April 2025

Harrisburg Trails Plan

Acknowledgments

This plan was completed with the valuable input of many Harrisburg stakeholders. Community members and City staff gave the planning team insight into the state of trails in Harrisburg. In addition to the public's input received through surveys and a pop-up workshop at Harrisburg Days, the time and energy of the Advisory Team was particularly appreciated.

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Cover Credit

Sioux Falls Business

TOOLE DESIGN **Toole Design** provided consulting services.

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INTRODUCTION

01

Vision

Harrisburg is a fast-growing suburb with a trail network that is developing at a similar pace. The Harrisburg Trails Plan (hereafter referred to as "the Plan") lays out a vision for continuing this momentum, while simultaneously helping to achieve three of Harrisburg's transportation objectives (adopted in the 2022 Harrisburg Transportation Plan):

"Reduce the frequency of vehicle, bicycle, and pedestrian crashes."

"Improve bicycle/pedestrian facility connections."

"Incorporate bicycle and pedestrian infrastructure into street projects."

During community engagement for the Plan, residents were asked to provide three words to describe their ideal trail system. Their answers, summarized in Figure 1.1 and Appendix A, inspired the vision for trails in Harrisburg:

"In the future, the trails system will be a safer, connected, accessible, and paved network for people of all ages and abilities throughout Harrisburg."

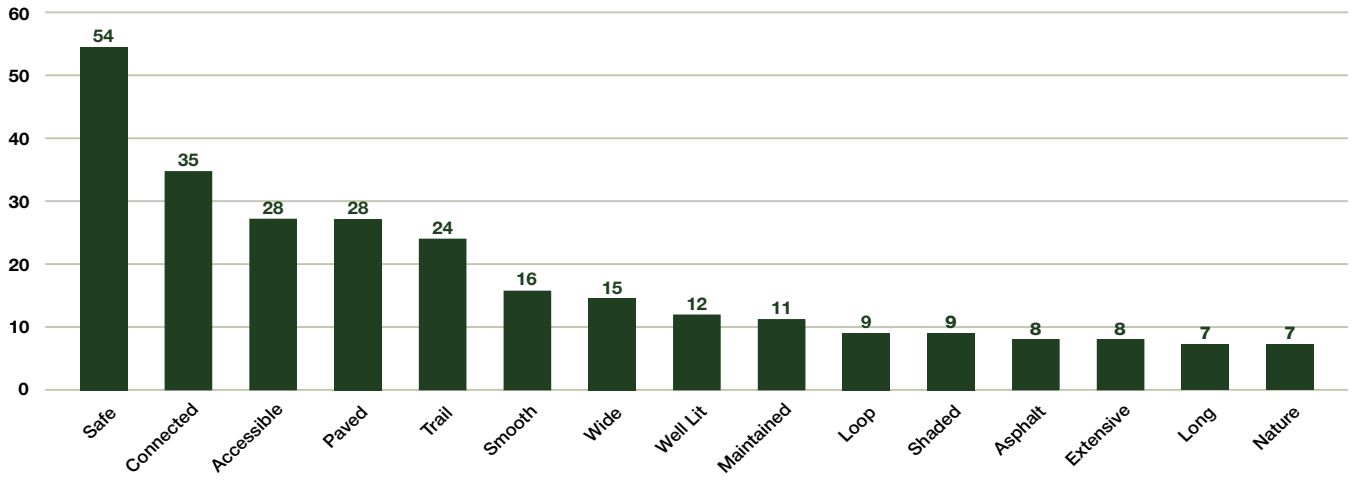


FIGURE 1.1 172 people responded with three words to describe their ideal trails network.

Why a trails system?

Trails in Harrisburg are valued for their recreational, health, and connecting qualities. A network of trails will bring the community closer together, allowing children, families, adults, and seniors the freedom to reach one another and their destinations.

Why a trails plan?

Previous trail planning efforts within Harrisburg are contained within the 2007 Parks and Trails Plan (Appendix B). The planned trail network at that time was more limited in geography, and did not detail action steps for how trails could be incorporated in new housing developments. Trail facility design standards have also changed since 2007. In the City's 2019 Comprehensive Plan, a goal was set to update the 2007 Plan and coordinate with neighboring areas to create a regional trail system. An updated Trails Plan that is well thought-out and publicly vetted is intended to give officials a clearer direction about how the trail network should be developed.

Who was involved?

The City of Harrisburg received a federal transportation grant through the Sioux Falls Metropolitan Planning Organization (MPO) to complete the Plan, and then in 2024 hired the consulting firm of Toole Design to facilitate the process. City and MPO staff assembled a Study Advisory Team to assist with guiding the development of the Plan. Gaining community input was a key part of Plan development. The Plan is the distillation of ideas from over 460 interactions with the public about their desires for the future. Residents were engaged through online surveys, a pop-up workshop at Harrisburg Days, and paper surveys at the Harrisburg Library.

What did the community tell us?

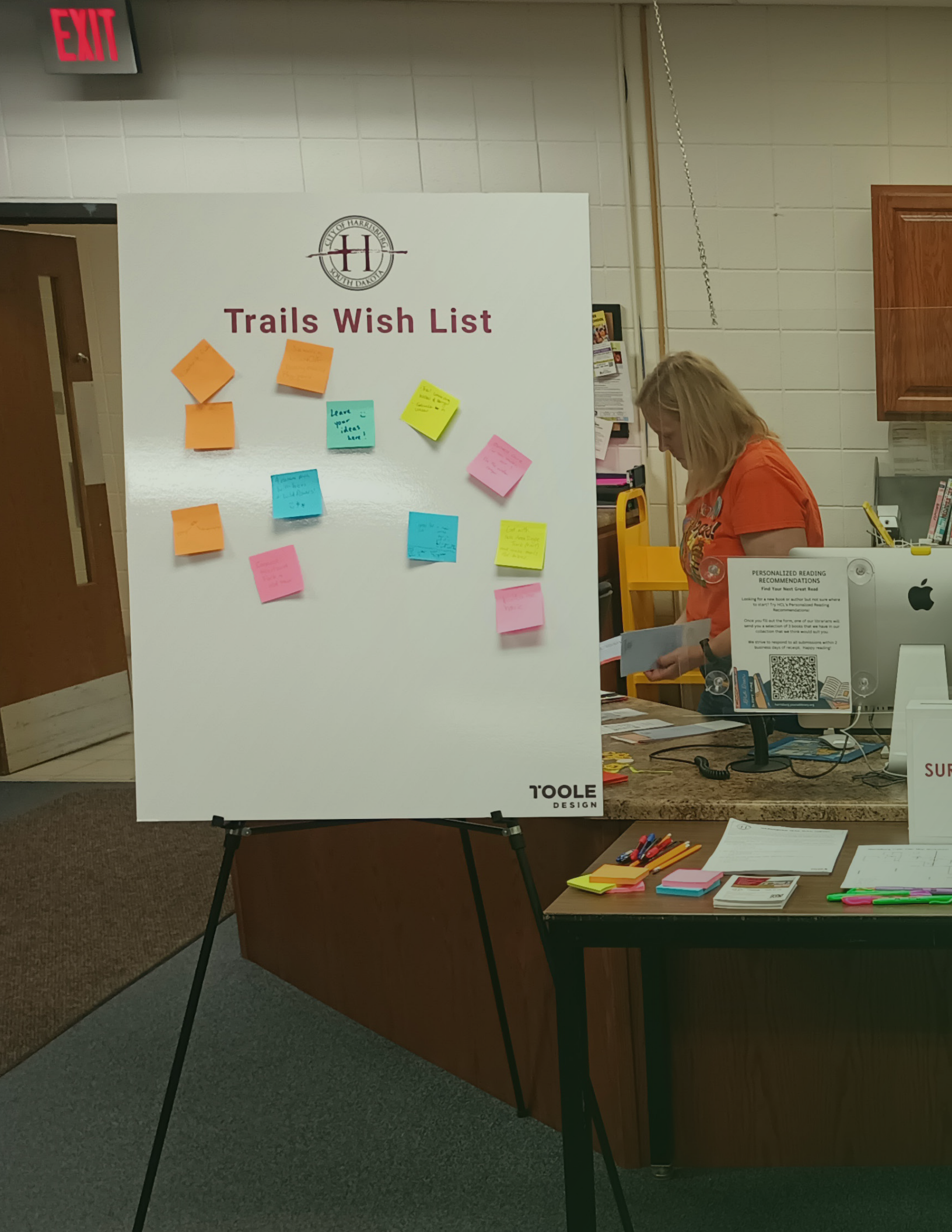
Residents told the planning team their biggest needs for the trails network are fourfold:

1. Residential neighborhoods need to be connected to popular destinations
2. People are most comfortable on paved greenway-type trail facilities away from roads
3. Existing trail crossings are not comfortable
4. Residents are most concerned about the safety of kids

These results are summarized in Chapter 2 – Community Engagement and detailed in Appendix A.

Where do we go from here?

To achieve the vision of a safer, connected, accessible, and paved system, the Plan describes goals, strategies, and action steps (Chapter 3). The Plan also details trail projects with updated facility design standards and prioritized projects (Chapter 4). These prioritized projects will help the City of Harrisburg program projects in its annual and five-year capital improvement budgets, as well as pursue grant funding opportunities from outside sources.


EXIT
CITY OF HARRISBURG
SOUTH DAKOTA
Trails Wish List
Leave your ideas here!
TOOLE DESIGN
PERSONALIZED READING RECOMMENDATIONS
Find Your Next Great Read

COMMUNITY ENGAGEMENT

02

Broad engagement with residents of Harrisburg was embraced as a priority throughout the planning process, reflecting their vision and priorities. Community members were engaged in the summer of 2024 to gather input and ideas before drafting the Plan.

How we engaged

Approximately 460 participant interactions took place. It was important for the project team to use a range of strategies to solicit feedback from community members, engaging people with varying levels of interest. The following strategies were used (for more detail, see Appendix A – Community Engagement Report):

- 350 participant interactions through an online survey
- 50 participant interactions at a pop-up workshop at the Harrisburg Days Business Expo and Craft Fair (Figure 2.1)
- 49 participant interactions submitted through a paper Wish List (Figure 2.2)
- 12 attendees at an Advisory Team meeting

FIGURE 2.1 Input was collected from the public at the 2024 Harrisburg Days Business Expo and Craft Fair.

FIGURE 2.2 Harrisburg residents shared wish list ideas with the project team.

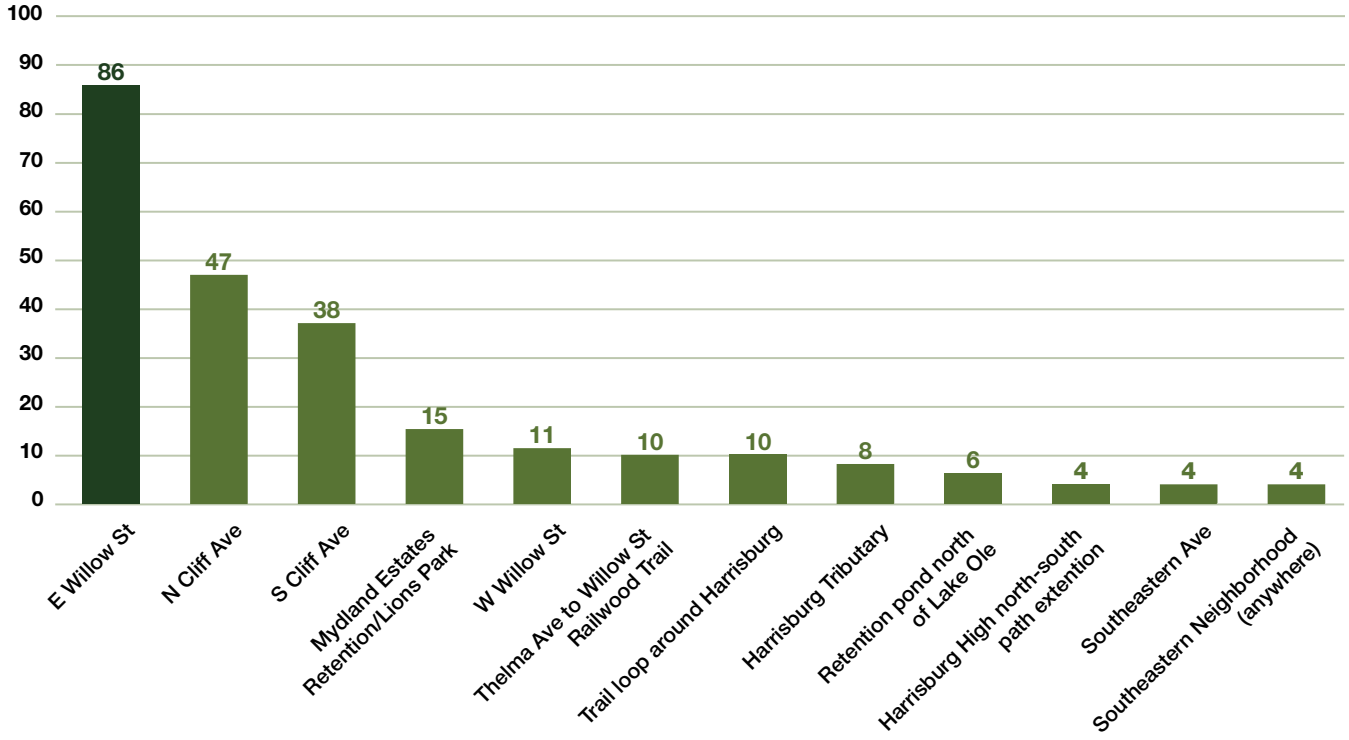


FIGURE 2.3 E. Willow Street was the top location identified by residents where a new trail is needed.

What we heard

Key findings were made by analyzing the public's input. These findings are addressed in subsequent chapters, which include recommendations for responding to community priorities. Key findings are:

1. Residential neighborhood developments are not connected to popular destinations. Most respondents believe the connectivity of the trail network between residential areas and parks and schools is poor. Participants expressed a high level of interest for trails between specific housing developments and the community's popular destinations. At the top of the list is the Legendary Estates neighborhood, which is separated from the rest of the community by the railroad tracks and Willow Street. As a result, E Willow Street was identified by one-third of respondents as the top new trail needed (Figure 2.3). This was followed by N Cliff Avenue, where a trail gap between the Heartland Park neighborhood (i.e., Laura Street) and the existing trail was identified by 18% of respondents.
2. People are most comfortable on paved greenway-type trail facilities away from roads. The most popular existing trail type was the facility around Lake Ole, with 94% of respondents expressing a high degree of comfort. Trails along roads, while in demand due to their familiarity and destinations, identified approximately 50% of respondents who are comfortable. Even though trails do not exist around or along most bodies of water, respondents identified several of these areas as needing trails. These were led by the Mydland Estates Retention Pond/Lions Park, Harrisburg Tributary, and the retention pond north of Lake Ole. Developing a trail loop around Harrisburg and making permanent the trail along the railroad between Thelma Avenue and Willow Street were also priorities. Those leaving additional comments highlighted the need for greenway-type facilities away from roads. Paved trails were also preferred as a long-term vision.
3. Existing trail crossings are not comfortable for residents. Existing trail crossings in Harrisburg are not comfortable for respondents, with one-third or fewer expressing approval. The trail crossings at the Cliff Avenue and Willow Street roundabout were identified in the survey as most needing change, followed by other intersections along Willow Street including Shebal Avenue, Columbia Street, and Honeysuckle Drive. The intersection of Willow Street and Perry Lane was identified as the most dangerous intersection in the mapping exercise.
4. Residents are most concerned about the safety of kids. Two-thirds of those taking the survey were women. 70% of survey respondents were between the ages of 30 and 44, even though they make up only 29% of Harrisburg's population. Many personal comments discussed children and the desire to allow them to take trails to schools and parks, and experience trails as a family. Kids were the top theme when survey respondents were asked to describe why trails are important, mentioned by 39%. Safety was the second highest theme, mentioned by 29% of respondents. Safety was also the top visioning word suggested by respondents.


SANFORD
SANFORD
Lewis Pharmacy
STATE LAW

GOALS & STRATEGIES

03

Goals and strategies are policies that will help the City of Harrisburg become a more trail-friendly community. To advance that vision in the coming years, staff and other public officials can refer to this chapter for strategies and actions to guide trail improvements.

Community engagement key findings are the basis for most goal recommendations, as shown in Figure 3.1.

Goals A, B, and C each include two strategies. Each strategy has one to four actions. The chart below outlines all goals, strategies, and actions. Following this chart, each goal, strategy, and action is described in detail. All goals, strategies, and actions were shared with the Study Advisory Team in draft form before they were further developed.

Community Engagement Key Finding		Goal
Residential neighborhood developments are not connected to popular destinations	›	Connect residential neighbor-hood developments and popular destinations with trails
People are most comfortable on paved greenway-type trail facilities away from roads	›	Create more greenway-type trails away from roads
Existing trail crossings are not comfortable for residents	›	Make trail crossings safer and more comfortable

FIGURE 3.1 Community engagement findings summarized in Chapter 2 are tied to the goals of Chapter 3.

Goal A: Connect residential neighborhood developments and popular destinations with trails	
Strategy 1 Build and improve trails along higher traffic streets	**Action 1.1** Design and build trails separated from motor vehicles along higher traffic streets, beginning with those where demand is highest
	Action 1.2 Update roadway design standards to require trails on both arterial and collector streets
	Action 1.3 Implement accessibility upgrades to existing unpaved trails
Strategy 2 Create trail shortcuts between residential neighborhoods and popular destinations	**Action 2.1** Update design standards to require trail connections through cul-de-sacs and mid-block segments through long blocks
	Action 2.2 Connect residential neighborhoods with nearby parks, schools, and businesses
Goal B: Create more greenway-type trails away from roads	
Strategy 3 Build greenways to follow water features, publicly owned land, and subdivision edges	**Action 3.1** Design and build greenway trails away from roads on land already owned by the City of Harrisburg and the Harrisburg School District
	Action 3.2 Negotiate agreements with developers to add publicly accessible greenway easements on privately owned lands
Strategy 4 Establish a framework to incorporate major greenways and other trail types into future developments	**Action 4.1** Create major greenway trail spines
	Action 4.2 Educate developers about the value of major greenways and other trail types
	Action 4.3 Revise subdivision regulations to require developers to incorporate greenways and other trail types into future developments
Goal C: Make trail crossings safer and more comfortable	
Strategy 5 Use additional tools for designing and building trail crossings	**Action 5.1** Expand the toolbox for trail crossings
	Action 5.2 Pilot and expand the use of trail underpasses
	Action 5.3 Update City Design Standards to include trail crossing guidance at streets and driveways
Strategy 6 Implement trail crossings on existing arterial and collector streets with new housing developments	**Action 6.1** Amend subdivision regulations to create the option of a trail crossing impact study
Goal D: Implement the Trails Plan	
Strategy 7 Implement the Trails Plan	**Action 7.1** Apply for federal funds through the Transportation Alternatives program and Rebuilding American Infrastructure with Sustainability and Equity program
	Action 7.2 Develop budget line items for trail construction and maintenance
	Action 7.3 Update the City Council annually on progress for each action item in the Plan
	Action 7.4 Update the Plan every five years until it is complete

Goal A: Connect residential neighborhood developments and popular destinations with trails

As mentioned in Chapter 2, one of the key findings of community engagement was the need to connect residential neighborhood developments with popular destinations. This need was identified through a survey question where most respondents identified current connections as poor or very poor. Two strategies to address this need include building and improving trails along higher traffic streets (Strategy 1) and creating trail shortcuts between residential neighborhoods and popular destinations (Strategy 2).

Strategy 1: Build and improve trails along higher traffic streets

Building and improving trails along higher traffic streets addresses survey respondents' collective viewpoint that trails in these locations need attention. Actions to achieve this strategy include designing and building trails separated from motor vehicles along higher traffic streets, beginning with those where demand is highest (1.1), updating roadway design standards to require trails on arterial and collector streets (1.2), and implementing accessibility upgrades to existing unpaved trails (1.3).

Throughout this chapter, and the Harrisburg Trails Plan, the terms "**walking**" and "**pedestrian**" are used inclusively of people of all abilities including those using assistive devices.

Action 1.1: Design and build trails separated from motor vehicles along higher traffic streets, beginning with those where demand is highest.

During the community engagement process, respondents expressed an overwhelming preference to place trails along well-known streets to connect popular destinations (Appendix A). Trails (also known as shared use paths) provide physical separation from motor vehicle traffic. Examples of existing trails along higher traffic streets include Willow Street, Cliff Avenue, and Minnesota Avenue (State Highway 115).

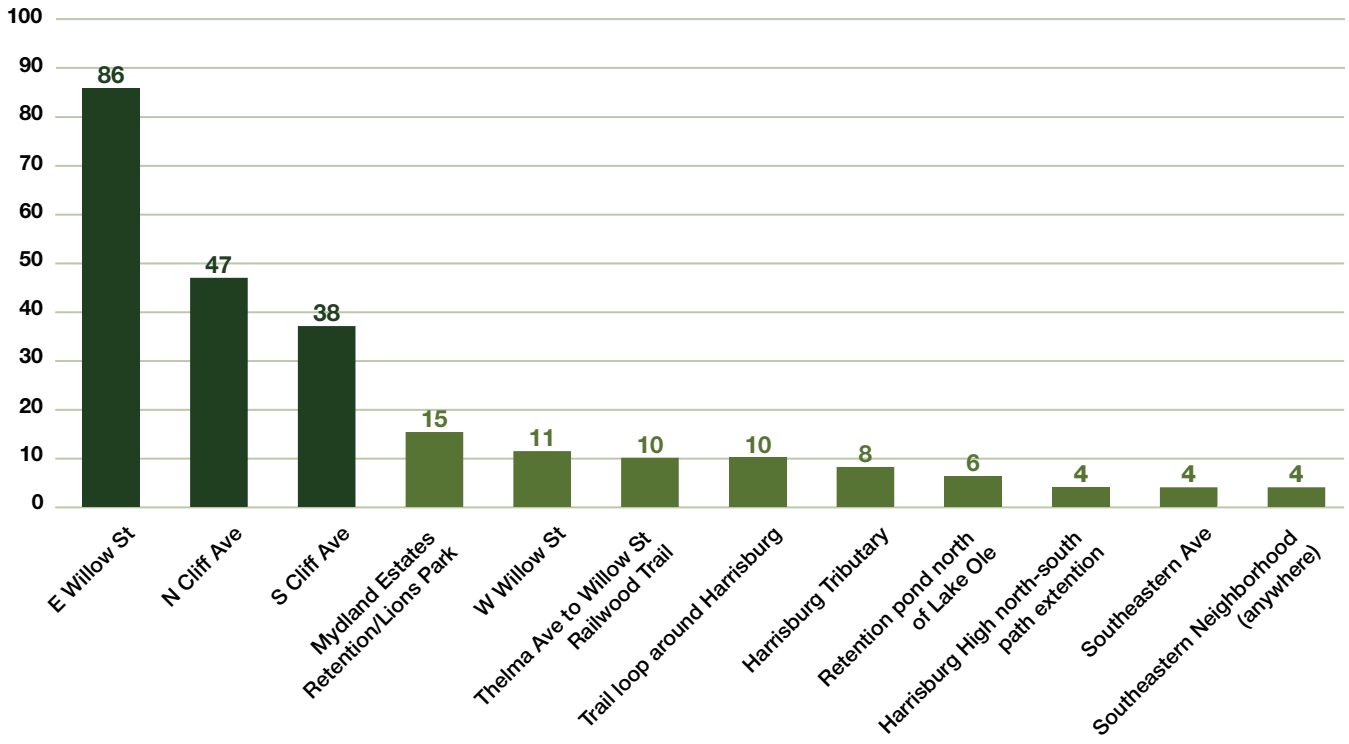


FIGURE 3.2 The three highest demand trails are E Willow Street, N Cliff Avenue, and S Cliff Avenue.

The three highest demand trails from survey respondents include the following (Figure 3.2):

1. **E Willow Street** – A new trail along this busy street would connect residential neighborhood developments (e.g., Legendary Estates) east of the railroad with popular destinations west of the railroad, like Central Park and Lake Ole.
2. **N Cliff Avenue** – The second highest demand for a new trail is along N Cliff Avenue. Currently the trail on the west side of Cliff Avenue stops at the south property line of Mc Carty Storage (Figure 3.3). This creates a gap between the Heartland Park neighborhood and points south.
3. **S Cliff Avenue** – The third highest demand trail is along S Cliff Avenue. Currently a 5' wide sidewalk exists along at least one side of the street from South Cliff Falls Apartments to the north. These could be widened to an 8'+ wide trail by adding adjoining concrete panels. Much of the desire for a trail is due to the new Liberty Elementary which recently moved to the south side of Harrisburg, just west of S Cliff Avenue.

FIGURE 3.3 The N Cliff Avenue trail currently terminates at Mc Carty Storage.

FIGURE 3.4 The Willow Street trail along the north side of the road is 10' wide and concrete.

Action 1.2: Update roadway design standards to require trails on both arterial and collector streets.

Trails are typically built with asphalt or concrete and accommodate a wide array of people traveling by foot, wheelchair, bicycle, skateboard, scooter, and stroller. Trails in this Plan are defined as linear facilities with widths of eight feet or more. The AASHTO (American Association of State and Highway Transportation Officials) Bike Guide recommends two-directional trails should be 10 feet wide minimum, but eight feet is acceptable where volumes are expected to be low or in constrained circumstances. The Guide states,

"In rare circumstances, a path width of 8 ft may be used for the entire or substantial portion of the path where most of the following conditions prevail:

- Bicycle traffic is expected to be less than 50 bicyclists/hour, even on peak days or during peak hours.
- Pedestrian use of the facility is not expected to be more than occasional or to exceed 30% of total volume.
- Horizontal and vertical alignments provide frequent, well-designed passing and resting opportunities.
- The path will not be regularly subjected to maintenance vehicle loading conditions that would cause pavement edge damage.
- Negative environmental impacts associated with a recommended path width cannot otherwise be mitigated."

In the past, Harrisburg used a combination of 8' wide and 10' wide trails (Figure 3.4), which are surfaced with asphalt or concrete (Figure 3.5).

Trail Location (Extents)	Width	Surface
Lake Ole	10'	Asphalt
Minnesota Avenue (271st St to Willow St)	10'	Asphalt
N Cliff Avenue (Willow St to Mc Carty Storage)	8'	Concrete
S Cliff Avenue (Maple St to Honeysuckle Dr)	8'	Concrete
Willow Street (Tiger St to Columbia St)	10'	Concrete

FIGURE 3.5 A combination of surface widths and types have been used on Harrisburg trails.

Harrisburg's **2018 Design Standards** should be amended to distinguish trails more explicitly from sidewalks and bike lanes, and require trails along both collector and arterial streets, as follows:

7.6.3 ~~Bike Lanes~~ Trails: ~~Bike lanes~~ Trails shall be ~~considered~~ designed on both sides of arterial roadways and one side of collector roadways where posted speed limits exceed 25-mph.

Table 7.1: Minimum Roadway Geometrics

	Local Residential	*Local Commercial*	*Local Industrial*	*Collector*	*Arterial*
Fire Lane	*20'*	*20'*	*20'*	*20'*	*20'*
Drive Lanes	*10'*	*11'*	*12'*	*12'*	*12'*
Parallel Parking	*7'*	*7'*	*8'*	*7'*	*8'*
Boulevards	*15.5'*	*14.5'*	*14.5'*	*15.5'*	*19.5'*
Sidewalks	*5'*	*5'*	*5'*	*6'*	*~~8'~~ n/a*
Trails*	n/a	n/a	n/a	8'	8'
*All trails running on their own alignment away from streets shall be a minimum of 10' wide.					

Action 1.3: Implement accessibility upgrades to existing unpaved trails.

The City of Harrisburg has installed unpaved trails in some locations to provide short-term facilities until funding can be secured for paving. These facilities provide a useful alternative that quickly expands the trail network at a low cost. Current examples include the south side of W Willow Street and a short segment of the west side of N Cliff Avenue.

Two primary upgrades to improve accessibility can be made on existing unpaved trails to expand access to people with disabilities and to comply with the federal 1990 Americans with Disabilities Act. The same standards should be used as more unpaved trails are constructed.

The first upgrade is surface material. According to the US Access Board's Accessibility Standards for Federal Outdoor Developed Areas,

"The surfaces of trails, passing spaces, and resting intervals must be firm and stable. A firm trail surface resists deformation by indentations. A stable trail surface is not permanently affected by expected weather conditions and can sustain normal wear and tear from the expected uses between planned maintenance."

Some current surface materials used in Harrisburg include those resulting in indentations after periods of wet weather (Figure 3.6). According to the AASHTO Bike Guide, crushed stone and limestone screenings are two possible surface materials. The following construction tips for stability can be used as a guide when selecting materials[1]:

"Generally, the following materials provide firmer surfaces that are more stable than the alternative:

- *Crushed rock (rather than uncrushed gravel)*
- *Rocks with broken faces (rather than rounded rocks)*
- *A rock mixture containing a full spectrum of sieve sizes, including fine material (rather than a single size)*
- *Hard rock (rather than soft rock that breaks down easily)*
- *Rock that passes through a ½-inch screen (rather than larger rocks)*
- *Rock material that is compacted in 3- to 4-inch layers (rather than thicker layers)*
- *Material that is moist (but not too wet) before it is compacted (rather than material that is compacted when it is dry)*
- *Material that is compacted with a vibrating plate compactor, roller, or by hand tamping (rather than material that is laid loose and compacted by use)"*

1 https://www.access-board.gov/files/aba/guides/outdoor-guide.pdf

FIGURE 3.6 Footstep and bicycle wheel indentations can be seen on this segment of unpaved trail along Willow Street.

The second upgrade is vertical trip hazards (Figure 3.7). According to federal accessibility guidelines, these "changes in level" shall be a maximum of ¼ inch. Vertical trip hazards between ¼ inch and ½ inch shall be beveled to a slope not steeper than 1:2 (50%).[1]

FIGURE 3.7 The unpaved path at the intersection of W Willow Street with Honeysuckle Drive has a vertical trip hazard where the unpaved and paved surfaces meet. This can be corrected by adding material to meet the level of the concrete surface.

Strategy 2: Create trail shortcuts between residential neighborhoods and popular destinations

Creating trail shortcuts between residential neighborhoods and popular destinations is another strategy to connect housing developments with the community. Actions to achieve this strategy include updating design standards to require the use of trails within cul-de-sacs and long blocks (2.1) and connecting residential neighborhoods with nearby parks and schools (2.2).

1 https://www.access-board.gov/prowag/complete.html#r30262-changes-in-level

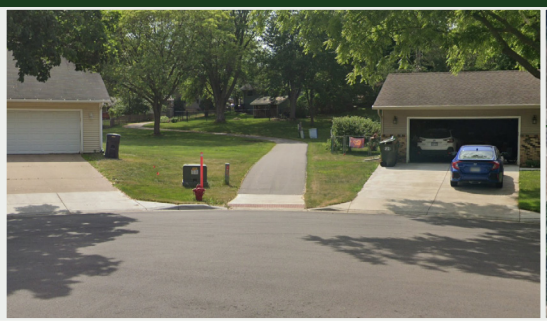
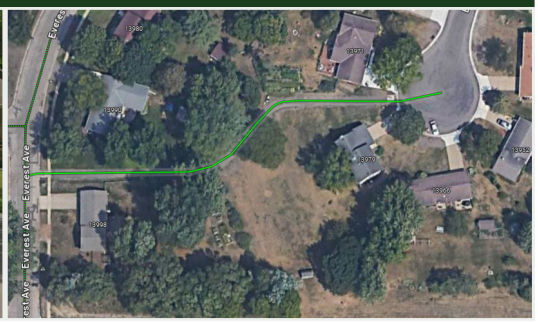
Cul-de-sac name	Street View (Credit: Google)	Aerial View (Credit: Google)
Eveleth Court		
134th Street Court, 138th Street Court		
149th Court		

FIGURE 3.8 : Examples of trail access points at cul-de-sacs in Apple Valley, MN.

Action 2.1: Update design standards to require the use of trails within cul-de-sacs and long blocks

Harrisburg currently has over 25 cul-de-sacs existing or under development. Trail-friendly communities have implemented connections at the end of cul-de-sacs, thereby creating shortcuts to encourage walking and bicycling. For example, Apple Valley, MN (a suburb of St Paul, MN) has many cul-de-sacs with trail connections, creating access points to an extensive network of paths connecting popular destinations (Figure 3.8).

Some communities create design standards to connect trails through cul-de-sacs (Figure 3.9). Harrisburg's roadway design details for cul-de-sacs within its adopted **2018 Design Standards** can be amended to guide the development of trails at cul-de-sacs as follows:

> *7.9.2 Cul-de-sacs: For residential and nonresidential cul-de-sacs, the minimum back of curb radius shall be 40.5-ft and 50.5-ft, respectively. The maximum length of a cul-de-sac shall be 500-ft measured from the centerline of the intersection to the radius point of the turnaround. Trail easements of at least 30' in width and trails of at least 10' in width shall be located between cul-de-sac turnarounds and current or future streets, schools, parks, and trails, unless deemed impractical by the City Engineer.*

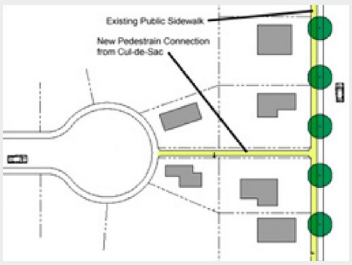
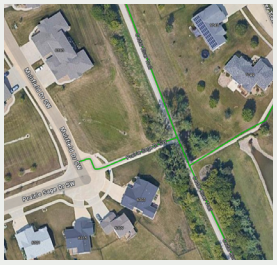
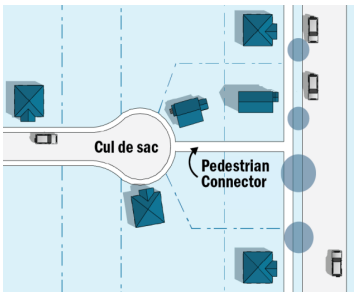
Metro Area (Pop.)	Design Standard Text	Design Standard Illustration	Example on the Ground
Cedar Rapids, IA (277,000)	32.04.03: Whenever cul-de-sac streets are created, at least one ten-foot-wide pedestrian access easement shall be provided, to the maximum extent practicable, between each cul-de-sac head or street turnaround and the sidewalk system of the closest adjacent street or pedestrian sidewalk or pathway.		 Prairie Sage Drive SW
Rochester, MN (228,000)	60.400.040: Cul-de-Sacs must connect to the closest local or collector street, to adjacent cul-de-sacs, and to any adjacent public open space, Public Park, or School via a 15-foot pedestrian connector easement or right-of-way that includes a sidewalk or multi-use trail, unless deemed impracticable by the Community Development Director. The pedestrian easement or right-of-way shall be indicated on the subdivision plat, and interior side yard setbacks applicable to the district where the cul-de-sac is located shall apply to the lots abutting the easement or right-of-way.		 Cameo Lane NE

FIGURE 3.9 Examples of design standards for trails at cul-de-sacs in Midwestern communities similarly sized to the Sioux Falls metro area.

Some communities also require trail connections within long blocks. For example, Rochester, MN's development standards say,

"Any block exceeding 600 feet in length must provide a public pedestrian connection to maintain connectivity between and through subdivisions, except where unique topographical conditions make this connection infeasible."

Examples of how this requirement has been implemented are shown in Figure 3.10.

Harrisburg's **2018 Design Standards** can be amended to guide the development of trails within long blocks as follows:

> *8.5.1 Blocks shall not exceed 1000-ft in length. Where block sizes exceed 600-ft in length, trail easements of at least 30' in width and trails of at least 10' in width shall be placed within the middle of 600-ft to 1000-ft blocks, unless deemed impractical by the City Engineer.*

Design Standards can also be amended to include right of way for trails:

> *8.4.1 Right of way shall be wide enough to accommodate the ultimate planned roadway, including median, shoulder, boulevard, sidewalks, bicycle facilities trails, utilities, and other public infrastructure. Right of way shall not be less than as follows: Principal Arterial 120-ft, Minor Arterial 100-ft, Collector 70-ft, Industrial 70-ft, Local Commercial 66-ft, Local Residential 66-ft, Alley 30-ft, Trail 30-ft.*

Easements granted to the City are desired instead of separate parcels (i.e., fee title ownership) to lower the level of City maintenance responsibility for mowing and to clarify that trail easements are not considered a component of the City's public space contributions rule in current subdivision regulations (Ordinance #2021-07).

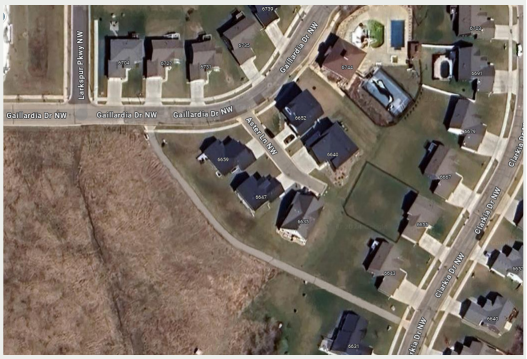
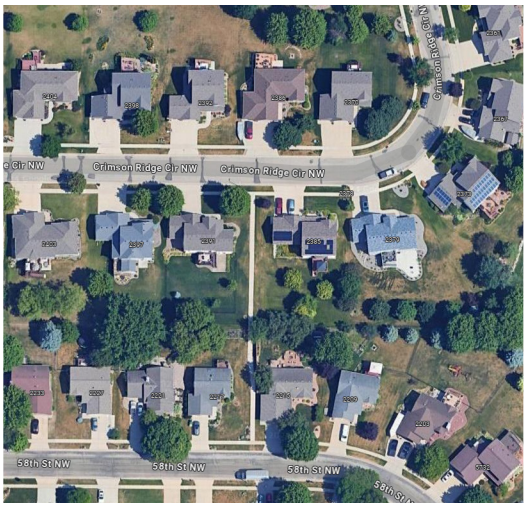
Long Block name	Street View (Credit: Google)	Aerial View (Credit: Google)
Clarkia Drive NW		
58th Street NW		
Granite Drive NW		

FIGURE 3.10 Examples of trails within long blocks in Rochester, MN.

Action 2.2: Connect residential neighborhoods with nearby parks, schools, and businesses

Beyond connections within cul-de-sacs and long blocks, other trail connections can be made between residential neighborhoods and nearby parks and schools. To provide safe and comfortable trail connections, trail facilities should always directly connect to the center of parks and schools, bypassing parking lots and heavily trafficked areas. Trails should lead to popular play-grounds, pools, and main entrances where bike racks are available (Figures 3.11, 3.12, 3.13).

FIGURE 3.11 : This developing neighborhood around George Gibbs Elementary School in Rochester, MN has three trail entrances , leading directly to a playground and the school's main entrance, while also bypassing parking lots. Credit: Google

FIGURE 3.12 Trails leading from an established neighborhood to a pool in Northfield, MN circumvent a parking lot. Credit: Google

FIGURE 3.13 Trails lead directly to bike parking at the entrance to a pool in Northfield, MN. Credit: Google

Trails should also connect to businesses and multi-family housing units that are popular destinations with kids and other trail users. For example, trail users often like to visit ice cream shops, convenience stores, coffee shops, and restaurants. Trails should also be routed around parking lots with clearly marked crossings between main entrances and nearby trails.

