduled to be constructed in 2024 will run through the site, allowing for ease of connectivity.

Major Elements of the Trailhead

Landscape buffer plantings: buffer plantings with ornamental grasses and shrubs define the outer edge of the trailhead and provide users with a soft visual barrier from the adjacent vehicular uses

Trees: trees provide many environmental benefits and increase user comfort, while contributing to the overall aesthetics; ornamental trees align the east side of the trailhead to create an inviting entryway and sense of place

Native prairie: planting native prairie on the steep and low portions of the roadway ditch will reduce mowing maintenance and provide a number of environmental benefits that include: improving storm-water quality, reducing storm-water runoff, and providing pollinator habitat. Adding interpretive signage along the prairie edge allows for users to conduct a self-guided tour and learn about the prairie and other associated topics. The selection of plant species for the prairie would entail incorporating species that are less weedy and maintain a shorter height, which is more conducive to the urban setting.

Nature-themed playground: play area constructed to reflect a natural environment that physically and mentally challenges youth and fosters their imagination for creative play (see photo 1 on Board 10); a sidewalk defines the playground boundary

Nature-themed shade structure: shade structure with perforated roof provides dappled shade, enhancing the comfort of playground users (see photo 3), and integrates well with the playground theme

Site amenities: site amenities (see photos 5 - 11 on Board 10) enhance user comfort and when their placement and design are well thought out they improve usability; the color, materials, and style of site amenities should be coordinated/complementary to create a unified appearance that contributes to the overall aesthetics

Note: Selection of commercial-grade materials is important for safety, longevity, and reduced maintenance; placement of amenities on paved surfaces reduces maintenance, and when directly adjacent (connected) to a sidewalk, increases accessibility

Project Scope and Cost Opinion

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

Abbreviations used in the following opinions of probable cost include:

Ac= acre	Cf = cubic foot	Cy = cubic yard	Ea = each	Lf = linear foot
Ls = lump sum	Sf = square foot	Sy = square yard	Tbd = to be determined	

Design Expertise Recommended

Projects may require help beyond the capability of the West Burlington visioning committee or available city staff. For the Trailhead improvement project the steering committee should expect to engage the services of a landscape architect and surveyor.

Trailhead (See Board #10 for Visual)					Summer 2023
<i>Description</i>	<i>Est. Qty.</i>	<i>Unit</i>	<i>Estimated Unit Cost</i>	<i>Estimated Line Total</i>	<i>Estimated Totals</i>
Trailhead @ NE Quadrant of Gear Ave. & Hwy. 34					
Site Amenities					\$ 150,050.00
- Open Sided Shelter, 24" x 24"	1	EA	\$ 45,000.00	\$ 45,000.00	
- Benches	10	EA	\$ 2,400.00	\$ 24,000.00	
- Trash Receptacles	3	EA	\$ 2,500.00	\$ 7,500.00	
- Bench Swings	3	EA	\$ 3,750.00	\$ 11,250.00	
- Bike Racks	5	EA	\$ 750.00	\$ 3,750.00	
- Drinking Fountain	1	EA	\$ 10,500.00	\$ 10,500.00	
- Bike Repair Station	1	EA	\$ 3,450.00	\$ 3,450.00	
- Personal Picnic Pavillion	2	EA	\$ 10,500.00	\$ 21,000.00	
- Informational Kiosk	1	EA	\$ 5,000.00	\$ 5,000.00	
- Barrier Bollards	8	EA	\$ 450.00	\$ 3,600.00	
- Bike Accent Statue Allowance	1	LS	\$ 15,000.00	\$ 15,000.00	
PCC Pavement					\$ 84,760.00
- PCC Sidewalk & Amenity Pads	850	SY	\$ 85.00	\$ 72,250.00	
- Earthwork / Grading	1	LS	\$ 5,000.00	\$ 5,000.00	
- Decorative Accent Pavement	10	SY	\$ 300.00	\$ 3,000.00	
- ADA Detectable Warnings	82	SF	\$ 55.00	\$ 4,510.00	
Landscaping					\$ 46,090.00
- Planting Soil (Trees and Planting Beds)	115	CY	\$ 50.00	\$ 5,750.00	
- Bed Prep/Fertility	1210	SF	\$ 4.00	\$ 4,840.00	
- Overstory Trees	7	EA	\$ 350.00	\$ 2,450.00	
- Ornamental Trees	7	EA	\$ 300.00	\$ 2,100.00	
- Plant Material for Planting Beds	1210	SF	\$ 12.00	\$ 14,520.00	
- Shredded Hardwood Mulch	16	CY	\$ 65.00	\$ 1,040.00	
- Mowing Edge	480	LF	\$ 18.00	\$ 8,640.00	
- Urban Seeding	0.75	AC	\$ 5,000.00	\$ 3,750.00	
- Native Prairie	0.25	AC	\$ 12,000.00	\$ 3,000.00	
Playgrounds					\$ 146,480.00
- Oodle Swing Area					
- Playground Surfacing, Loose Rubber Mulch	800	SF	\$ 10.60	\$ 8,480.00	
- Oodle Swing	1	EA	\$ 12,000.00	\$ 12,000.00	
- Earthwork/Grading	1	LS	\$ 1,000.00	\$ 1,000.00	
- Nature Themed Playground Allowance	1	LS	\$ 125,000.00	\$ 125,000.00	
Pedestrian Site Lighting					\$ 126,000.00
- Decorative Pedestrian Lighting	1	LS	\$ 126,000.00	\$ 126,000.00	
Other Miscellaneous					\$ 45,000.00
- Mobilization	1	LS	\$ 30,000.00	\$ 30,000.00	
- Temporary Traffic Control	1	LS	\$ 2,500.00	\$ 2,500.00	
- Construction Survey	1	LS	\$ 6,000.00	\$ 6,000.00	
- Erosion & Sediment Control	1	LS	\$ 6,500.00	\$ 6,500.00	
<i>Subtotal</i>					\$ 598,380.00
<i>35% Contingency and Design Fees</i>					\$ 209,433.00
Opinion of Total Probable Construction Cost*					\$ 807,813.00

