

# Hamilton Active Transportation Plan

AUGUST 2025



**City of Hamilton**  
BUTLER COUNTY OHIO



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# Introduction

# Introduction

The Hamilton Active Transportation Plan (ATP) builds on the groundwork of Plan Hamilton, the City's Comprehensive Plan. The Ohio Department of Transportation funded the plan's development, and the City of Hamilton led the planning process, with support from a consultant team led by Toole Design. This chapter describes the Plan's purpose and structure, defines active transportation, and examines the benefits associated with active transportation.

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This Active Transportation Plan is built on the foundation of Plan Hamilton's Mobility section. Approved in 2019, Plan Hamilton included an extensive public engagement process and identified three key goals related to active transportation:

» **"Improve Public Transportation**

- Seek ways to improve and expand bus transportation opportunities, including the possibility of a local circulator and expanded services that connect people to employment opportunities within and beyond Butler County.

» **Expand Bicycle Infrastructure**

- Build a local bike system, including the Hamilton Beltline.
- Build connections to the broader regional and state trail system, including the Miami 2 Miami Regional Trail effort.

» **Make Hamilton A Walkable City**

- Require pedestrian amenities with new development.
- Identify and implement priority sidewalk improvements.
- Ensure all residents have safe and accessible connections to community facilities and services."<sup>1</sup>

## Benefits

Active transportation can provide many community benefits, even beyond personal mobility, such as public health, economic development, quality of life, and environmental quality. In order to obtain these benefits it is important to invest in the infrastructure and programs that support active transportation.

## What is Active Transportation?

"Active Transportation" is an umbrella term for all the ways people can get around without using a motorized vehicle. This term emphasizes the role of physically active forms of transportation in improving community health. It reinforces that bicycling and walking are valid forms of transportation, not just forms of recreation, and it is a more inclusive term that reflects the use of mobility assistance devices, such as wheelchairs and scooters, and other modes, such as skating or skateboarding. Active transportation also implies a more comprehensive approach to the transportation system which recognizes the importance of active transportation in accessing public transit, and addresses associated infrastructure like bike racks and wheelchair ramps.

## Quality of Life

Comfortable and accessible bicycling and walking provide a host of quality of life benefits. They increase the number of travel options for everyone and can lead to a sense of independence in seniors, young people, and others who cannot or choose not to drive. Providing a high-quality active transportation network is important for Hamilton's residents who do not have full access

to a vehicle. This includes people who are under 16 years-old, unlicensed adults, suspended drivers, and people who live in households with more drivers than vehicles.

Active transportation options are associated with inviting places for people to live and work.<sup>2</sup> Bicyclists often report greater satisfaction with their commute than people who drive to work.<sup>3</sup> In communities that have invested in bicycling and walking infrastructure, bicyclists and pedestrian commuters report the highest levels of “commute well-being,” which is a measure of commute-based stress, confidence in arrival time, boredom or enthusiasm, excitement, pleasure, and ease of trip.

## Physical Health

According to the U.S. Health and Human Services Department’s (USHHSD) Physical Activity Guidelines for Americans, 150 minutes of moderate-intensity aerobic activity (for example, brisk walking) each week reduces the risk of many chronic diseases and other adverse health outcomes.<sup>4</sup> For young people ages 6–17 the USHHSD recommends participating in at least 60 minutes of physical activity every day. Engaging in physical activity beyond these amounts can impart additional health benefits.

Being overweight increases an individual’s risk for many chronic diseases, including hypertension, diabetes, osteoarthritis, cardiovascular disease and stroke, gallbladder disease, arthritis, sleep disturbances, mental health issues, breathing

problems, and certain cancers.<sup>5</sup> Increased opportunity for recreation and destination-oriented trips using active modes of travel are key to reducing obesity and, by extension, the risk for developing chronic diseases.

## Mental Health

Physical activity, including walking and bicycling, can help prevent or treat some mental health conditions. Physical activity reduces depression, can improve the quality of sleep, and has been shown to improve cognitive function for older adults.<sup>6</sup> Active transportation can also improve social conditions in communities, which contributes to positive mental well-being among residents. While there may be many reasons people feel socially isolated, land-use and transportation systems designed around the automobile can exacerbate these feelings. Car dependence reinforces solitary lifestyles and reduces opportunities for positive social interaction in public spaces.<sup>7</sup>

## Economic Development

There is broad consensus across the country, and in Ohio, that investing in active transportation produces a positive return on investment for host communities. This is especially true when it comes to trails, which serve as major regional attractions for recreational riders. Trail-based tourism is an economic boon for many small communities, supporting local businesses, creating jobs, and

increasing property values.<sup>8</sup> Strengthening Hamilton's regional connections such as the Great Miami River Trail could support economic growth. For example, annual trail tourism spending along the Great Allegheny Passage in Maryland and Pennsylvania exceeds \$40 million. It has resulted in 54 new or expanded businesses, 83 jobs, and \$7.5 million in local wages every year.<sup>9</sup> Another study found that customers who walked or biked to local stores spent as much or more than those who drove over the course of a month, often because they visited more often or stopped on impulse when walking past.<sup>10</sup> Businesses such as bicycle shops are also needed to support a strong bicycling community, providing opportunities for new entrepreneurial activity.

## Environmental Quality

Support for bicycling and walking comes in part from concerns about greenhouse gas emissions, stormwater runoff from highway facilities, and other environmental implications of widespread personal vehicle use.<sup>11</sup> Shifting to bicycling and walking trips and concentrating development in dense walkable and bikeable communities can reduce transportation-based emissions and sprawling land use that impacts the natural environment.<sup>12</sup>

Exhaust from automobiles increases local air pollution, which can cause or trigger respiratory and cardiovascular problems. People with sensitivities to air pollution, including older adults, children, and those with diseases such as asthma

or congestive heart disease, are more likely to be affected by contact with pollution from particulate matter, which includes pollutants from automobile exhaust.<sup>13 14</sup> Multiple studies have found that low-income, minority communities bear the greatest burden of auto-related emissions due to proximity to high-volume roads.<sup>15 16 17</sup> Reducing the number of vehicles on the road can reduce air pollution and improve air quality.<sup>18</sup> Researchers have proposed that increasing the supply of active transportation facilities (e.g., sidewalks, bike paths, etc.) can help reduce exposure to harmful pollutants.<sup>19</sup>

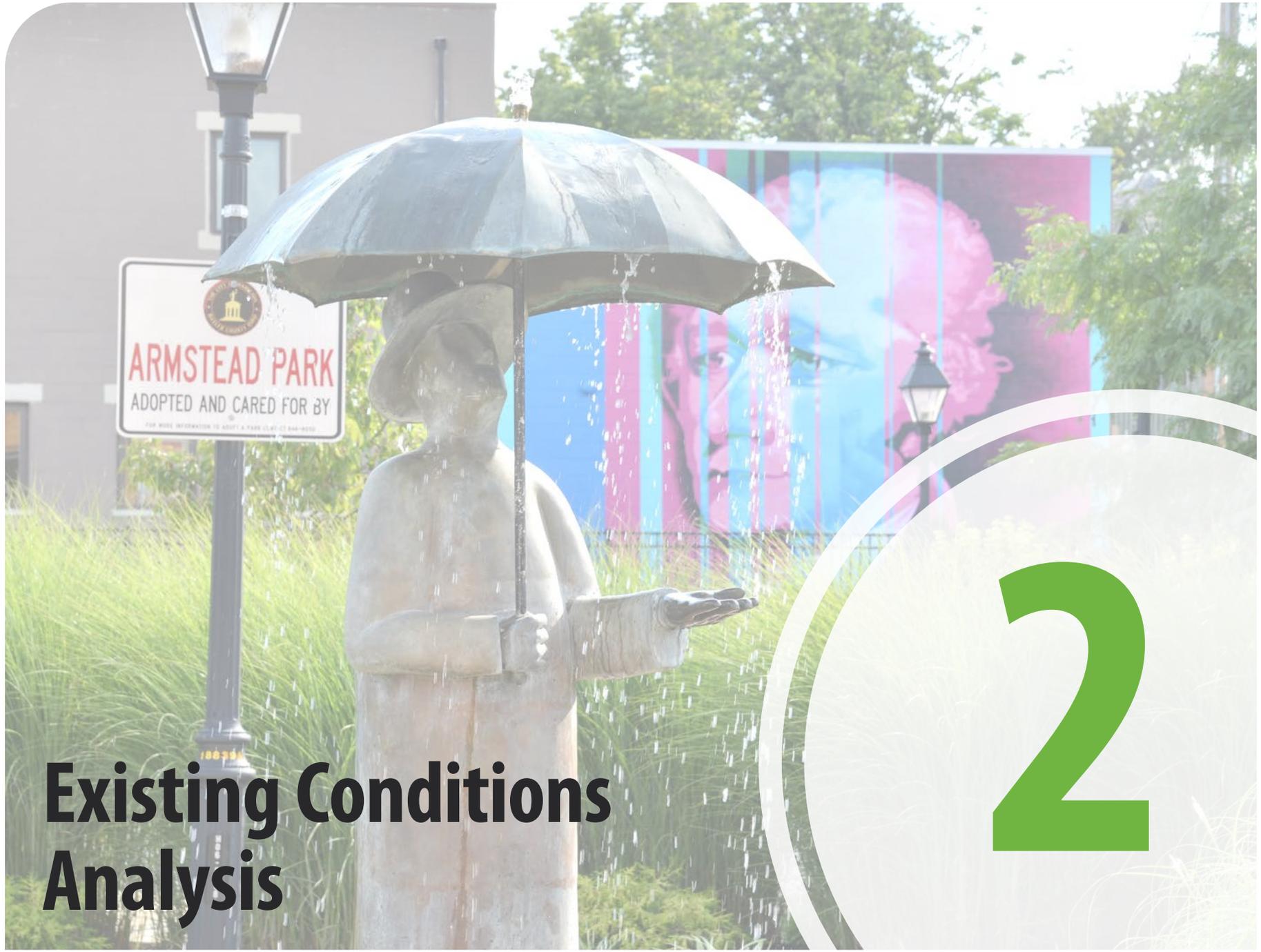
## Planning Process and Document Structure