Harrisburg's **2018 Design Standards** can be amended to encourage these connections:

> *8.8 Sidewalks, Walkways, and Trails Shared Use Paths*
>
> *8.8.1 Sidewalks, walkways, or trails of an appropriate width shall be required throughout a subdivision to provide pedestrian and bicyclist circulation and access. All lots shall be accessible to pedestrians or bicyclists by means of a sidewalk, walkway, or trail ~~shared use path~~. Trails ~~Paths~~ for recreation shall be designed to promote recreational activity and connect community facilities in accordance with the Harrisburg Trails Plan. These facilities may include schools, parks, multi-family housing units, and businesses. Connections to nearby trails shall be provided to connect each primary entrance of a building, unless the building is deemed by the City Engineer as a destination that would not be used by trail users. Wherever possible, trails shall be routed around parking lots, with clearly marked crossings between main entrances and nearby trails.*

Goal B: Create more greenway-type trails away from roads

As mentioned in Chapter 2, another of the key findings of community engagement was that people are most comfortable on paved greenway-type trails away from roads. This conclusion was reached through a survey where most respondents identified the Lake Ole trail as the most comfortable trail in Harrisburg (Appendix A). Strategies to achieve this goal include building greenways to follow water features, publicly owned land, and subdivision edges (Strategy 3), and establishing a framework to incorporate major greenways and other trail types into future developments (Strategy 4).

Strategy 3: Build greenways to follow water features, publicly owned land, and subdivision edges

Building greenways to follow water features, publicly owned land, and subdivision edges addresses survey respondents' collective viewpoint that greenways are the most desirable type of trails. Actions to achieve this strategy include designing and building greenway and other type trails away from roads on land already owned by the City of Harrisburg and the Harrisburg School District (3.1) and negotiating agreements with developers to add publicly accessible greenway easements on privately owned lands (3.2).

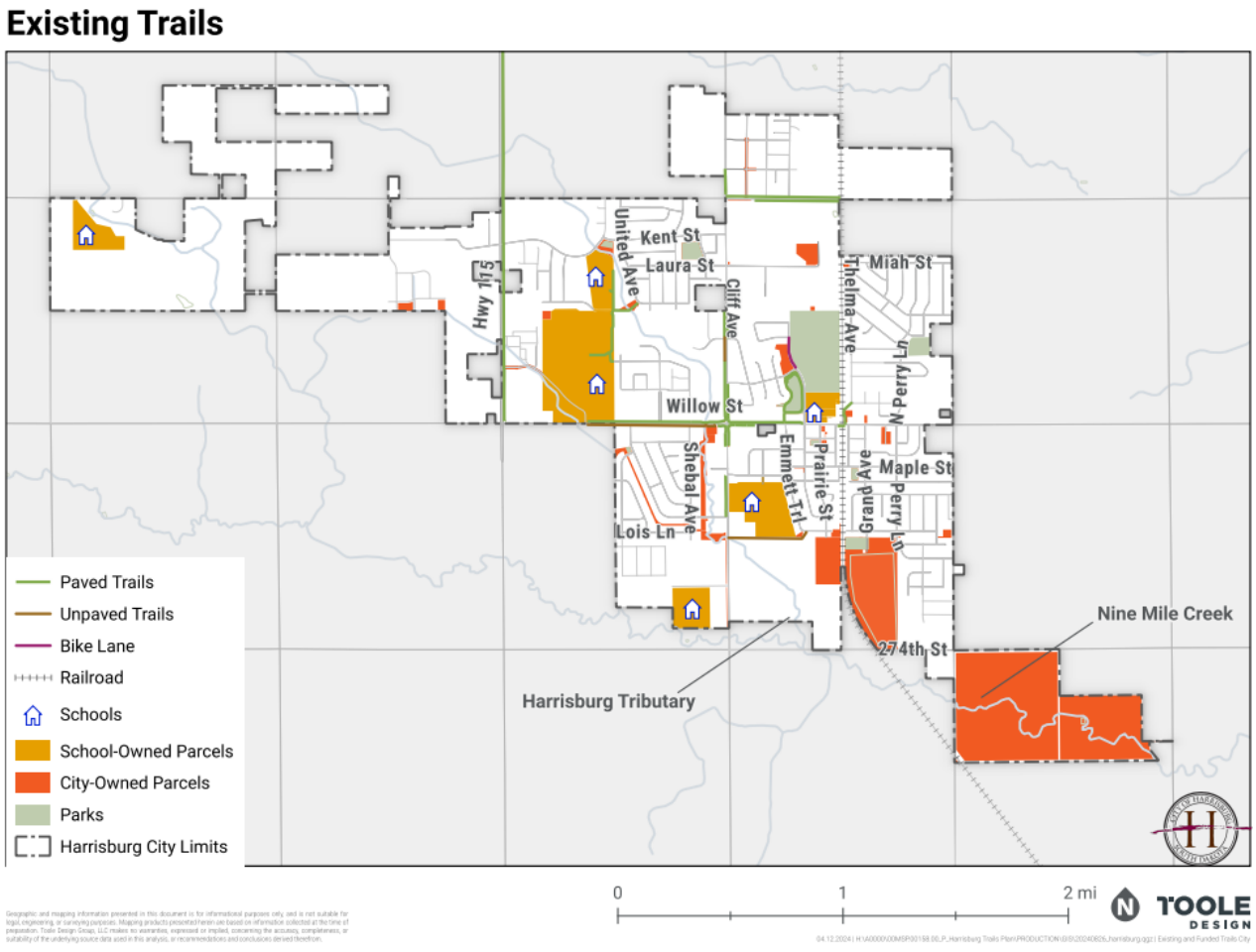


FIGURE 3.14 Land owned by the City of Harrisburg and Harrisburg School District are shown in orange and yellow.

Action 3.1: Design and build greenway and other type trails away from roads on land already owned by the City of Harrisburg and Harrisburg School District

The City of Harrisburg and Harrisburg School District already own over 25 parcels of land within City limits. The largest parcel is owned by the City and covers 200+ acres on the southeast side of town where the Water Reclamation Facility is located along Nine Mile Creek. The second largest parcel, covering 100+ acres, is owned by the Harrisburg School District and includes Harrisburg High School and Freedom Elementary. Many other smaller parcels are used for drainage, educational, recreational, and utility purposes (Figure 3.14).

These public lands are prime opportunities to develop greenway and other type trails, without having to expend additional public funds on land acquisition. Already, the City and School District have developed a greenway trail around Lake Ole and a trail connecting Harrisburg High School with Freedom Elementary. Three potential greenway and other type trail locations located on public lands are shown in Figure 3.15, with additional projects noted in Chapter 4.

Action 3.2: Negotiate agreements with developers to add publicly accessible greenway trails or trail easements on privately owned lands

In some locations, publicly accessible greenway trails or trail easements are recommended on privately owned lands held by developers. Some follow waterways and others follow the privately owned edge of a subdivision.

For example, Creekside Place, LLC owns a 70-acre tract of land north of W Willow Street and west of N Cliff Avenue. Creekside Place has already parceled off and developed previous adjacent holdings and has plans to develop remaining portions of this 70-acre tract. Harrisburg Tributary flows through the 70-acre parcel (Figure 3.16). Current subdivision approval plans already include a publicly accessible greenway-type trail along this waterway. See project #14 in Chapter 4.

Similarly, Oppold Estates owns a 140-acre tract of land south of W Willow Street and west of the Green Meadows development. On this tract of land, a north-south trail easement is desirable along its eastern edge. The purpose is to connect the Green Meadows development with Harrisburg High School, Freedom Elementary, and Liberty Elementary. While Oppold Estates has not yet parceled off or developed its property, any future subdivision approval with this or any succeeding landowner should include a trail easement along the subdivision edge. See project #7 in Chapter 4.

Greenway trails or trail easement projects on privately owned lands are included in Figure 3.17. While developers do not currently hold some projects, when they are sold to developers, trails should be included during the subdivision approval process.

FIGURE 3.15 A developer currently owns land along Harrisburg Tributary north of W Willow Street.

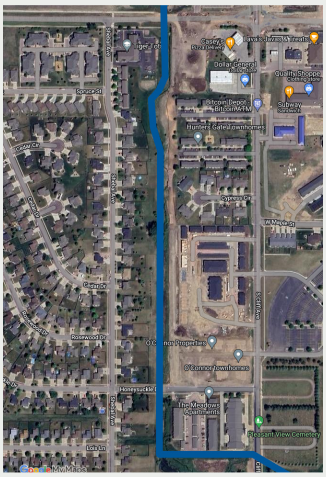
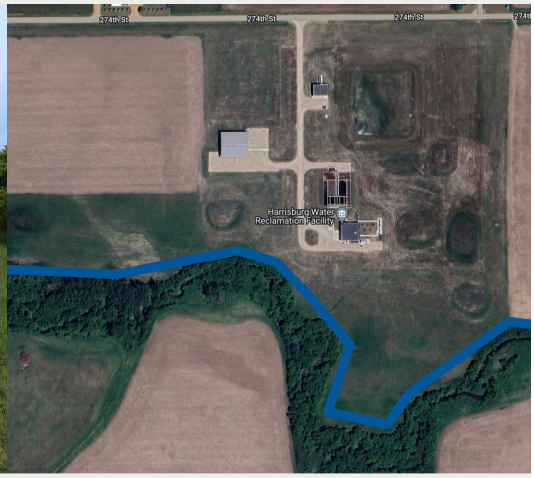
Location/Owner/Project # (See Figure 4.16 in Chapter 4)	On-the-ground view (Credit: bottom image Google)	Aerial view with lines showing planning-level alignments of future trails (Credit: Google)
Harrisburg Tributary/ City of Harrisburg/ Project #19		
Nine Mile Creek/ City of Harrisburg/ Project #24		
Harrisburg High School/ Harrisburg School District/ Project #7		

FIGURE 3.16 Potential greenway locations on public land.

Current Landowner	Parcel Location (Size)	Purpose of Greenway (Type)	Project # (see Chapter 4)
Central Park Village, LLC	East of N Cliff Avenue and north of Lake Ole (1.5 acres)	Connect Central Park with Homesites development (subdivision edge)	8
Creekside Place, LLC	West of N Cliff Avenue and south of Coyote Street (70 acres)	Connect Central Park with Homesites development (subdivision edge)	8
Creekside Place, LLC	North of W Willow Street and west of N Cliff Avenue (70 acres)	Create recreational trail along Harrisburg Tributary (waterway edge)	14
Dwayne Pederson Land Company, LLC	South of W Willow Street and west of Almond Avenue (75 acres)	Connect Tiger Meadows development with Harrisburg High, Freedom Elementary, and Liberty Elementary (subdivision edge)	7
Gary Johnson	West of 476th Avenue and north of Miah Street (73 acres)	Connect Central Park with Legendary Estates development (subdivision edge)	25
Harrisburg Heritage, LLC	East of N Cliff Avenue and north of Lake Ole (7 acres)	Connect Central Park with Homesites development (subdivision edge)	8
HLD, LLC	South of 272nd Street and north and west of Tom Sawyer Trail (16 acres)	Connect Mills Creek development with Freedom Elementary and Harrisburg High (waterway edge)	11
Mydland Estates, LLC	West of 476th Avenue and east of Johnson Creek Court (13 acres)	Create recreational trail around retention ponds (waterway edge)	13
Oppold Estates	South of W Willow Street and west of Almond Avenue (145 acres)	Connect Green Meadows development with Harrisburg High Freedom Elementary, and Liberty Elementary (subdivision edge)	7

FIGURE 3.17 Privately owned lands where subdivision approvals should be negotiated to include trails.

Strategy 4: Establish a framework to incorporate major greenways and other trail types into future developments

Establishing a framework to incorporate major greenways into future developments will further the goal of creating more greenway-type trail facilities away from roads. Actions to achieve this strategy include creating major greenway trail spines (4.1), educating developers about the value of major greenways and other trail types (4.2), and revising subdivision regulations to require developers to incorporate greenways and other trail types into future developments (4.3).

Action 4.1: Create major greenway trail spines

Four major greenway trail spines are recommended in Chapter 4. These are intended to serve as the primary corridors of the future trail system. Each major greenway trail follows a waterway, including Harrisburg Tributary, Nine Mile Creek, Schindler Creek, and an unnamed waterway. While they do not create a loop system like Sioux Falls, where the Big Sioux River and its diversion channel form a circle around the city, they will provide several major corridors throughout the community that will eventually converge upon Lake Alvin and the Big Sioux River.

This model is like a successful greenway trail spine in Iowa, within the suburbs of Clive, Urbandale (Figure 3.18), and West Des Moines in the Des Moines metropolitan area. Major greenway trails along waterways that flow from northwest to southeast to the Raccoon River (Figure 3.19) include the following:

- Clive Greenbelt Trail (11 miles)
- Jordan Creek Greenway (7 miles)
- Little Walnut Creek Trail (2 miles)
- Walnut Creek Trail (3 miles)

FIGURE 3.18 Pedestrians along a greenway trail in Urbandale, IA. Credit: City of Urbandale

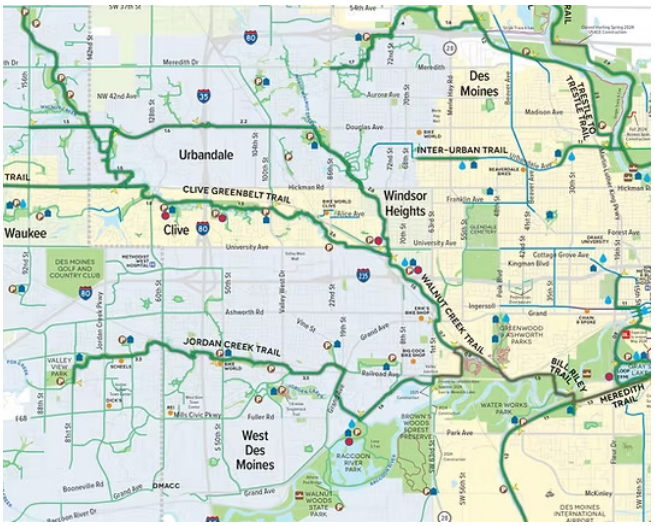


FIGURE 3.19 A map showing suburban greenway trails leading to a major river in the Des Moines metro. Credit: Des Moines Street Collective

Action 4.2: Educate developers about the value of major greenways and other trails

Developers of land in Harrisburg propose new neighborhood layouts including streets, sidewalks, trails, parks, housing, and commercial uses. Their proposals can make the difference between a trail-friendly development and a new development lacking trail connections. A two-page handout should be shared with developers at the time of concept plan submittal to explain the value of greenways and other trails and why Harrisburg is becoming a trail-friendly community (Figure 3.20).

Value of Trails

The Benefits of Trails in Harrisburg's New Developments

Why is Harrisburg becoming a trail-friendly community?

Harrisburg is a quickly developing suburb where the comfort of people walking and bicycling is a priority. Trails provide a separate space from motorists where residents can get exercise, walk their dogs, and visit the community's popular parks. Trails also give kids the opportunity to safely and independently go to school, fish at Lake Ole, and visit the ice cream shop.

"Trails are how kids get around safely before they are driving age. We are a growing community and need more options for kids and adults alike."
– Survey Response

"I would love for all trails to connect to all the neighborhoods in Harrisburg. My children cannot safely ride their bikes to the neighborhoods many of their friends live in."
– Survey Response

The Harrisburg Trails Plan is the community's guiding document for the future trail network. The plan was developed in 2024 with the input of hundreds of residents. One of the key findings was that people want housing developments to be connected to popular destinations by trail. Refer to the Trails Plan to understand how your proposed development fits into the community's vision.

Trails increase the value of property

- A combination of 20 studies showed that proximity to a trail resulted in home prices that were typically between 3% and 5% higher than those of comparable homes in the area.[1]
- A compilation of studies regarding crime on trails found that trails are not associated with increases in crime.[2]

Trails promote health

- People who report using trails at least once a week are twice as likely than people who reported rarely or never using trails to meet physical activity recommendations.[3]
- Physical activity results in a reduction in clinical depression[4] and may be as good as standard anxiety treatment, including psychotherapy and medication.[5]
- In Lincoln, NE, one dollar invested in trails saved $2.94 in direct medical costs.[6]

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1 https://college.agrilife.org/rptsweb/wp-content/uploads/sites/21/2019/10/Impact-Greenways-and-Trails.pdf

2 https://walkbikecupertino.org/wp-content/uploads/2019/05/Crime-Concerns-on-the-Regnart-Creek-Trail.pages.pdf

3 Librett, J. et al. Characteristics of Physical Activity Levels Among Trail Users in a U.S. National Sample. American Journal of Preventative Medicine. 2006. https://www.ajpmonline.org/article/S0749-3797(06)00267-4/fulltext

4 Mammen, G. and Faulkner, G. Physical activity and the prevention of depression: a systematic review of prospective studies. American Journal of Preventative Medicine. 2013. https://pubmed.ncbi.nlm.nih.gov/24139780/

5 Stonerock, G. et al. Exercise as Treatment for Anxiety: Systematic Review and Analysis. Annals of Behavioral Medicine. 2015. https://pubmed.ncbi.nlm.nih.gov/25697132/

6 Wang, G. et al. A Cost-Benefit Analysis of Physical Activity Using Bike/Pedestrian Trails. Health Promotion Practice. 2005. https://conservationtools.org/library_items/1085/files/995

What is a trail?

A trail is a facility that is 10' to 12' in width, although 8' widths may be used in constrained situations or where trail traffic is expected to be low. They are typically paved with either asphalt or concrete. Their design should follow the US Access Board's PROWAG (Public Right-of-Way Access Guidelines) Guide and the AASHTO (American Association of State Highway and Transportation Officials) Bike Guide, so they can be used by all people walking and bicycling, including those with assistive devices.

"I think a trail system in Harrisburg is much needed and a great investment for the city as it is rapidly growing and provides a safe place for people to exercise and get around the town."
– Survey Response

"We need more trees and landscaped areas that are pleasing to walk to and around. People love Lake Ole, but we need more inviting places like that."
– Survey Response

Where should trails be built in new developments?

Trails should be built in locations determined by the Trails Plan. Most of these locations have been included in Chapter 4 of the plan. Trails are grouped into four categories:

1. **Greenways** – These follow waterways, including Harrisburg Tributary, Nine Mile Creek, Schindler Creek, and an unnamed waterway on the northwest side of the community. Greenway trails also go around stormwater retention ponds.
2. **Streets** – Trails are required along all arterial and collector roads in Harrisburg.
3. **Subdivision Edges** – Along some subdivision edges, trails are needed to connect neighborhoods with popular destinations.
4. **Shortcuts** – Trails are required within cul-de-sacs and long blocks to create walk- and bike-friendly shortcuts within neighborhoods, connecting people with destinations and other trails.

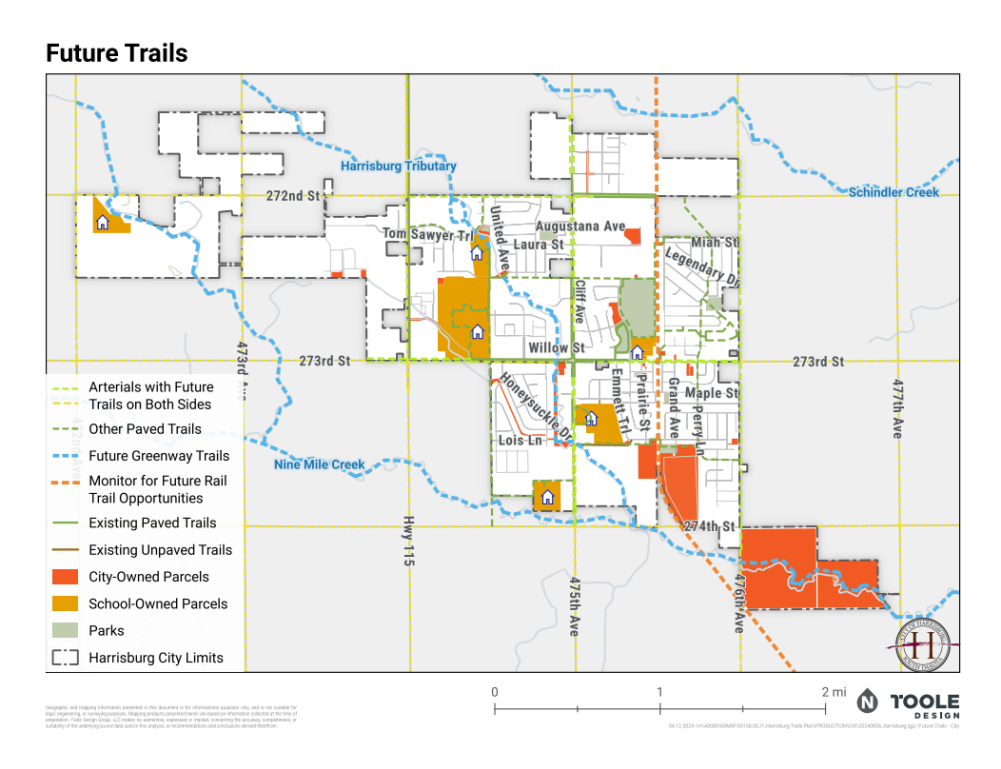


FIGURE 3.20 A two-page handout to educate developers about greenways and other trail types.

Action 4.3: Revise subdivision regulations to require developers to incorporate greenways and other trail types into future developments

The City of Harrisburg's Subdivision Regulations adopted under Ordinance #2021-07 should be revised to require developers to incorporate greenways and other trail types into future developments. There are four principal steps by which subdivisions are approved: 1) Concept plan, 2) Preliminary subdivision plan, 3) Engineering submittals, and 4) Plat.

The following revisions are recommended under the **concept planning step:**

> 2.2.4 Content: The Concept Plan shall be developed in conformance with the City's Comprehensive Plan, Trails Plan, and Design Standards. It shall contain at a minimum, the general information as follows . . .
>
> *Sketch of Subdivision*
>
> 1. *Name of subdivision*
> 2. *Proposed zoning districts*
> 3. *General layout of lots, streets, trails, parks, drainage, sanitary sewer, and water mains*

The following revisions are recommended under the **preliminary subdivision plan step:**

> *2.3.1 Overview: The procedure to develop a Preliminary Subdivision Plan is designed to assist the Subdivider and the City with the efficient and timely development of lots and infrastructure throughout a subdivision. Plans will be evaluated for compliance with the City's Design Standards, Comprehensive Plan, and Trails Plan for development and infrastructure.*

The following revisions are recommended under the **engineering submittals step:**

> *2.3.1 Overview: The approval of Engineering Submittals is a process designed to assist the Subdivider and the City with the efficient and timely development of infrastructure and final lot and block layout. Plans will be evaluated for compliance with the City's Design Standards, Comprehensive Plan, and Trails Plan for development and infrastructure.*

The following revisions are recommended under the **plat step:**

> *3.3.1 Conveyance of Dedications and Grants: The surveyor shall mark on the Plat any dedications or grants for the owner to certify. Where dedications or grants are intended for public use, the following language shall be included in the owners certificate: I hereby dedicate to the public for public use forever the streets, roads and alleys, parks, greenways, and public grounds, if any, as shown on said Plat, including all sewers, culverts, bridges, water distribution lines, trails, sidewalks, and other improvements on or under the streets, alleys, parks, greenways, and public grounds whether such improvements are shown or not.*

The following revisions are recommended under the **definitions article:**

> *5.1.41 Trails Plan. The plan adopted by the City that describes and illustrates the goals, strategies, and actions of the municipality to integrate greenways and other trails types into the development of the territory under its jurisdiction.*

Goal C: Make trail crossings safer and more comfortable

As mentioned in Chapter 2, another of the key findings of community engagement was that existing trail crossings are not comfortable for residents. This conclusion was reached through a survey question where less than half of respondents rated existing trail crossings as "very comfortable" or "comfortable" (Appendix A). Strategies to achieve this goal include using additional tools for designing and building trail crossings (Strategy 5) and implementing trail crossings on existing arterial and collector streets with new housing developments (Strategy 6).

Strategy 5: Use additional tools for designing and building trail crossings

Using additional tools for designing and building trail crossings addresses survey respondents' collective viewpoint that existing trail crossings need improvement. Actions to achieve this strategy include expanding the toolbox for trail crossings (5.1), piloting the use of trail underpasses (5.2), and updating City Design Standards to include trail crossing guidance at streets and driveways (5.3).

Action 5.1: Expand the toolbox for trail crossings

Harrisburg already has several trail crossings marked with high visibility crosswalks, paving material, paving color, median islands, mountable truck aprons, pedestrian warning signs (post mounted on the side and in-street between lanes), rapid rectangular flashing beacons, and advanced stop lines. Several other tools for trail crossings are included in Figure 3.21. Resources further explaining these tools can be found in:

- American Association of State Highway and Transportation Officials Bike Guide
- Federal Highway Administration's Achieving Multimodal Networks
- Federal Highway Administration's Proven Safety Countermeasures
- Federal Highway Administration's Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations

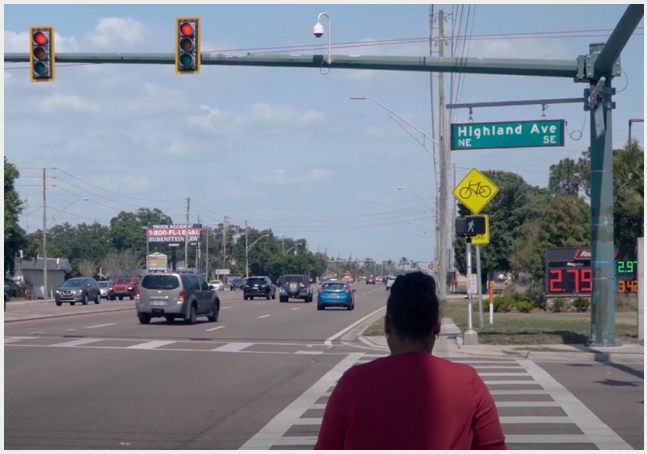
Curb extension – an extension of the curb within an area often used for parking or shoulders, shortening the trail crossing. Credit: Northfield, MN Google

Curb radius – a tighter radius at a corner, slowing turning vehicles and shortening the trail crossing.

Green colored pavement – green markings at trail crossing to highlight the visibility of trail users to motorists.

Lane width – narrower than average lanes, shortening the trail crossing. Credit: Minneapolis, MN Google

Leading pedestrian interval – a 3 to 7 second lead for pedestrians at a traffic signal, increasing the visibility of trail users. Credit: Tampa Bay Traffic Safety



Overhead street crossing – signs mounted on mast arms above a crossing, raising the visibility of trail users. Credit: Minneapolis, MN Google

Pedestrian hybrid beacon – a flashing yellow and flashing/solid red signal that increases motorist stopping rates. Credit: Red Wing, MN Google

Railroad crossing gates – arms that come down to prevent trail users from crossing tracks when trains are passing. Credit: Boone, IA Google

Raised crosswalk/speed table – a raised table that requires motorists to slow down while passing over the crossing

Turning vehicles stop for pedestrian/bicyclist sign – a sign that informs motorists of the right-of-way rules at trail crossings. Credit: Small Town and Rural Design Guide

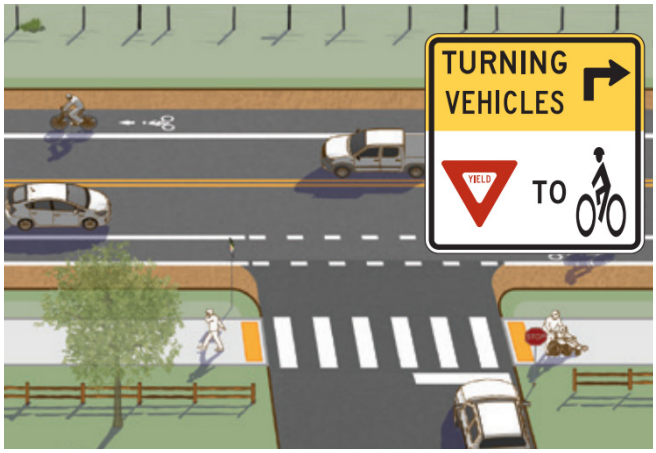


FIGURE 3.21 Additional tools that can be employed to make improvements at trails crossings in Harrisburg.

Action 5.2: Pilot and expand the use of trail underpasses

Trail underpasses have been used successfully in locations around the Midwest to eliminate conflicts with motor vehicles. Locally, Sioux Falls has been a leader in this effort with its Greenway Loop. The Sioux Falls trail goes under many major roads and railroad bridges as it runs next to the Big Sioux River and its diversion channel. While these tend to be larger structures (Figure 3.22), the concept of trail underpasses on a smaller scale can be piloted and expanded in Harrisburg to improve the public's comfort level with trail crossings.

Examples of trails in the Des Moines metro that go under streets in conjunction with smaller waterways are shown in Figure 3.23. Trails can also go under streets and railroads independent of waterways, with additional examples shown in Figure 3.23. The AASHTO Bike guide recommends a tunnel height 10', with 8' as a minimum in constrained areas.

FIGURE 3.22 The Sioux Falls Recreation Trail as it passes under the E 26th Street bridge.

Action 5.3: Update City Design Standards to include trail crossing guidance at streets and driveways

Harrisburg's **2018 Design Standards** should be amended to include trail crossing guidance as follows:

7.14 Sidewalks and Trails

7.14.1 Sidewalks and ~~shared use paths~~ trails shall be designed in compliance with ADA standards. AASHTO's "Guide for the Development of Bicycle Facilities" shall be used as a design guide for ~~bicycle paths~~ trails. Where a sidewalk or trail crosses a street or driveway, the crossing shall be approved by the City Engineer and designed and marked in accordance with the City's Trails Plan, using the following resources as guides:

- *American Association of State Highway and Transportation Officials Bike Guide*
- *Federal Highway Administration's Achieving Multimodal Networks*
- *Federal Highway Administration's Proven Safety Countermeasures*
- *Federal Highway Administration's Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations*

8.8 ~~Walkways~~ Sidewalks and ~~Shared Use Paths~~ Trails

8.8.1 ~~Walkways~~ Sidewalks of an appropriate width shall be required throughout a subdivision to provide pedestrian circulation and access. All lots shall be accessible to pedestrians by means of a ~~walkway~~ sidewalk or ~~shared use path~~ trail. ~~Paths~~ Trails for recreation shall be designed to promote recreational activity and connect community facilities. Trail crossings at streets and driveways shall be designed in accordance with the Trails Plan and approved by the City Engineer.

The Walnut Creek Trail going through a box culvert under 86th Street in Urbandale, IA

The Little Walnut Creek Trail going between a pier (on the left) and abutment (on the right) of the 156th Street bridge in Urbandale, IA

The Carlisle Nature Trail going through a box culvert under Scotch Ridge Road in Carlisle, IA

The Vern Willey II Trail going through a culvert pipe under a railroad in Altoona, IA

FIGURE 3.23 Examples of trails that go under streets and railroads.

Action 5.3: Update City Design Standards to include trail crossing guidance at streets and driveways

Harrisburg's **2018 Design Standards** should be amended to include trail crossing guidance as follows:

7.14 Sidewalks and Trails

7.14.1 Sidewalks and ~~shared use paths~~ trails shall be designed in compliance with ADA standards. AASHTO's "Guide for the Development of Bicycle Facilities" shall be used as a design guide for ~~bicycle paths~~ trails. Where a sidewalk or trail crosses a street or driveway, the crossing shall be approved by the City Engineer and designed and marked in accordance with the City's Trails Plan, using the following resources as guides:

- *American Association of State Highway and Transportation Officials Bike Guide*
- *Federal Highway Administration's Achieving Multimodal Networks*
- *Federal Highway Administration's Proven Safety Countermeasures*
- *Federal Highway Administration's Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations*

8.8 ~~Walkways~~ Sidewalks and ~~Shared Use Paths~~ Trails

8.8.1 ~~Walkways~~ Sidewalks of an appropriate width shall be required throughout a subdivision to provide pedestrian circulation and access. All lots shall be accessible to pedestrians by means of a ~~walkway~~ sidewalk or ~~shared use path~~ trail. ~~Paths~~ Trails for recreation shall be designed to promote recreational activity and connect community facilities. Trail crossings at streets and driveways shall be designed in accordance with the Trails Plan and approved by the City Engineer.

Strategy 6: Implement trail crossings on existing arterial and collector streets with new housing developments

Implementing trail crossings on existing arterial and collector streets with new housing developments is an additional strategy to address survey respondents' collective viewpoint that existing trail crossings need improvement. The action to achieve this strategy is amending subdivision regulations to create the option of a trail crossing impact study (6.1).

FIGURE 3.24 The Legendary Estates development north of Willow Street has created a trail crossing need at Perry Lane. Credit: Google

Action 6.1: Amend subdivision regulations to create the option of a trail crossing impact study

During the public engagement process, respondents were asked to share dangerous trail crossings on a map. The intersection of Willow Street with Perry Lane was the top location (Appendix A). At this intersection, an established neighborhood is located south of Willow Street, while the Legendary Estates development is north of the intersection (Figure 3.24). The addition of many homes within Legendary Estates has created a trail crossing need at this intersection (Figure 3.25).

FIGURE 3.25 The Legendary Estates development north of Willow Street has created a trail crossing need at Perry Lane. Credit: Google

During the subdivision approval process, developers are required to submit a traffic impact study if requested by the City Engineer. Traffic studies are focused on estimating the number of additional motor vehicles that will be added to nearby arterial and collector streets, but they do not estimate the number of additional pedestrians and bicyclists or the impacts on them. Subdivision regulations should be amended to create the option of a trail crossing impact study on existing nearby arterial and collector streets as follows:

> *2.4.2 Submission: Upon the Council's approval of the Preliminary Subdivision Plan, the Subdivider may submit an application to review an Engineering Submittal to the Authorized Official. The application shall include one electronic PDF file of the Subdivider's Engineering Submittal, stamped and certified by an engineer registered in the state of South Dakota. Additional information may be required of the Subdivider to assist city staff in their review. Support documents shall be provided at the request of the Authorized Official or City Engineer. At a minimum, the Subdivider shall include the following plans:*
>
> *A. Phasing Plan*
>
> *B. Grading Plan*
>
> *C. Erosion Control Plan*
>
> *D. Storm Water Management Plan*
>
> *E. Sanitary Sewer Plan*
>
> *F. Water Distribution Plan*
>
> *G. Private Utility Plan*
>
> *H. Lighting Plan*
>
> *I. Access Plan*
>
> *J. Final Lot and Block Layout*
>
> *K. Traffic Impact Study, if requested by City Engineer*
>
> *L. Trail Crossing Impact Study on existing nearby arterial and collector streets, if requested by the City Engineer*
>
> *M. Ultimate Watershed Basin Study, if requested by City Engineer*
>
> *N. Pavement Striping and Signage Plan*

Goal D/Strategy 7: Implement the Trails Plan

Several actions have been created to implement the Trails Plan. These include applying for federal funds through the Transportation Alternatives program and Rebuilding American Infrastructure with Sustainability and Equity program (7.1), developing budget line items for trail construction and maintenance (7.2), updating the City Council annually on progress for each action item in the Plan (7.3), and updating the Plan every five years until it is complete (7.4).

Action 7.1: Apply for federal funds through the Transportation Alternatives program and Rebuilding American Infrastructure with Sustainability and Equity program

The Transportation Alternatives program (TAP) is an annual federal funding sources administered through the South Dakota Department of Transportation. TAP projects can fund the planning, design, and construction of new trails for pedestrians and bicyclists. Project awards range from $50,000 to $600,000 with a minimum 18% match. Regional projects receiving federal funds during the 2022/2023 solicitation included:

- Brandon trail through the I-90 Exit 406 interchange ($600,000)
- Brookings trail along 12th Street South ($368,000)
- Colton trail along 4th Street ($600,000)
- Dell Rapids trail along 474th Avenue ($600,000)
- Mitchell trail along N Main Street ($600,000)
- Sioux Falls trail along Benson Road through the I-229 interchange ($600,000)
- Sioux Falls trail along E 26th Street ($600,000)
- Sioux Falls trail along Veterans Parkway ($600,000)

The Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program is administered through the US Department of Transportation. Local government agencies like the City of Harrisburg are eligible to apply for funding from the RAISE program. Minimum project grants are $5 million and maximum grants are $25 million. Under the RAISE program, federal cost share may be up to 100%. The projects are intended to be those that are more difficult to support through traditional funding programs.[1] Examples of Midwestern projects receiving RAISE funds in 2024 include:

- Beatrice, NE Court Street pedestrian-focused corridor ($21.4 million)
- Dubuque, IA complete streets improvements ($25 million)
- Edwardsville, IL multimodal transportation improvements ($21.2 million)
- Kalamazoo, MI walkable downtown improvements ($25 million)
- Toledo, OH Riverwalk project ($19.1 million)
- Topeka, KS 50-mile network of sidewalks ($25 million)
- Waukesha, WI bike and pedestrian bridges ($1.1 million)
- Worthington, MN Complete Streets ($15.1 million)

The City should apply to both TAP and RAISE to fund project implementation. The City can also partner with other eligible applicants, including the City of Sioux Falls, the City of Tea, and Lincoln County.

Action 7.2: Develop budget line items for trail construction and maintenance

Annual budget preparation should include line items for trail design, construction, and maintenance to ensure ongoing dedication to implementing the Plan. Since regular maintenance is more cost effective than reconstructing trails, maintenance line items should be programmed for surface reconditioning and repairs. At a minimum, asphalt trails should be crack sealed and fog sealed every 5 years to extend the life of the pavement (Figure 3.26). While concrete trails require less maintenance upfront, maintenance line items in the budget should also reflect the need to replace panels and make other surface repairs as the trails age.

1 https://www.transportation.gov/RAISEgrants

Action 7.3: Update the City Council annually on progress for each action item in the Plan

After the Plan is adopted, City staff can update the City Council annually on progress for each action item. The purpose of regular updates is to prioritize the Plan's adoption, create a communication link between elected officials and staff regarding the Plan, and educate new elected officials about the Plan's existence. Annual updates can include responsible departments, a summary of updates, and the status of each action item (Figure 3.27).

Action 7.4: Update the Plan every five years until it is complete

Chapter 4 of the Plan includes an implementation schedule of near-term (1 – 5 years), mid-term (6 – 10 years), and long-term (11 – 20 years) projects. As the near-term window ends, the City can update the Plan to assess progress and adjust. Plans often need alterations to account for unforeseen projects, developments, and priorities. At 5-year intervals, projects and actions can be adjusted to account for these changes. The Plan has a 20-year timeframe and can be completed by the end of 2044.