* Estimate does not include property easements/land acquisition, utility modifications, or topographic/boundary survey which may be required.

Tailhead

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Trailhead Notes and Major Elements

- Landscape buffer plantings:** buffer plantings with ornamental grasses and shrubs define the outer edge of the trailhead and provide users with a soft visual barrier from the adjacent vehicular uses
- Trees:** Trees provide many environmental benefits and increase user comfort, while contributing to the overall aesthetics; ornamental trees align the east side of the trailhead to create an inviting entryway and sense of place
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West Burlington Trailhead

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Proposed concept plan for trailhead in northeast quadrant of Gear Avenue and Highway 34 ext ramp



Implementation Strategies

The Visioning Program is just the beginning of the planning process for implementation of projects that will contribute to an enhanced quality of life in West Burlington. Although there is much value in data gathering, analysis, conclusions and recommendations, the greatest value is providing the residents of West Burlington 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.

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

It is recommended that projects be approached individually, keeping in mind some may occur at the same time or may require phasing to be completed. Short-term projects are those that can be more easily accomplished or address safety issues. Long-range projects will need to be implemented based on available funds and agreements with private landowners. Based on the strategy that early success builds momentum, we recommend the first projects be those that can be more easily accomplished and be highly visible.

Implementation Strategy Overview

Step One

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

Step Two

Develop a list that ranks all of the projects outlined in the feasibility study. This list will help prioritize goal setting, planning, and funding. Remember that each concept outlined in the feasibility study can be broken down in to smaller parts and phased.

Step Three

Identify a project to be implemented. Start with a small-scale project such as way-finding signage or crosswalks, or an addition to a project that the city is already planning. Implementation of a small project can have a larger catalytic effect. It creates a visible

statement that change is happening, keeps the momentum going, and can be a great motivation for building support and funding for future projects. Determine whether further design or planning is needed.

Step Four

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

Step Five

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

Step Six

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

Step Seven

Advertise and solicit competitive bids from contractors experienced in the type of work being bid. Allow 1-2 months in the project timeline for the bidding process, contractor selection, and execution of contract with a general contractor for the identified community improvement project. Allow 3-9 months in the project timeline for the construction of the project. The time required for the construction will be dependent upon the scope, size, and complexity of the project.

Step Eight

Repeat the steps as each new project is determined

Implementation Timeline

Typical Timeline from Start of Design to Final Project Construction

Selection and Execution of Contract with Designer	1 - 3 months
Design and Construction Document Development:	3 - 6 months
Project Bidding and Contractor Selection:	1 - 3 months
<u>Construction:</u>	3 - 10 months
	8 - 22 months

Available Resources

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

Funding Opportunities

- Grants
- Partnerships (private and public)
- Trusts and endowments
- Fund-raising and donations
- Memorials
- Volunteer labor
- Low-interest loans
- Implementation of project in phases

Funding Sources

- Iowa Department of Transportation
- Iowa Department of Natural Resources
- Iowa Department of Education
- Iowa Department of Economic Development
- Utility companies
- Trees Forever

Grant Programs

- Alliant Energy and Trees Forever Branching Out Program
- Federal Surface Transportation Program (STP)
- Iowa Clean Air Attainment Program (ICAAP)
- Iowa DOT/DNR Fund Iowa
- Iowa DOT Iowa's Living Roadways Projects Program
- Iowa DOT Living Roadways Trust Fund Program
- Iowa DOT Pedestrian Curb Ramp Construction Program
- Iowa DOT Statewide Transportation Enhancement Funding
- Iowa DNR Recreation Infrastructure Program
- Land and Water Conservation Fund
- National Recreational Trails Program
- Pheasants Forever
- Revitalization Assistance for Community Improvement (RACI) Grant Program
- State Recreational Trails Program
- Transportation Alternatives Program (TAP)