The Plan was created under the leadership of an Advisory Committee (described in Chapter 3) to ensure it represents a variety of interests and stakeholders. The process to develop the Plan began in Fall 2019 with an assessment of existing conditions and a review of other relevant plans and studies. Public input and a technical analysis provided a foundation for recommendations and prioritization of those recommendations. Finally, guidance for implementation was developed. The document is organized into the following sections:

- » Introduction
- » Existing Conditions
- » Community Engagement
- » Recommendations
- » Implementation

## Project Milestones





# Existing Conditions Analysis

2

# Existing Conditions Analysis

This chapter examines several elements of Hamilton's transportation system. It presents a socioeconomic profile of the City, a plan and policy review summarizing existing active transportation and related efforts to date. This chapter also summarizes existing programs that support active transportation. An infrastructure analysis provides an overview of the transportation system, describing the roadway network, traffic volumes, crash data, and inventorying active transportation facilities. A gap analysis identifies opportunities and challenges in Hamilton.

## Sociodemographics

Located in Southwest Ohio, Hamilton has a population just over 62,000. The median income is \$43,280, lower than the median household income of the surrounding Cincinnati metro area of \$61,870.<sup>20</sup> 19.4% of Hamilton residents have incomes below the federal poverty line, approximately 1.5 times the rate of the surrounding Cincinnati metro area.<sup>21</sup>

## Need-Demand Analysis

Lower-income and communities of color are typically the most dependent on active transportation and transit. As part of the statewide active transportation plan, Walk.Bike. Ohio, ODOT did a needs analysis and a demand analysis for walking and biking at the census tract level. Areas of high need and high demand should be prioritized for bicycle and pedestrian improvements, because it is more likely that the residents in these areas rely more heavily on active

transportation options for getting around. Several indicators were taken into account in ODOT's analyses to define Need and Demand including:

- » **Need Indicators:** Minority Groups, Youth, Older Adults, Poverty, No High School Diploma, Limited English Proficiency, and No Access to a Motor Vehicle.
- » **Demand Indicators:** Employment Density, Population Density, Walk/Bike Commute Mode, Park Density, Presence of Colleges/ University, Retail Employment Density, and People at or Below 200% of the Federal Poverty Line.<sup>22</sup>

For the City of Hamilton, these analyses show at a high level that there is a slightly higher need and demand for walking and biking closer to the downtown core and on the eastern side of the Great Miami River (Map 1 and 2). However, in general need and demand for walking and biking is medium to high throughout the City, therefore recommended improvements throughout the city

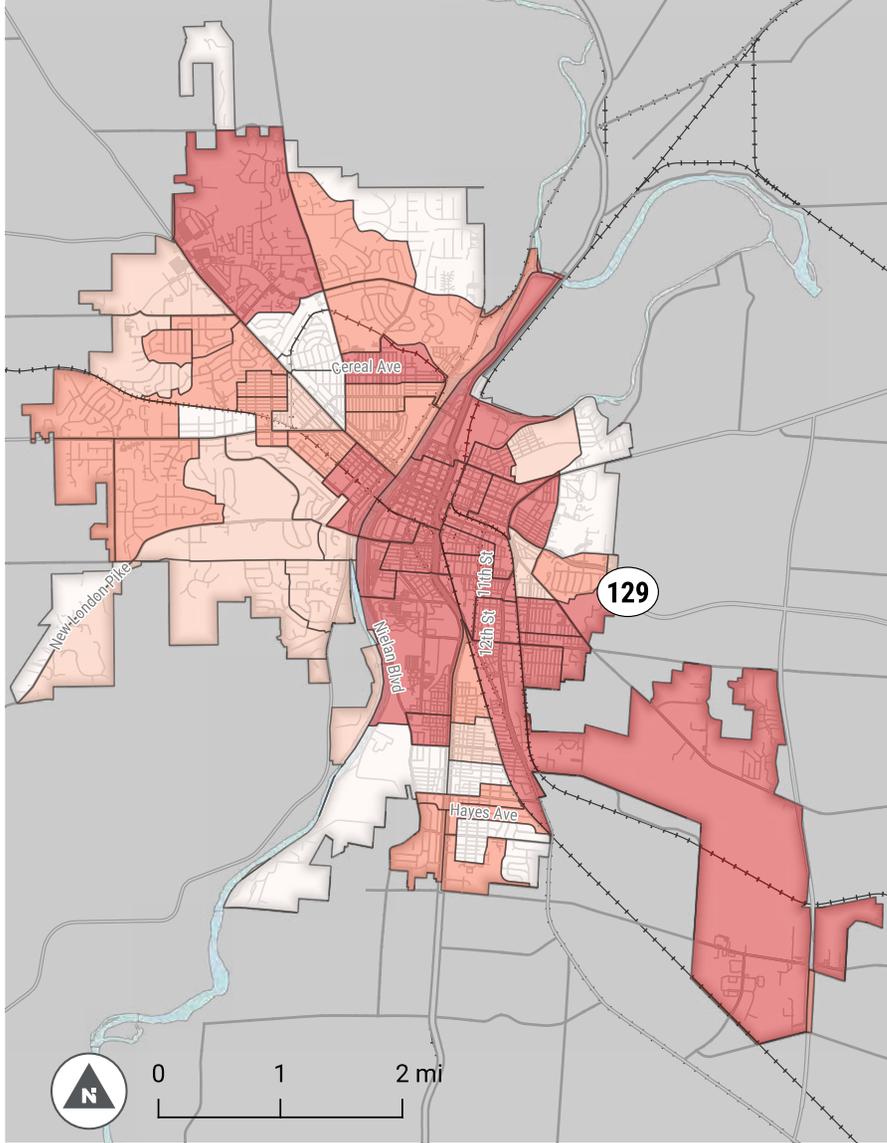
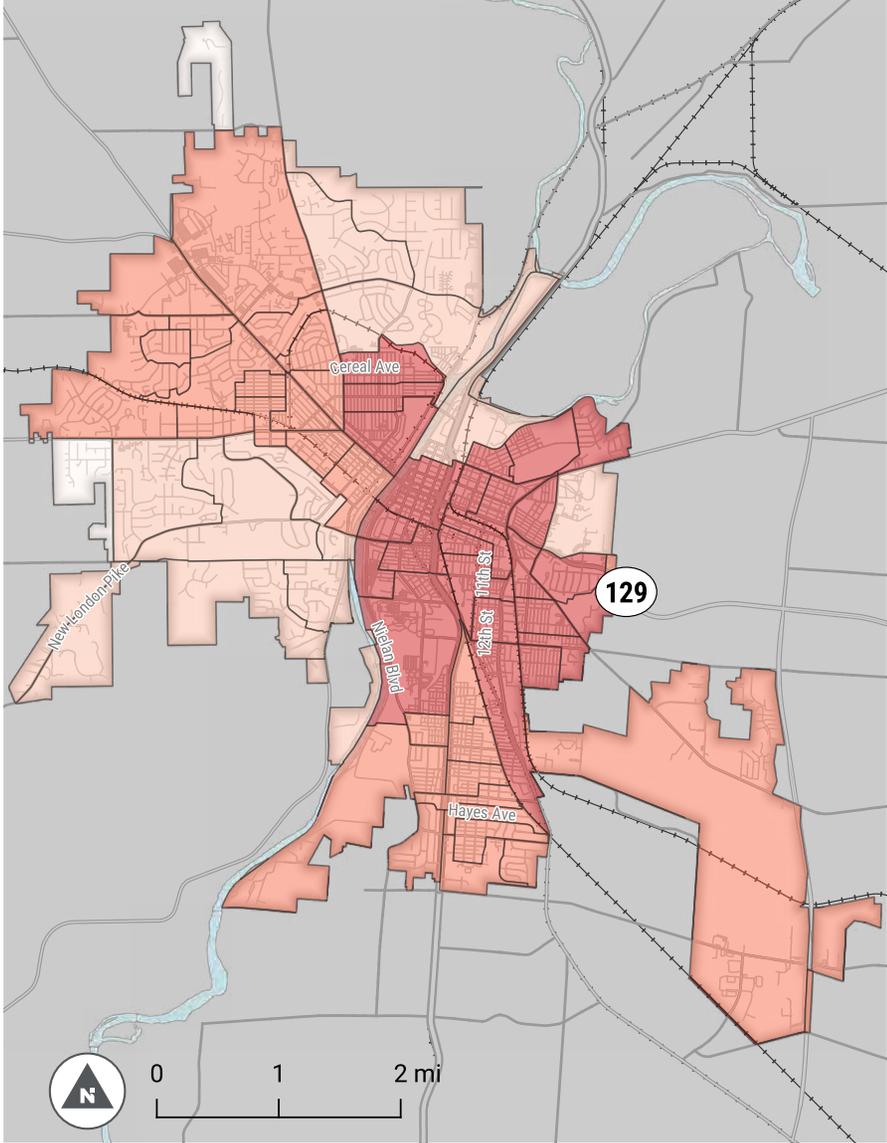
will be server areas of medium-high areas of need or demand.