FIGURE 3.26 Fog sealing asphalt trails prevents costly, premature trail reconstruction projects. Credit: City of Rochester, MN

Strategy 4 Summary: Improve crossing condition				
Number	**Action**	**Responsible Department(s)**	**2023 Updates**	**2023 Status**
4.1	Require high-visibility, protected crossings in high priority areas	Public Works: Traffic Engineering Division	No updates at this time.	Started
4.2	Require Leading Pedstrian Intervals at high-conflict crossings	Public Works: Traffic Engineering Division	No updates at this time.	On-Schedule
4.3	Use automatic pedestrian signal phases in high pedestrian traffic areas	Public Works: Traffic Engineering Division	All signalized locations have a pedestrian signal. ADA upgrades are constantly being improved.	Ongoing

FIGURE 3.27 An example of an annual update on plan action items. Credit: City of Cedar Rapids, IA


Second
Weekend
in June

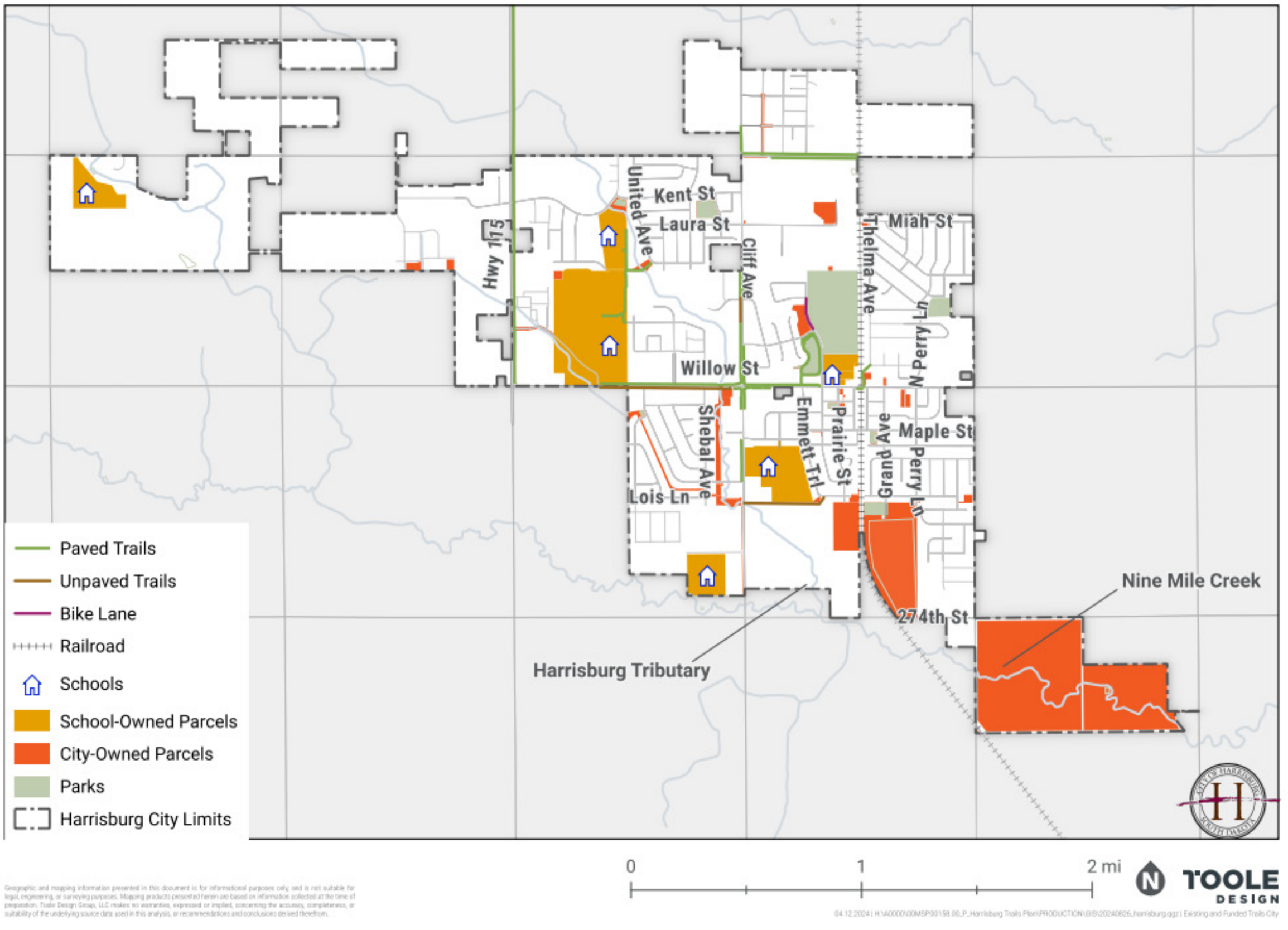
NETWORK IMPLEMENTATION

04

Existing Trails

Harrisburg has recently built a growing network of trails (also known as shared use paths) to keep pace with its rapidly expanding community. Trails are currently concentrated along arterial roads, through school property, and around Lake Ole. (Figure 4.1).

Looking beyond current city limits, the Trails Plan has a study boundary matching the 2022 Harrisburg Transportation Plan. This boundary roughly follows the platting jurisdiction map adopted under Harrisburg's subdivision regulations (Ordinance #2021-07). Existing trails within this larger area include a paved facility extending north along Minnesota Avenue (SD-115) into Sioux Falls, and unpaved trails within Lake Alvin State Recreation Area and nearby Good Earth State Park (Figure 4.2).



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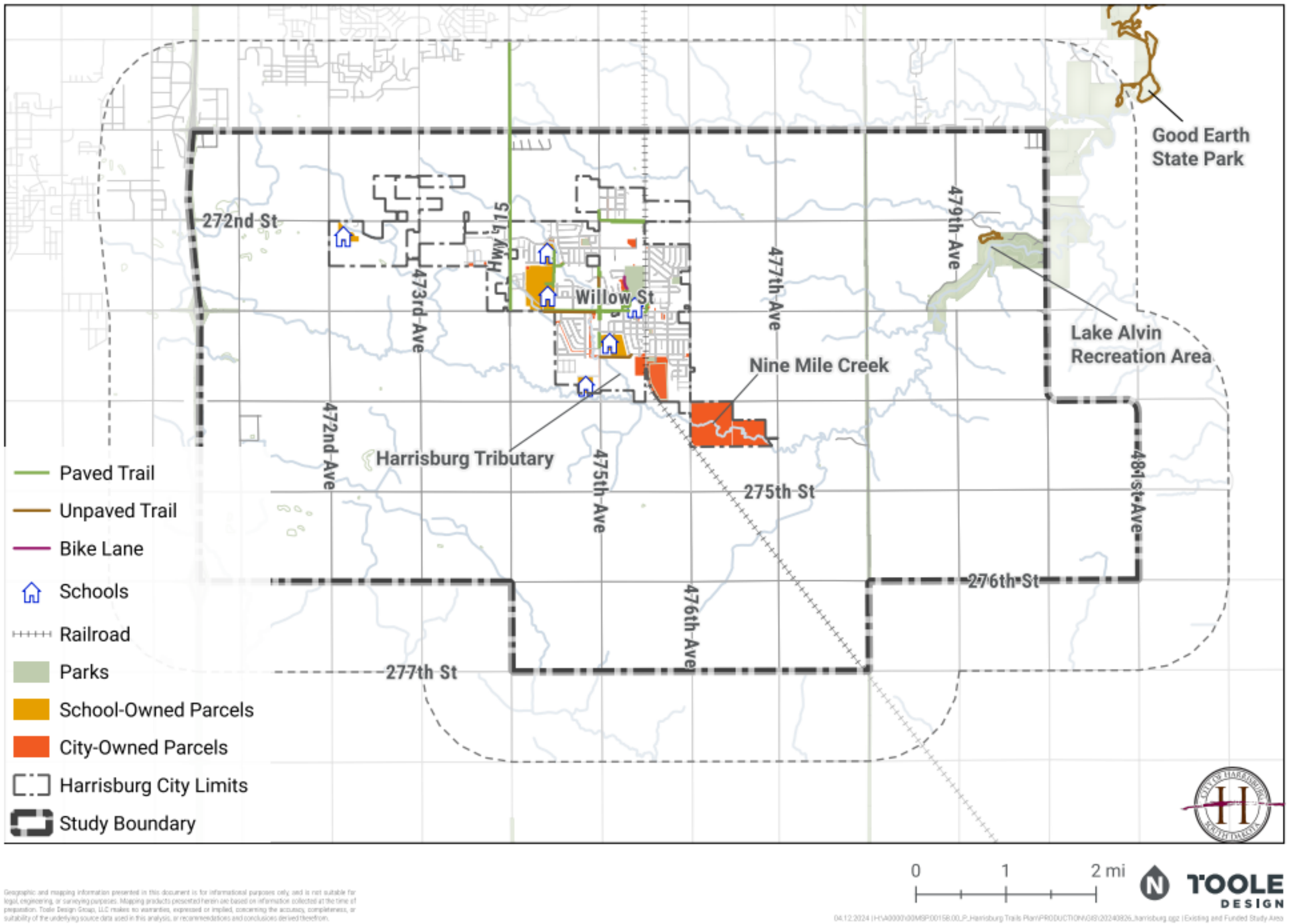
04.12.2024 | H:\A0000\00MSP00158.00_P_Harrisburg Trails Plan\PRODUCTION\GIS\20240826_harrisburg.qgz | Existing and Funded Trails City

FIGURE 4.1 Existing trails within the Harrisburg city limits



04.12.2024 | H:\A0001\00MSP00158.00_P_Harrisburg Trails Plan\PRODUCTION\GIS\20240826_harrisburg.qgz | Existing and Funded Study Area

FIGURE 4.2 Existing trails within and adjacent to the Harrisburg Trails Plan study area.

Future Trails and Design Standards

Harrisburg's future trail network combines the community's preferences from Chapter 2 with goals and strategies from Chapter 3. The vision is a completed network (Figures 4.4 and 4.5). Each category of trails shown on the following maps are described in this section and include design standards where applicable. The AASHTO (American Association of State and Highway Transportation Officials) Guide for the Development of Bicycle Facilities is recommended as a best practice document for trails within the City of Harrisburg. All trails are also required by federal law to follow the US Access Board's PROWAG (Public Right-of-Way Access Guidelines).

Surface types for trails may include asphalt, concrete, and unpaved (e.g., crushed stone, stabilized earth, limestone screenings):

- **Asphalt trail**s have smoother surfaces with fewer joints and lower initial construction costs than concrete. They are also popular with runners because they are softer than concrete. However, the service life of asphalt trails is shorter than concrete and requires interim maintenance such as crack sealing and fog sealing.
- **Concrete trails** have long service lives and can best withstand maintenance and emergency vehicle loads. They experience less cracking and deformation due to roots and subsurface movement. However, they have greater initial construction costs than asphalt. Joints can also cause discomfort for bicyclists and people using assistive devices if they are tooled instead of sawcut.
- **Unpaved trails** have the lowest initial construction cost and are popular with runners because they are softer than both asphalt and concrete. However, they require greater effort by bicyclists and people using assistive devices. They are also susceptible to erosion and are more difficult to maintain in winter.

The AASHTO Bike Guide recommends two-directional trails should be 10' wide minimum, but eight feet is acceptable where volumes are expected to be low or in constrained circumstances. For a detailed discussion of trail widths, see Action 1.2 of Chapter 3.

The AASHTO Bike Guide also recommends lighting along trails where nighttime use is expected, including near schools. Lighting is important to reduce crashes with other users, animals, surface defects, and objects near the path edge. Lighting is recommended at intersections with roadways or driveways and trail access points. Along trails, pedestrian-scale lighting (i.e., shorter light poles, closer spacing) helps to address issues of social safety and trail user visibility (Figure 4.3). Lighting can be provided at certain hours only (e.g, up to 11:00 p.m. and starting at 6:00 a.m.) and can be designed to be activated with motion sensors to adjust brightness to minimize negative impacts to the adjacent natural environment or property owners.

FIGURE 4.3 Pedestrian scale lighting along a trail in Tyndall, SD.

When complete, the future Harrisburg trail system within current city limits (Figure 4.4) will increase by approximately 400%, compared to the existing system (Figure 4.1).

Existing Trail Miles within Existing Harrisburg City Limits	Future Trail Miles within Harrisburg City Limits*	Percent Increase in Trails
5	25	400%

*Note: Some future trails may replace existing unpaved bikeways.

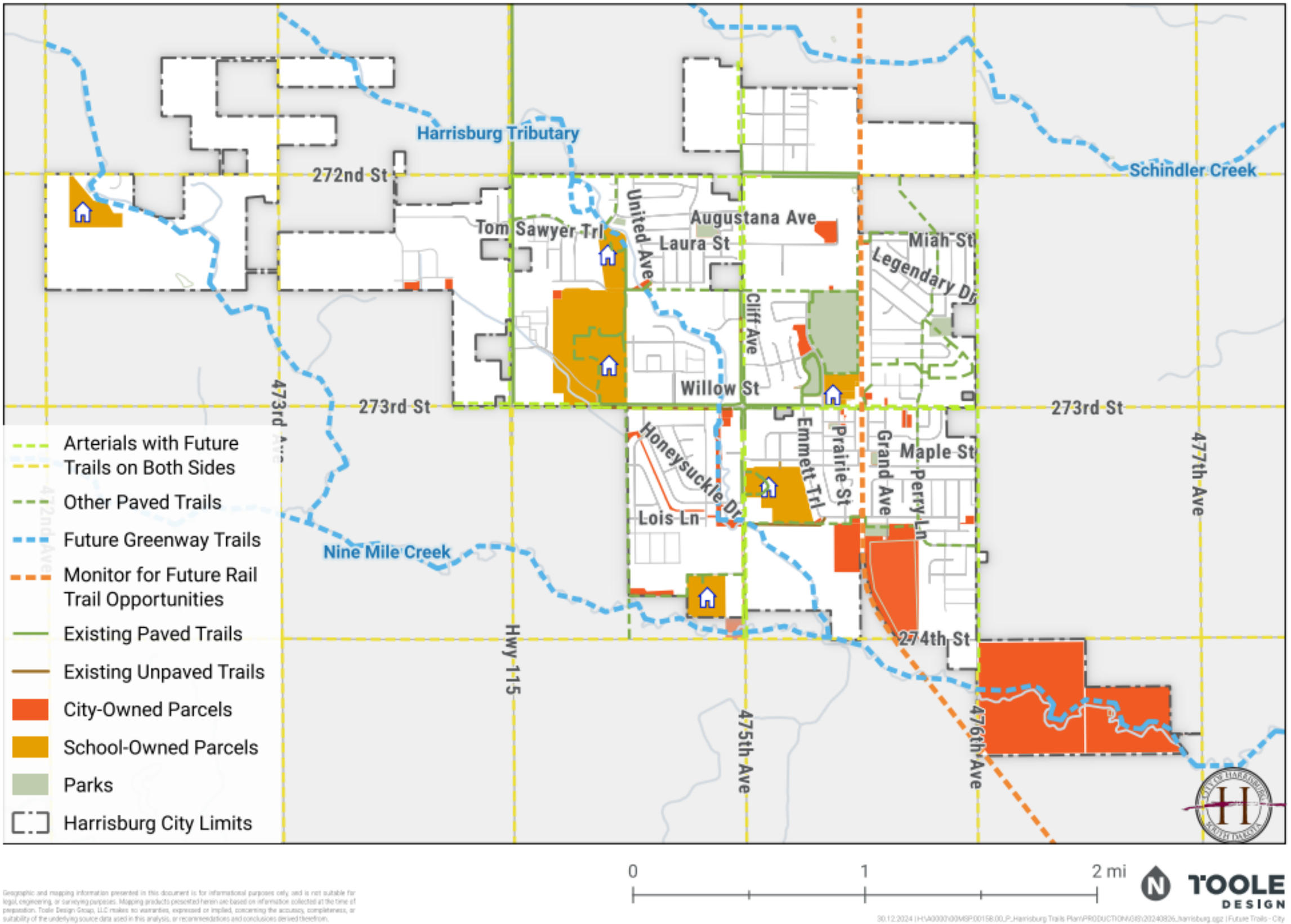


FIGURE 4.4 Future trails within the Harrisburg city limits.

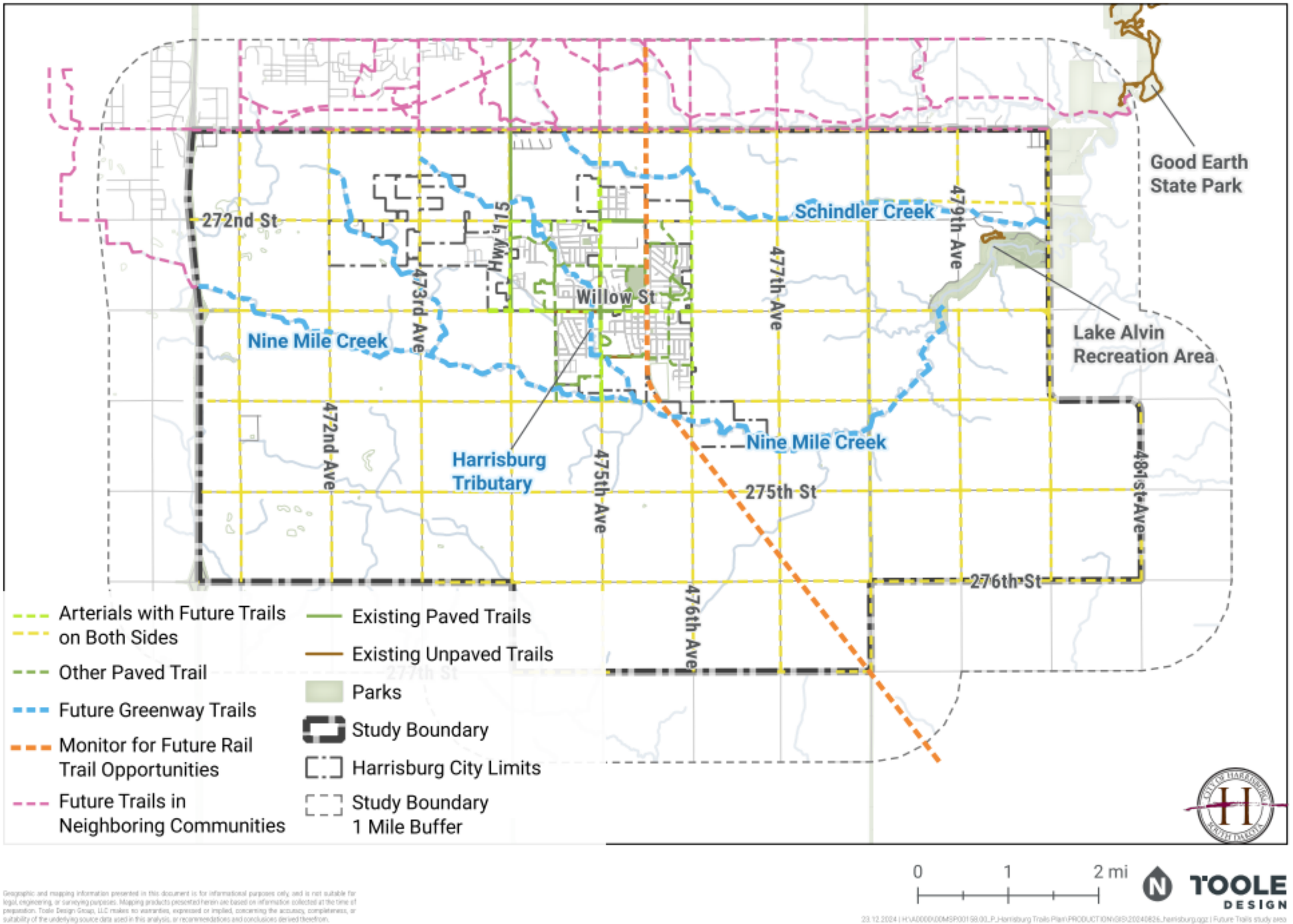


FIGURE 4.5 Future trails within and adjacent to the Harrisburg Trails Plan study area.

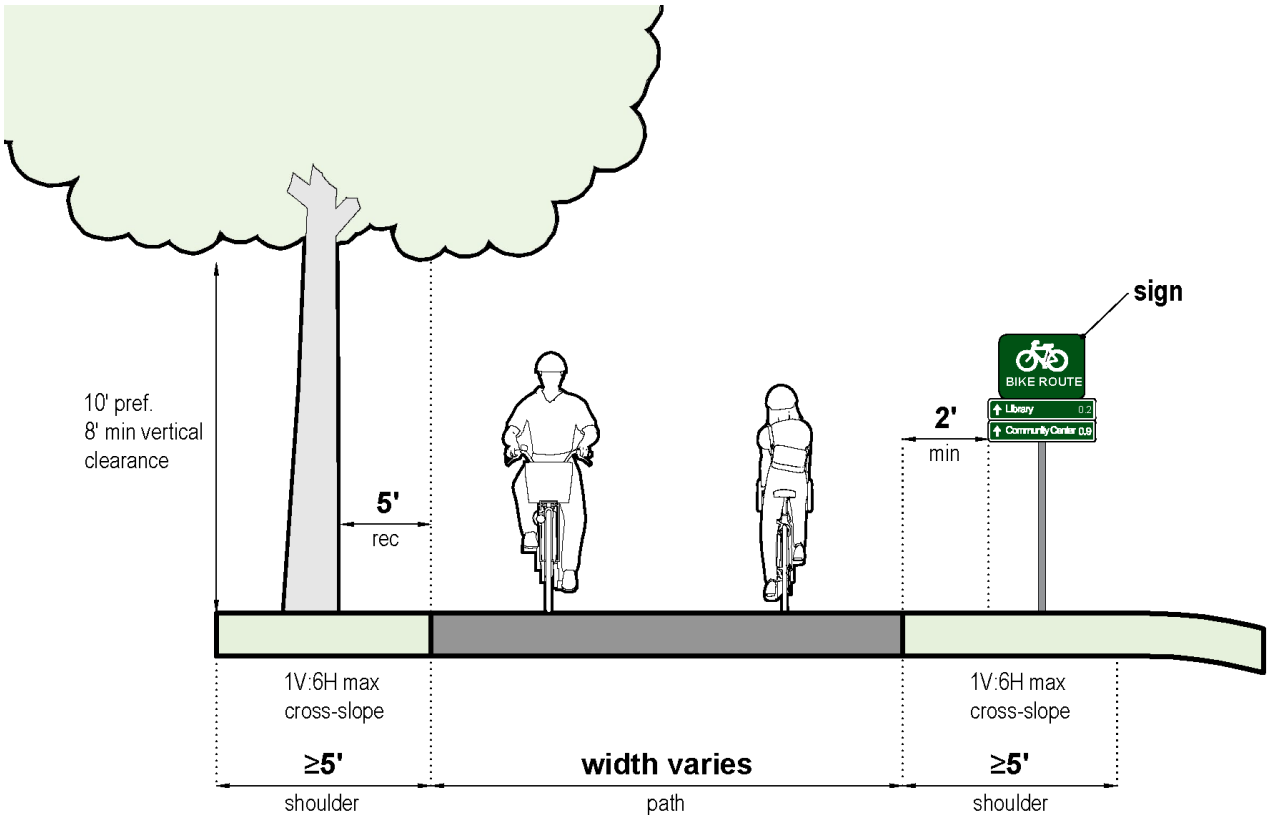


FIGURE 4.6 5' shoulders are recommended next to trails, along with 2' of clearance from the edge of trail to objects. A minimum 5' clearance between the edge of trail and trees is preferred by the City of Harrisburg. Credit: Image altered based on AASHTO Bike Guide

Future Greenway Trails

Future greenway trails are envisioned as trails within linear parks that follow waterways such as Harrisburg Tributary, Nine Mile Creek, and Schindler Creek. Trails within greenways are expected to see higher use, and as a result should not be less than 10' in width. The AASHTO Bike Guide prefers minimum 5' wide trail shoulders, although 2' shoulders may be used in constrained situations. 2' clearances are required between the edge of trail and objects such as trees and signs (although the City of Harrisburg prefers a minimum of 5' clearances for trees). Vertical clearance is recommended to be 10' with 8' allowed in constrained situations (Figure 4.6).

Where trails are located close to steep slopes or waterways, the AASHTO Bike Guide recommends a physical barrier, railing, or fencing, where:

- Slopes are 1V:3H (i.e., 1 vertical unit to 3 horizontal units) or steeper, with a drop of 6' or greater, or adjacent to a parallel body of water or other substantial obstacles,
- Slopes 1V:2H or steeper, with a drop of 4' or greater, or
- Slopes 1V:1H or steeper, with a drop of 1 ft. or greater.

Barriers should also be between 42" and 54" high (Figure 4.7).

Within a greenway and centered around a trail is an operational zone where maintenance is needed. For example, Dakota County, MN considers its operational zone to be 30', with 10' on both sides of a 10' trail. 5' mow edges are preferred by the City of Harrisburg on either side of greenway trails (Figure 4.8). Operational zones exist within a larger context of a linear greenway park (Figure 4.9).

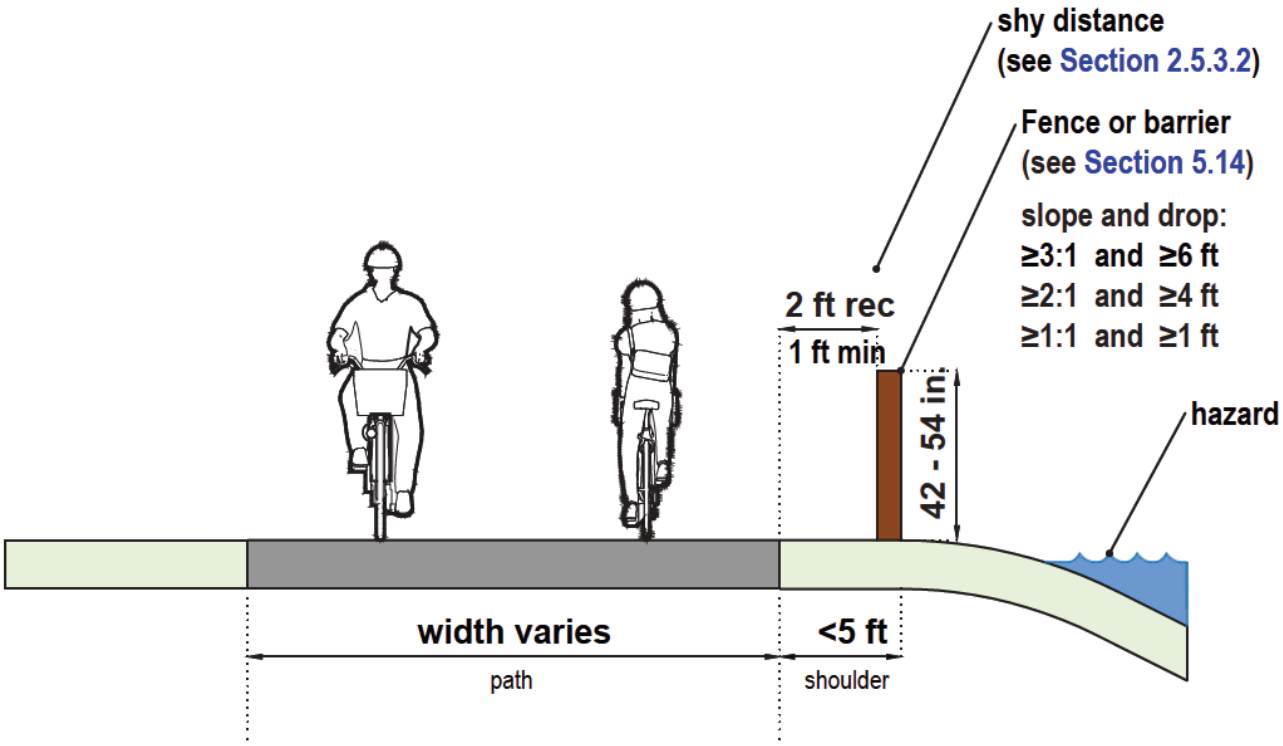


FIGURE 4.7 Barriers may be needed where trails are close to hazards or steep slopes. Credit: AASHTO Bike Guide

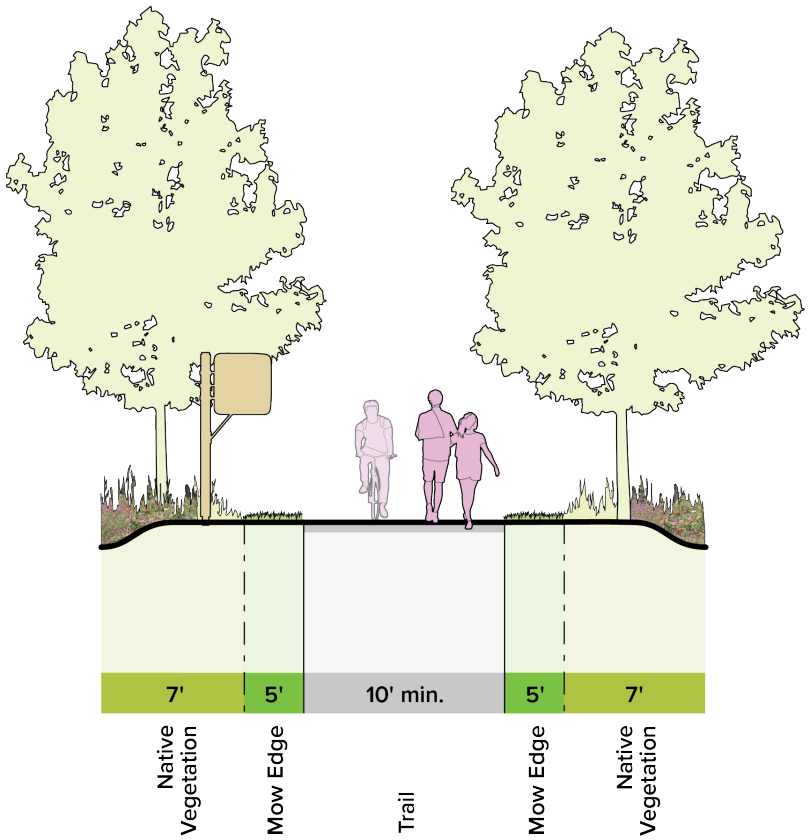


FIGURE 4.8 The operational zone for a greenway trail includes the trail surface, mow edges, and native vegetation. Credit: Image altered based on Dakota County, MN Greenway Design Guidelines

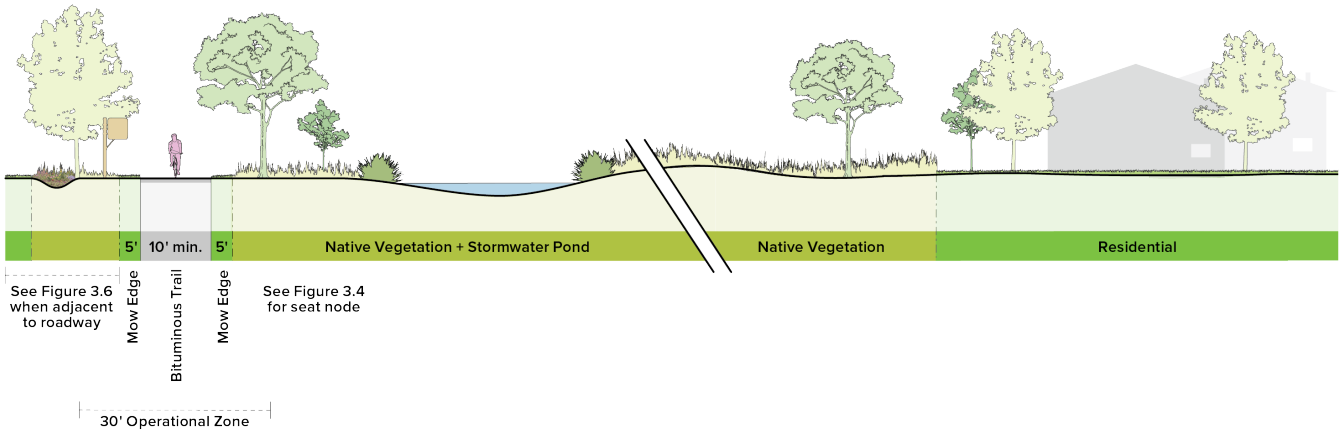


FIGURE 4.9 The operational zone fits within the greater context of a greenway. Credit: Image altered based on Dakota County, MN Greenway Design Guidelines

Arterials with Future Trails

As described within Action 1.2 of Chapter 3, trails are recommended on both sides of arterial streets. They are also recommended on one side of collector streets. To increase safety and comfort and provide storage for snow, buffers of 10' are preferred between the inside edge of trail and edge of street pavement (or face of curb). Where constrained situations exist, buffers may be 2' minimum (Figure 4.10).

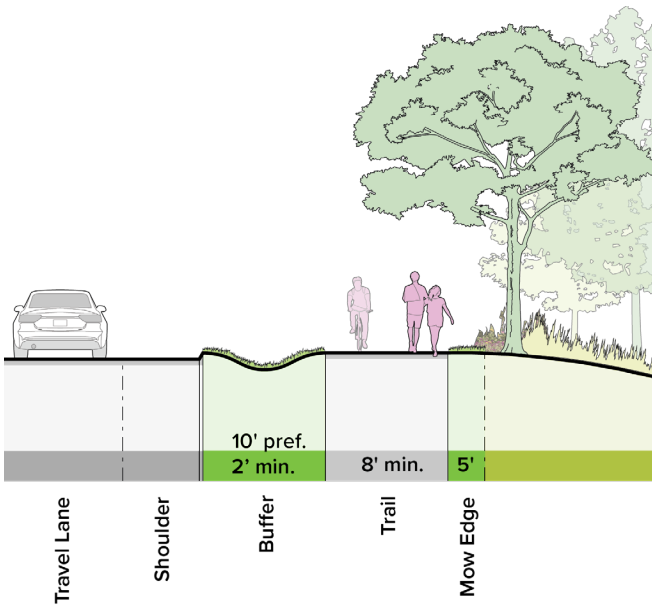


FIGURE 4.10 10' buffers are preferred between roads and trails. Credit: Image altered based on Dakota County, MN Greenway Design Guidelines

At intersections, the AASHTO Bike Guide recommends buffer zones between 6' and 16.5' (Figure 4.11), creating a motorist yield zone. The benefits include:

- Improves motorist view of approaching trail users by reducing the need for motorists to scan behind them.
- Potentially creates space for a motorist to yield to bicyclists and pedestrians without blocking traffic approaching from the rear (for right turns) or the side (for left turns).
- Provides more time for all users to react to each other and negotiate the crossing.

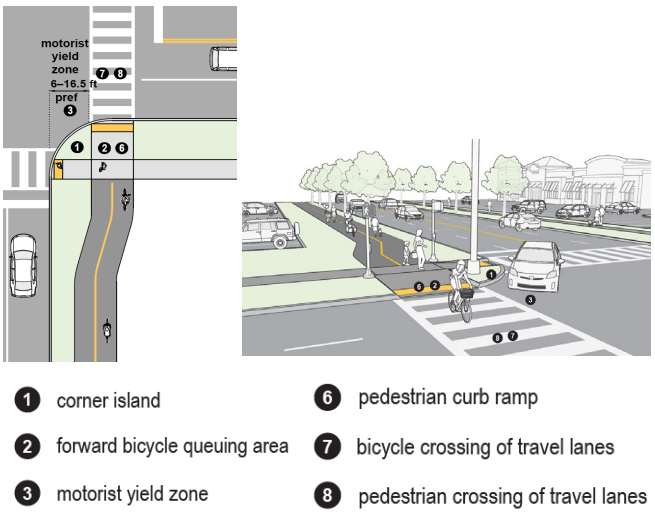


FIGURE 4.11 Motorist yield zones of 6' to 16.5' are recommended to improve safety (see #3 in images above). Credit: AASHTO Bike Guide

Other Trails

Other trails are often shortcuts between subdivisions and streets, parks, or schools, or trails within parks or around retention ponds. Other trails also include facilities on school campuses. Where these other trails create shortcuts within cul-de-sacs, long blocks, or between subdivisions, a minimum 30' right-of-way should be maintained (Figure 4.12).

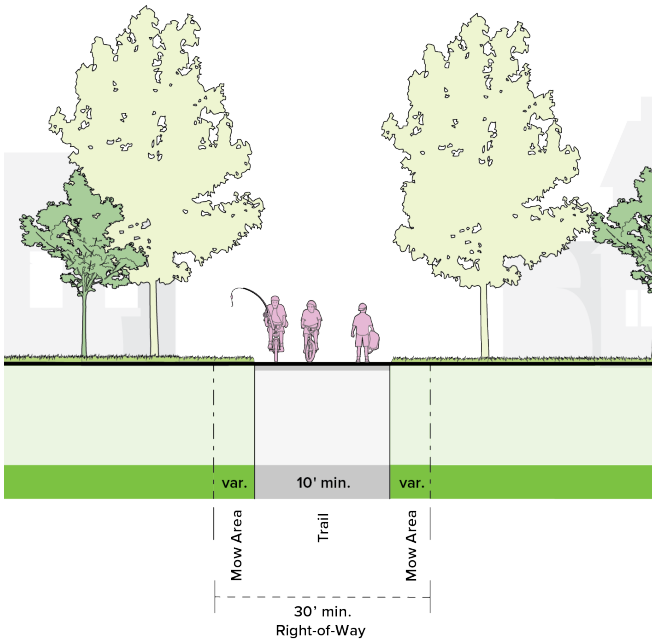


FIGURE 4.12 30' minimum right-of-way width for trail connections. Credit: Image altered based on Dakota County, MN Design Guidelines

Future Rail Trail Opportunities

Harrisburg's north-south railroad is owned and operated by Burlington Northern Sante Fe (BNSF) Railway and connects Sioux Falls with Canton (Figure 4.13). This segment has an average of zero to two trains per day with a maximum authorized speed of 40 mph. The railroad was formerly owned by the State of South Dakota, which bought it in 1981 after the bankruptcy of the Milwaukee Road Railway. The line was sold to BNSF in 2005. Should trains cease to operate on the railroad in the future, the City of Harrisburg should work with agency partners such as the South Dakota Railroad Board (administered through the South Dakota Department of Transportation) and the City of Sioux Falls to pursue a rail-to-trail facility. Abandoned railroads are often preserved for future rail use through a federal railbanking law, which allows for trails to be built in the interim period.[1]

Another opportunity is rails-with-trails, which could prove useful in creating shortcuts within Harrisburg. For example, if a trail crossing of the railroad tracks (i.e., at-grade, tunnel, bridge) can be built between Legendary Estates and Central Park, a trail running parallel to the tracks would likely be needed to complete the connection (see project #13 in Figure 4.16). Rails-with-trails are common along BNSF railroads within the City of Sioux Falls, sometimes occurring with as narrow of 10' buffers between the edge of trail and edge of track ballast (Figure 4.14). While they typically do not include barriers in Sioux Falls, those may be added where safety concerns exist between trains and future trail users.

Alternatively, a rail-with-trail could be developed along the entire length of the corridor within Harrisburg to improve safety. Residents often walk on railroad tracks, even though this is considered trespassing. A rail-with-trail facility would provide a safe alternative, reducing conflicts between trains and pedestrians and discouraging trespassing on railroad tracks.

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1 See the National Trails System Act, as amended in 1983. The constitutionality of railbanking was upheld by the US Supreme Court in 1990 in Preseault v. United States.