## Travel Behavior

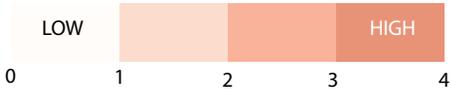
The majority of Hamilton residents drive alone to and from work (81.7%) followed by carpooling (11%). Three percent work from home and two percent walk to work. The commute breakdown is similar to statewide travel patterns with a few differences. Statewide, Ohioans travel nearly eight percent (7.8%) by carpooling compared to eleven percent (11%) in Hamilton, while a little less than two percent (1.6%) travel by public transit. In addition, slightly more of all Ohioans (83.2%) drive alone to and from work compared to residents in Hamilton (81.7%). Other commute modes including biking, walking, other, and working from home were nearly the same or within one percent when compared between Hamilton residents and statewide. The mean commute time is approximately 25 minutes, which is the same as the surrounding metro area and slightly

Map 1. Active Transportation Demand (Source: ODOT 2019).

Map 2. Active Transportation Need (Source: ODOT 2019).



Demand Score



Need Score



higher than the statewide mean of 23.5 minutes. Half of households in Hamilton have no vehicle available (9.6%) or one vehicle available (41.3%), meaning many people likely rely on other modes of transportation all or part of the time.<sup>23</sup>



## Plan and, Policy, and Programming Review

This plan builds heavily on Plan Hamilton and other recent planning efforts. These plans laid the groundwork for the existing conditions analysis, issue identification, and preliminary recommendations.

### Plan Hamilton

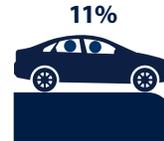
As discussed in the Introduction, Plan Hamilton identified several Mobility goals:

- » **Improve public transportation**
- » **Expand bicycle infrastructure**
- » **Make Hamilton a walkable city**

Plan Hamilton identified high-level recommendations and areas of focus for future active transportation projects ([see Map 6](#)). Recommendations within the City included focusing on the Hamilton Central Bus Hub to connect to the regional bus system and a future loop public transit route and a bikeway network. Challenges identified included at-grade RR crossings, areas with high vehicular/pedestrian conflicts, and inadequate pedestrian connections.



## Hamilton Commute Mode Share



Connectivity goals included enhancing east/west connections over the river and improving major north/south connections to Cincinnati. Specific projects identified included the Miami 2 Miami (M2M) Trail, North Hamilton Crossing/Bridge, and South Hamilton Crossing/Bridge.

### Route 4 Corridor Study

The Route 4 Corridor Study was part of the Plan Hamilton efforts and identified concerns about aesthetics and economic decline. The study recommended:

- » Multimodal and Streetscape improvements, including extending the M2M Trail along Route 4 and adding landscaping
- » Redevelopment opportunities

### OKI Regional Bicycle Plan

The Ohio-Kentucky-Indiana Regional Council of Governments (OKI) is the Council of Governments (COG) and Metropolitan Planning Organization (MPO) for the regional. Applicable regional connections identified in this Plan include the

Little Miami Scenic Trail and Great Miami Bike Trail and connecting the two trails via the Miami 2 Miami Connection.

### Hamilton River Plan

The Hamilton River Plan identifies key goals that overlap with the Plan Hamilton Mobility goals. These include making the riverfront a destination, implementing infrastructure to allow for bicycle and pedestrian circulation on both sides of the river, and increasing access to the river.

### Miami 2 Miami Action Plan

This plan identifies several alignments to connect the Great Miami River Trail to the Little Miami Scenic Trail. The identified short-term priority route connects these trails via the Canal Cultural Trail corridor, which includes proposed routes through the City of Hamilton. The proposed route connects from the Great Miami River Trail at the Neilan Boulevard Trailhead through the Miami University Campus to Grand Blvd. Here there are two options to connect from Grand Blvd to the

Ramona/Canal right-of-way and eventually the existing Canal Cultural Trail: 1) Erie Blvd (Route 4) or 2) adjacent to RR starting at Mosler Ave and heading south (preferred option).

## Hamilton Beltline

The Hamilton Beltline is a project already in the works. It will redevelop an abandoned railroad into a multi-purpose trail that will connect multiple neighborhoods with the riverfront, downtown and future Spooky Nook Sports center (see Map6).

## Spooky Nook Sports – Champion Mill Development

The future Spooky Nook Sports Complex is located at the former Paper Mill site and is projected to be completed by the end of 2021. It is estimated that one million people will visit Hamilton each year to utilize Spooky Nook Sports Complex. Plan Hamilton identifies connecting the future Spooky Nook Sports Complex by bicycle and pedestrian facilities as well as a bus circulator system as a goal.

## Supportive Programs

Supportive programs and policies can increase pedestrians' and bicyclists' safety by establishing a culture of walking and biking as well as getting people excited about active transportation, either by providing incentives for developing healthy habits or by creating venues for walking and bicycling. Existing supportive active transportation programs in Hamilton are described below.

## Safety Town

Facilitated through the Greater Hamilton Safety Council, Safety Town is a popular program that occurs each summer to teach four and five years olds about traffic safety related to pedestrians, vehicles, and school buses. It is free program with five sessions each year, each with 36 openings. Sessions include classroom time and hands-on teaching in the simulated village of Safety Town with Kettcars.

## Sculptural Bike Racks

Hamilton, is known as "The City of Sculpture". In addition to the Pyramid Sculpture Park, there is sculpture in public spaces through the City. The City of Sculpture 503c organization has worked with the City to install dozens of sculptural bike racks throughout the city funded by rack sponsors.



*Sculptural Bike Rack*



*Great Miami River Trail Wayfinding*

## Great Miami River Trail Signage

The Great Miami River Trail has had uniform wayfinding signage installed along the trail that is consistent with the regional trail system and directs people to places/destinations within Hamilton and beyond.

## BCRTA Programs

The Butler County Regional Transit Authority (BCRTA) has a training program for those learning to ride the bus. About four people each week are trained and ridership over recent years has been increasing. All bus have bike racks.

## School Programs

Walking and bicycling access to schools is an important piece of this plan. Some school programming already exists; for example, for the past five years Highland Elementary School has participated in Walk to School Day. The following section summarizing school travel data and parent survey data collected. School Travel Maps for each school are provided in the appendix.