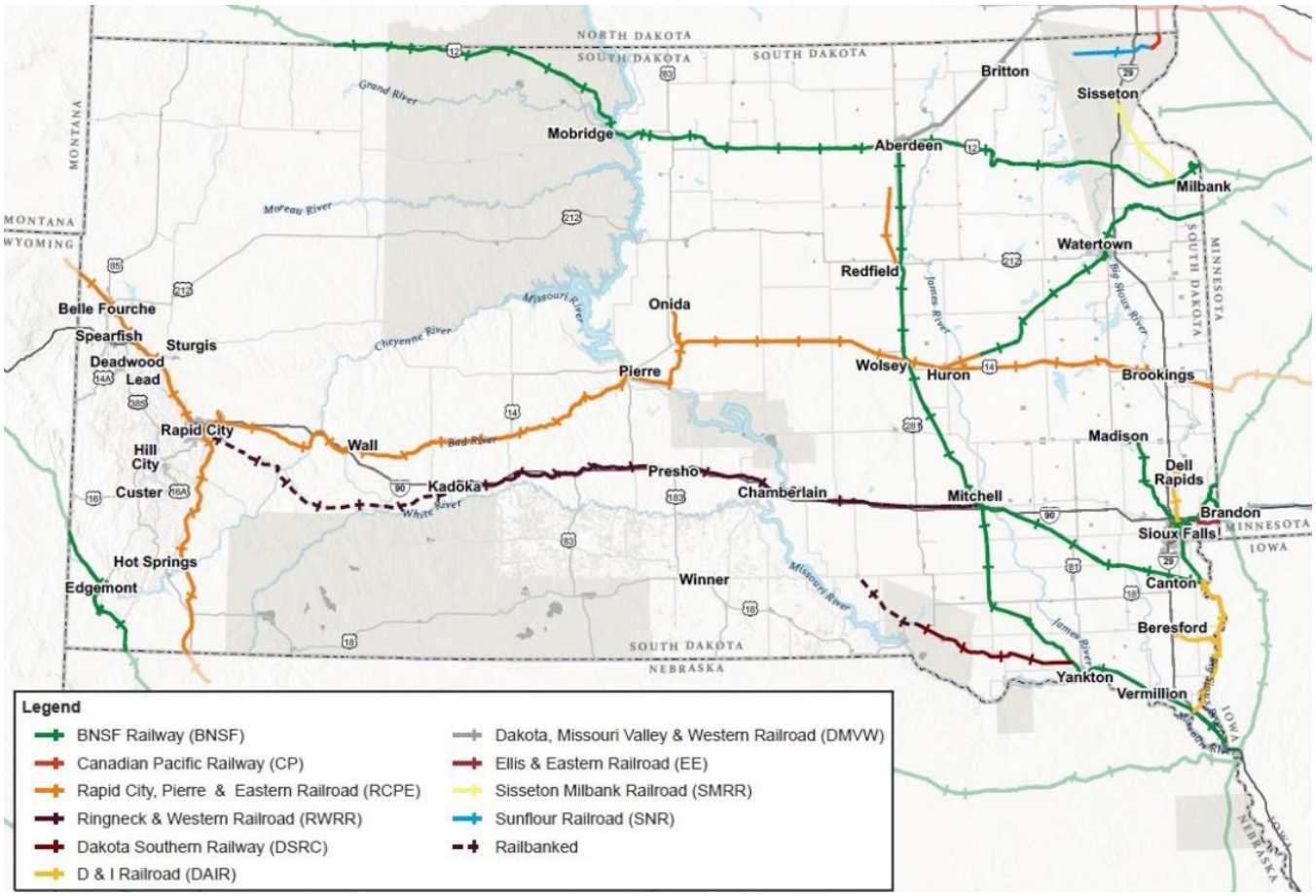


FIGURE 4.13 The railroad going through Harrisburg is owned by BNSF. Credit: SDDOT Rail Plan

FIGURE 4.14 An example of a rail-with-trail facility at Falls Park in Sioux Falls. Credit: Google

Future Trails in Neighboring Communities

The City of Sioux Falls and the City of Tea have future planned trails. The City of Sioux Falls completed a Bicycle Plan in 2023. This includes future trails along Schindler Creek, Highway 106, and all north-south arterial roads between Harrisburg and Sioux Falls. The City of Tea's Comprehensive Plan from 2009 includes trails along Nine Mile Creek (Figure 4.15) and Highway 106. Joint trail projects can be developed between the City of Harrisburg and neighboring communities to provide seamless connections. Projects like these are more likely to be funded through federal funding grant solicitations due to partnerships.

FIGURE 4.15 The City of Tea's Comprehensive Plan includes a trail along Nine Mile Creek. Credit: Google

Implementation

Each future trail project was scored and weighted to create priority levels for implementation. The purpose was to answer the question, "Where do we start?" For example, during the annual budgeting process, city leaders may desire to allocate funds for a trail project. The following list of prioritized projects can be used as one tool to make that decision. Similarly, City staff may decide to seek federal grant funding for a new trail project, and they may want to show decisionmakers a methodical process that was used to prioritize the trail project in the grant application over others.

The following project prioritization is not intended to be used as the sole decision-making factor. For example, housing development and road reconstruction projects are excellent opportunities to construct trails, and a medium or low priority level should not be used as an excuse to delay a trail-building opportunity. Similarly, demand from residents may outweigh the prioritization results, and city leaders may decide to elevate projects in response.

Each future trails project within current city limits was given a Project ID (Figure 4.16) and was then scored based on eight factors, with possible scores of one, two, or three (Figure 4.17). Each factor was also weighted based on input from the Harrisburg Parks Board (Figure 4.18):

1. **Busy Roads (weight = 4.5):** Projects in locations with closer proximity to busy roads. Source: South Dakota DOT Traffic Data
2. **Cost (weight = 5):** Projects estimated to cost more from the City of Harrisburg budget. Source: Figure 4.19
3. **Crashes (weight = 3.3):** Projects with higher past crashes involving bicyclists or pedestrians (2015 – 2024). Source: South Dakota DOT's Crash Analysis Tool
4. **Demand (weight = 4.2):** Projects with higher demand in the community engagement process. Source: Appendix A Community Engagement Report Figures A.10 and A.20
5. **Feasibility (weight = 4.5):** Projects with higher feasibility (i.e., fewer challenges). Source: Figure 4.19
6. **High Density Housing (weight = 4.5):** Projects in proximity to multi-family housing units. Source: Google Aerial
7. **Parks (weight = 5.5)**: Projects in proximity to existing or future parks. Source: City of Harrisburg Parks website and planned natural resources areas in subdivision approval plans
8. **Schools (weight = 4.5):** Projects in proximity to existing schools. Source: Figure 4.16

Each project in Figure 4.16 is also described in further detail in Figure 4.19.

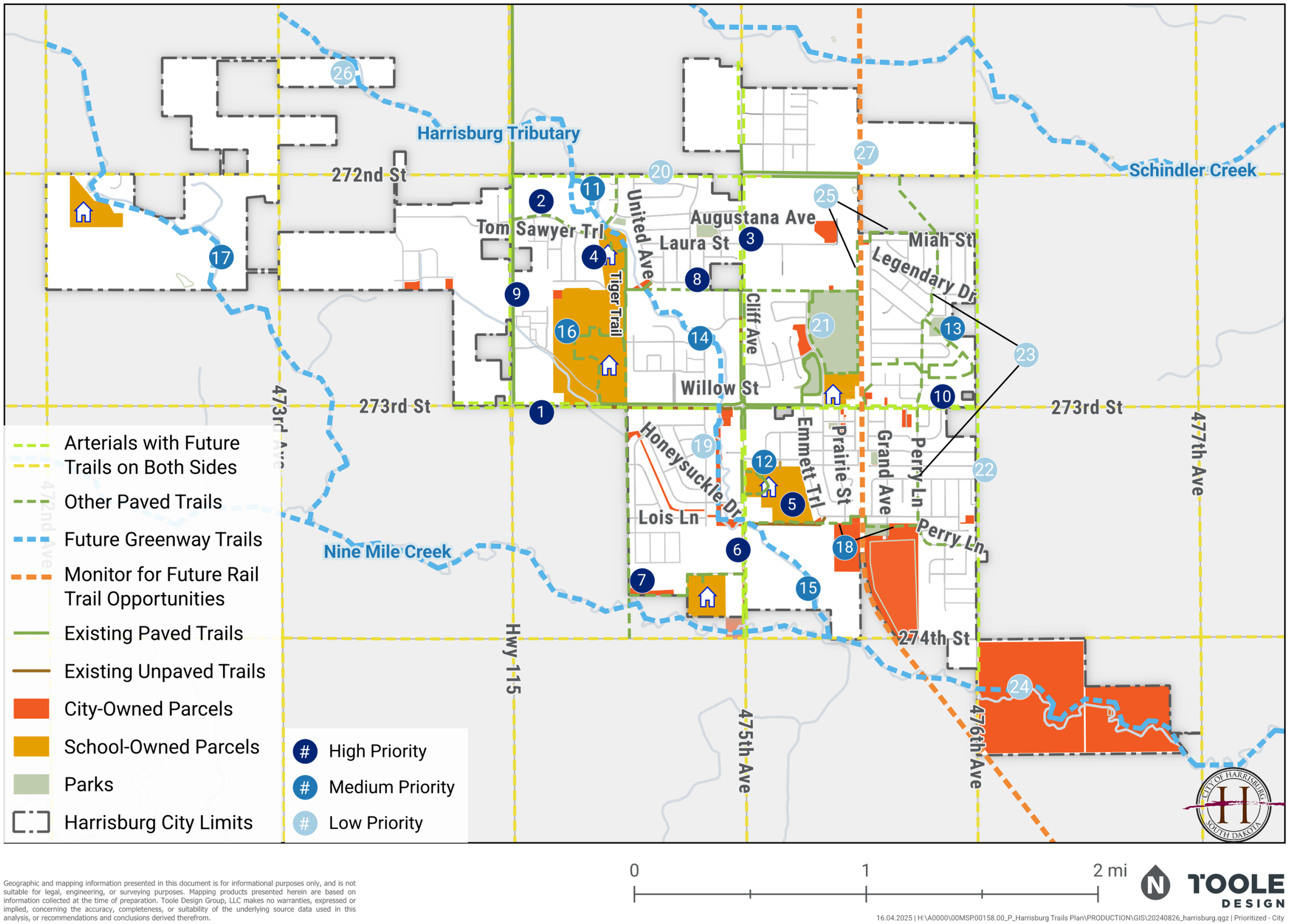


FIGURE 4.16 Future trails in Harrisburg. Project ID numbers correspond with Figures 4.17, 4.18, and 4.19.

Busy Roads Score	Cost Score	Crashes Involving Bicyclists Or Pedestrians Score	Demand Score	Feasibility Score	High Density Housing Score	Parks Score	Schools Score	Total Unweighted Score
Higher score (3=highest score, 1=lowest score)								
Roads with higher motor vehicle volumes	Lower cost	More crashes	More public demand	High feasibility	Clear connection	Closer connection	Closer connection	
1 - W Willow Street								
3	2	3	2	3	3	2	3	21
2 - Tom Sawyer Trail								
2	3	1	1	2	3	3	3	18
3 - N Cliff Avenue								
3	2	3	3	2	3	2	1	19
4 - Freedom Elementary School Trail								
2	3	1	1	3	3	2	3	18
5 - Pleasant View Cemetery Trail								
1	3	1	3	3	3	1	3	18
6 - S Cliff Avenue								
2	2	2	3	2	3	1	3	18
7 - Tiger Trail								
1	2	1	2	2	3	3	3	17
8 - Showplace Trail								
2	1	2	2	1	3	3	3	17
9 - State Highway 115								
3	2	3	1	2	3	1	2	17
10 - E Willow Street								
3	1	3	3	2	1	2	2	17
11 - Harrisburg Greenway								
1	2	1	2	2	2	3	3	16
12 - Harrisburg Middle School Trail								
2	3	1	1	2	3	1	3	16
13 - Mydland Trail								
1	2	1	3	3	1	3	1	15
14 - Harrisburg Greenway								
1	1	1	2	2	2	3	3	15
15 - Harrisburg Greenway								
1	2	1	2	1	3	2	3	15
16 - Harrisburg High School Trail								
2	2	1	1	2	3	1	3	15
17 - Adventure Trail								
1	2	1	1	2	1	3	3	14
18 - Grand Gardens Trail								
1	2	1	2	1	1	3	3	14
19 - Harrisburg Greenway								
1	1	1	2	1	3	3	2	14
20 - 272nd Street/Prospect Avenue								
2	2	2	2	2	1	1	2	14
21 - Central Park Trail								
1	2	1	1	3	1	3	1	13
22 - Southeastern Avenue								
2	1	1	2	1	2	3	1	13

FIGURE 4.17 Each project was scored on eight factors.

Busy Roads Score	Cost Score	Crashes Involving Bicyclists Or Pedestrians Score	Demand Score	Feasibility Score	High Density Housing Score	Parks Score	Schools Score	Total Unweighted Score
Higher score (3=highest score, 1=lowest score)								
Roads with higher motor vehicle volumes	Lower cost	More crashes	More public demand	High feasibility	Closer connection	Closer connection	Closer connection	
23 - Perry Lane								
2	1	2	2	1	1	3	1	13
24 - Nine Mile Creek Greenway								
1	2	1	1	3	1	2	1	12
25 - Legendary Estates Trail								
1	1	1	2	1	1	3	1	11
26 - Harrisburg Greenway								
1	3	1	1	2	1	1	1	11
27 - Rail Trail								
1	1	1	1	1	1	3	1	10

Busy Roads Score	Cost Score	Crashes Involving Bicyclists Or Pedestrians Score	Demand Score	Feasibility Score	High Density Housing Score	Parks Score	Schools Score	Total Unweighted Score
Higher score (3=highest score, 1=lowest score)								
Roads with higher motor vehicle volumes	Lower cost	More crashes	More public demand	High feasibility	Closer connection	Closer connection	Closer connection	
1 - W Willow Street								
13.5	10	9.9	8.4	13.5	13.5	11	13.5	93.3
2 - Tom Sawyer Trail								
9	15	3.3	4.2	9	13.5	16.5	13.5	84
3 - N Cliff Avenue								
13.5	10	9.9	12.6	9	13.5	11	4.5	84
4 - Freedom Elementary School Trail								
9	15	3.3	4.2	13.5	13.5	11	13.5	83
5 - Pleasant View Cemetery Trail								
4.5	15	3.3	12.6	13.5	13.5	5.5	13.5	81.4
6 - S Cliff Avenue								
9	10	6.6	12.6	9	13.5	5.5	13.5	79.7
7 - Tiger Trail								
4.5	10	3.3	8.4	9	13.5	16.5	13.5	78.7
8 - Showplace Trail								
9	5	6.6	9.4	4.5	13.5	16.5	13.5	78
9 - State Highway 115								
13.5	10	9.9	4.2	9	13.5	5.5	9	74.6
10 - E Willow Street								
13.5	5	9.9	12.6	9	4.5	11	9	74.5
11 - Harrisburg Greenway								
4.5	10	3.3	8.4	9	9	16.5	13.5	74.2
12 - Harrisburg Middle School Trail								
9	15	3.3	4.2	9	13.5	5.5	13.5	73
13 - Mydland Trail								
4.5	10	3.3	12.6	13.5	4.5	16.5	4.5	69.4
14 - Harrisburg Greenway								
4.5	5	3.3	8.4	9	9	16.5	13.5	69.2
15 - Harrisburg Greenway								
4.5	10	3.3	8.4	4.5	13.5	11	13.5	68.7
16 - Harrisburg High School Trail								
9	10	3.3	4.2	9	13.5	5.5	13.5	68
17 - Adventure Trail								
4.5	10	3.3	4.2	9	4.5	16.5	13.5	65.5
18 - Grand Gardens Trail								
4.5	10	3.3	8.4	4.5	4.5	16.5	13.5	65.2
19 - Harrisburg Greenway								
4.5	5	3.3	8.4	4.5	13.5	16.5	9	64.7
20 - 272nd Street/Prospect Avenue								
9	10	6.6	8.4	9	4.5	5.5	9	62
21 - Central Park Trail								
4.5	10	3.3	4.2	13.5	4.5	16.5	4.5	61
22 - Southeastern Avenue								
9	5	3.3	8.4	4.5	9	16.5	4.5	60.2

FIGURE 4.18 After scoring, each project was weighted based on input from the Harrisburg Parks Board.

Busy Roads Score	Cost Score	Crashes Involving Bicyclists Or Pedestrians Score	Demand Score	Feasibility Score	High Density Housing Score	Parks Score	Schools Score	Total Unweighted Score
Higher score (3=highest score, 1=lowest score)								
Roads with higher motor vehicle volumes	Lower cost	More crashes	More public demand	High feasibility	Closer connection	Closer connection	Closer connection	
23 - Perry Lane								
9	5	6.6	8.4	4.5	4.5	16.5	4.5	59
24 - Nine Mile Creek Greenway								
4.5	10	3.3	4.2	13.5	4.5	11	4.5	55.5
25 - Legendary Estates Trail								
4.5	5	3.3	8.4	4.5	4.5	16.5	4.5	51.2
26 - Harrisburg Greenway								
4.5	15	3.3	4.2	9	4.5	5.5	4.5	50.5
27 - Rail Trail								
4.5	5	3.3	4.2	4.5	4.5	16.5	4.5	47

Figure 4.19 identifies each future project name, their extent, and length. Also provided are the following planning-level details:

- **Project types** correspond to facility types described earlier in this chapter and Figure 4.15.
- **Agency partners** identify likely partners necessary for successful completion of a project.
- **Priority level** identifies project priority by high, medium, and low. Priority levels were determined using project prioritization scores in Figure 4.17, with one-third of projects placed into each category.
- **Planning level cost estimate for City** provides a planning level estimate of probable relative cost for the City's budget.
- **Opportunities and challenges** describe issues that will need detailed planning and engineering design as each project is further developed.

FIGURE 4.19 Implementation of the Future Network. Agency partners, priority levels, cost estimates, and opportunities/challenges are identified for each project shown in Figure 4.15

Project ID	Street/Trail Name	Project Extents	Length (miles)	Project Type	Agency Partners	Priority Level	Planning Level Cost Estimate for City*	Ranking Score	Opportunities and Challenges
1	W Willow Street	Orchard View Avenue to Casey's Driveway	1.2	Arterial with Trails on Both Sides	n/a	High	$$	93.3	Between Orchard View Avenue and Tiger Way, no trail exists on either side of Willow Street. As development and city annexation progresses west in this segment, a trail should be added to both sides of the street. Between Tiger Way and the Casey's driveway, trails already exist on both sides of Willow Street. The trail on the south side is unpaved and should be paved.
2	Tom Sawyer Trail	State Highway 115 to 272nd Street	0.7	Other Trail	n/a	High	$	84	Tom Sawyer Trail is a collector street with a 5' sidewalk and 7.5' buffer zone on the south side between Huckleberry Trail and Kent Street, as well as on developed lots on either side of Bunyan Drive. The north side has not yet been developed and as a result does not have sidewalks. Collector roads should have a trail on at least one side (see Action 1.2 in Chapter 3). The easiest opportunity is to build a trail on the north side instead of a sidewalk, which will have single family homes and a Kwik Star at Hwy 115. However, Freedom Elementary and multi-family housing are located on the south side and may see more use. If the south side is chosen for a trail, the existing sidewalk would need to be widened to 8' and challenges such as fire hydrants and manhole covers would need to be addressed.
3	N Cliff Avenue	Northern city limits to Foundation Drive	1.3	Arterial with Trails on Both Sides	n/a	High	$$	84	Intermittent trails already exist on N Cliff Avenue in this segment. On the east side, paved trails are located at the Cenex gas station (756 N Cliff) and behind the Central Park Village townhomes (311 through 357 Devitt Drive). On the west side, paved trails exist from the south edge of McCarty Storage to Foundation Drive, with the exception of the vacant lot immediately south of Shadow Creek Drive. As development continues, trails can be added in advance of the approval of new occupancy permits. Where development is not likely to occur, standalone trail projects will be needed to fill gaps, particularly between the Cenex gas station and Foundation Drive. In this segment, many trail-related destinations already exist (e.g., GreatLIFE Fitness, Air Madness, Snicklefritz Early Childhood Campus).
4	Freedom Elementary School Trail	Tom Sawyer Trail to Tiger Trail	0.2	Other Trail	Harrisburg School District	High	$	83	Currently no direct path exists between Tom Sawyer Trail and the main entrance of Freedom Elementary. For example, children living in Sawyer Pointe Apartments to the west of the school need to cross both a bus driveway and passenger vehicle driveway to access a circuitous sidewalk east of the school. If a trail was constructed between the bus and vehicle driveways, a direct connection could be made to the main door. In addition, the sidewalk between the north-south Tiger Trail and the main entrance can be widened to a trail.
5	Pleasant View Cemetery Trail	S Cliff Ave to Emmett Trail	0.3	Other Trail	n/a	High	$	73	The existing unpaved trail can be paved. Lighting along the trail can be added. Barriers can be placed where the trail comes close to water features.
6	S Cliff Avenue	105 S Cliff Ave to southern city limits	0.8	Arterial with Trails on Both Sides	n/a	High	$$	79.7	On the west side of Cliff Avenue, a trail from the north transitions to a sidewalk at the Dollar General driveway (105 S Cliff Avenue). This sidewalk can be widened to a trail south to Maple Street. Between Maple Street and Honeysuckle Drive, a trail already exists. South of Honeysuckle Drive, a trail can be added as development occurs, or as a standalone project, to complete the connection to W Twin Creeks Drive. On the east side, a trail from the north transitions to a sidewalk at the north edge of the Wizard Car Wash property (300 S Cliff Avenue). The sidewalk then ends and reappears as it heads south toward the southern city limits. This sidewalk can be widened to a trail. Potential challenges include utility boxes and the Pleasant View Cemetery fence and gateway.
7	Tiger Trail	Willow Street to S Cliff Avenue	1.4	Other Trail	Harrisburg School District	High	$$	78.7	A trail easement can be obtained in conjunction with new development as the 145-acre Oppold Estates LLP and 75-acre Dwayne Pederson Land Co LLC parcels are developed, between Willow Street and the southern city limits. At the southern city limits, the City of Harrisburg owns a 2.5 acre parcel with a retention pond where an east-west trail to Liberty Elementary can be built. At the southern end of the Sallie Avenue cul-de-sac, a trail easement would need to be obtained from the cul-de-sac property owners, or from the property owners to the south (currently Patrick and Kathleen Nord) to complete this east-west connection to Liberty Elementary. On the west edge of the Liberty Elementary property, a trail can extend north to W Twin Creeks Drive and continue east along the south side of the street. A trail connection to the main entrance of the school can also be added.
8	Showplace Trail	Tiger Trail to Central Park	0.7	Other Trail	n/a	High	$$$	78	Currently the Heartland Park neighborhood and Central Park/Lake Ole are disconnected, with reports of children bicycling through Showplace Cabinetry's parking lot to access the area. This east-west trail would connect with the Tiger Trail on the west, just east of the bridge over Harrisburg Tributary on a City of Harrisburg-owned parcel. Children from the Heartland Park neighborhood would be able to access this trail at Claudia Avenue and Augustana Avenue. A trail should be placed between the south edge of existing houses along Coyote Street and the north edge of future houses on Owen Street (on land currently owned by Creekside LLC). Similarly, a trail should be placed between the south edge of McCarty Storage and properties owned by Creekside Commercial LLC. At Cliff Avenue, a trail crossing would need to be installed in accordance with Strategy 5 in Chapter 3. East of Cliff Avenue, a trail should be placed between the south edge of Showplace Cabinetry and the north edge of parcels owned by Central Park Village LLC and Harrisburg Heritage LLC. Challenges include working with developers and other private property owners to obtain a minimum 15' trail easement (see Figure 4.11 in Chapter 4).

** $ = Low, $$ = Medium, $$$ = High

Project ID	Street/Trail Name	Project Extents	Length (miles)	Project Type	Agency Partners	Priority Level	Planning Level Cost Estimate for City*	Ranking Score	Opportunities and Challenges
9	State Highway 115	272nd Street to 273rd Street	1	Arterial with Trails on Both Sides	SDDOT	High	$$	74.6	The east side of State Highway 115 already has a trail. As parcels are further developed on the west side and incorporated into city limits, a trail should be added to the west side. Due to the relatively low number of destinations, this trail may not appear to be a priority. However, Country Apple Orchard is a popular destination with Harrisburg residents, and a trail should be built as more housing developments materialize in the nearby vicinity. A mid-point crossing of Highway 115 between 272nd Street and Willow Street may be necessary to safely get residents from the east side to the west side where the orchard is located.
10	E Willow Street	Fresh Market Driveway (210 W Willow Street) to Southeastern Avenue	0.9	Arterial with Trails on Both Sides	n/a	High	$$$	74.5	On the north side of Willow Street between Columbia Street and Southeastern Avenue, no trail exists. An intermittent sidewalk is already located in the downtown core between the old Liberty Elementary School (200 E Willow Street) and 316 E Willow Street. This sidewalk is crossed by several driveways and undefined on-street parking. A future trail in this section would need defined visual cues for trail users and motorists, including parking delineation. East of Perry Lane, a trail can be added in advance of the approval of new occupancy permits within the housing development. On the south side, a sidewalk exists between Columbia Street and Grand Avenue, except that a trail has already been installed between Railroad Avenue and the northwest corner of the Hair Depot (101 Milwaukee Avenue). In this segment, the sidewalk can be widened, with a similar need to create visual cues between trail users and motorists within the downtown core between Prairie Street and Railroad Avenue.
11	Harrisburg Greenway	272nd Street to Tiger Trail	0.6	Greenway Trail	Harrisburg School District	Medium	$$	74.2	Between 272nd Street and Tom Sawyer Trail, land along Harrisburg Tributary has been set aside for a retention pond which will be owned in the future by the City. Between Tom Sawyer Trail and the Tiger Trail, land is already owned by the City and Harrisburg School District. A greenway trail can be constructed along the waterway, with a crossing installed where it goes under Tom Sawyer Trail (see Actions 5.1 and 5.2 in Chapter 3).
12	Harrisburg Middle School Trail	S Cliff Ave to S Cliff Ave	0.2	Other Trail	Harrisburg School District	Medium	$	73	The 5' sidewalk on the edge of the Middle School driveway can be widened to 10' to include a 2' buffer and 8' space for walking and bicycling. Green colored pavement and raised crosswalks/speed tables can be placed at three parking lot crossings to improve visibility (see Action 5.1 in Chapter 3).
13	Mydland Trail	310 N Perry Lane to 170 N Perry Lane	0.8	Other Trail	n/a	Medium	$$	69.4	A trail can be built through Lion's Park and around the Mydland Retention Pond, making connections to several access points to Estate Street, Highland Street, Johnson Creek Court, Perry Lane, and Thelma Avenue.
14	Harrisburg Greenway	Showplace Trail to Willow Street	0.7	Greenway Trail	n/a	Medium	$$$	69.2	The Creekside Addition along the Harrisburg Tributary has set aside this land as a greenway area, to be owned by the City upon the development's completion. Trail access points are already planned at a midpoint between houses on both sides of the waterway, with one designated on the southeast side between 610 and 614 Creekside Avenue. A bridge will need to be constructed across the Tributary at this location. A greenway trail can be placed on either side of the waterway. South of the midpoint, a trail may be more desireable along the east side due to the location of the B&G Milkyway. At Willow Street a trail crossing is needed. This would preferably include a double box culvert underpass to eliminate conflicts, with one side dedicated to a trail (see Action 5.2 in Chapter 3).
15	Harrisburg Greenway	S Cliff Ave to southern city limits	0.5	Greenway Trail	n/a	Medium	$$	68.7	If and when the parcel currently owned by Darin Harr Irrevocable Trust is developed, a greenway trail can be constructed along Harrisburg Tributary. A crossing of S Cliff Avenue will need to be addressed, in conjunction with project #19.
16	Harrisburg High School Trail	Tiger Trail to Willow Street	0.8	Other Trail	Harrisburg School District	Medium	$$	68	The north-south Tiger Trail currently begins and ends at a small parking lot on the east side of Harrisburg High. This trail should be connected around the north and west sides of the school to the main entrance, and then to the Willow Street trail. Parking lots can be avoided if the trail hugs the perimeter of the school building. The trail should also be connected directly south to Willow Street on the east edge of the school parcel. This section is currently fenced but at least one gate is already located where the north-south Tiger Trail would be extended to Willow Street. This trail would allow youth and families from neighborhoods south of Willow Street to access the Harrisburg High and Freedom Elementary campuses.
17	Adventure Trail	272nd Street to southern city limits	1	Greenway Trail	Harrisburg School District	Medium	$$	65.5	As land is developed for housing and other purposes, a greenway can be developed along this unnamed waterway. Approximately a dozen homes are being built within the Whiskey Creek Addition, which includes a wetlands designation between the development and Adventure Elementary. Over a hundred homes are planned through the Paul Alan Addition south of Adventure Elementary, which includes designated land for a park along the waterway. Since the Whiskey Creek Addition paid a fee in lieu of parkland dedication, a greenway trail may need to placed along Harrisburg School District property adjacent to the Whiskey Creek Addition.
18	Grand Gardens Trail	Emmett Trail to Perry Lane	0.5	Other Trail	n/a	Medium	$$	65.2	Between Perry Lane and the railroad, the City of Harrisburg owns land partially used for a community garden known as Grand Gardens. A trail can be built in this area. At the railroad a trail crossing can be added either with trail-only crossing gates (see Action 5.1 in Chapter 3) or an underpass through a box culvert (see Action 5.2 in Chapter 3). This crossing can occur along the north edge of City property or occur just to the north at Tiger Street. West of the railroad, the City owns property used as a maintenance garage. A trail can be built along the north edge of this property, just north of the fence. If inadequate space exists between neighboring parcels and the fence, the fence may need to be moved slightly south. At the northwest corner of the City's property, a 325' easement would likely need to be purchased from the parcel currently owned by the Darin Harr Irrevocable Trust, to connect to the Pleasant View Cemetery Trail (project # 15).

** $ = Low, $$ = Medium, $$$ = High

Project ID	Street/Trail Name	Project Extents	Length (miles)	Project Type	Agency Partners	Priority Level	Planning Level Cost Estimate for City*	Ranking Score	Opportunities and Challenges
19	Harrisburg Greenway	Willow Street to S Cliff Avenue	0.6	Greenway Trail	US Corps of Engineers	Low	$$$	64.7	The City of Harrisburg owns the land along the Harrisburg Tributary, with a right-of-way varying from 75' to 200' wide. A trail on the east side would serve several multi-family parcels and provide a direct connection to B&G Milkyway north of Willow Street. However, right-of-way between the waterway and these multi-family units is narrow and may either require trail easements from these properties or a crossing to the west side, where right-of-way is wider. At Willow Street a trail crossing is needed. This would preferably include a double box culvert underpass to eliminate conflicts, with one side dedicated to a trail (see Action 5.2 in Chapter 3). Crossings are also needed at Honeysuckle Drive and S Cliff Avenue. Additional challenges may include the need for bridges to cross Harrisburg Tributary.
20	272nd Street/ Prospect Avenue	State Highway 115 to Faith Avenue	1.2	Arterial with Trails on Both Sides	n/a	Low	$$	62	No trails exist along 272nd Street between Highway 115 and Cliff Avenue. Between Cliff Avenue and Faith Avenue, a trail already exists on the north side and a sidewalk already exists on the south side. As the Mill Creek Addition is developed on the south side of 272nd Street between Highway 115 and United Avenue, a trail should be added in advance of the approval of new occupancy permits. Most of the remaining south side is developed with houses (600 - 714 St Gregory Street) and other buildings that may not be redeveloped in the near future (between Augustana Avenue and Cliff Avenue). As a result, this segment is likely to require a standalone trail project. On the north side, a trail should be added with future developments, with a similar need to create a standalone trail project where houses already exist. A standalone project on the north side is currently a lower priority due to lower housing density.
21	Central Park Trail	Perimeter	1.1	Other Trail	n/a	Low	$$	61	A trail loop in the Central Park Master Plan is planned along the perimeter of the park. The loop could make connections to the Lake Ole Trail as well as the Showplace Trail (project #8) and the Legendary Estates Trail (project #25).
22	Southeastern Avenue	Northern city limits to southern city limits	2.4	Arterial with Trails on Both Sides	n/a	Low	$$$	60.2	On the west side of Southeastern Avenue, many houses have been developed without the addition of sidewalks or trails facing Southeastern Avenue. As new developments go through the subdivision design and approval process, trails should be required. For housing that has already been developed, a standalone trail project should be developed to provide connections.
23	Perry Lane	272nd Street to Southeastern Avenue	1.9	Other Trail	n/a	Low	$$$	59	Perry Lane is a collector street, which is recommended to have a trail on one side (see Action 1.2 in Chapter 3). Sidewalks are already located intermittenly along the corridor, varying from 4' to 6'. Between 272nd Street and Miah Street, an 8' trail can be placed on the west side of the street during future development, to connect with project #25. Between Miah Street and Willow Street, the primary challenge with widening existing sidewalks would be the needed reconstruction of recently built driveways, resulting in low feasibility in this segment. At Willow Street, a trail can be built on the west side of the intersection, where sidewalks do not yet exist. Between Willow Street and Southeastern Avenue, sidewalks have recently been installed with the Southeastern Infrastructure Improvements project, as well as several housing developments. As a result, the project has low feasibility in this segment.
24	Nine Mile Creek Greenway	476th Avenue to 477th Avenue	1.2	Greenway Trail	n/a	Low	$$	55.5	The City of Harrisburg already owns a 140-acre parcel which is partially utilized for as the Water Reclamation Facility. Nine Mile Creek runs through the property, with the balance of ground rented for farming. A greenway trail can be built along Nine Mile Creek. As development continues south of 274th Street, this greenway will become an important recreational opportunity to residents in the southern portion of the community.
25	Legendary Estates Trail	Central Park to Perry Lane	0.6	Other Trail	n/a	Low	$$$	51.2	The railroad owned by BNSF is currently a barrier between Central Park and the Legendary Estates neighborhood. On the west side, a north-south trail easement can be negotiated with BNSF and/or the owners of 120 Industrial Drive (LG Everest Inc.) and 111 Industrial Drive (Sweetman Construction). See Figure 4.13 for a local example of a trail adjacent to a railroad. The City of Harrisburg owns a parcel at 427 Thelma Avenue on the east side of the tracks. The parcel may be used to provide an east-west connection between Thelma Avenue and the west side of the railroad. Alternatively, a trail easement could be placed north of 433 Thelma Avenue. Railroad crossing alternatives such as at-grade with crossing arms or a box culvert tunnel should be evaluated (see Actions 5.1 and 5.2 in Chapter 3). During a future development an east-west trail easement can be placed to the north of the row of houses at 500 - 808 Miah Street to connect to Perry Lane.
26	Harrisburg Greenway	Northern city limits to southern city limits	0.1	Greenway Trail	n/a	Low	$	50.5	As land is developed for housing and other purposes, a greenway can be developed along Harrisburg Tributary. The Sejnoha Addition in 2023 planned for the possibility of the drainage easement to be moved into the right-of-way of a future collector street. Adequate right-of-way for a greenway-type trail should be maintained along a future collector street, should this occur. If this does not occur, a greenway can be planned along the existing drainage channel.
27	Rail Trail	Northern city limits to southern city limits	2.4	Rail Trail	n/a	Low	$$$	47	As discussed in Chapter 4 under Future Rail Trail Opportunities, Harrisburg's railroad corridor should be monitored if and when railroad operations cease. In that event, the corridor could become a rail-to-trail facility. Alternatively, a rail-with-trail could be developed within the 100' wide corridor owned by BNSF. A rail-with-trail may prompt a desire by BNSF to include a fence between the railroad tracks and trail. Between Estate Street and Maple Street, a rail-with-trail is preferable on the east side due to a side track on the west side servicing elevators.

Total miles	Arterial with Trails on Both Sides	8.8
		4.7
	Greenway Trails	23.9
		2.4
	Other Trails	22.7

** $ = Low, $$ = Medium, $$$ = High

Trails Plan

Community Engagement Report

September 12, 2024

Key Findings and Strategies for Engaging Community Members

Attendees sharing feedback at the Harrisburg Days Business Expo & Craft Fair on June 8, 2024.

Contents

INTRODUCTION

The purpose of this community engagement report is to summarize the approach to, and results of, engaging community members around the Harrisburg Trails Plan (Plan). Community input resulted in key findings used to develop plan recommendations and implementation strategies, as shown in Figure A.1.

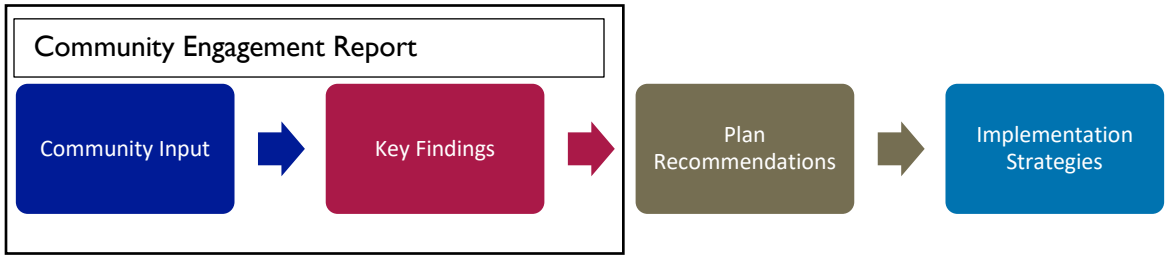


Figure A.1. The Plan development process begins with community input that informs key findings. These then lead to Plan recommendations and implementation strategies.

In 2024, there were approximately 460 participant interactions that resulted in recorded input.

- 12 participant interactions at an Advisory Committee meeting *(Strategy A)*
- 49 participant interactions submitted through a paper Wish List *(Strategy B)*
- 350 participant interactions using an online and paper survey *(Strategy C)*
- 50 participant interactions at the Harrisburg Days Business Expo & Craft Fair *(Strategy C)*

KEY FINDINGS

1) **Residential neighborhood developments are not connected to popular destinations.** Most respondents believe the connectivity of the trail network between residential areas and parks and schools is poor (page A-13). Participants expressed a high level of interest for trails between specific housing developments and the community's popular destinations. At the top of the list is the Legendary Estates neighborhood, which is separated from the rest of the community by the railroad tracks and Willow Street. As a result, E Willow Street was identified by one-third of respondents as the top new trail needed (page A-20). This was followed by N Cliff Avenue, where a trail gap between the Heartland Park neighborhood (i.e., Laura Street) and the existing trail was identified by 18% of respondents (page A-20).
2) **People are most comfortable on paved greenway-type trail facilities away from roads.** The most popular existing trail type was the facility around Lake Ole, with 94% of respondents expressing a high degree of comfort. Trails along roads, while in demand due to their familiarity and destinations, identified approximately 50% of respondents who are comfortable (pages A-14 and A-15). Even though trails do not exist around or along most bodies of water, respondents identified several of these areas as needing trails. These were led by the Mydland Estates Retention Pond/Lions Park, Harrisburg Tributary, and the retention pond north of Lake Ole (page A-20). Developing a trail loop around Harrisburg and making permanent the trail along the railroad between Thelma Avenue and Willow Street were also priorities (page A-20). Those leaving additional comments highlighted the need for greenway-type facilities away from roads (page A-23). Paved trails were also preferred as a long-term vision (page A-21).
3) **Existing trail crossings are not comfortable for residents.** Existing trail crossings in Harrisburg are not comfortable for respondents, with one-third or fewer expressing approval (pages A-16 and A-17). The trail crossings at the Cliff Avenue and Willow Street roundabout were identified in the survey as most needing change, followed by other intersections along Willow Street including Shebal Avenue, Columbia Street, and Honeysuckle Drive (page A-19). The intersection of Willow Street and Perry Lane was identified as the most dangerous intersection in the mapping exercise (page A-10).
4) **Residents are most concerned about the safety of kids.** Two-thirds of those taking the survey were women (page A-27). 70% of survey respondents were between the ages of 30 and 44, even though they make up only 29% of Harrisburg's population. Many personal comments discussed children and the desire to allow them to take trails to schools and parks, and experience trails as a family. Kids were the top theme when survey respondents were asked to describe why trails are important, mentioned by 39%. Safety was the second highest theme, mentioned by 29% of respondents (page A-22). Safety was also the top visioning word suggested by respondents (page A-21).