### School Travel Tally Data

Travel data was collected from seven elementary schools and two middle schools within the Hamilton City School District:

- » Brookwood Elementary
- » Crawford Wood Elementary
- » Fairwood Elementary
- » Garfield Middle School
- » Highland Elementary
- » Linden Elementary
- » Ridgeway Elementary
- » Riverview Elementary
- » Wilson Middle School

Students on August 28, 29, and 30, 2018 were asked to report on how they traveled to school in the morning and afternoon on a Tuesday, Wednesday, and Thursday. A total 11,155 morning trips and 11,099 afternoon trips were recorded. Over half of all students reported how they travel to/from school. Nearly half of students (45 percent) arrive to school by bus in the morning, 36 percent ride in a family vehicle, and fifteen percent walks

Figure 1. Student Travel Tally - Morning and Afternoon Travel Comparison

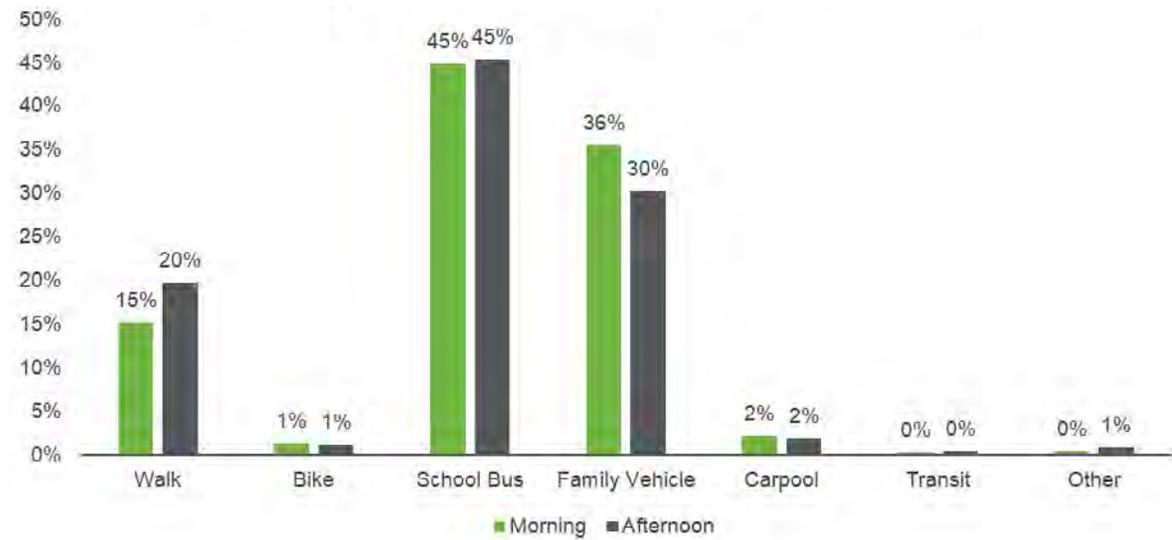
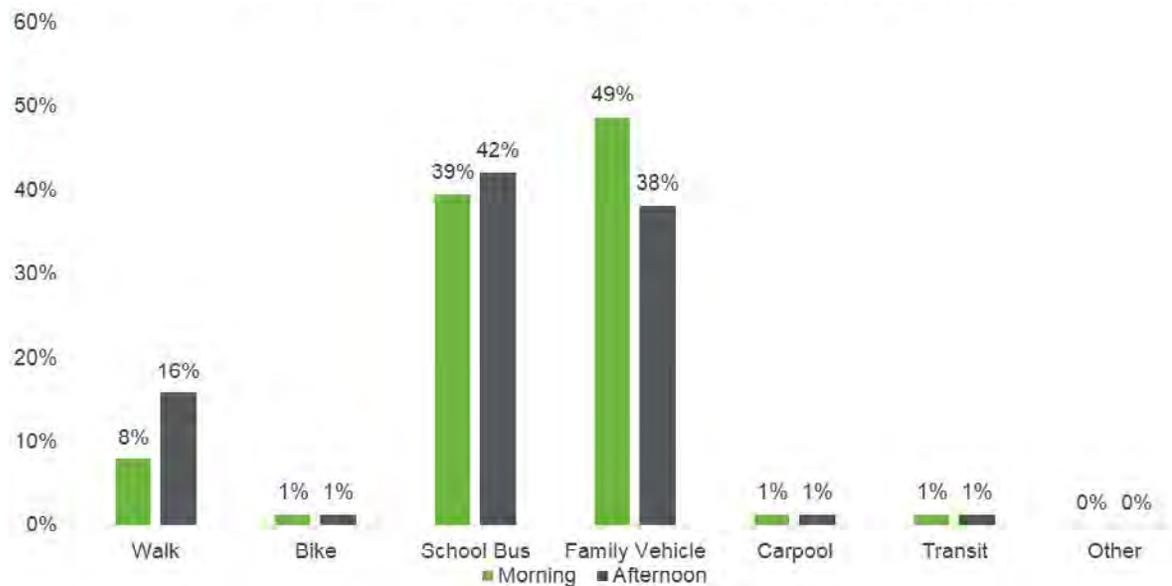


Figure 2. Parent Survey - Typical mode of arrival at and departure from school



to school. Afternoon travel modes vary slightly but are similar to morning commutes (Figure 1). The mode breakdown was similar to the mode breakdown reported in the Parent Survey, with school bus and family vehicle also representing the largest percentage of travel mode (Figure 2).

### Parent Survey Travel Data

In August of 2018, parents were asked to complete a survey about how their student gets to and from school and their perceptions about walking and biking to and from school. 76 parents completed the survey.

Parents were asked about the reasons why they do not allow their child to walk or bike to/from school and top issues identified are shown in Figures 3 and 4 to the right. Top infrastructure related issues included amount of traffic along the route and safety of intersections and crossings.

Figure 3. Issues reported to affect the decision to not allow a child to walk or bike to/from school by parents of children who do not walk or bike to/from school

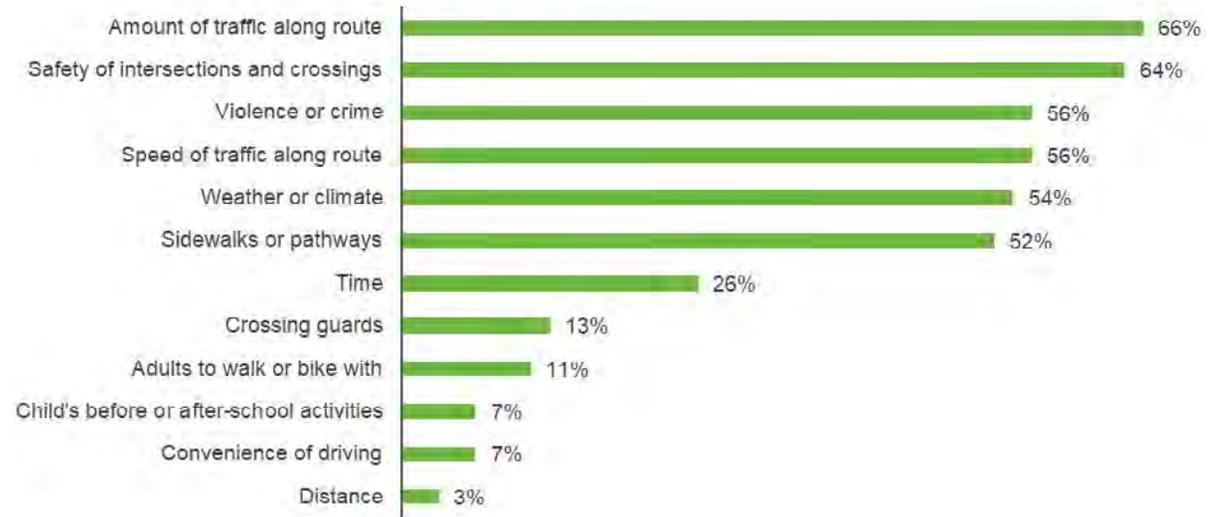
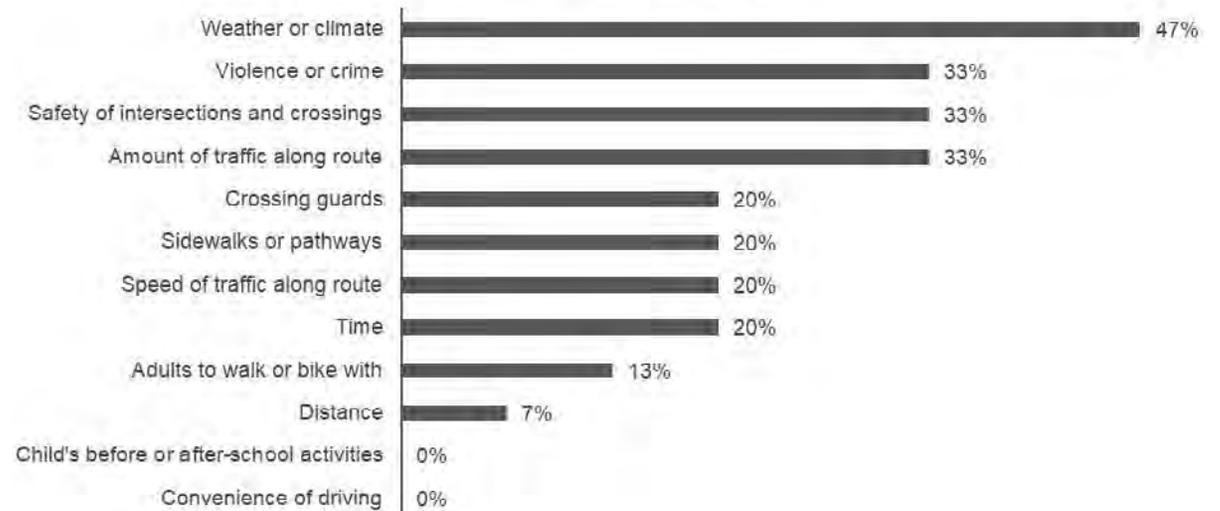