STRATEGIES FOR ENGAGING COMMUNITY MEMBERS

The Harrisburg Trails Plan is intended to reflect the priorities of the community. Engagement strategies were intended to be convenient and offered in a variety of locations and formats This included a Study Advisory Team of stakeholders, online and paper surveys and maps, tabling opportunities, and Facebook posts.

Strategy A: Study Advisory Team

The first strategy for engaging community members was a Study Advisory Team kickoff meeting which took place on June 7, 2024 at the old Liberty Elementary School. The Harrisburg Study Advisory Team's first meeting gave stakeholders with varying interests the opportunity to share their input on trail issues. The committee is made up of the following members:

Representative	Organization or Interest Group
Ryan Berg	Harrisburg Park & Recreation Board
Toby Brown	Lincoln County Planning & Zoning Department
Rob Doyen	Harrisburg Planning Commission
Terry Fluit	Lincoln County Highway Department
Sarah Gilkerson	South Dakota Department of Transportation
Sean Hegyi	South Eastern Council of Governments
Greg Heitmann	Federal Highway Administration
Chad Huwe	Harrisburg City Engineer
Linda Kirchhevel	Harrisburg School Board Chair
David Locke	Stockwell Engineers
Kevin Maxwell	Harrisburg City Council
Ashley Schorzmann	Harrisburg Disability Awareness Commission
Jason Thurston	Harrisburg Parks Supervisor
Derick Wenck	Harrisburg Mayor

Participants shared the following information:

<u>Developers</u>

- The City has an agreement with a developer to add a shared use path crossing of the Harrisburg Tributary north of Willow Street and west of Cliff Avenue.
- Community-focused mindsets are needed for developers.
- A trail is already planned to go around the pond in the Mills Creek development.
- There is a need to have a certain buffer width along creeks so that trails can be developed, and for this requirement to have teeth.

<u>Needed connections</u>

- Between the Heartland Park neighborhood west of Cliff Avenue to Lake Ole.
    - Showplace Cabinetry has complained kids are biking through their parking lot, showing the need for this connection.
    - There is no trail on Cliff Avenue in front of McCarty Storage (Figure A.2), which pushes

Figure A.2. The Cliff Avenue trail ends at McCarty Storage, posing challenges for residents of the Heartland Park neighborhood.

residents trying to reach Lake Ole onto Industrial Drive and through the Showplace Cabinetry parking lot.

- A connection is needed between Harrisburg and the new Freshman Academy on N Cliff Avenue.
- Between Legendary Estates and Central Park.
- In general, between schools, parks, and other points of interest.
- There are some who want to see more natural trails and greenways.
- Central Park and Lake Ole are seen as big destinations.
- In general, along Cliff Avenue and Willow Street
- Between Harrisburg and Lake Alvin State Recreation Area.
- Regional connections to Sioux Falls.

Schools

- A lot of kids are already biking to Freedom Elementary, Liberty Elementary, and South Middle School.
- Trail shortcuts between schools and neighborhood housing developments can save the Harrisburg School District a lot of busing money (Figure A.3).
- A lot of busing happens in Harrisburg currently due to traffic barriers between neighborhoods and schools.

Figure A.3. This trail shortcut to Harrisburg Horizon Elementary School has saved the school district in busing costs. Credit: Google

Trail Crossings

- Cliff Avenue and Willow Street are seen as barriers, and safe crossings of these streets are needed.
- Sioux Falls has examples of trails that go under major streets (e.g., 26th Street, 57th Street, and 69th Street).
- Rectangular rapid flash beacons are seen both positively and as a challenge, since some drivers still go through them when they are flashing.
- Where trails meet the road, the transitions are sometimes uncomfortable.

Strategy B: Wish List

Some people do not have time to complete a survey or attend an open house. For that reason, the project team created a "wish list" board with post-it notes (Figure A.4) and placed it at the Harrisburg Days Business Expo/Craft Show and Harrisburg Public Library in June and July of 2024.

Respondents were presented with the following prompt:

Trails Wish List – Leave your ideas here!

58 wish list ideas were submitted by 49 people and are summarized in Figure A.5. The top two wishes were:

1. Trails or sidewalks in specific locations (15/49, or 31%)
2. Playgrounds/obstacle courses/tree houses (6/49, or 12%)

Figure A.4. Wish list ideas from community members.

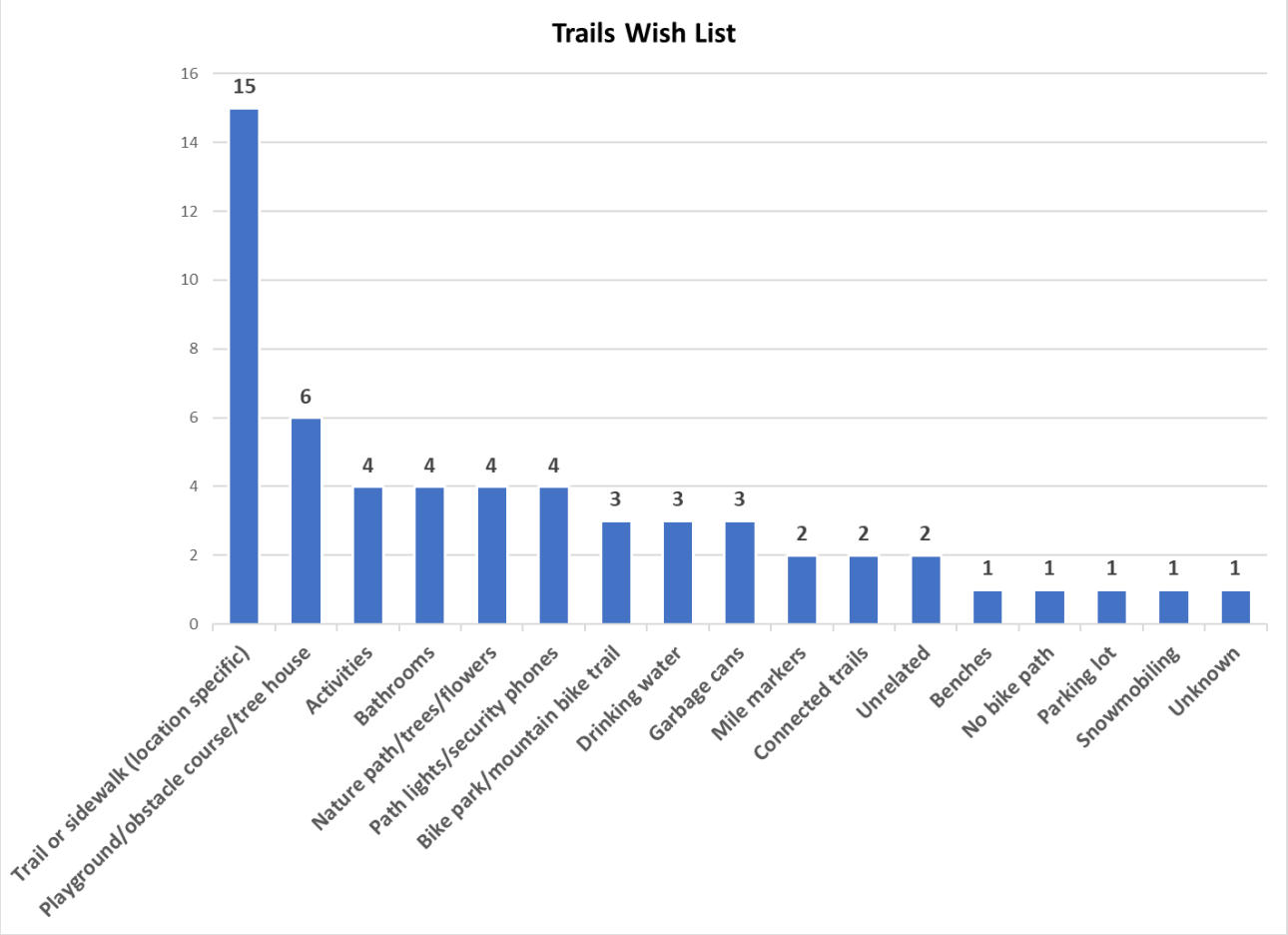


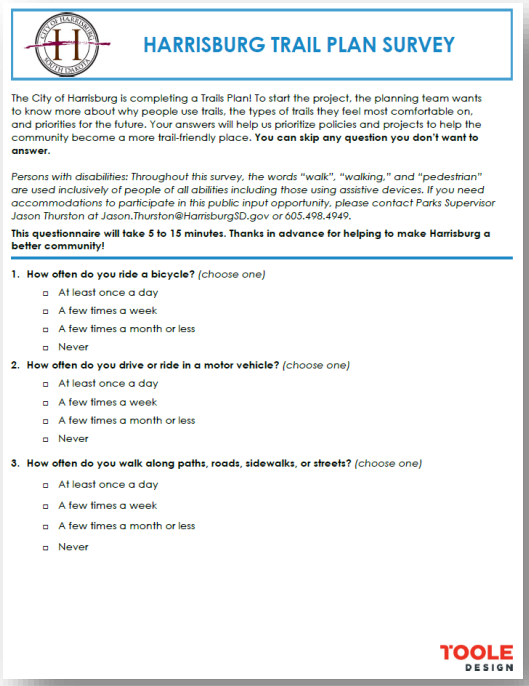
Figure A.5. Pie chart showing top trail wishes.

Strategy C: Surveys and Tabling

After soliciting "wish list" ideas, the project team asked for community input using paper and online surveys, as shown in Figure A.6. The paper survey was available at the Harrisburg Public Library between June 10th and July 20th of 2024. The online survey was available at https://tooledesign.github.io/harrisburg_trails_plan/ during the same period. The paper and online surveys were identical to allow results to be combined.

Links to the online survey were shared with community members through several City of Harrisburg Facebook pages and postcards left at the library and city hall. Approximately 350 surveys were completed.

The paper survey was also available at the Harrisburg Days Business Expo and Craft Fair on June 8, 2024, held at the old Liberty Elementary School. Approximately 50 people stopped by the table at this event and engaged with the project team.



HARRISBURG TRAIL PLAN SURVEY

The City of Harrisburg is completing a Trails Plan! To start the project, the planning team wants to know more about why people use trails, the types of trails they feel most comfortable on, and priorities for the future. Your answers will help us prioritize policies and projects to help the community become a more trail-friendly place. **You can skip any question you don't want to answer.**

Persons with disabilities: Throughout this survey, the words "walk", "walking," and "pedestrian" are used inclusively of people of all abilities including those using assistive devices. If you need accommodations to participate in this public input opportunity, please contact Parks Supervisor Jason Thurston at Jason.Thurston@HarrisburgSD.gov or 605.498.4949.

This questionnaire will take 5 to 15 minutes. Thanks in advance for helping to make Harrisburg a better community!

1. **How often do you ride a bicycle?** *(choose one)*
   - ☐ At least once a day
   - ☐ A few times a week
   - ☐ A few times a month or less
   - ☐ Never
2. **How often do you drive or ride in a motor vehicle?** *(choose one)*
   - ☐ At least once a day
   - ☐ A few times a week
   - ☐ A few times a month or less
   - ☐ Never
3. **How often do you walk along paths, roads, sidewalks, or streets?** *(choose one)*
   - ☐ At least once a day
   - ☐ A few times a week
   - ☐ A few times a month or less
   - ☐ Never

TOOLE DESIGN

Figure A.6. The first page of the paper survey shared with the community.

MAPPING

Respondents were invited to identify important destinations, dangerous intersections, and needed paths or sidewalks. Maps were made available both in paper and online (see Figure A.7). Residents submitted a total of:

- 58 important destinations for trails
- 40 dangerous trail crossings of streets or driveways
- 83 needed new or improved trails

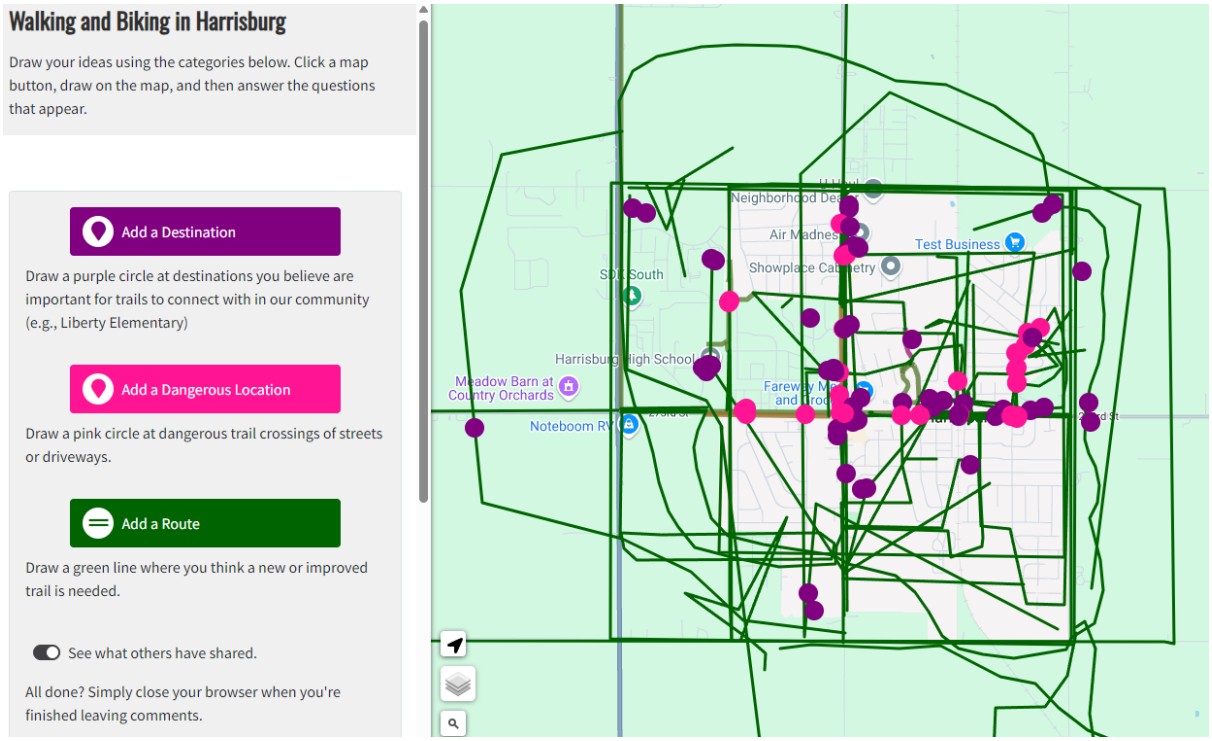


Figure A.7. A screen capture of the online map asking for input on important destinations, dangerous trail crossings, and needed trails.

Important Destinations

The map shown in Figure A.8 summarizes the 58 important trail destinations respondents identified. B&G Milkyway ice cream shop was the most important destination (5), followed by Air Madness children's amusement center/Harrisburg Baseball Association's Sports Performance Center (4), Harrisburg High School (4), old Liberty Elementary School (4).

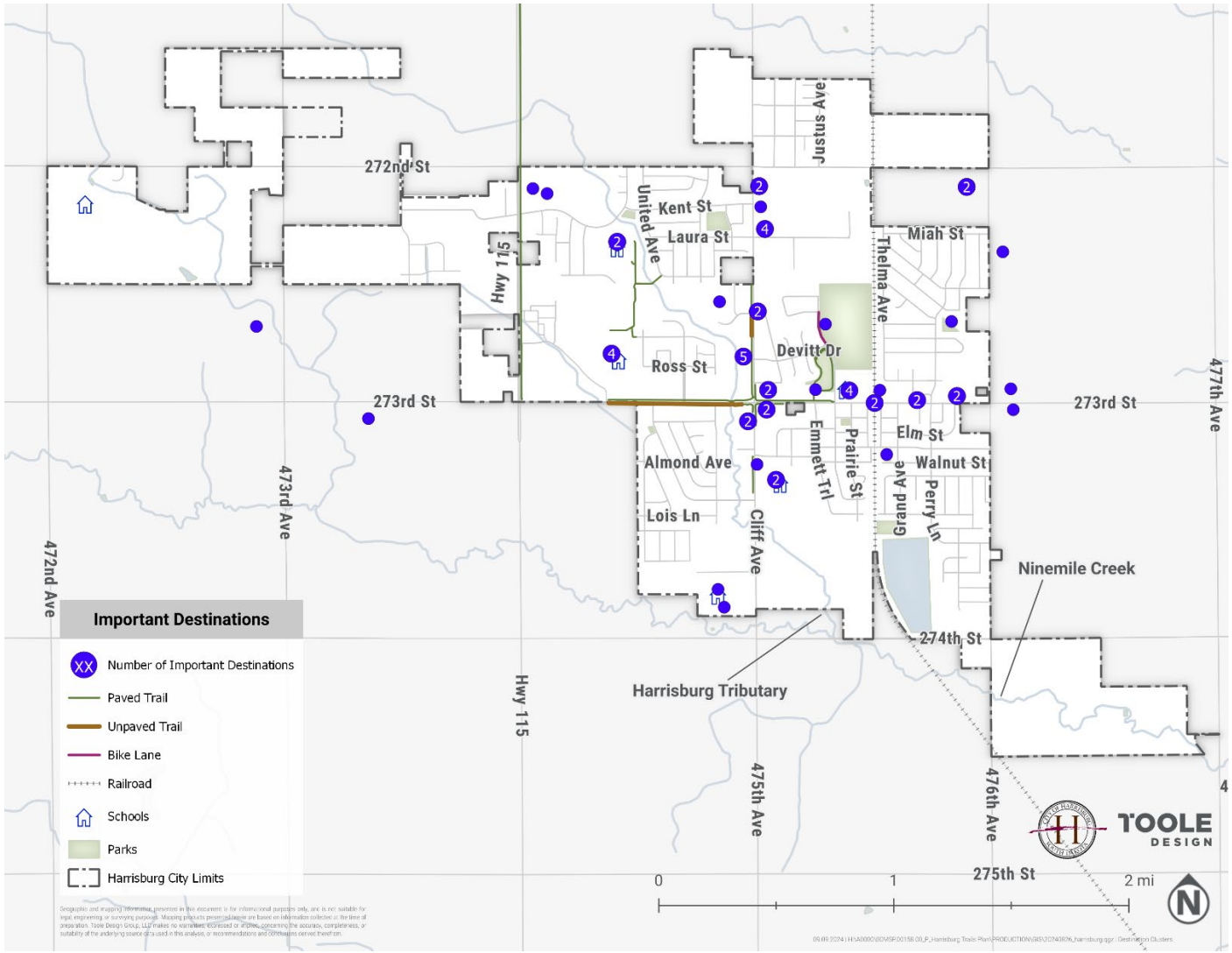


Figure A.8. Respondents were asked to place points at important trail destinations.

Dangerous Trail Crossings

The map shown in Figure A.9 summarizes the 40 dangerous trail crossings of streets or driveways respondents identified. The most dangerous crossing identified by participants was Willow Street at Perry Lane (7) followed by Cliff Avenue at Laura Street (4).

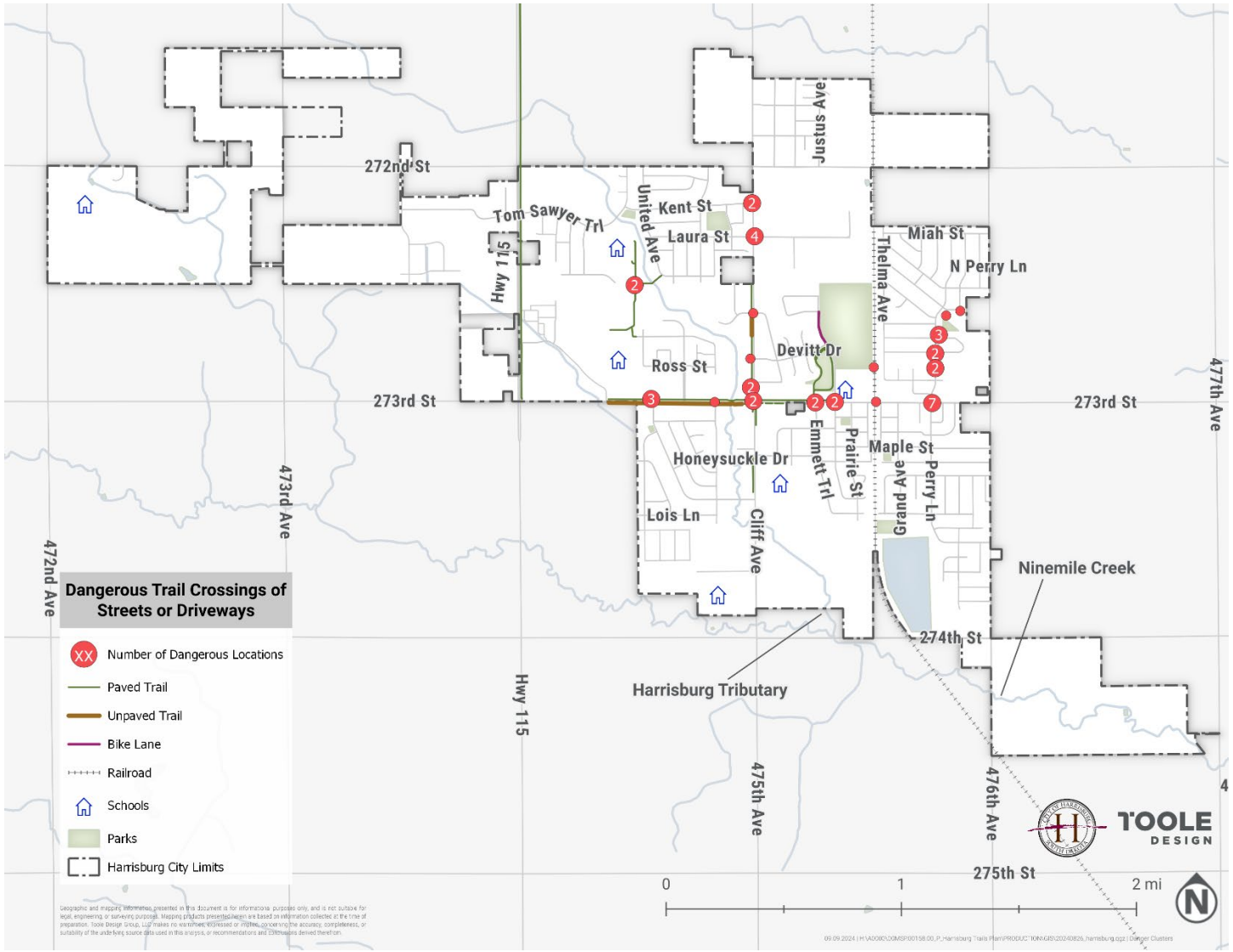


Figure A.9. Respondents were asked to place points at dangerous trail crossings.

New or Improved Trails

The map shown in Figure A.10 summarizes the 83 new or improved trails routes respondents identified. The most needed trails paths run along:

- E Willow Street between Columbia Street and Perry Lane (~10)
- N Cliff Avenue between 272nd Street and the northern terminus of the Cliff Avenue trail (~10)

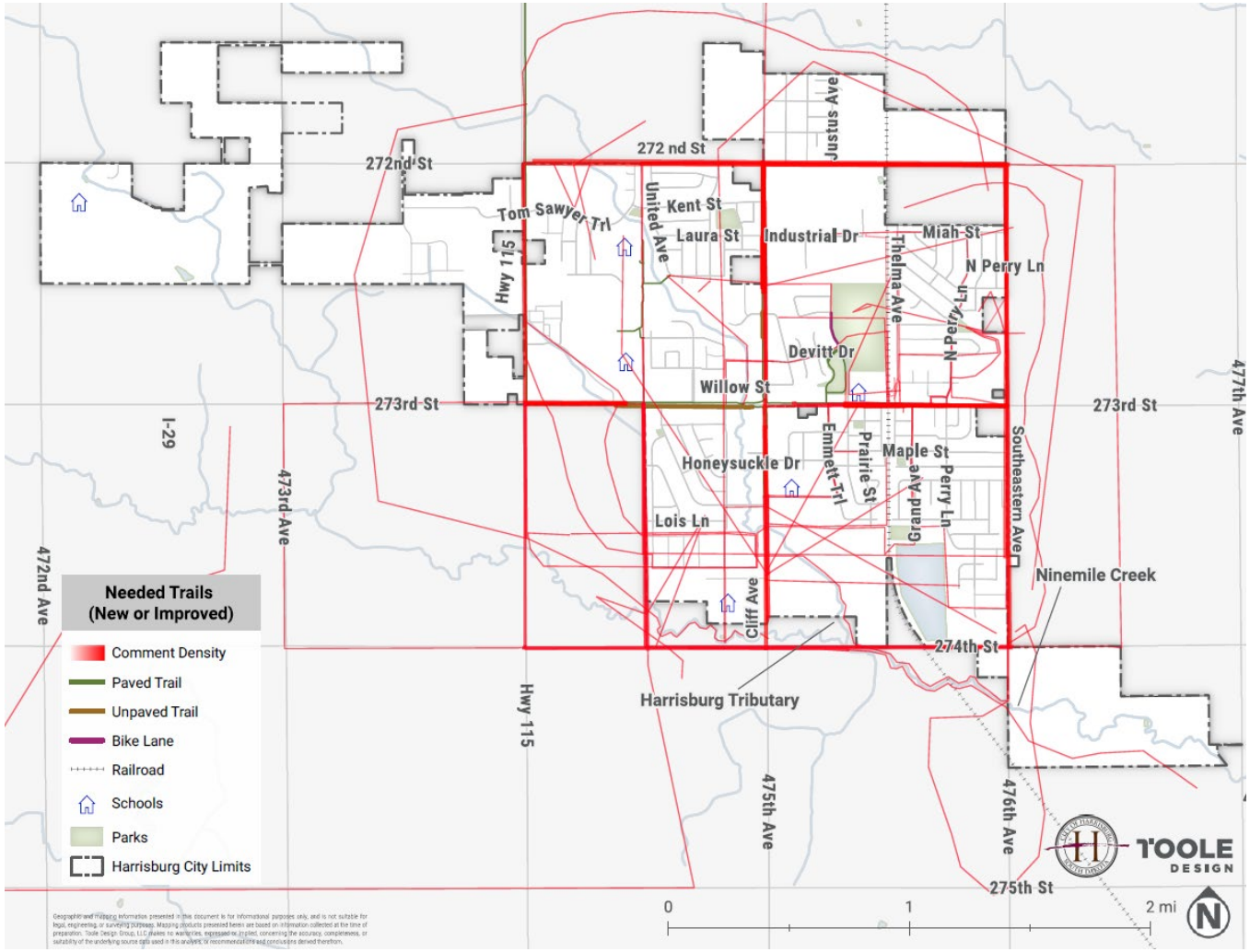


Figure A.10. Respondents were asked to draw lines where bike lanes or paths were needed for bicyclists.

WALKING/BICYCLING/DRIVING FREQUENCY

Respondents were asked the following questions about the frequency with which they traveled.

- *How often do you ride a bicycle?*
- *How often do you walk along paths, roads, sidewalks, or streets?*
- *How often do you drive or ride in a motor vehicle?*

Respondents reported their most common mode of transport on a daily basis was driving, followed by walking and bicycling (Figure A.12).

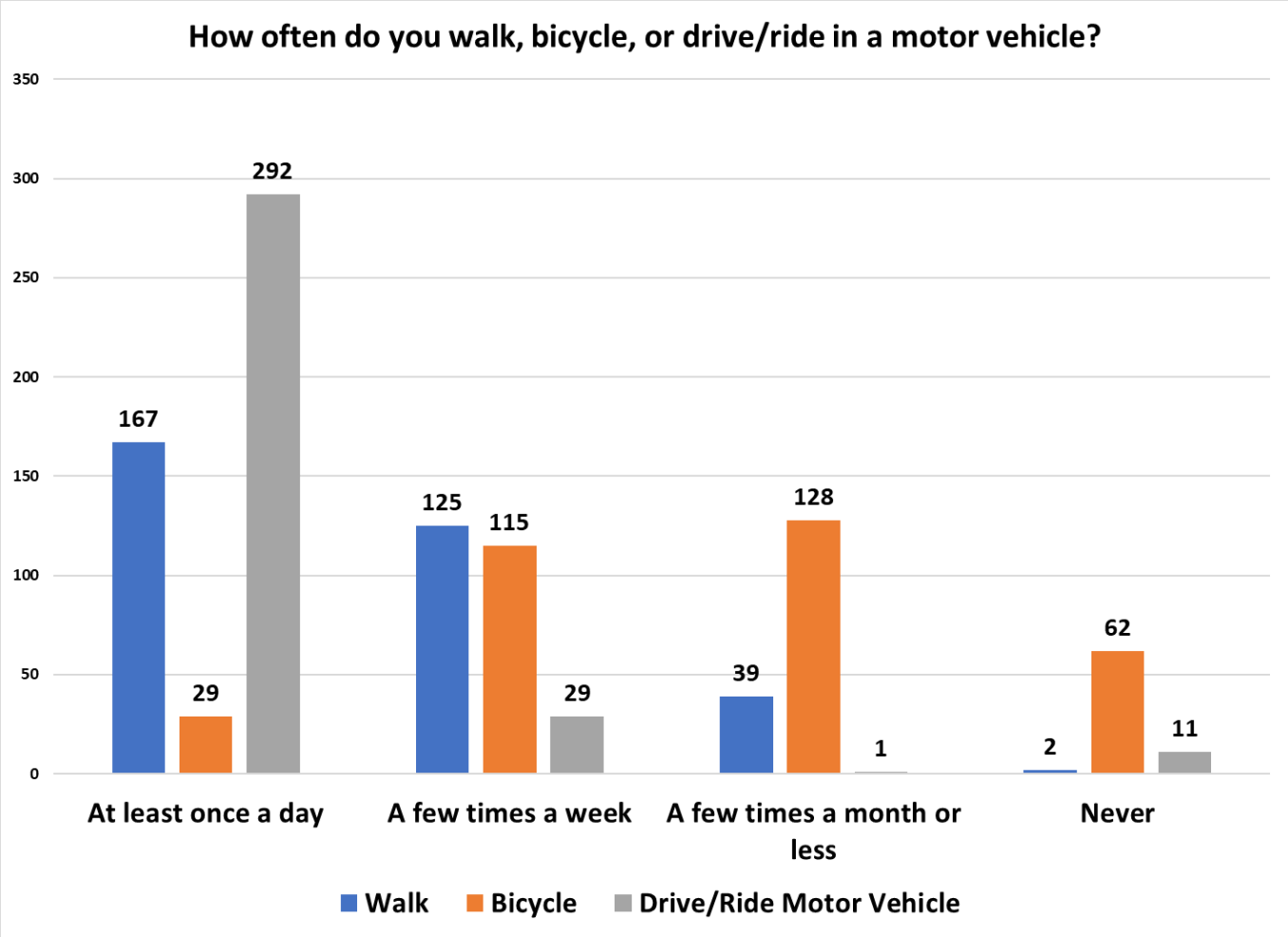


Figure A.12. Frequency with which participants in the Harrisburg public engagement activities reported walking, bicycling, or driving/riding in a motor vehicle.

REASONS FOR BICYCLING OR WALKING

Respondents were asked about the most common reasons they bike or walk. The nine categories and number of responses included:

1. Getting exercise – 314
2. Dog walking – 209
3. Going to parks – 204
4. Visiting friends or relatives – 90
5. Going out to eat/drink/hear live music at bars/restaurants/community festivals – 80
6. Going to community services (e.g., financial, library, medical, municipal) – 70
7. Going to school – 66
8. Shopping at stores – 37
9. Going to work – 18

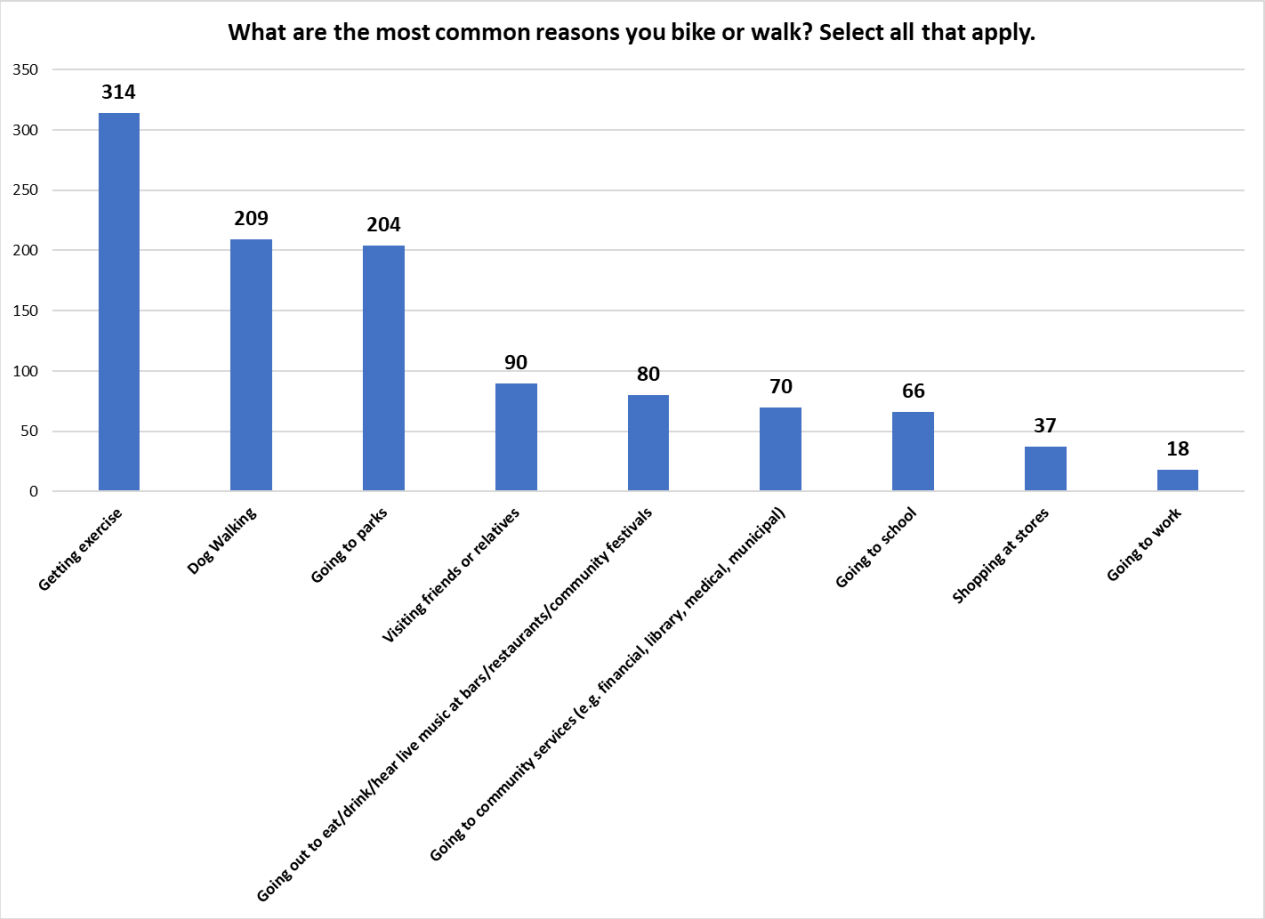


Figure A.14. Bar chart showing reasons for bicycling or walking

CURRENT TRAIL CONDITIONS

Respondents were asked to rank a variety of current trail conditions in Harrisburg on a five-point scale including Excellent, Good, Neutral, Poor, and Very Poor. Figure A.15 displays the results of respondents who rated each condition as either Very Poor or Poor. 309 people responded to this question.

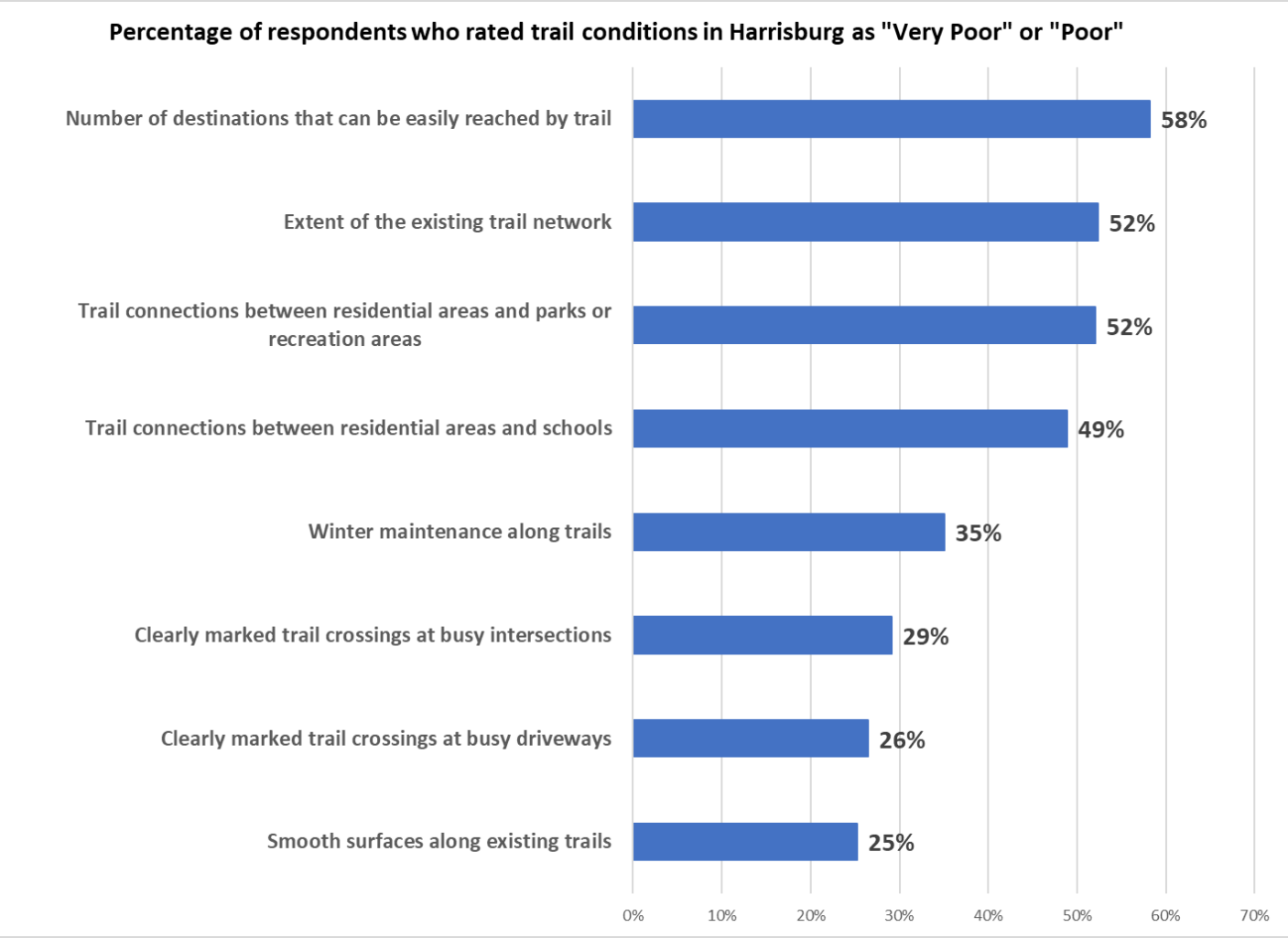


Figure A.15. Summary graph of percentage of respondents who rated each trail condition as Very Poor or Poor.

TRAIL FACILITY PREFERENCES

Respondents were asked to rate their comfort level on various types of trail facilities. Participants viewed a photo of each trail facility (see photos on the following page), and then rated each on a five-point scale including Very Comfortable, Comfortable, Acceptable, Uncomfortable, and Very Uncomfortable. Figure A.16 shows the percentage of respondents who ranked each facility as either Very Comfortable or Comfortable. 310 to 356 people answered this question (i.e., respondents were allowed to skip facilities where they had no opinion).

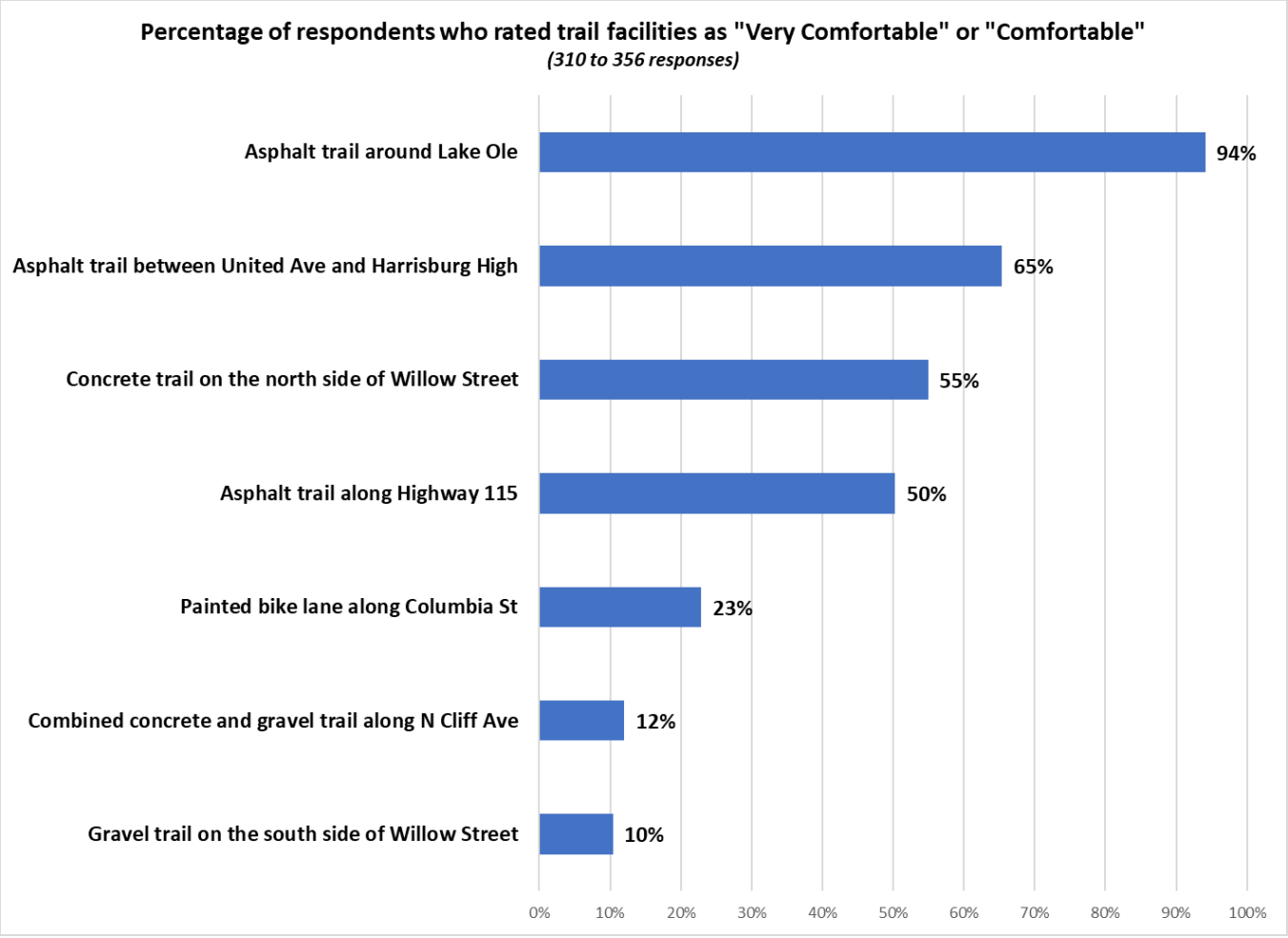


Figure A.16. Summary graph of percentage of respondents who rated each walking facility as 'Very Comfortable' or 'Comfortable'. The images on the following page were included in the survey.

Asphalt trail around Lake Ole (94%)

Asphalt trail between United Ave and Harrisburg High (65%)

Concrete trail on the north side of Willow St (55%)

Asphalt trail along Highway 115 (50%)

Painted bike lane along Columbia St (23%)

Combined concrete and gravel trail along N Cliff Ave (12%)

Gravel trail on the south side of Willow St (10%)

TRAIL CROSSING FACILITY PREFERENCES

Respondents were asked to rate their comfort level on various types of trail crossing facilities. Participants viewed a photo of each bicycling facility (see photos on the following page), and then rated each on a five-point scale including Very Comfortable, Comfortable, Acceptable, Uncomfortable, and Very Uncomfortable. Figure A.17 shows the percentage of respondents who ranked each facility as either Very Comfortable or Comfortable. 297 to 316 people answered this question (i.e., respondents were allowed to skip facilities where they had no opinion).

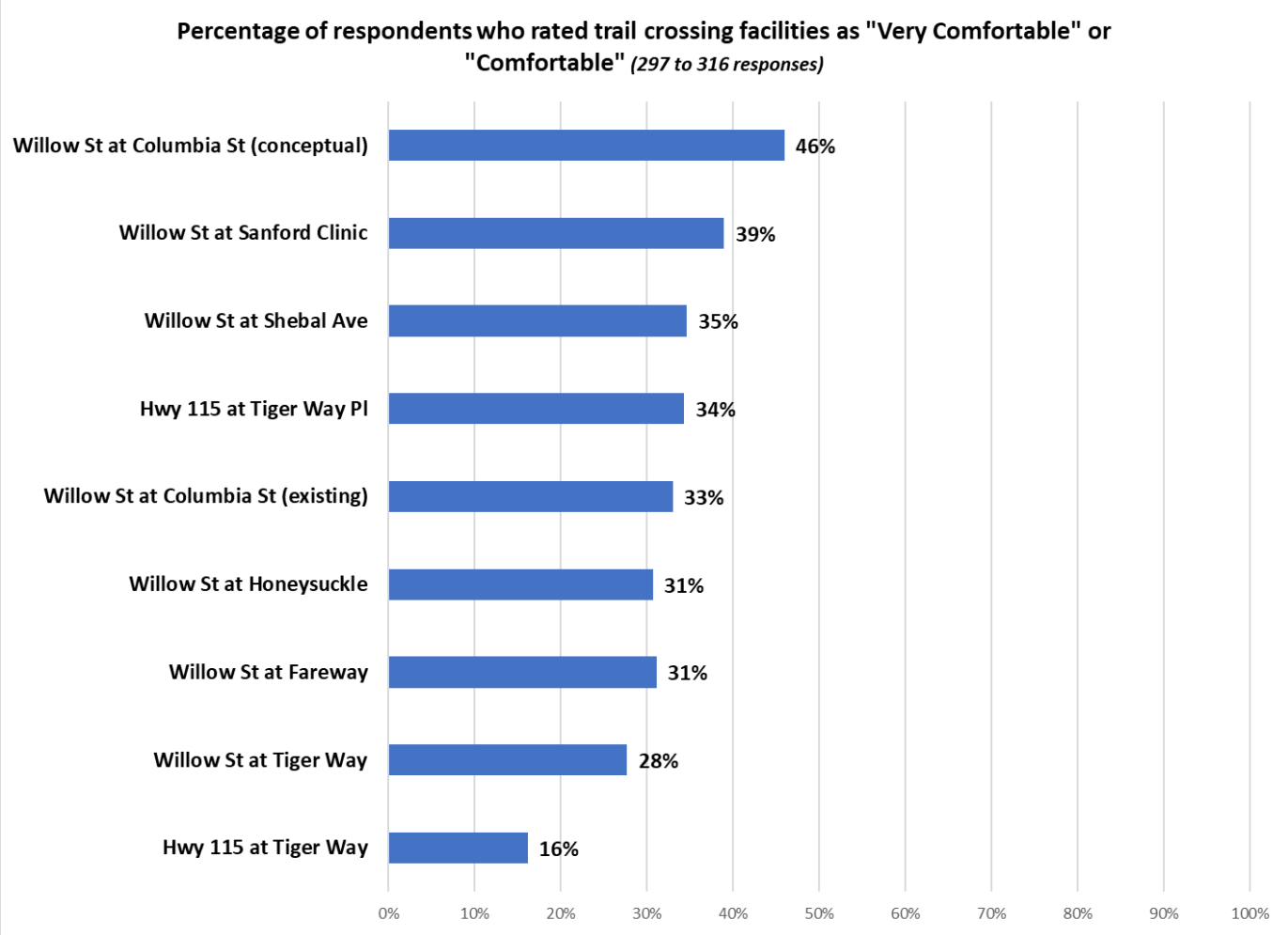


Figure A.17. Summary graph of percentage of respondents who rated each trail crossing facility as 'Very Comfortable' or 'Comfortable'. The images on the following page were included in the survey.

Willow St at Columbia St - Conceptual (46%)

Willow St at Sanford Clinic (39%)

Willow St at Shebal Ave (35%)

Hwy 115 at Tiger Way Pl (34%)

Willow St at Columbia St – Existing (33%)

Willow St at Honeysuckle Dr (31%)

Willow St at Fareway (31%)

Willow St at Tiger Way (28%)

Hwy 115 at Tiger Way (16%)

TOP TRAIL CROSSINGS FOR IMPROVEMENT

Respondents were asked the following question and then encouraged to answer with an open-ended written text response:

Imagine you had a magic wand and could instantly change one trail crossing in Harrisburg, to make it safer. Which one would you select?

98 intersections were suggested, as shown in Figure A.18 (ideas mentioned by only one, two, or three respondents were not included in the chart). The roundabout trail crossings of Cliff Avenue and Willow Street was the top priority in 13 out of 98 responses (or 13%). 70% of trail crossing improvement ideas were located along Willow Street (69 out of 92 ideas), led by the intersection of Willow Street with Shebal Avenue.

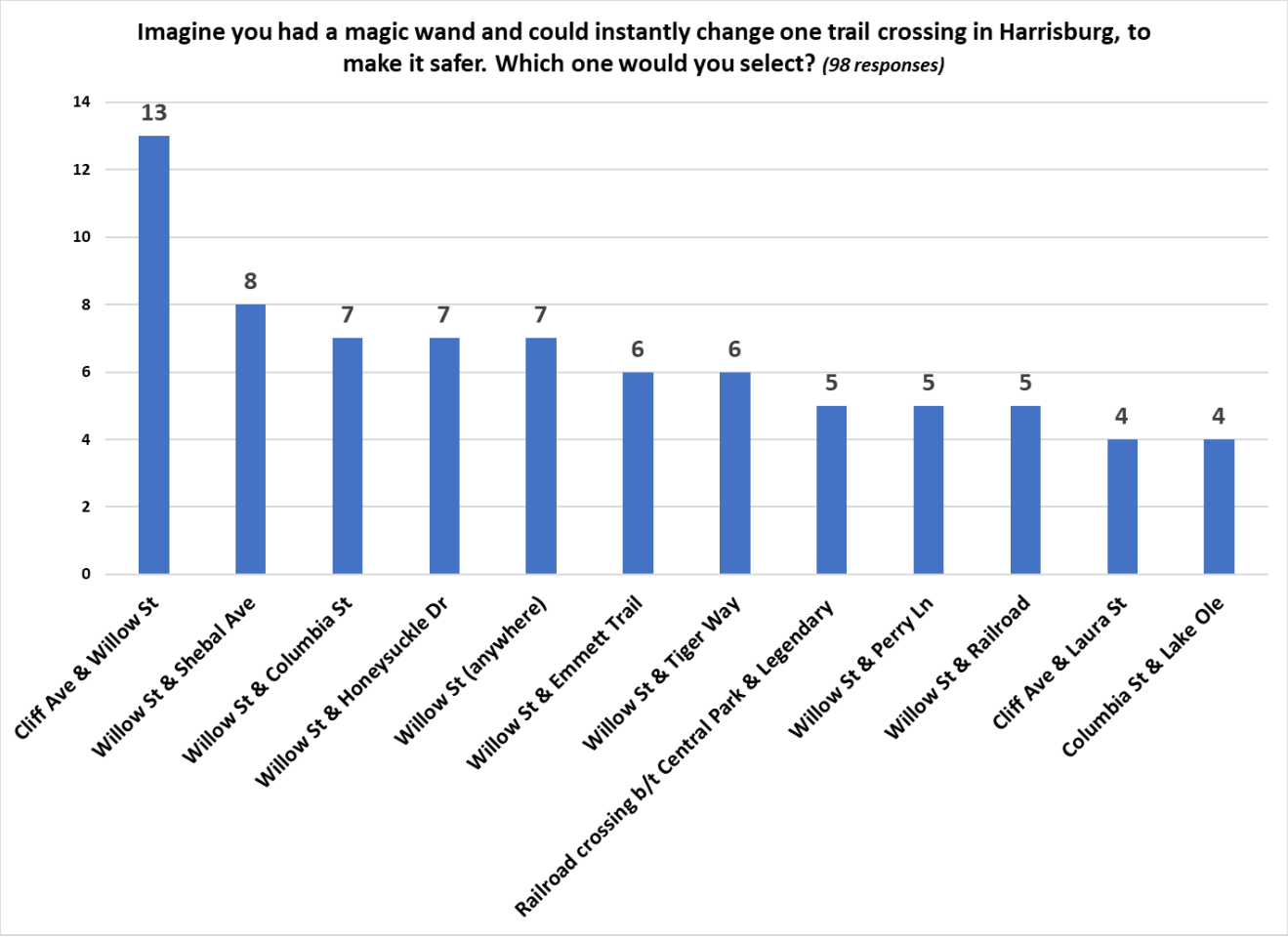


Figure A.18. Column chart showing the top trail crossings for instant change in Harrisburg.

Unsolicited trail crossing solutions were submitted by 13 people, as shown in Figure A.19. Flashing pedestrian beacons were the top idea in 7 out of 13 (or 54%) submittals.

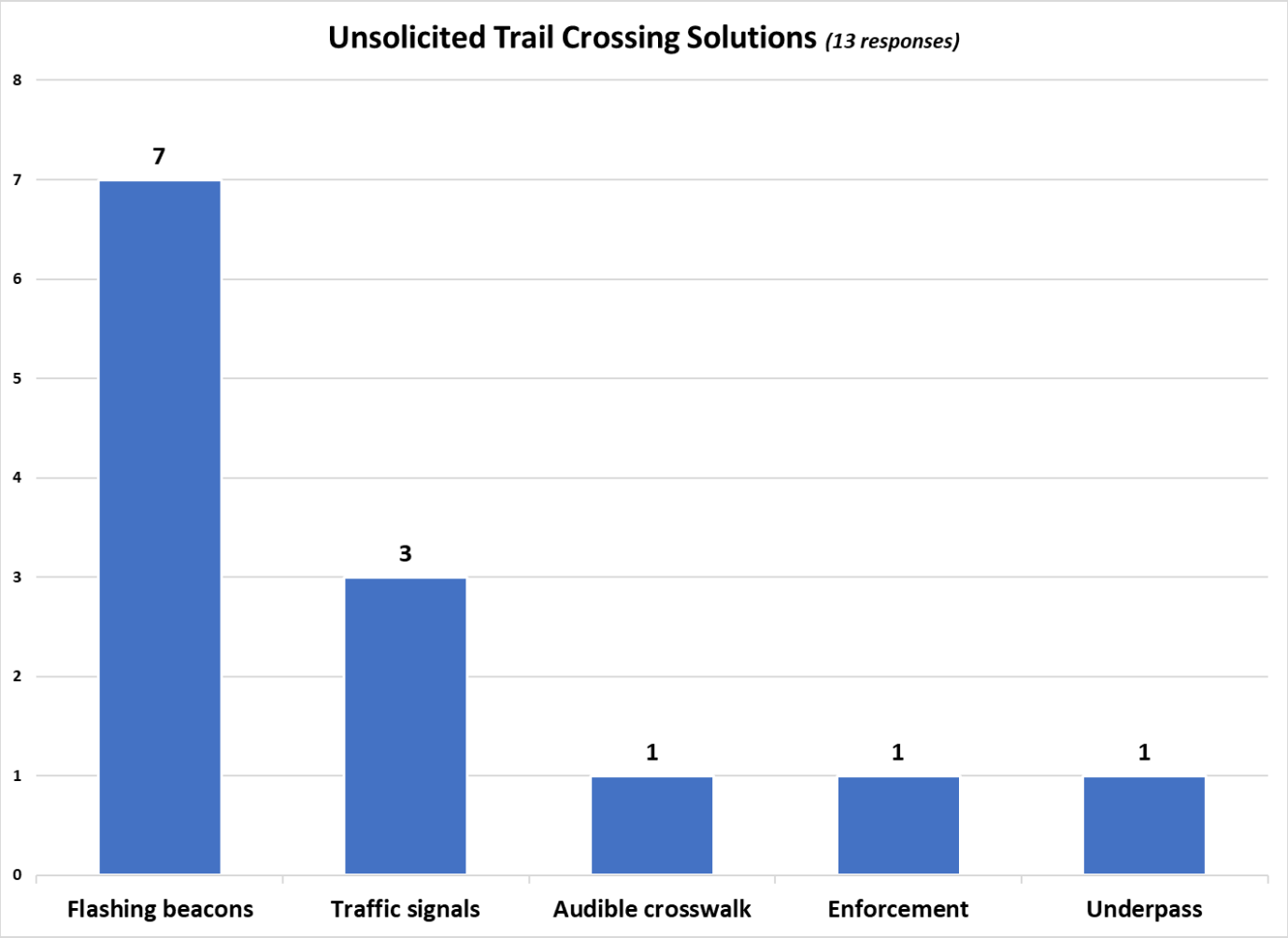


Figure A.19. Pie chart showing the top unsolicited trail crossing solutions in Harrisburg.

TOP NEW TRAILS

Respondents were asked the following question and then encouraged to answer with an open-ended written text response:

Imagine you had a magic wand and could instantly add a trail in Harrisburg. Where would you put it?

268 new trail suggestions were made as shown in Figure A.20 (ideas mentioned by only one, two, or three respondents were not included in the chart). E Willow Street was the top priority in 86 out of 268 ideas (or 32%), while N Cliff Avenue was the top priority in 47 out of 268 ideas (or 18%).

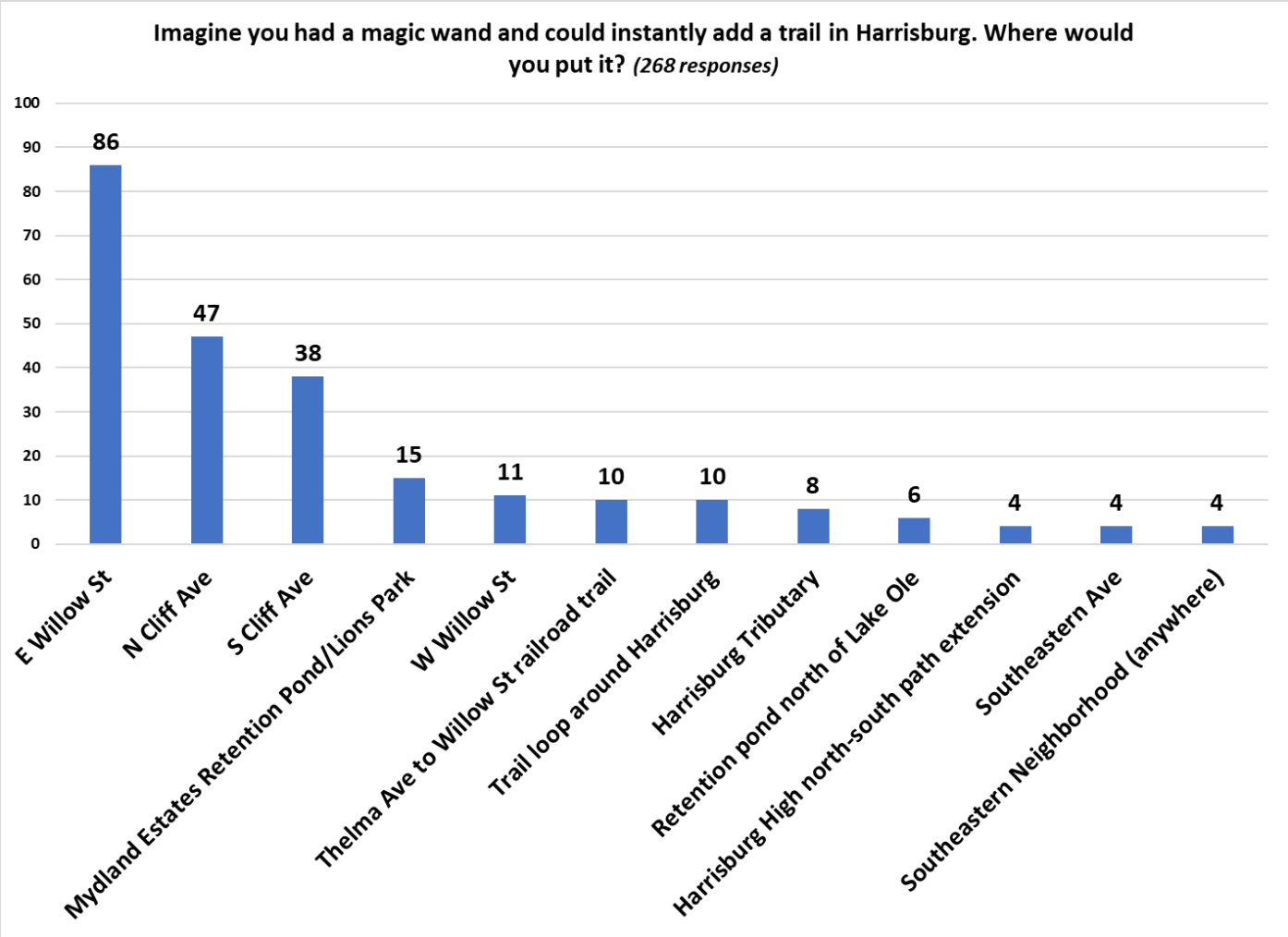


Figure A.20. Column chart showing the new trails respondents want added in Harrisburg.

VISIONING

Respondents were asked to provide three words to describe their ideal trail network in Harrisburg. 172 people responded with 444 words. Figure A.21 shows the most common visionary words chosen by the individuals. Only words mentioned by seven or more respondents were included in the chart. Respondents most said they wanted Harrisburg trails to be safe (54/172, or 31%), connected (35/172, or 20%), accessible (28/172, or 16%), and paved (28/172, or 16%).

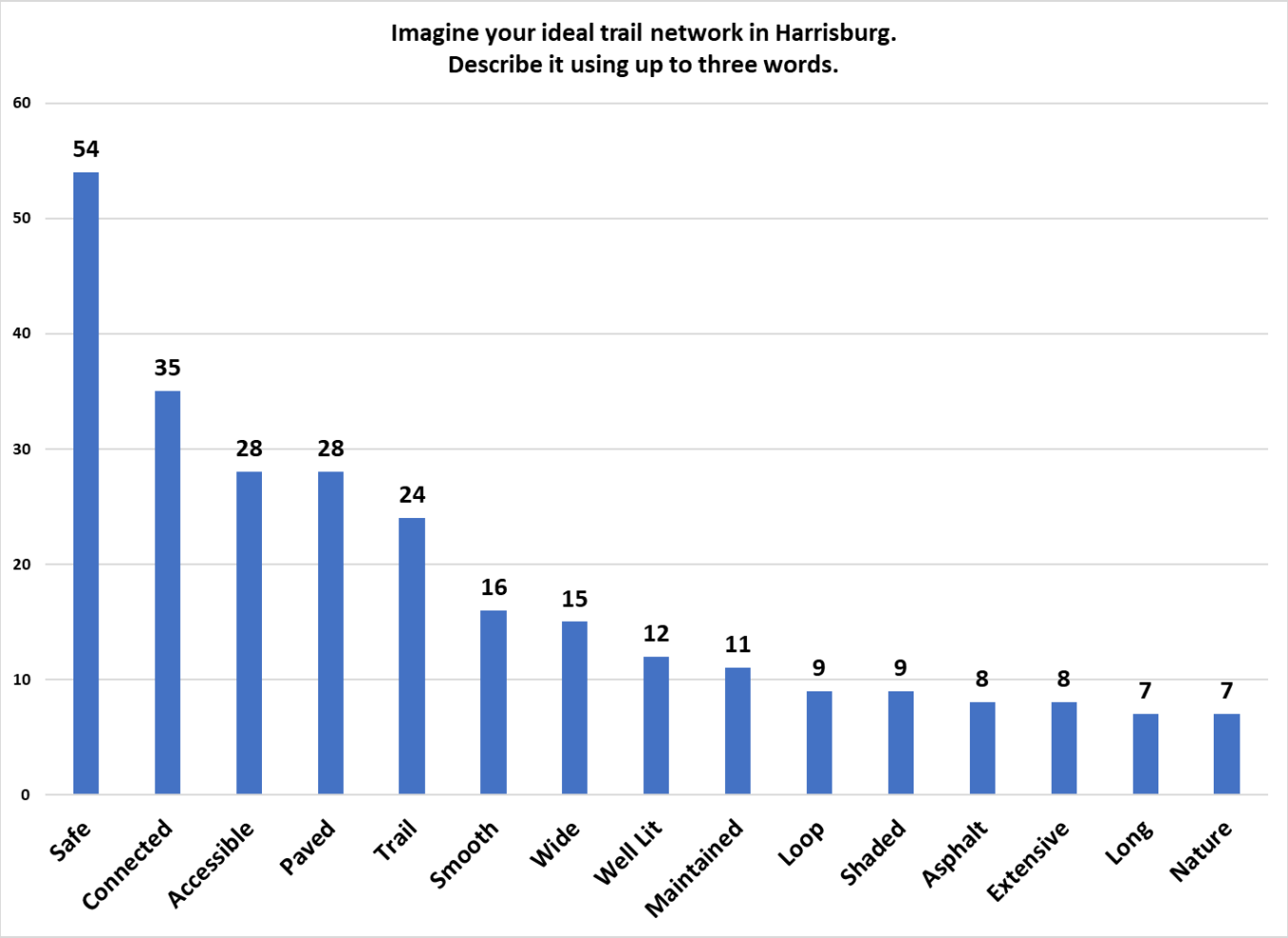


Figure A.21. Column chart of the ideal Harrisburg trail network.

IMPORTANCE OF BICYCLING OR WALKING

Respondents were asked the following question and then encouraged to answer with an open-ended written text response:

We want to know why trails are important to you. Share about the people in your life who could benefit from a better trail network in Harrisburg.

191 people submitted responses with 326 themes, which are summarized in Figure A.22. Only themes mentioned by five or more respondents were included. The most popular themes were:

1. Kids (74/191, or 39%)
2. Safety (55/191, or 29%)
3. Family (32/191, or 17%)
4. Exercise (31/191, or 16%)
5. Outdoors (26/191, or 14%)

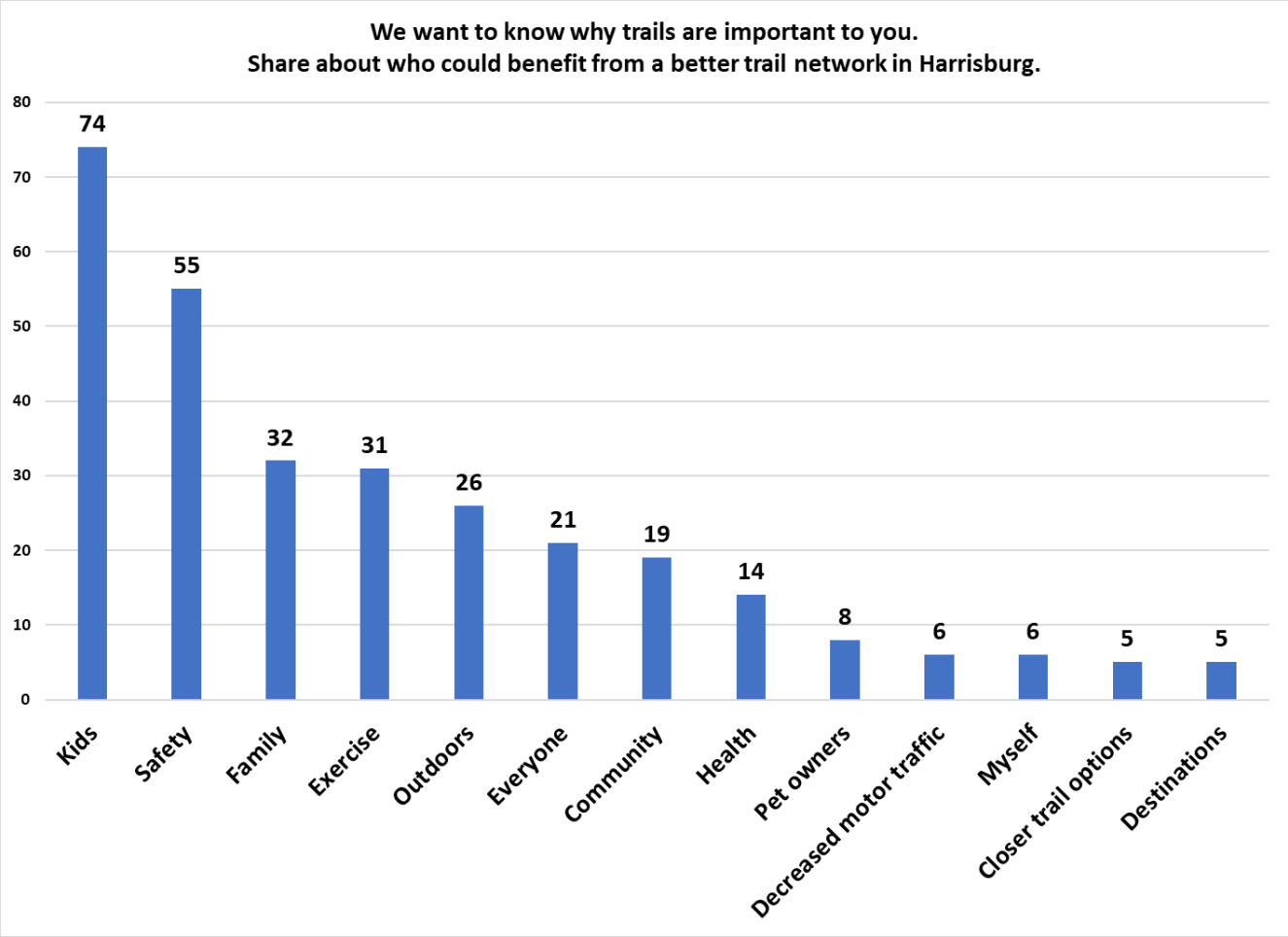


Figure A.22. Column chart showing the most popular themes in respondents' responses about why trails are personally important.

ADDITIONAL COMMENTS

109 respondents submitted additional comments to be considered. The question prompt was the following:

Is there anything else you would like to share about trails in Harrisburg?

Each comment was assigned general topics corresponding to their content. 114 topics were submitted. Only topics mentioned by six or more respondents were included in Figure A.23. The following four topics were the most mentioned in the additional comments:

1. Desires an overall more connected system (23/109, or 21%)
2. Desires a trail in a specific location (20/109, or 18%)
3. Appreciates trail efforts so far (13/109, or 12%)
4. Desires more greenway trails away from roads (12/109, or 11%)

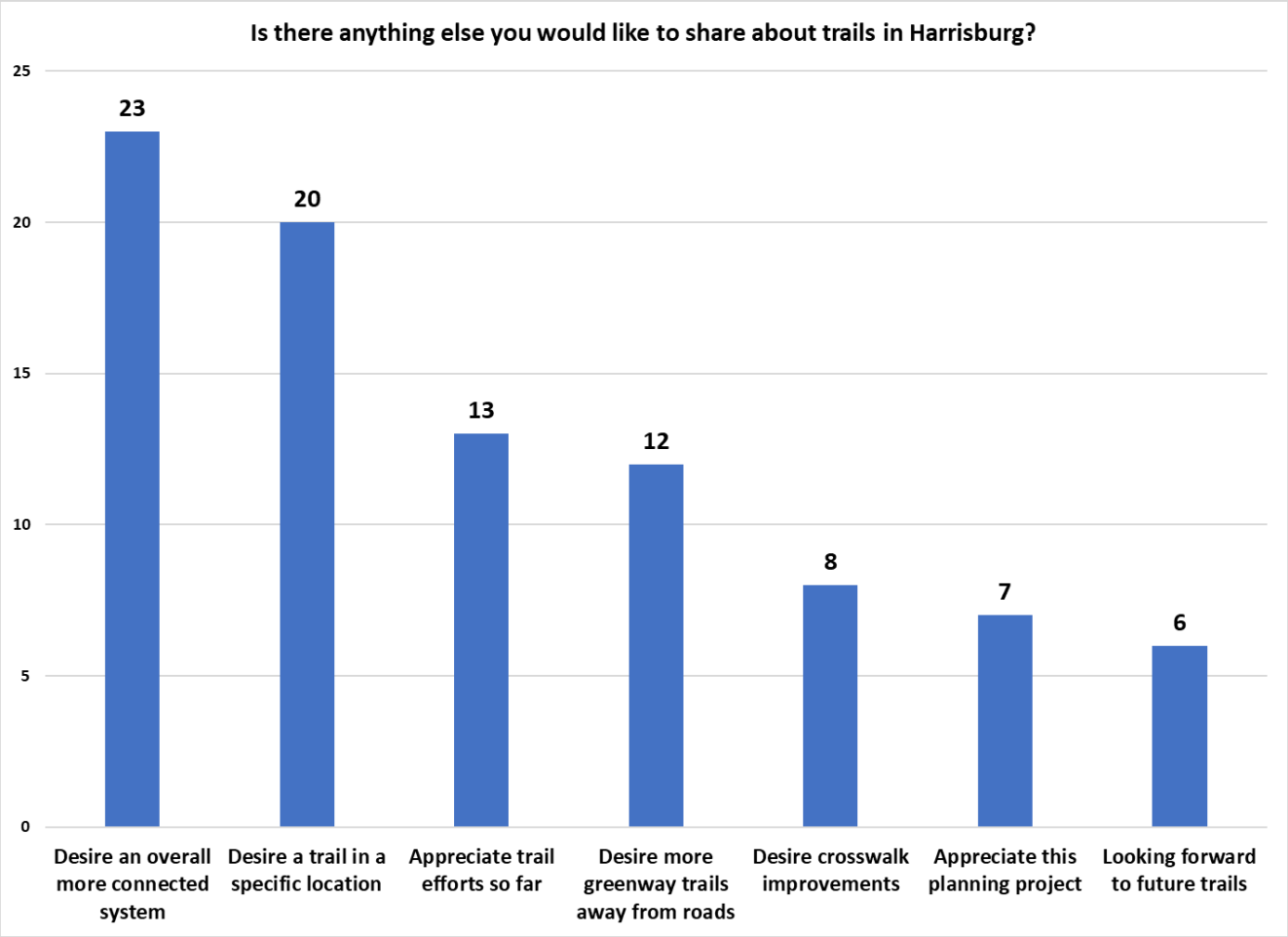


Figure A.23. Column chart of additional comments by topic.

RESPONDENT DEMOGRAPHICS

The following section describes demographic characteristics of both in-person and online public engagement participants.

96% of respondents lived in Harrisburg and 4% lived outside Harrisburg but still within Lincoln County, as shown in A.30.

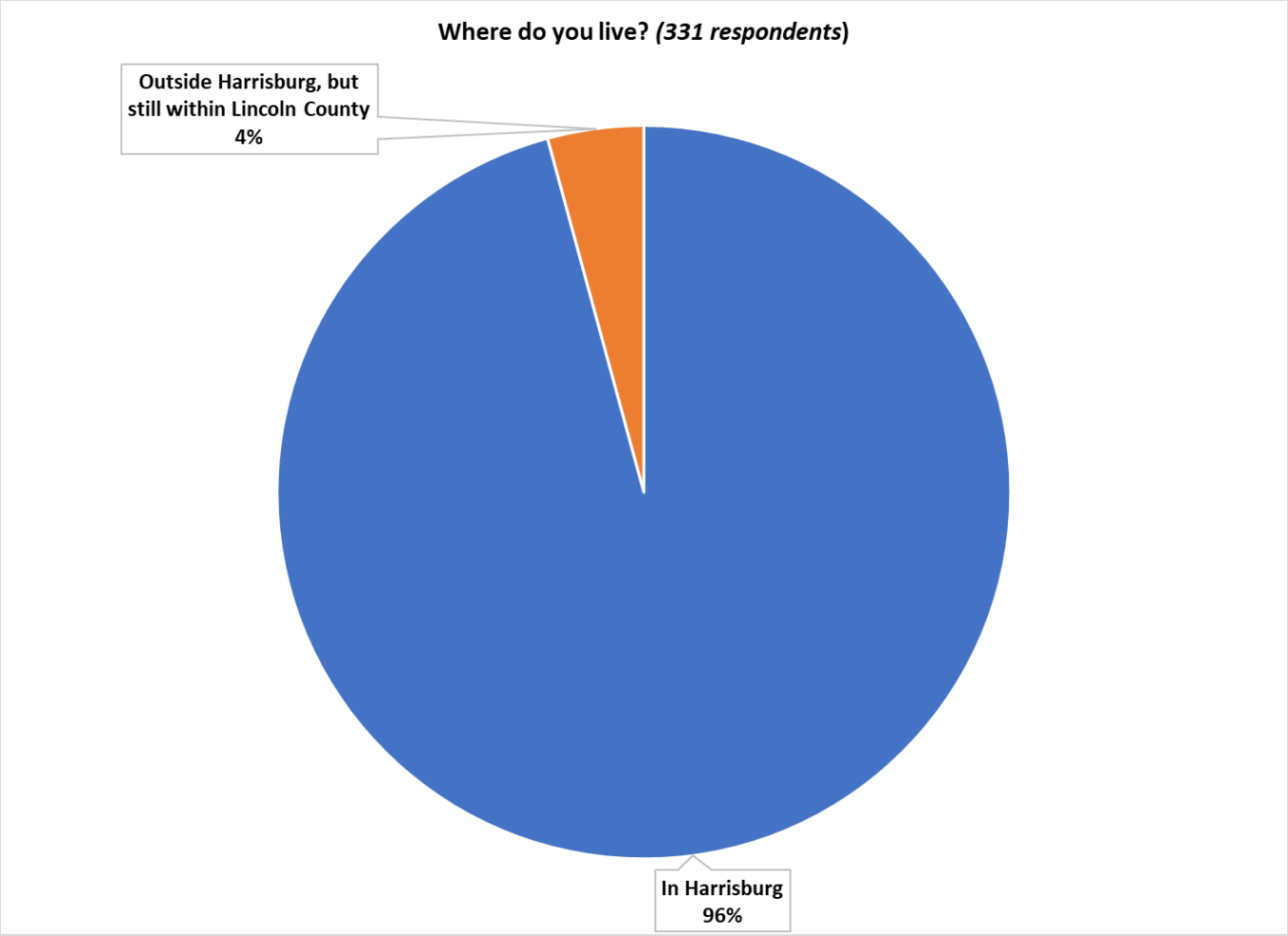


Figure A.30. Pie chart showing where respondents live.