Figure 4. Issues reported to affect the decision to not allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school



# Existing Infrastructure



## Bicycle Facilities

The regional network of bicycle facilities includes US Bike Route 25 which runs through Hamilton as the Great Miami River Trail, a highly utilized trail. Usage data was collected from July 2018 to June 2020. The daily average traffic was 259 users with on average 225 weekday users and 342 weekend users.<sup>24</sup>

Other trails include a short segment on the west side of the Great Miami River in Downtown. There are a few existing on-street bicycle facilities including bike lanes on Joe Nuhall Boulevard and near Miami University Campus and shared lane markings on Front Street.



## Pedestrian Facilities

The City of Hamilton has existing sidewalks in much of the City including Downtown and several surrounding neighborhoods. Further outside of the Downtown core sidewalks are lacking (see Map 6 for areas identified as inadequate for pedestrians).



## Public Transit

The City of Hamilton has a Central Bus Hub on Market Street between N 3rd Street and N 2nd Street. Current bus options focus on regional connections and travel rather than local destinations.

Map 3. Hamilton Existing Facilities

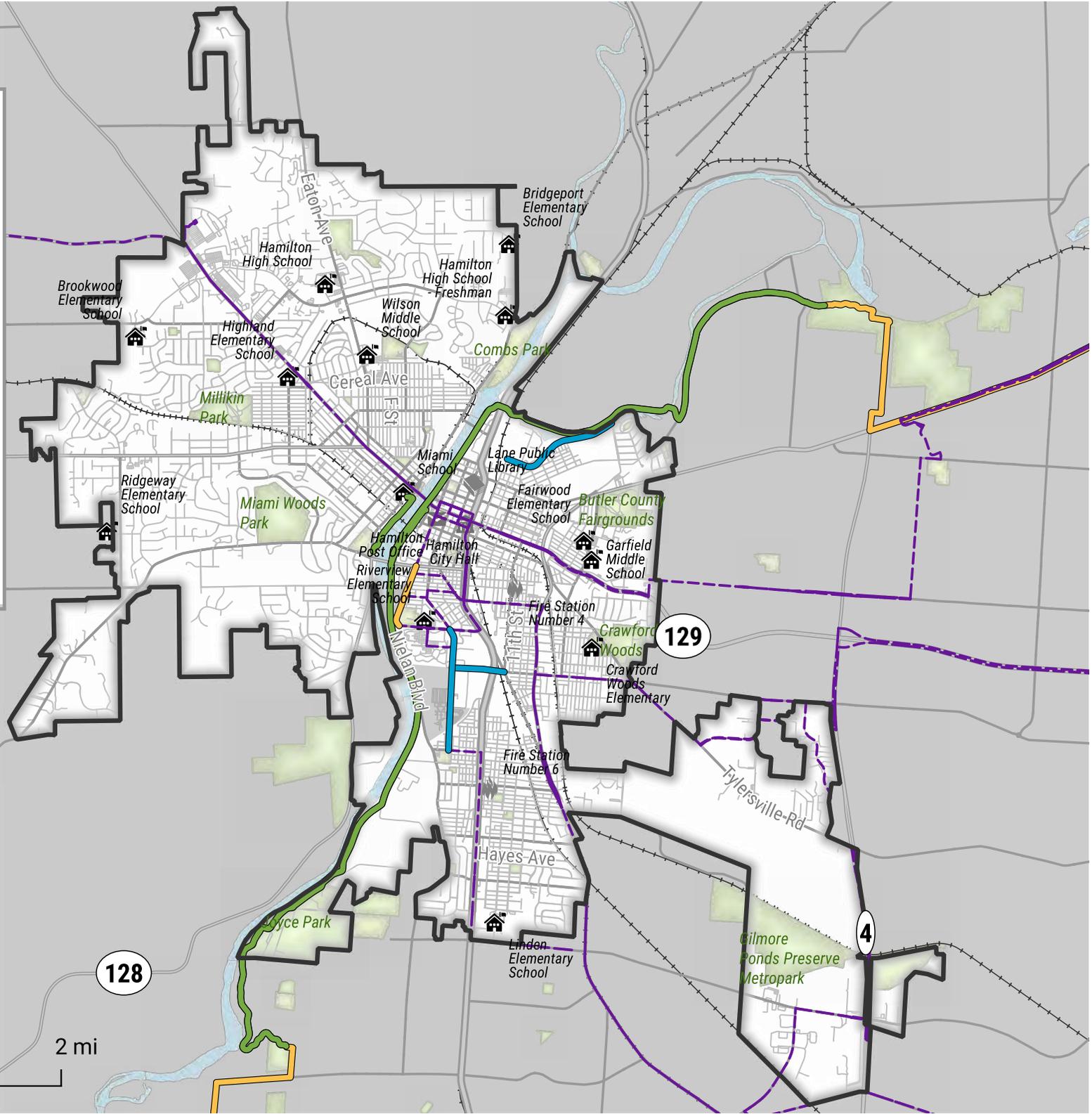
### LEGEND

#### Points of Interest

- Fire Station
- Library
- Post Office
- School
- City Hall

#### Existing

- Sidewalks
- Bike Lane
- Shared Lane Markings
- Trail
- Bus Route
- Railroad
- Parks
- Waterway



0 1 2 mi

## Average Annual Daily Traffic (AADT)

AADT information was available mostly for the major roadways in Hamilton. The yellow and green highlighted roads have higher volumes, while the blue and purple highlighted roads have lower volumes (>5,000 AADT). In general lower volume/speed roads are more comfortable to bike on and therefore conducive to mixed facilities (shared lanes or bicycle boulevards), while higher volume/speed roads are less comfortable to bike on and need more separated facilities (separated bike lanes, shared use paths, or sidepaths) to accommodate bicyclists of all ages and abilities. As expected, State Routes have some of the highest volumes, while some of the local roadways in downtown and surrounding neighborhoods have low traffic volumes. More information on selecting facility types by volume/speed is provided in the Recommendations chapter.

Map 4. Hamilton AADT

### LEGEND

#### Annual Average Daily Traffic (AADT)

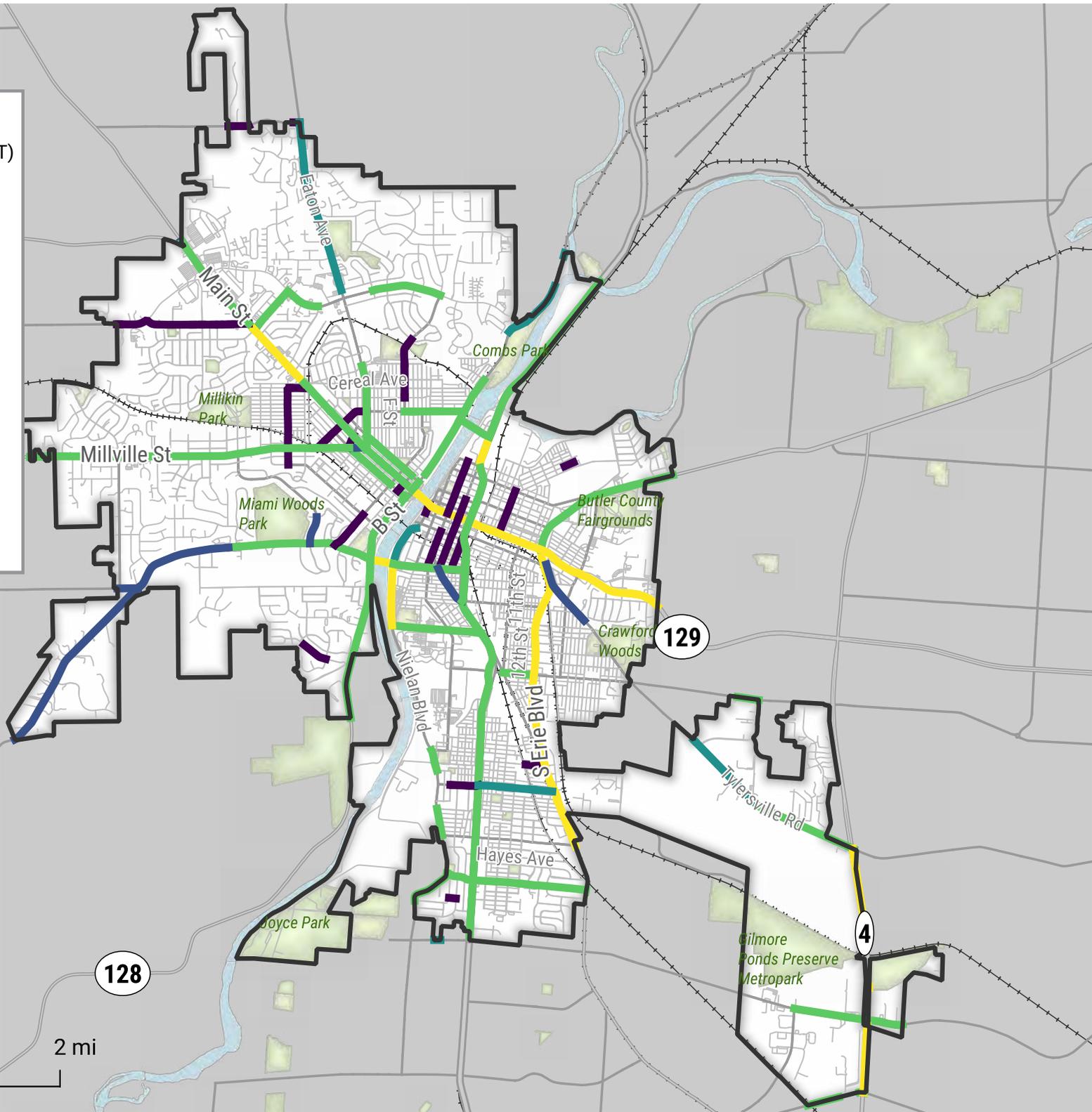
- 0 - 3,000
- 3,000 - 5,000
- 5,000 - 6,000
- 6,000 - 20,000
- 20,000 +

#### Points of Interest

- Fire Station
- Library
- Post Office
- School
- City Hall

#### Existing

- Railroad
- Parks
- Waterway



## ODOT District 8 Pedestrian Screening

ODOT performed a Pedestrian Safety Analysis for District 8. Risk factors were used to determine locations of high risk for pedestrian-related crashes. The analysis assessed the following risk factors:

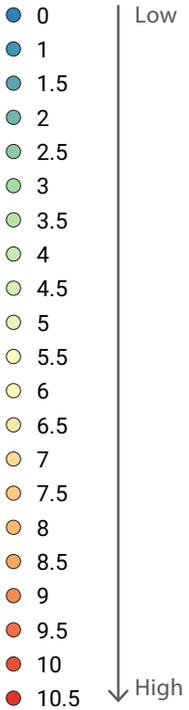
- » Volume,
- » Speed,
- » Proximity to bus stops, schools/colleges, libraries, and parks,
- » Presence of sidewalk,
- » Percentage (>10%) of households without car,
- » Number of lanes,
- » Intersection signal, and
- » Age (20% Pop. < 20 years old).

The higher the risk, the higher the priority to address the pedestrian safety along the segment or intersection. This analysis shows several hotspots or high priority areas for pedestrian safety including north Main Street (near the Meijer), High Street through downtown, and MLK Jr. Blvd (Route 127).

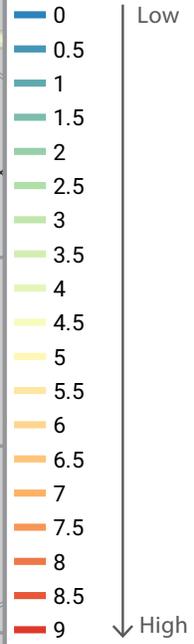
Map 5. ODOT District 8 Pedestrian Screening

**LEGEND**

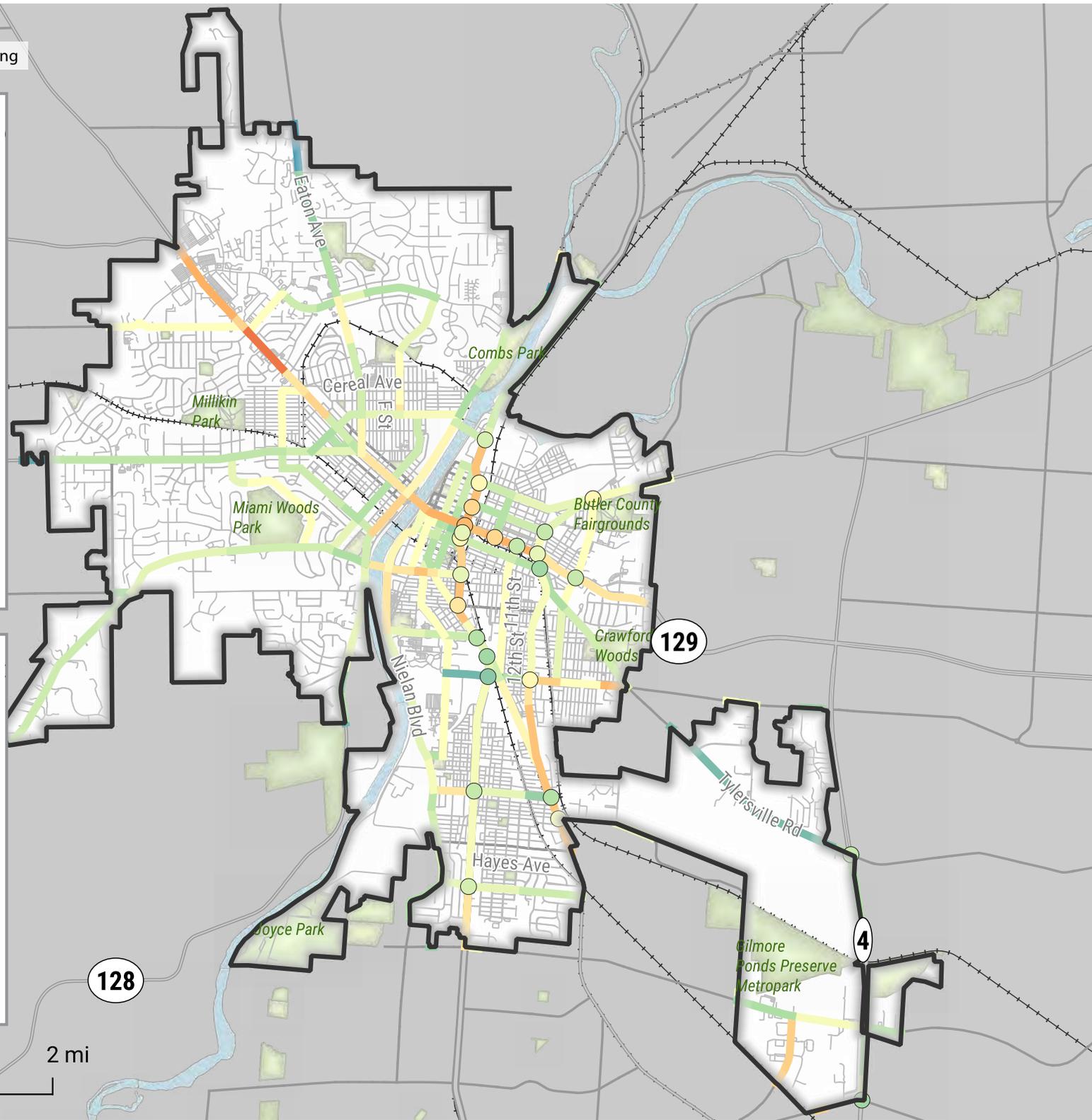
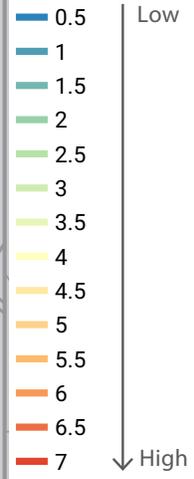
Priority Facility Intersections