63% of respondents have lived in Harrisburg for one to 10 years, while 30% have lived in Harrisburg for 11 to 20 years, as shown in Figure A.31.

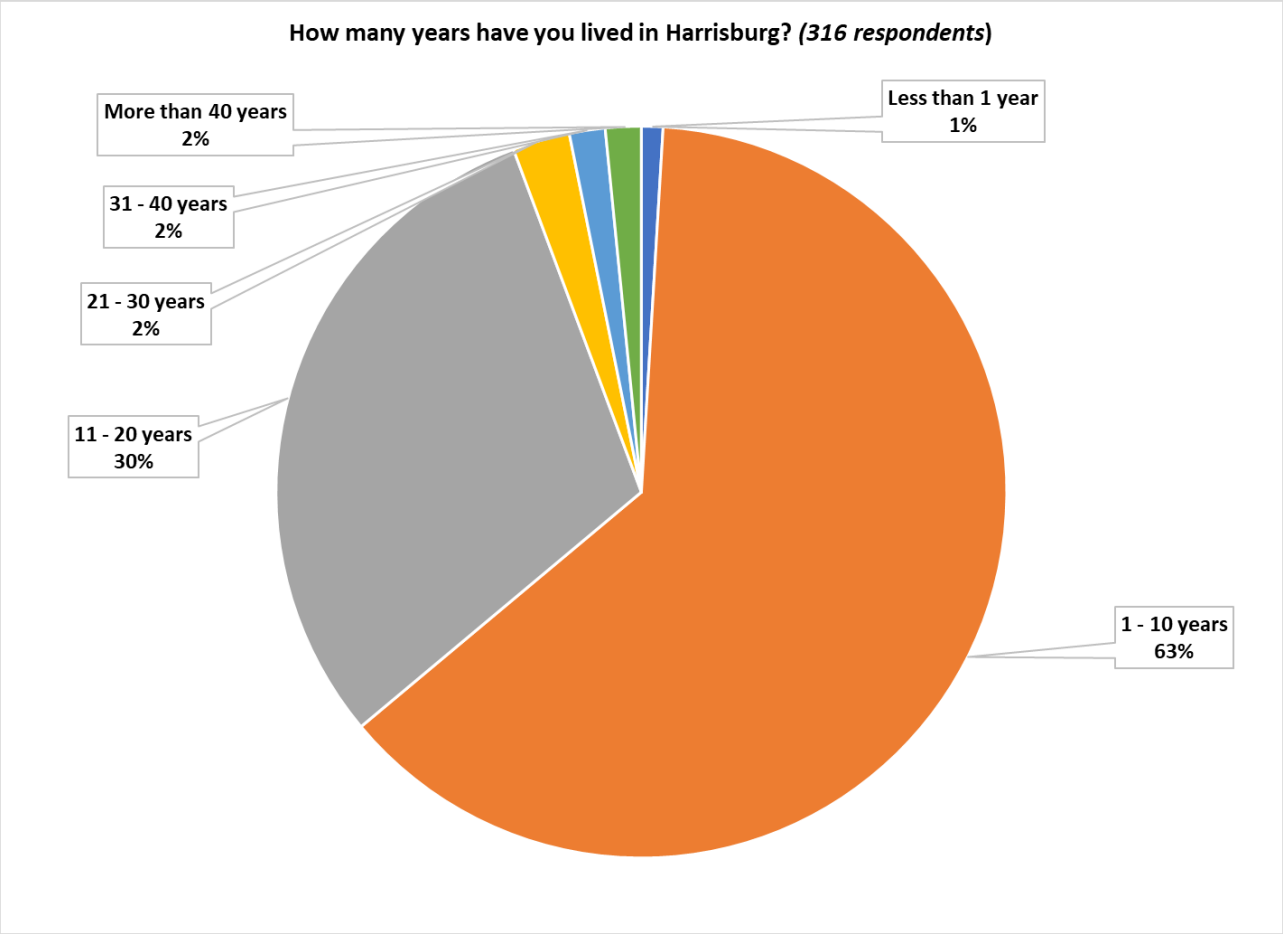


Figure A.31. Pie chart showing how long respondents have lived in Harrisburg.

97% of respondents reported living in the Harrisburg zip code, with an additional 1% each in Hartford, Madison, and Sioux Falls, as shown in Figure A.31.

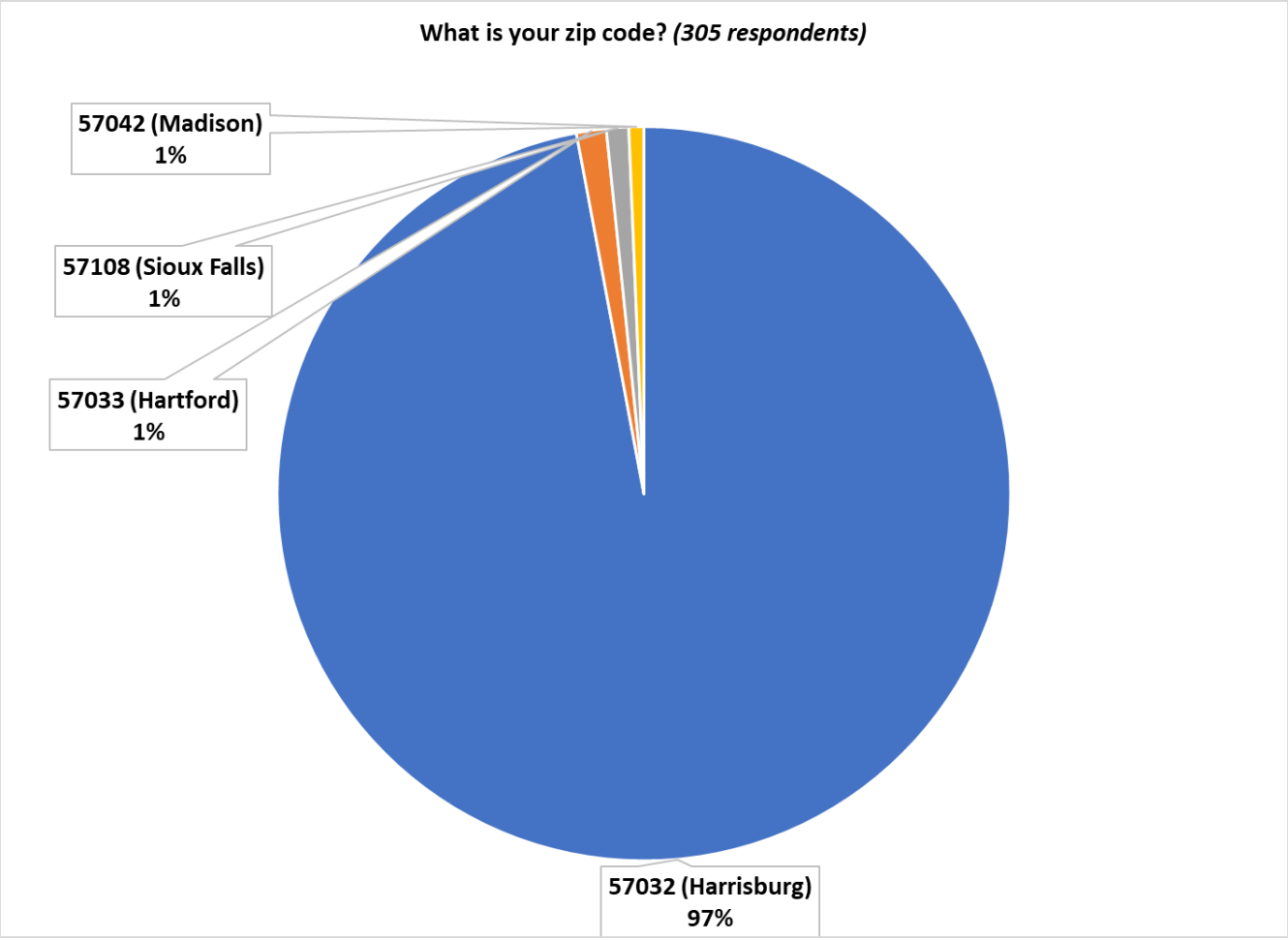


Figure A.31. Pie chart showing respondent zip codes.

185 out of 283 (or 65.4%) of respondents were female, 97 (or 34.3%) were male, and 1 (or 0.4%) was nonbinary, as shown in Figure A.32. Referencing the most recent census data, 51% of Harrisburg residents are male and 49% are female.

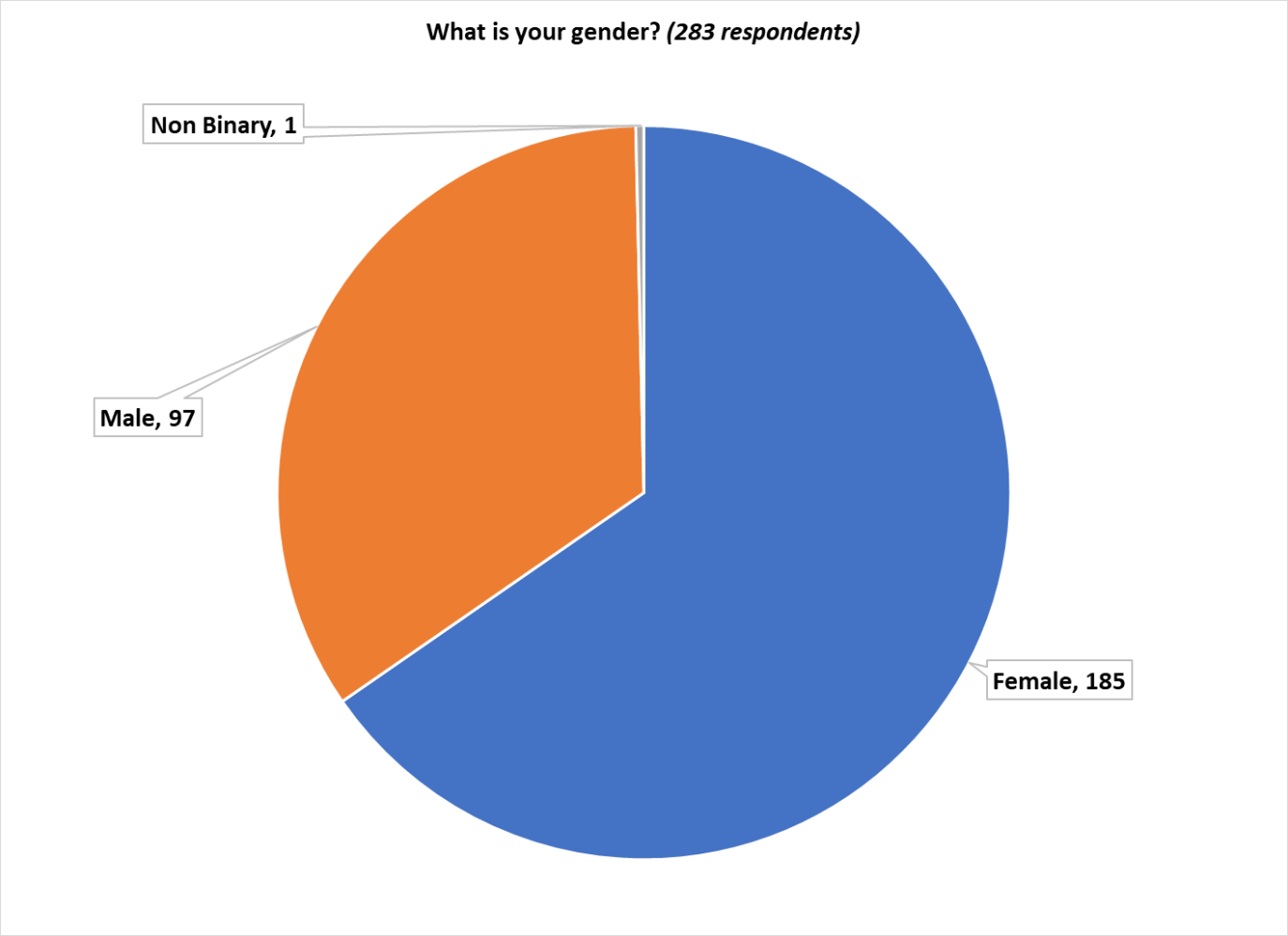


Figure A.32. Pie chart showing the gender of respondents.

96% of respondents are White, 2% are two or more races, and 2% are Black, Hispanic, or Native, as shown in Figure A.33. In the most recent census, 89% of Harrisburg residents are White, with the remaining 11% being non-White.

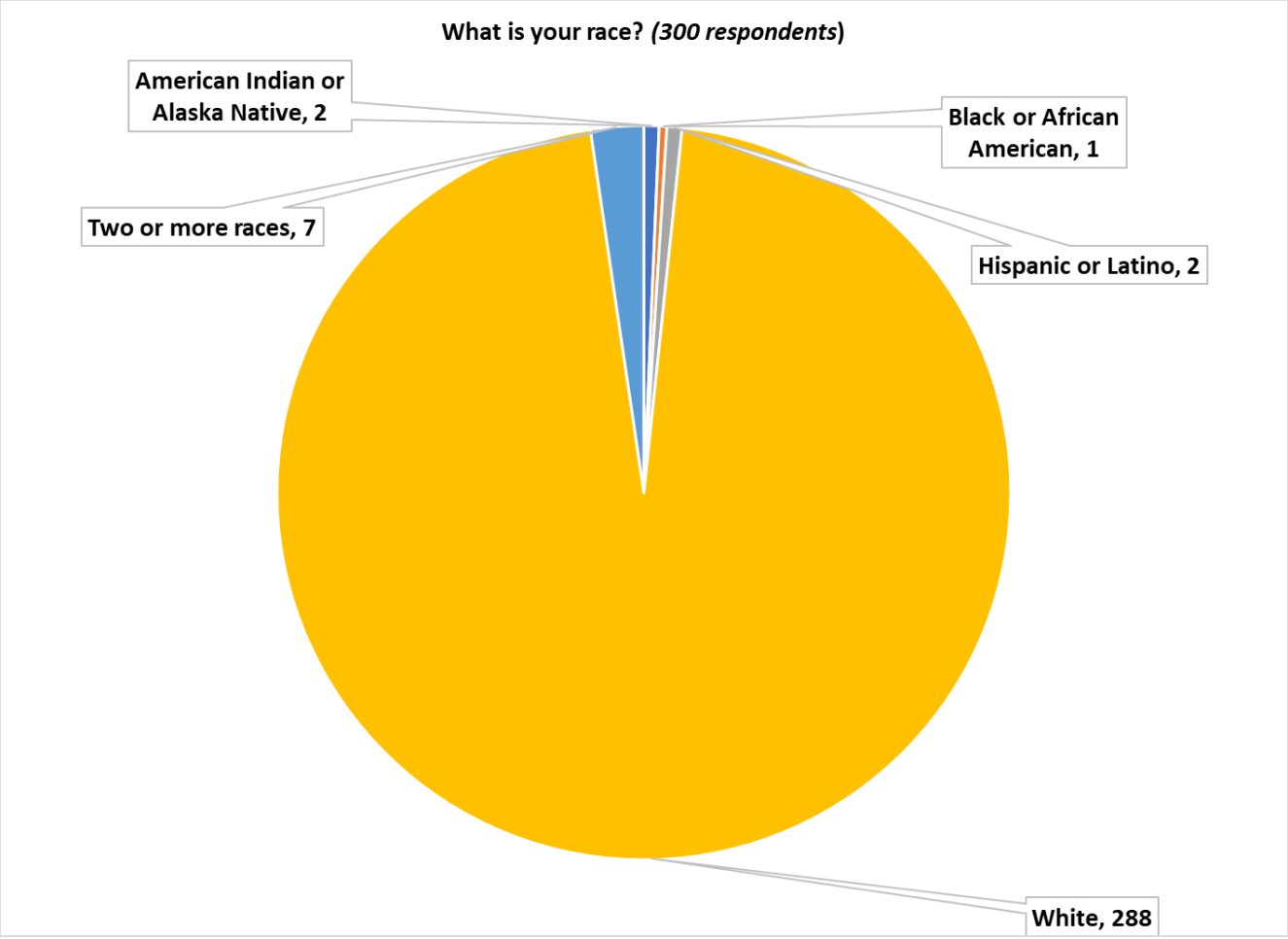


Figure A.33. Race of respondents.

The greatest cohort of respondents were between the ages of 35 and 39 (29%) followed by ages 30 – 34 (21%) and ages 40 – 44 (20%). Each of those groups were overrepresented as survey respondents, compared to the general population[1]. Those under 25 and 50+ were underrepresented as survey respondents, as shown in Figure A.34.

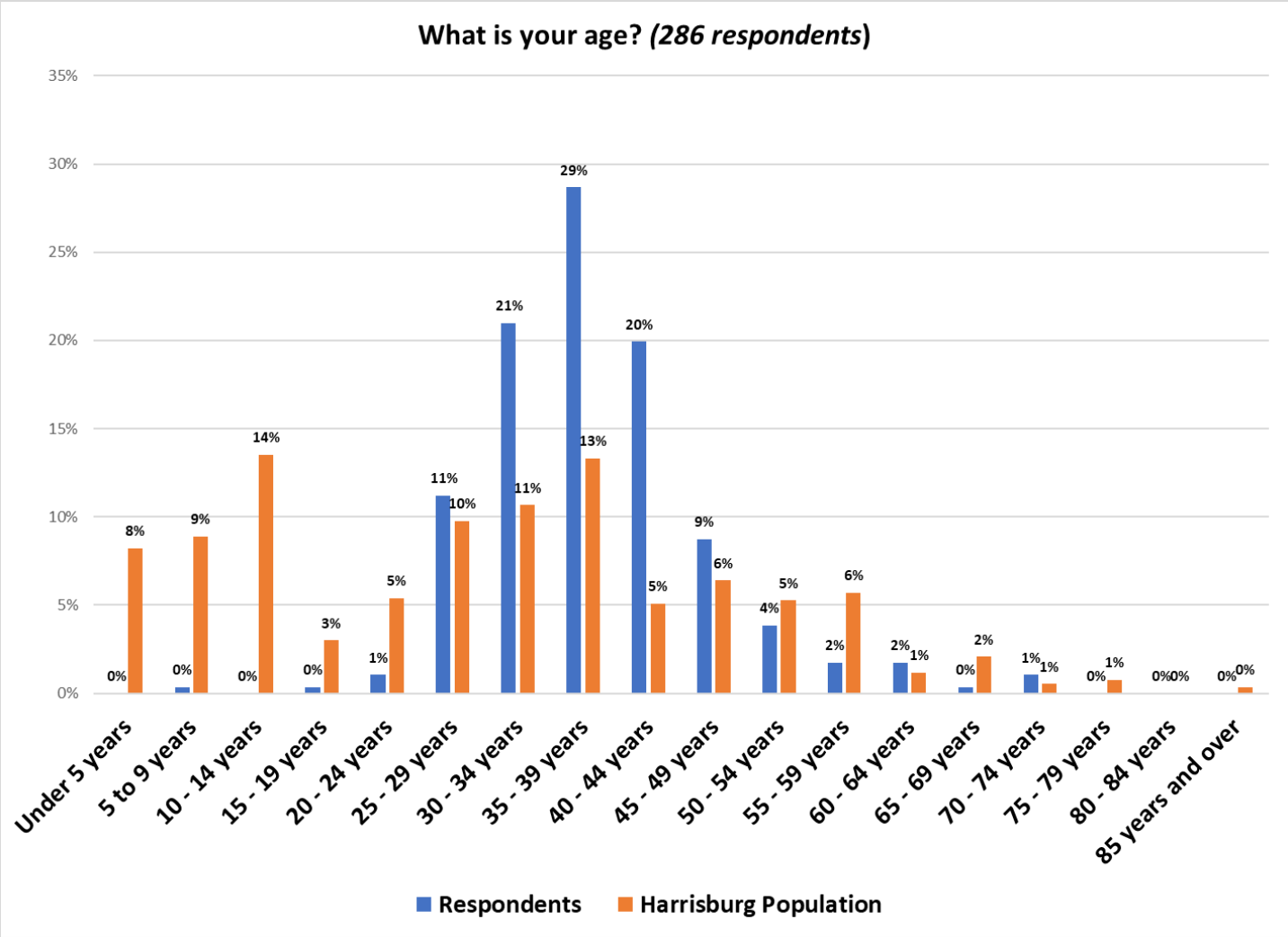


Figure A.34. Age of respondents, compared to the general Harrisburg population.

[1] Harrisburg city, South Dakota - Census Bureau Profile

The greatest cohort of respondents had a household income of $100,000 to $149,999 (42%) followed by $150,000 or more (32%). The median household income in Harrisburg is $89,966.[2]

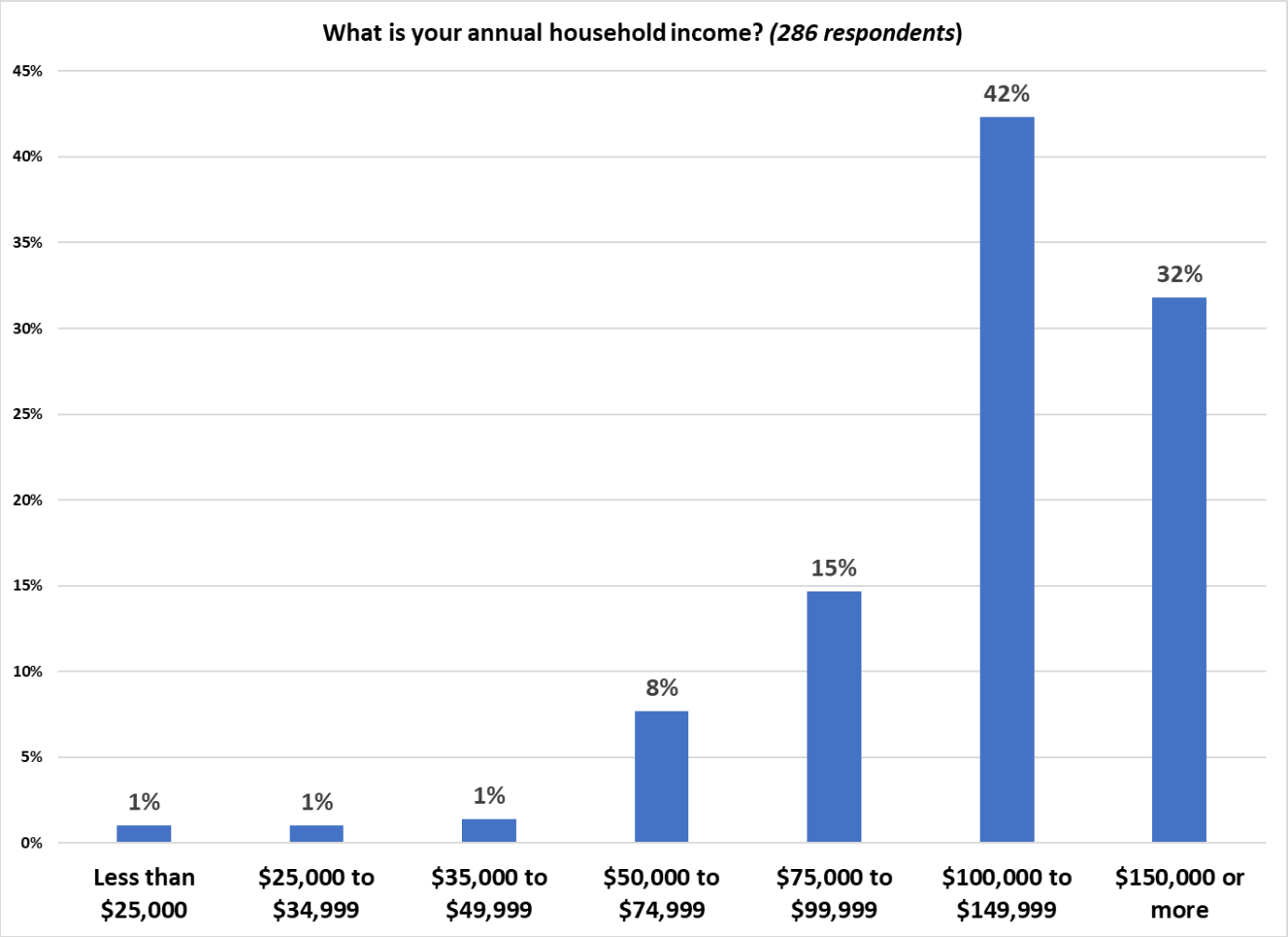


Figure A.35. Household income of respondents.

[2] Harrisburg city, South Dakota - Census Bureau Profile

The greatest cohort of respondents had two vehicles available in their household (57%). Households with one vehicle were underrepresented as survey respondents, as shown in Figure A.36.[3]

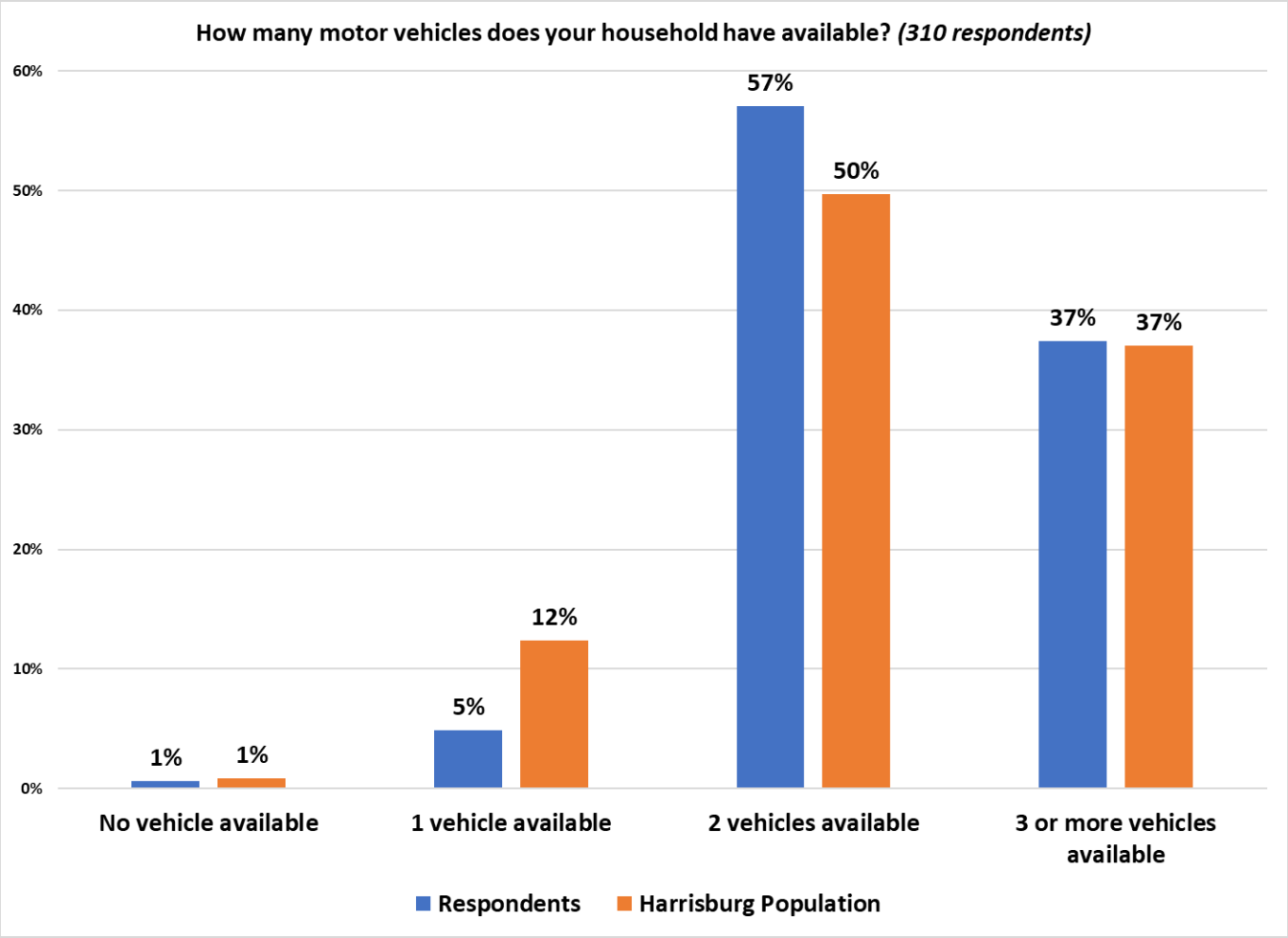


Figure A.36. Household vehicle ownership of respondents, compared to the general Harrisburg population.

[3] https://datausa.io/profile/geo/harrisburg-sd#car-ownership

The greatest cohort of respondents usually commute to work by driving alone (81%), followed by working from home (16%). Respondents who worked from home were overrepresented compared to the general population, and those who drove alone were underrepresented, as shown in Figure A.37.

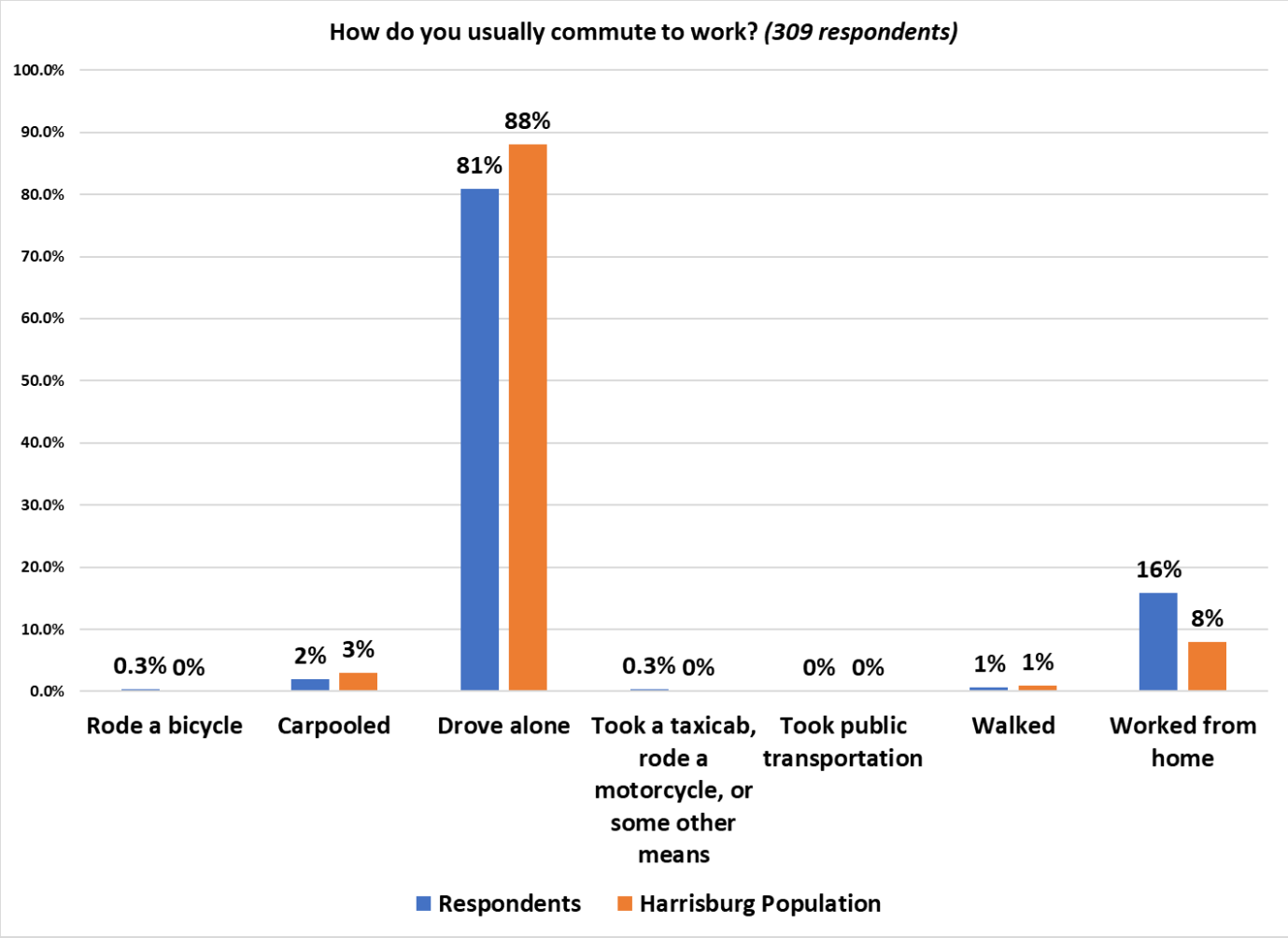


Figure A.37. Respondents' regular mode of transportation used on the commute to work, compared to the general Harrisburg population.

Participant Interactions

Compared to other communities where similar trail, bicycle, and pedestrian plans have been completed by Toole Design, Harrisburg saw a high level of participation, as shown in Figure A.40. Approximately 460 participant interactions took place. This represents 5.5% of the population of Harrisburg.

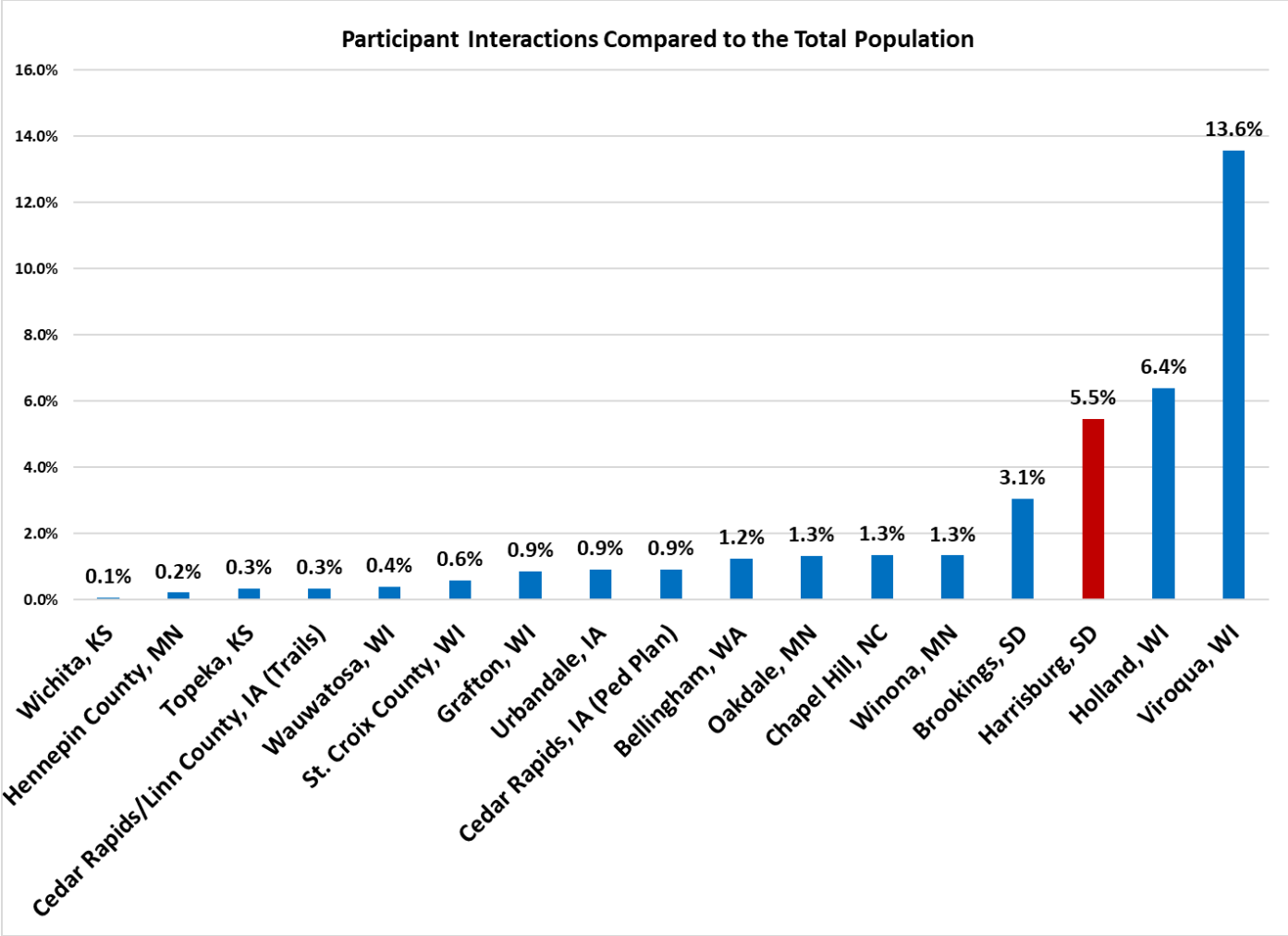


Figure A.40. Participant interactions in various communities compared to the total population.

TOOLE DESIGN

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MEMORANDUM

May 1, 2024

To: Chad Huwe, David Locke, Jason Thurston
Organization: City of Harrisburg
From: Shaun Murphy-Lopez, Mitzi Alex
Project: Harrisburg Trail Plan

Re: Appendix B – Summary of Plans

Toole Design has conducted a comprehensive review of existing local plans and other documents related to trails in Harrisburg. This memo provides a summary of goals and policies as well as recommended network routing and projects to consider and/or incorporate into the Harrisburg Trails Plan (the Plan).

Sioux Falls Bicycle Plan

The 2023 Sioux Falls Bicycle Plan prioritizes future bikeway projects throughout the community, including outlying areas. The plan includes the unincorporated area between the southern municipal boundary of Sioux Falls and 271st Street. 271st Street is the northern boundary of likely growth for the City of Harrisburg. As shown in Figure B.1, several north-south roads between I-29 and Lake Alvin State Recreation Area include planned side paths (from west to east):

- #24: 471st Ave *(moderate priority)*
- #41: 473rd Ave *(long range priority)*
- #27: Cliff Ave *(moderate priority)*
- #42: 476th Ave *(long range priority)*
- #43: 477th Ave *(long range priority)*
- #58: 478th Ave *(long range priority)*

Moderate priority projects are intended to be completed in the next 10 to 15 years, and long-range priorities are intended to be constructed with a future road reconstruction project. In addition, 271st Street is classified within the "need to study" category for a planned side path, except for the segment between I-29 and 471st Avenue which is a very high priority and will be built with the South Veterans Parkway project. "Need to study" projects refer to those where the right-of-way has not been dedicated and the alignment or type of facility may need to be refined.