Priority Facility Arterials



Priority Facility Collectors



## Plan Hamilton Proposed Facilities

This Active Transportation Plan builds on the recommendations identified in Plan Hamilton. Map 6 shows related active transportation recommendations from that plan, including:

- » Desired Bike Routes
- » Trails (Beltline, M2M)
- » Intersections (Crossings identified as difficult for pedestrians, such as at-grade railroad crossings and major roadway crossings with pedestrian-vehicle conflicts.)
- » River Run Bus Line (local circulator loop)

Map 6. Plan Hamilton Proposed Facilities

### LEGEND

#### Plan Hamilton

Route 4 Multimodal Corridor

#### Proposed Bicycle Facilities

Miami 2 Miami Trail

BeltLine Trail

Bike Routes

#### Proposed Pedestrian Facilities

Pedestrian Connections

Inadequate Pedestrian Facilities

#### Conflict Areas

At-Grade RR Crossing Conflict

Vehicular/Pedestrian Conflict

#### Proposed Transit

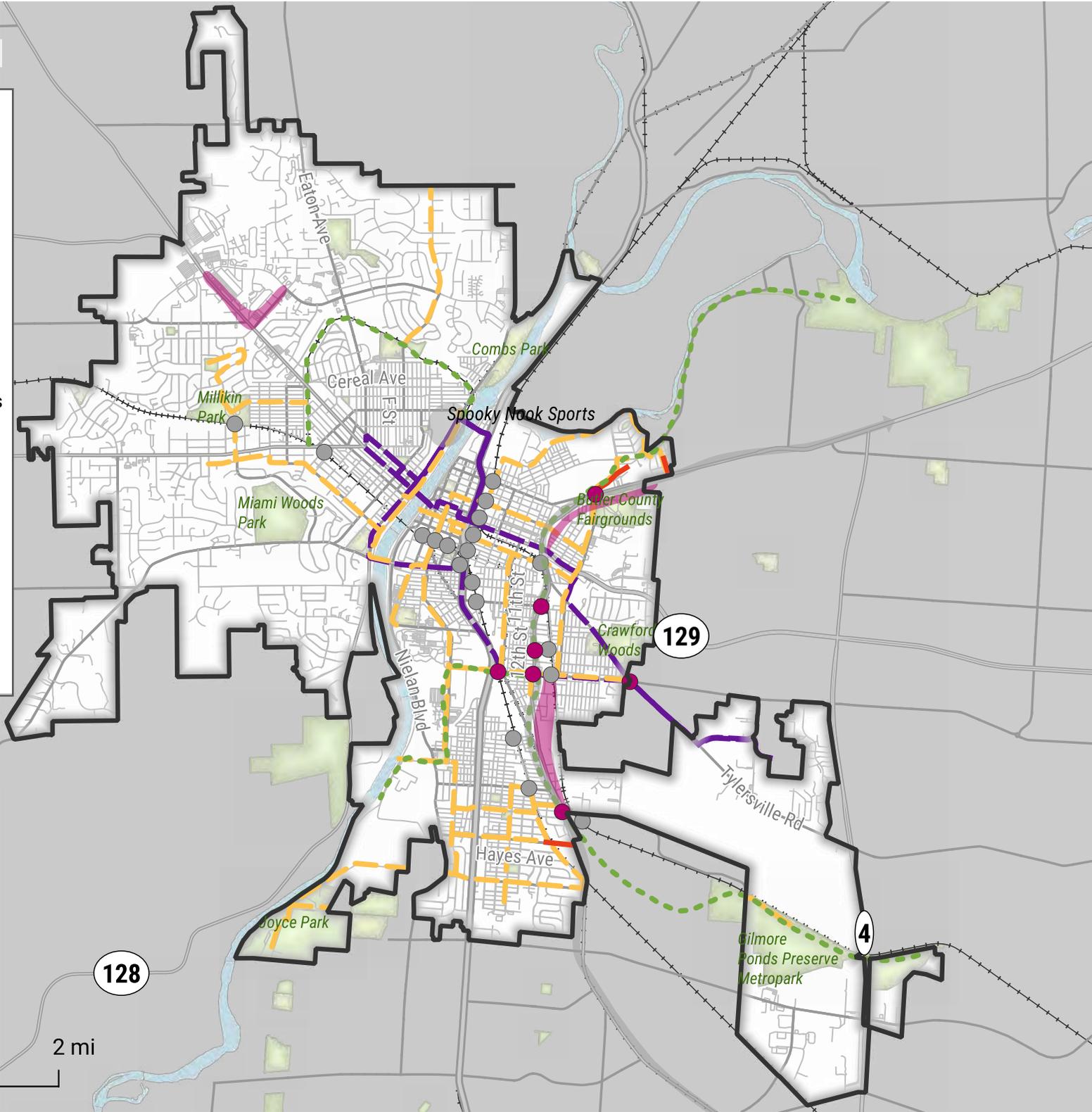
River Run

#### Existing

Railroad

Parks

Waterway



0 1 2 mi

## Crash Analysis

ODOT conducted an analysis of fatal and serious injury (FSI) bicyclist and pedestrian crashes from 2009 to 2018 for the Walk.Bike.Ohio statewide active transportation plan. When compared to the other cities across the state, **Hamilton has the highest annual FSI bicycle crash rate per population and third highest annual FSI pedestrian crash rate per population.**<sup>25,26</sup>

Throughout the state FSI bicyclist and pedestrian crashes are primarily concentrated on arterial roadways, which also holds true for the City of Hamilton.

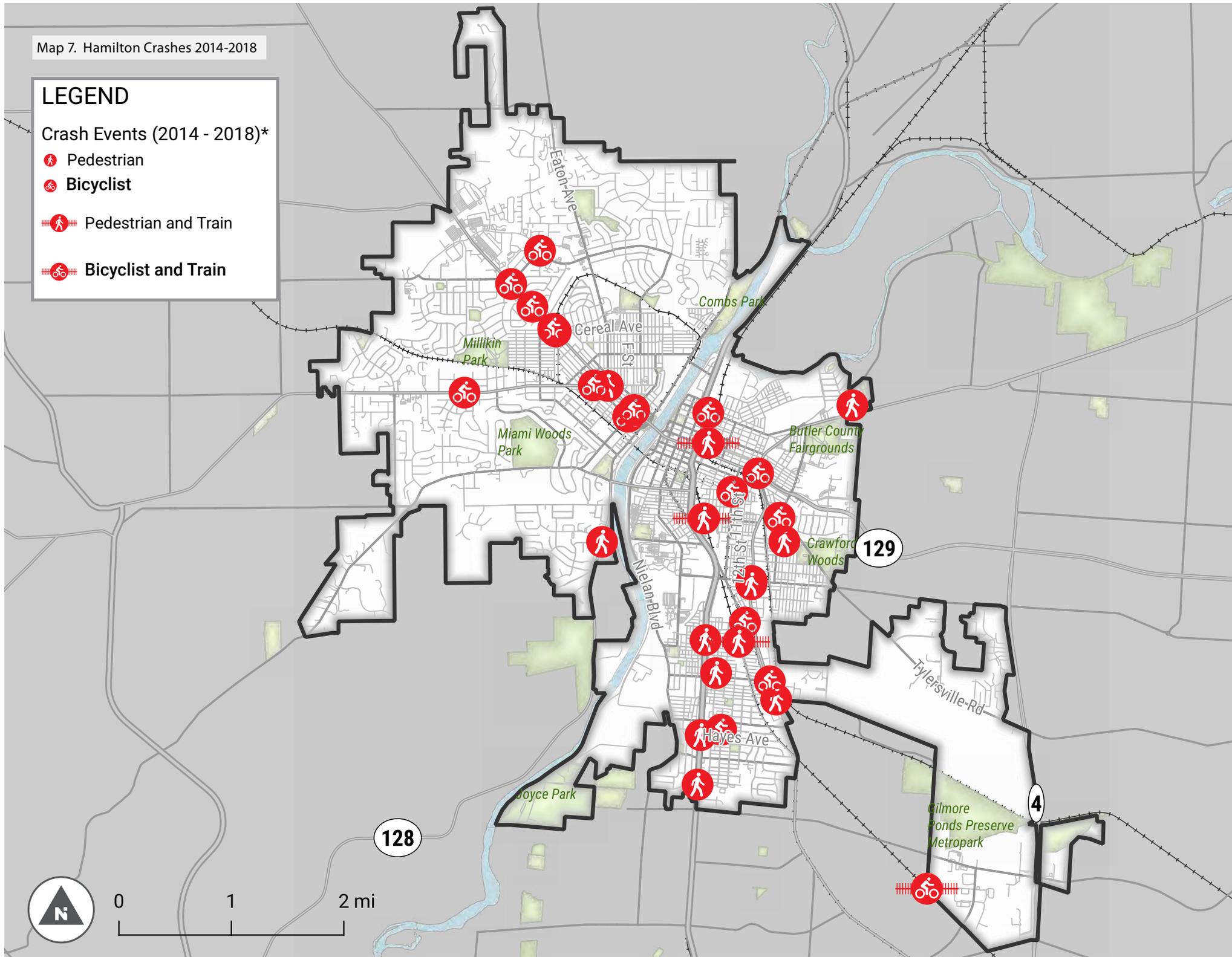
Map 7 displays FSI pedestrian and bicyclist crashes, including crashes with trains, from 2014-2018 in the City of Hamilton. There are concentrations of crashes along arterial roadways, such as High Street and Main Street and at intersections including Main Street and B Street/Park/Ross.