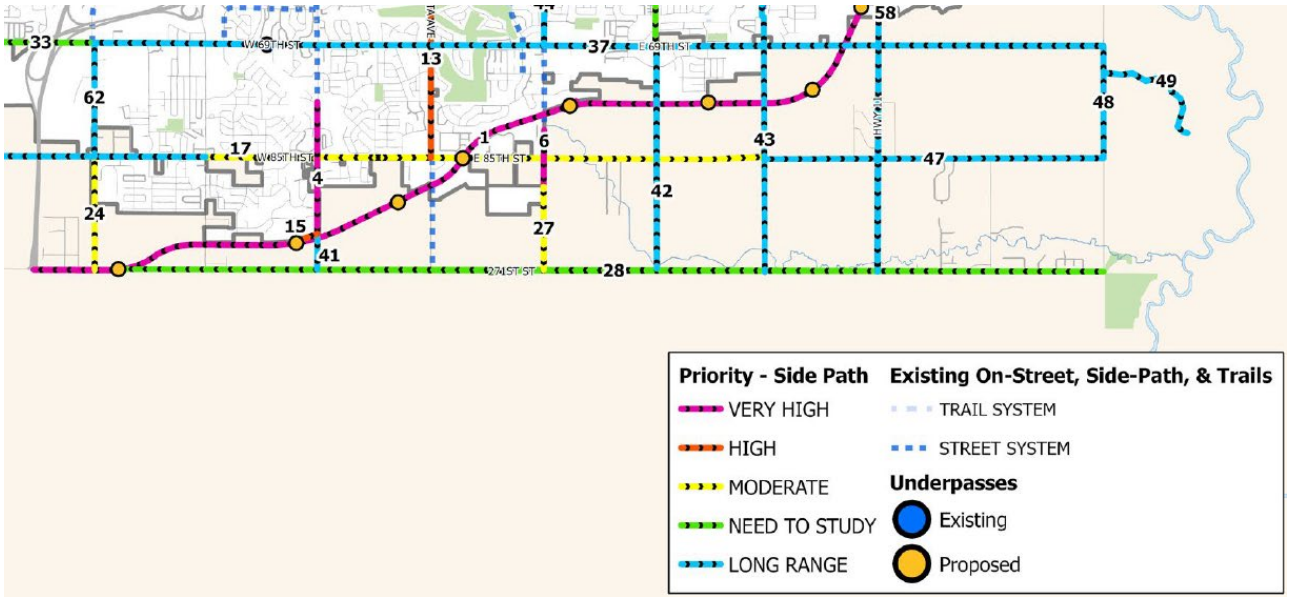

Figure B.1: Side path priorities from the Sioux Falls Bicycle Plan

As shown in Figure B.2, the Sioux Falls Bicycle Plan also has prioritized trails within this same geographic area. Three planned trails make north-south connections into Harrisburg's likely growth area. All are classified within the "need to study" category (from west to east):

- #42: Mueller Spur
- #41: Schindler Creek Trail
- #39: Rails with Trails – Burlington Northern

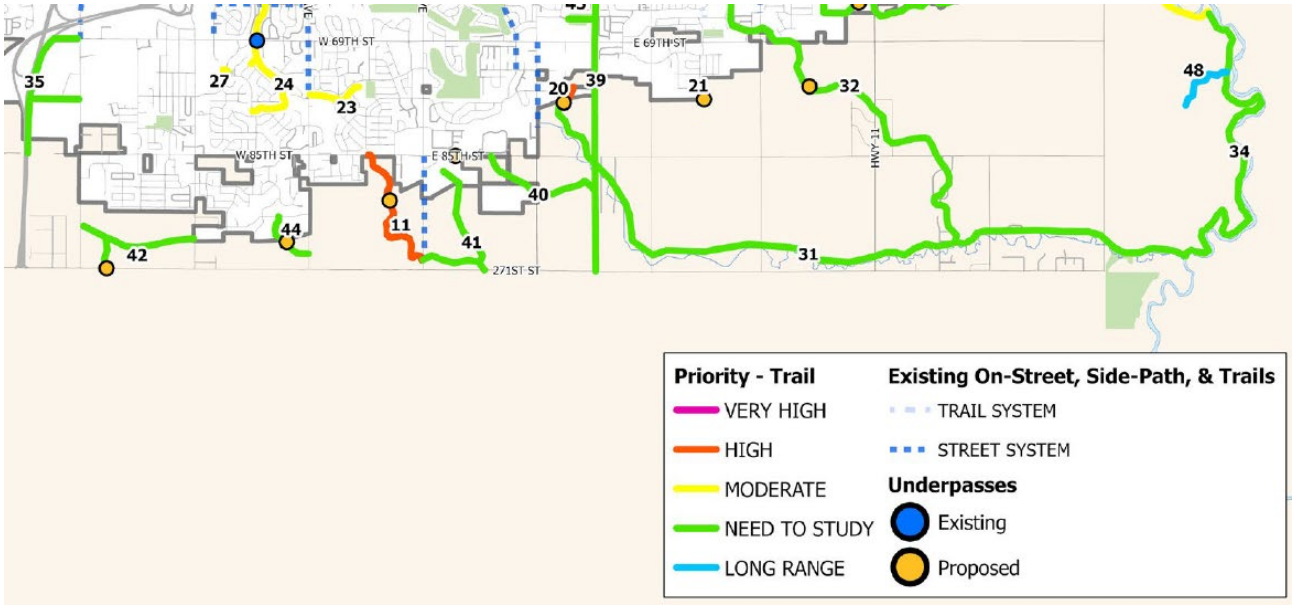

Figure B.2: Trail priorities from the Sioux Falls Bicycle Plan

How the Recommendations Should Be Considered/Used in the Harrisburg Trails Plan

The Plan should consider priorities from the Sioux Falls Bicycle Plan for inclusion in Harrisburg's future trail network. Sioux Falls is currently undertaking the Shared Use Path and Trail Feasibility Corridor Study. This planning project will slightly alter the alignment of Project #41 – Schindler Creek Trail but will otherwise not have implications for the Harrisburg Trails Plan.

Central Park Plan

The 2023 Central Park Plan includes a trail around the perimeter of the developing Central Park property, just north of downtown and Liberty Elementary School. As shown in Figure B.3, there is a planned "Walking Loop" around the park's perimeter. Central Park will be developed over the coming years to become a major recreation destination, and will include a splash pad and spray park, improved baseball fields, pickleball courts, an improved disc golf course, and a bandshell.

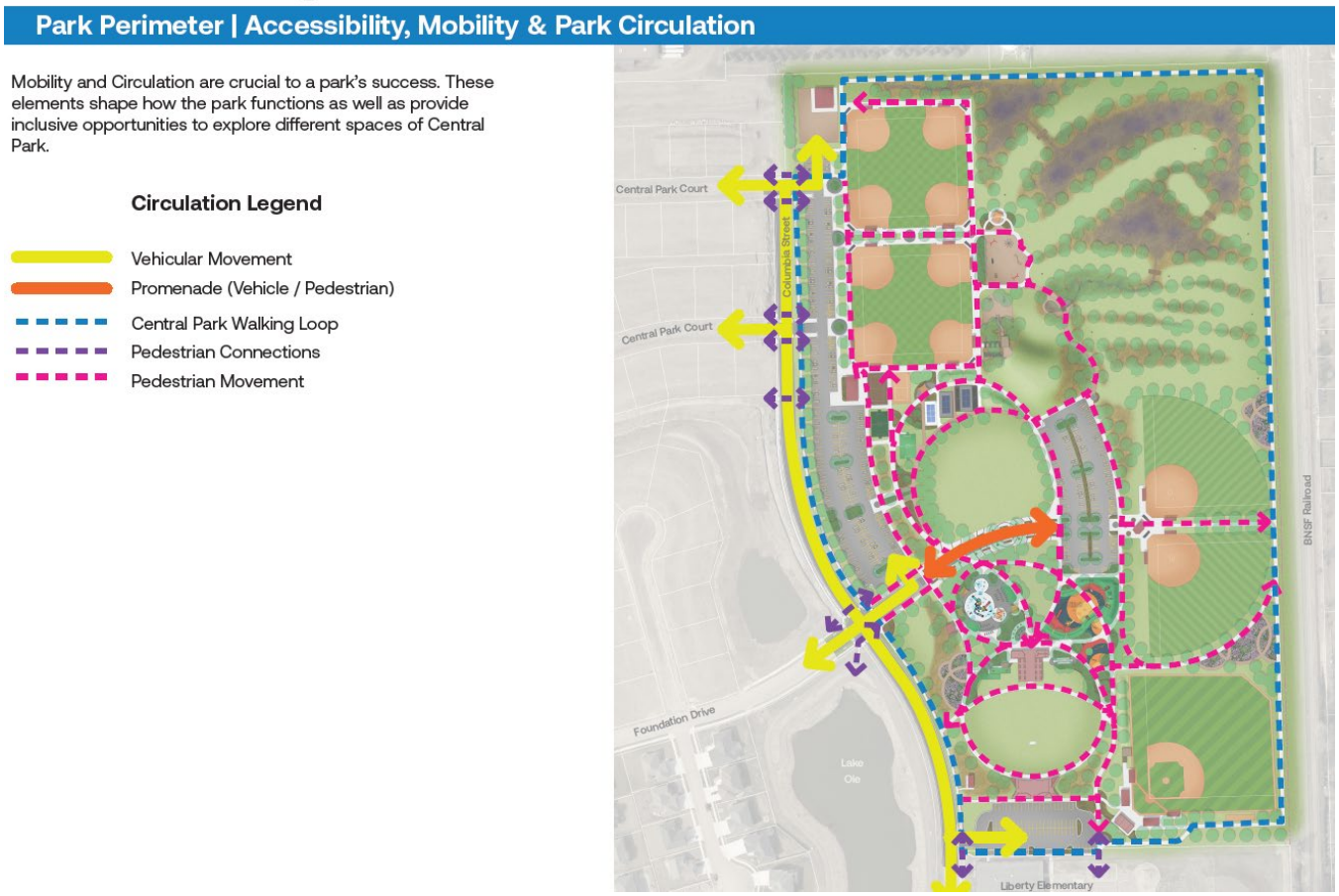

Figure B.3: Walking Loop (shown as a blue dashed line) is a trail that will be built around the perimeter of Central Park.

How the Recommendations Should Be Considered/Used in the Harrisburg Trails Plan

The Central Park Plan should be utilized when making future trail network recommendations. Central Park should be considered a major developing destination for people walking and bicycling on trails.

Harrisburg Transportation Plan

This 2022 Harrisburg Transportation Plan includes three goals and objectives addressing bicycling and walking:

1. **Safety:** Reduce the frequency of vehicle, bicycle, and pedestrian crashes.
2. **Bicycle and Pedestrian Connections:** Improve bicycle/pedestrian facility connections.
3. **Accessibility:** Incorporate bicycle and pedestrian infrastructure into street projects.

The plan also includes:

- A map of existing trails, bike lanes, and uncontrolled crosswalk locations.
- Standard roadway cross sections that include wide sidewalks.
- A proposed trail and sidewalk network, using recommendations from the Sioux Falls MPO Long Range Transportation Plan (see Figure B.4).
- A description of potential sidepath conflict locations and mitigation measures.
- Bicycle and pedestrian crossing standards.

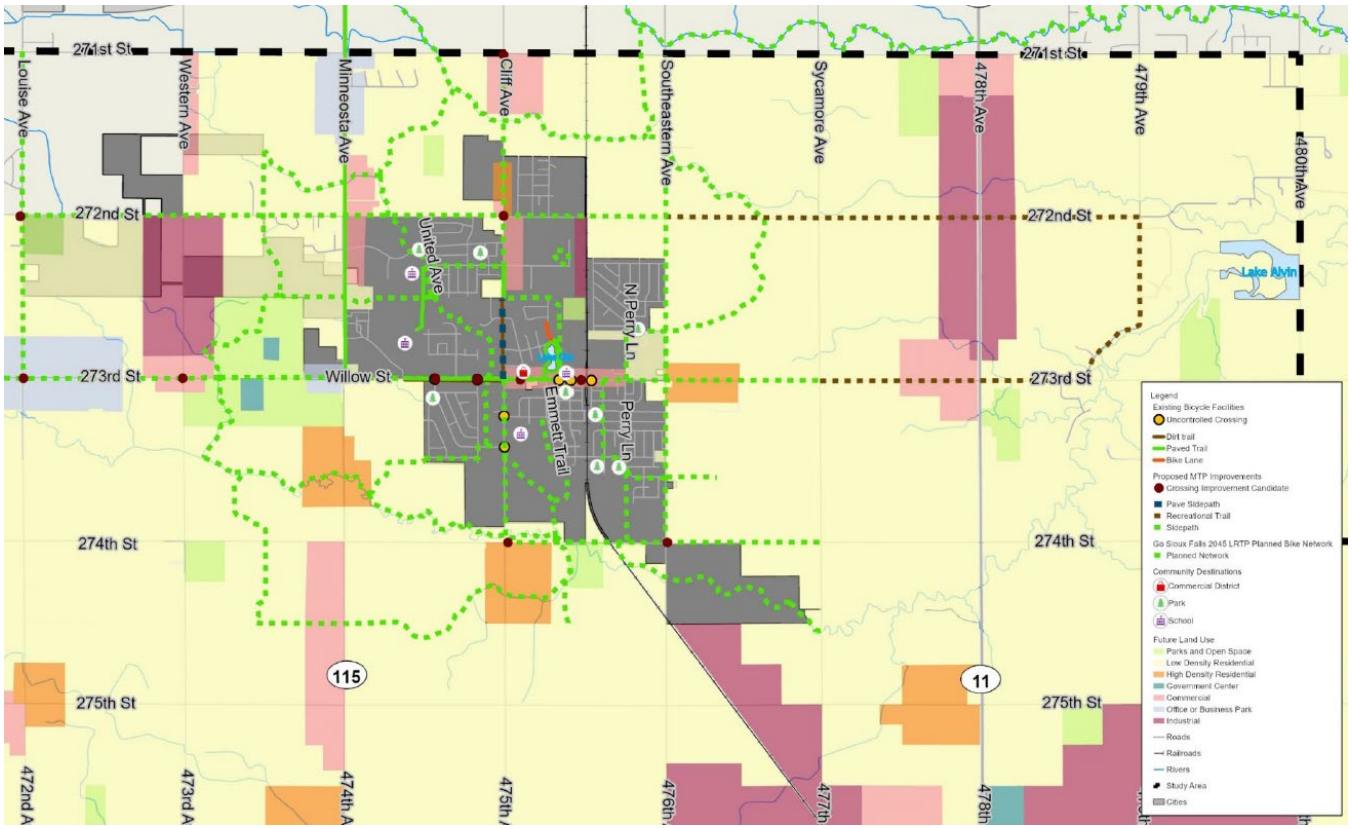

Figure B.4: Proposed bicycle and pedestrian improvements include crossing improvement candidates (brown circles), paved sidepaths (blue dotted lines), recreational trails (brown dotted lines), and sidepaths or the planned bike network from the Sioux Falls Long Range Transportation Plan (green dotted lines).

In addition, the plan includes recommended timing for sidepath and crossing improvement locations (i.e., short-term, mid-term, and long-term) as well as cost estimates for each project, as shown in Figure B.5.

Time Band	Project ID	Name	Improvement Type	Cost (2022 $)	Cost YOE
Short-Term (2026 - 2030)	A	Cliff Avenue	Sidepath	$800,000	$1,000,000
	B	Cliff Avenue	Pave Sidepath	$300,000	$400,000
	C	272nd Street	Sidepath	$300,000	$400,000
	Short-Term Total			**$1,400,000**	**$1,800,000**
Mid-Term (2031 - 2037)	D	Willow Street	Sidepath	$1,300,000	$1,900,000
	E	Southeastern	Sidepath	$1,100,000	$1,600,000
	F	472nd Avenue	Sidepath	$1,100,000	$1,600,000
	G	272nd Street	Sidepath	$500,000	$700,000
	H	Cliff Ave south	Sidepath	$500,000	$700,000
	Mid-Term Total			**$4,500,000**	**$6,500,000**
Long-Term (2038 - 2045)	I	272nd Street	Sidepath	$500,000	$900,000
	J	274th Street	Sidepath	$1,000,000	$1,800,000
	K	Southeastern	Sidepath	$200,000	$400,000
	L	Willow Street	Sidepath	$500,000	$900,000
	Long-Term Total			**$2,200,000**	**$4,000,000**
Vision	M	Lake Alvin Loop	Recreational Trail	$3,100,000	$5,500,000
Total (excludes Vision Project)				**$8,100,000**	**$12,300,000**

Figure B.5: Prioritization level and cost estimates for sidepath projects in the Harrisburg Transportation Plan.

How the Recommendations Should Be Considered/Used in the Harrisburg Trails Plan

Goals, objectives should be considered as the foundational policy context for completing the Plan. Goals, objectives, and policies under the bicycling and walking portions of the plan should be reviewed for potential inclusion in the Plan. Projects listed under Figures B.4 and B.5 should be considered as likely facility improvements for the future network.

Sioux Falls MPO Long Range Transportation Plan

The 2020 Sioux Falls Metropolitan Planning Organization (MPO) Long Range Transportation Plan has as one of four guiding principles to "develop and encourage the use of alternative modes of transportation, such as public transportation, biking, walking, and ride-sharing." In 2020, approximately $230,000 in Transportation Alternatives funding was allocated to the MPO, with annual projections growing with the rate of inflation. As a result, most trail specific projects submitted to the MPO by the City of Harrisburg remain unfunded through this federal source (also shown in Figure B.6):

- **Cliff Avenue Trail** between 272nd Street and south of Industrial Drive ($1.2 million, funded for 2026 – 2030)
- **Creekside Trail** ($0.8 million, unfunded)
- **Westside Trail** ($1.9 million, unfunded)
- **Legendary Estates Trail Final Surfacing** ($1.8 million, unfunded)
- **9-Mile Creek Trail System** ($5.8 million, unfunded)

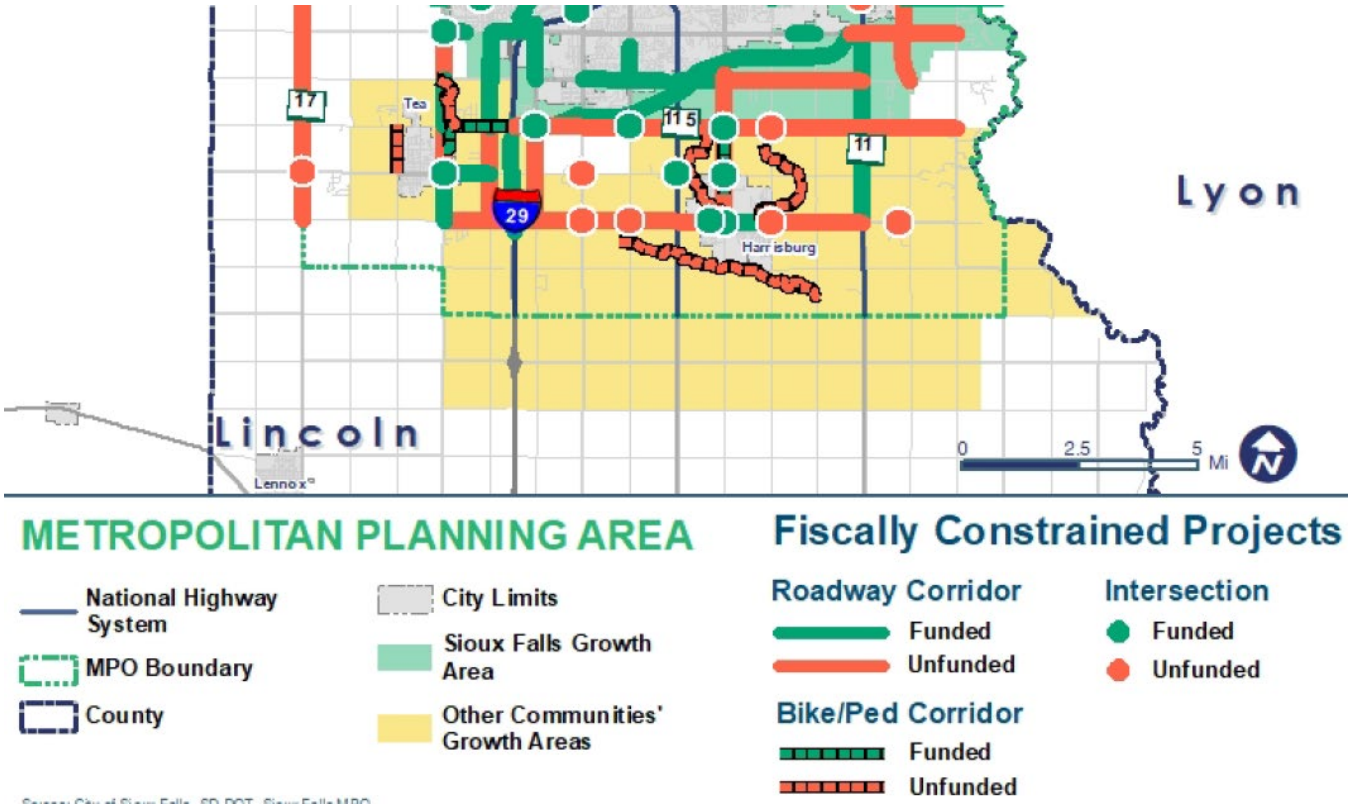

Figure B.6: Funded and unfunded trail specific projects are shown with green dotted and orange dotted lines.

How the Recommendations Should Be Considered/Used in the Harrisburg Trails Plan

The Cliff Avenue Trail project should be considered as an already funded project. More information should be gathered on the City's priorities and potential funding options for the remaining unfunded projects.

Harrisburg Comprehensive Plan

This 2019 Harrisburg Comprehensive Plan includes three requirements related to trails:

1. *Developers must prove to the City that development will provide a park/trail/greenspace system that meets City standards.*
2. *Each neighborhood within the community should have its sidewalk system tied into a community-wide pedestrian/bicycle trail system.*
3. *Efforts with other government entities to create a regional trail system should be supported and encouraged.*

The plan also says:

- ***The 2007 Park and Trail Plan** needs to be updated, and that the plan should be coordinated with Lincoln County and Sioux Falls to create a regional trail system.*
- ***The City's Park/Green Space/Trail Dedications policies** have changed several times over the last 20 years and appears in need of another change . . . The Planning Commission should, over the next few months, review and update its PGT policies and regulations and prepare a new PGT policy document for discussion with the Park Board at a joint meeting to be held in November 2019 with adoption and updates to the necessary regulations to follow shortly thereafter.*
- ***A menu of local street designs** should be created to incorporate Low Impact Development principles and traffic calming principles. Features such as bump-outs, clustered on-street parking, clustered mailboxes, chicanes, raised crosswalks, and tree planting strips should be incorporated to give each local street a unique feel. Roundabouts and traffic circles should be incorporated into the design of most intersections. Signalized intersections should be discouraged.*

How the Recommendations Should Be Considered/Used in the Harrisburg Trails Plan

Comprehensive plan requirements should be considered as foundational context for the development of the Plan. Any Park/Greenspace/Trail Dedication policy updates should be incorporated into the Plan.

Harrisburg Design Standards and Subdivision Regulations

The Harrisburg 2018 Design Standards include the following trail-related requirements:

Chapter 7 Roadway Design

- *[One of the intents of roadway design is to] provide safe and accessible routes to pedestrians.*
- *Bike lanes shall be considered on arterial and collector roadways where posted speed limits exceed 25-mph.*
- *Sidewalks shall be designed on all public roadways [with a width of 8' on arterial roads]. Sidewalks shall be typically located 1-ft from the edge of right of way. Curbside sidewalks shall be discouraged.*
- *Sidewalks and shared use paths shall be designed in compliance with ADA standards. AASHTO's "Guide for the Development of Bicycle Facilities" shall be used as a design guide for bicycle paths.*

Chapter 8 Subdivisions

- *The Designer shall incorporate open space for recreation as required in the City's subdivision regulations. In general, 5% of the land within the subdivision shall be reserved for parks, green space, trails, or other recreational use.*
- *Walkways of an appropriate width shall be required throughout a subdivision to provide pedestrian circulation and access. All lots shall be accessible to pedestrians by means of a walkway or shared use path. Paths for recreation shall be designed to promote recreational activity and connect community facilities.*

The Harrisburg 2021 Subdivision Regulations include the following trail-related requirements:

- ***Public Space Contributions:*** *The City recognizes the need for open space and recreational areas for the health and welfare of its citizens. Therefore, the City shall require a dedication of land for public use as parks, playgrounds, public open spaces, and/or trails prior to the approval of any Plat within the City's corporate limits. The minimum dedication of land shall be five percent of the entire land within the subdivision. In lieu of the minimum dedication of land, the Authorized Official may require the Subdivider to contribute cash. The amount of the cash contribution shall be $1000 per acre or fraction thereof being subdivided.*
- ***Right-of-Way:*** *A strip of land defined by right of way lines on a Plat that is intended to be occupied by a street, recreation trail, utility lines, or other similar use and to be used by the public.*

How the Recommendations Should Be Considered/Used in the Harrisburg Trails Plan:

Updates to Design Standards and Subdivision Regulations may be recommended.

Sioux Falls MPO Multi-Use Trail Study

The 2011 Sioux Falls MPO Multi-Use Trail Study planned three major trail connections in the metropolitan area, including a connection between Harrisburg and Yankton Trail Park in Sioux Falls. Five options were examined with the preferred option being a connection from the Central Park property via Columbia Street and Willow Street, and then northwest along the Harrisburg Tributary of 9-Mile Creek to Minnesota Avenue (State Highway 115). See Figure B.7. Additional options examined included those along Cliff Avenue, the BNSF Railroad, and Southeastern Avenue.

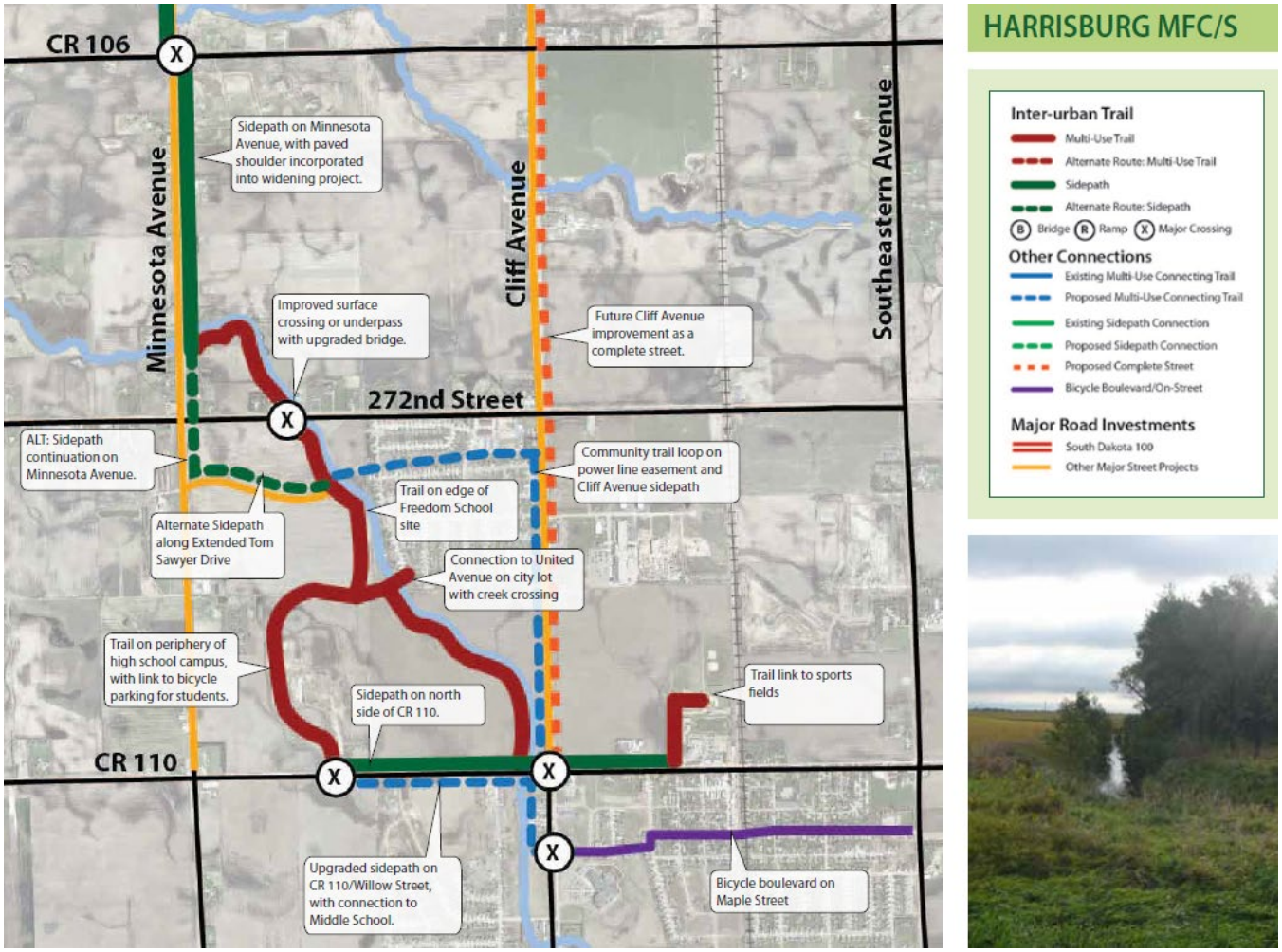

Figure B.7: The Sioux Falls MPO Multi-Use Trail Study included a preferred concept for a connection to Yankton Trail Park in Sioux Falls via the red and green lines on this map.

How the Recommendations Should Be Considered/Used in the Harrisburg Trails Plan

Research completed along the Harrisburg Tributary of 9-Mile Creek should be incorporated into the Plan.

Sioux Falls MPO Bicycle Plan

The 2009 Sioux Falls MPO Bicycle Plan includes a map showing bicycle trails in the MPO area, as shown in Figure B.8. For the most part, the trails appear to follow waterways. Context regarding how this map was created was not included in the plan.

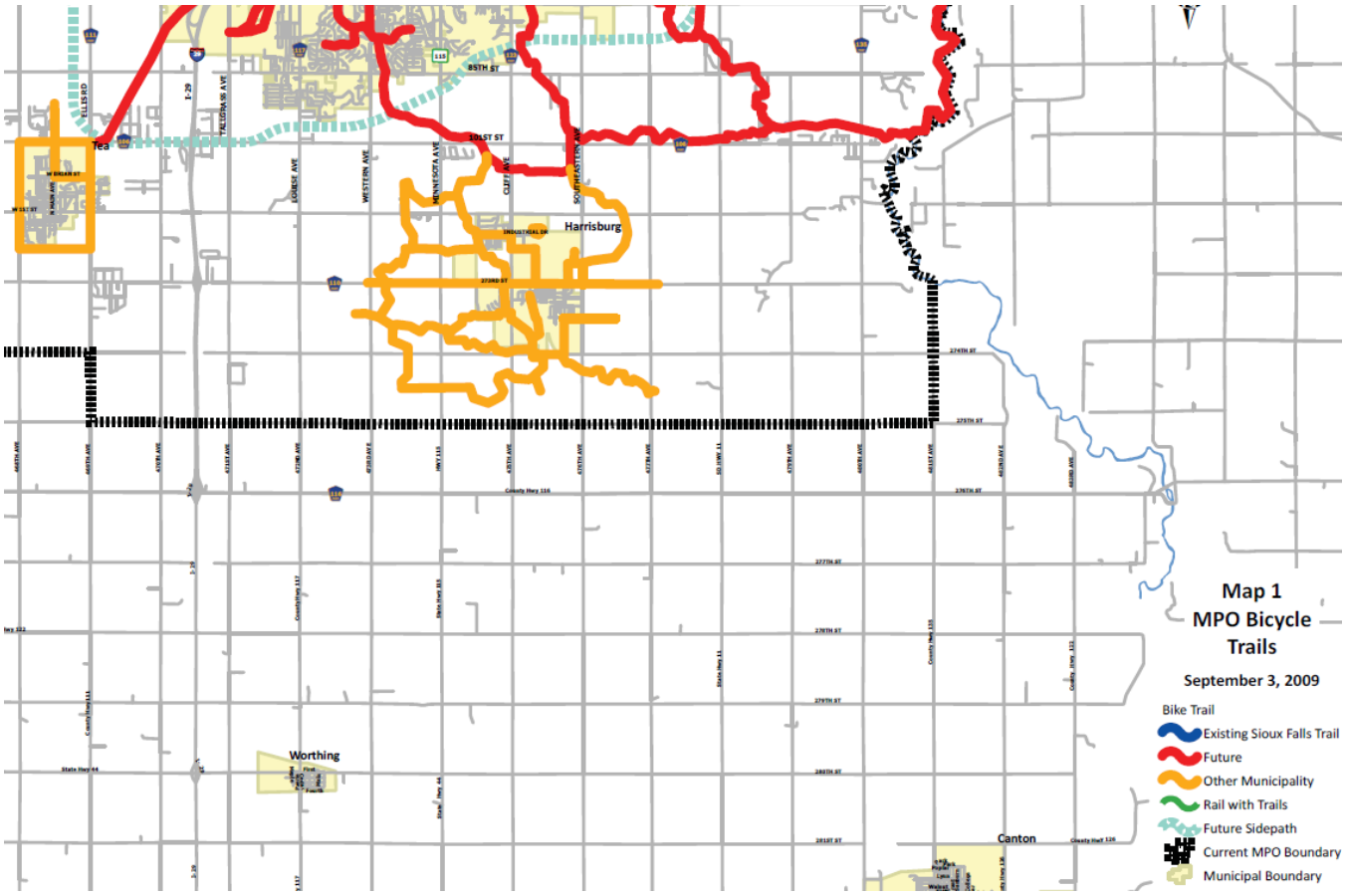

Figure B.8: The Sioux Falls MPO Bicycle Plan includes a network of bicycle trails in Harrisburg, shown in yellow solid lines.

How the Recommendations Should Be Considered/Used in the Harrisburg Trails Plan

Recommended bicycle trails should be considered as possible future trails in the Plan.

Harrisburg Parks and Trails Plan

This 2007 Harrisburg Parks and Trails Plan includes detailed information about planned trails in Harrisburg, as shown in Figures B.9 and B.10. While Figure B.9 shows trails along some streets, the majority of proposed trails are shown within greenways. Five trailhead parks, multiple community parks with potential trail access, six potential critical intersections are also shown in Figure B.9. Highlights include:

- Descriptions of community parks, trailhead parks, critical intersections, and how each would be connected to a greenway trail network.
- Four phases for the development of the trail and park network.
- A linear greenbelt park with a trail along the Harrisburg Tributary of 9-Mile Creek, south from Willow Street to Cliff Avenue, with a potential underpass at the intersection of the waterway with Willow Street.
- A trail to connect to Sioux Falls either along the Harrisburg Tributary of 9-Mile Creek or northeast of Harrisburg.
- A trail to connect to Lake Alvin State Park via County Road 110 (273rd St/Willow St) or 9-Mile Creek.

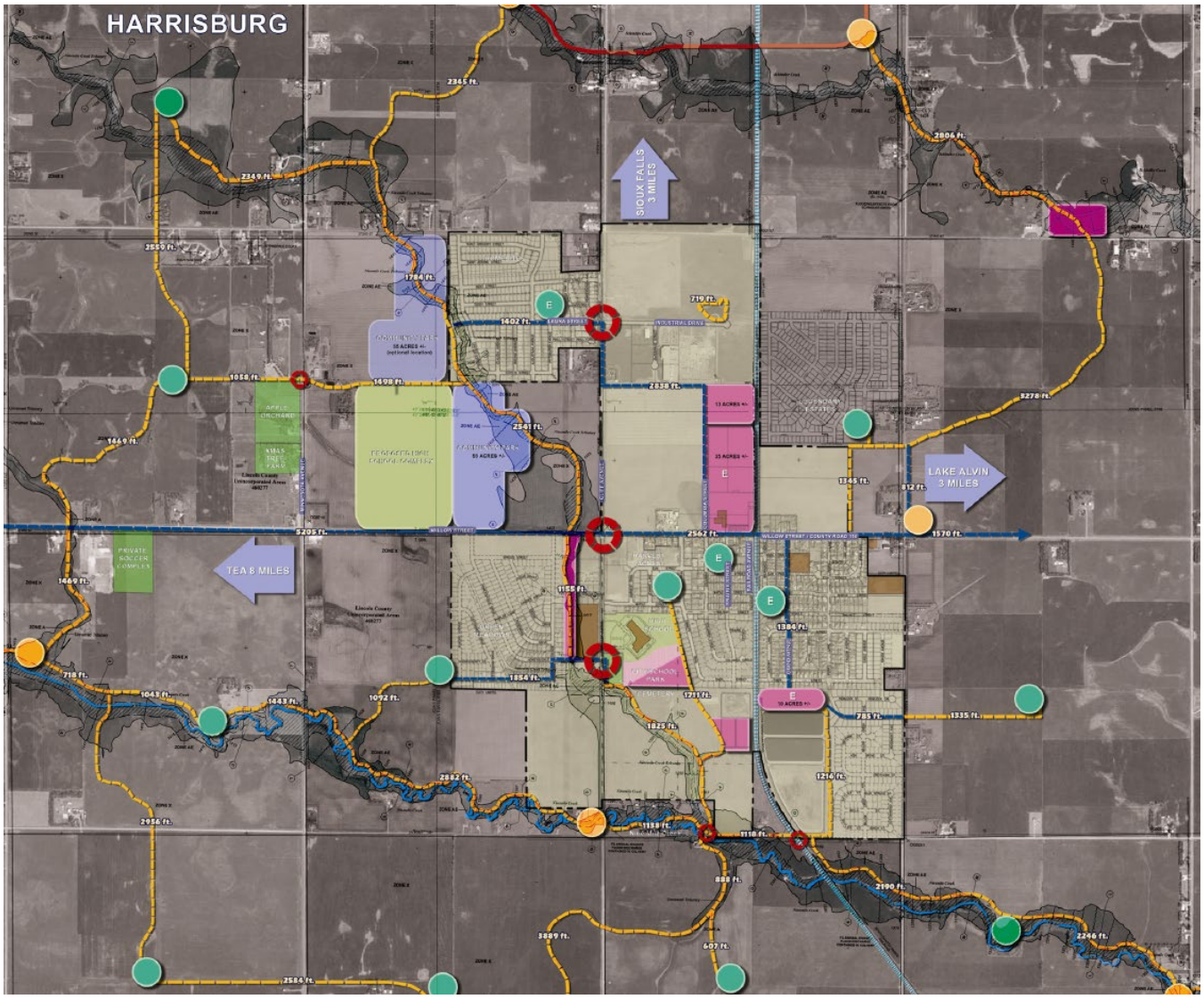

Figure B.9: The future trails and parks network shows greenway trails as dashed yellow lines, potential critical intersections as red circles, neighborhood parks as green circles, and trailhead parks as yellow circles (see Figure B.10 for legend).

Figure B.10: The legend for the future trails and parks network map (see Figure B.9).

How the Recommendations Should Be Considered/Used in the Harrisburg Trails Plan

Greenway trail recommendations in previous plans originate from the Harrisburg Parks & Trails Plan. Recommended greenway trails should be considered as possible future trails in the Plan.