Map 7. Hamilton Crashes 2014-2018

### LEGEND

Crash Events (2014 - 2018)\*

-  Pedestrian
-  Bicyclist
-  Pedestrian and Train
-  Bicyclist and Train



## Opportunities & Constraints

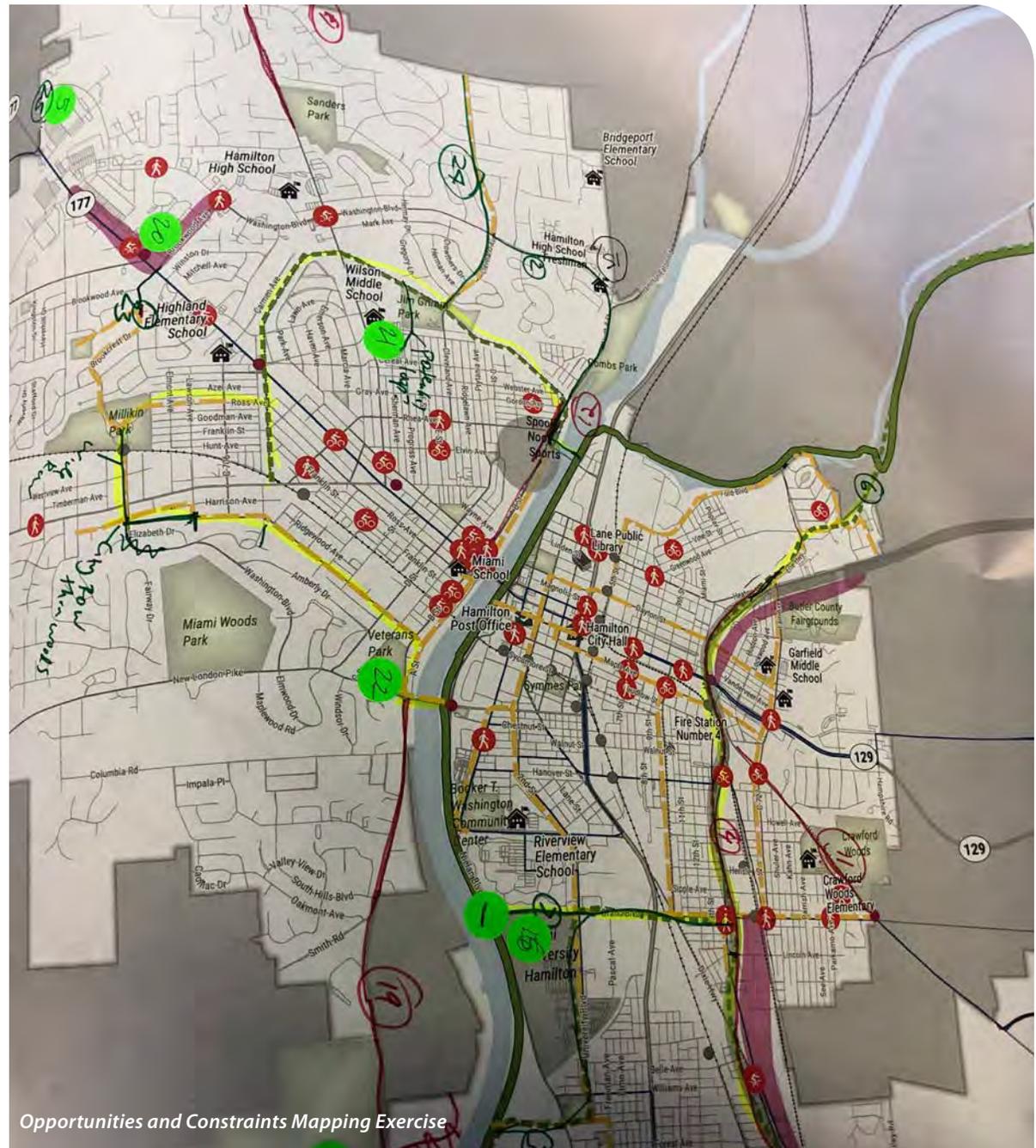
During the first Advisory Team meeting stakeholders participated in a mapping exercise to identify constraints (red) and opportunities (green) to walking and biking in Hamilton (image right). The team identified existing or desired connections to/from the following destinations:

- » Schools
- » Beltline (project in-progress) with critical intersection crossing at Flub's Ice Cream across from the Little League Tournament (Eaton Avenue)
- » Future Spooky Nook
- » Route 4
- » Miami University Campus

## Community Input

Community input was collected through in-person neighborhood meetings (seven in total) and an online survey. More detail on input is provided in Chapter 3, but major themes identified in neighborhood meetings included:

- » Better connections to Great Miami River Trail.
- » Improvements along MLK, Route 4, High Street, and Main Street.
- » High Street RR underpass, which every neighborhood mentioned identified as a problem.
- » Missing sidewalks (examples: near schools, Main Street).



*Opportunities and Constraints Mapping Exercise*

Top Destinations identified included:

- » Downtown Hamilton – Main & High St Areas
- » E High St.
- » Pyramid Hill
- » Beltline Bike Path
- » Flubs Ice Cream
- » Hamilton Freshmen School
- » Hamilton High School
- » Marcum Park
- » N. Main St
- » Future Spooky Nook Sports Complex

In total 330 people completed the online survey. Respondents echoed neighborhood meeting feedback and top themes included:

- » Strengthening regional networks
- » Creating a complete network
- » Being able to walk from neighborhoods to downtown districts, such as Main St

Respondents prioritized separated bicycle facilities (multi-use trails, separated bike lanes) over bike routes and wider travel lanes for motorists to pass bicyclists (Figure 8).

Figure 7. What would improve walking in Hamilton? Rank in number of importance.

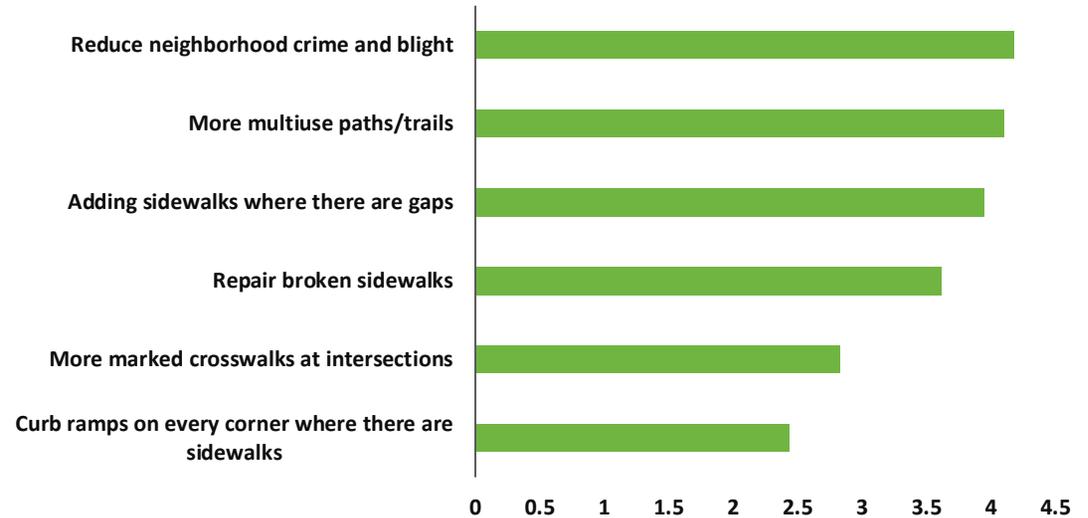
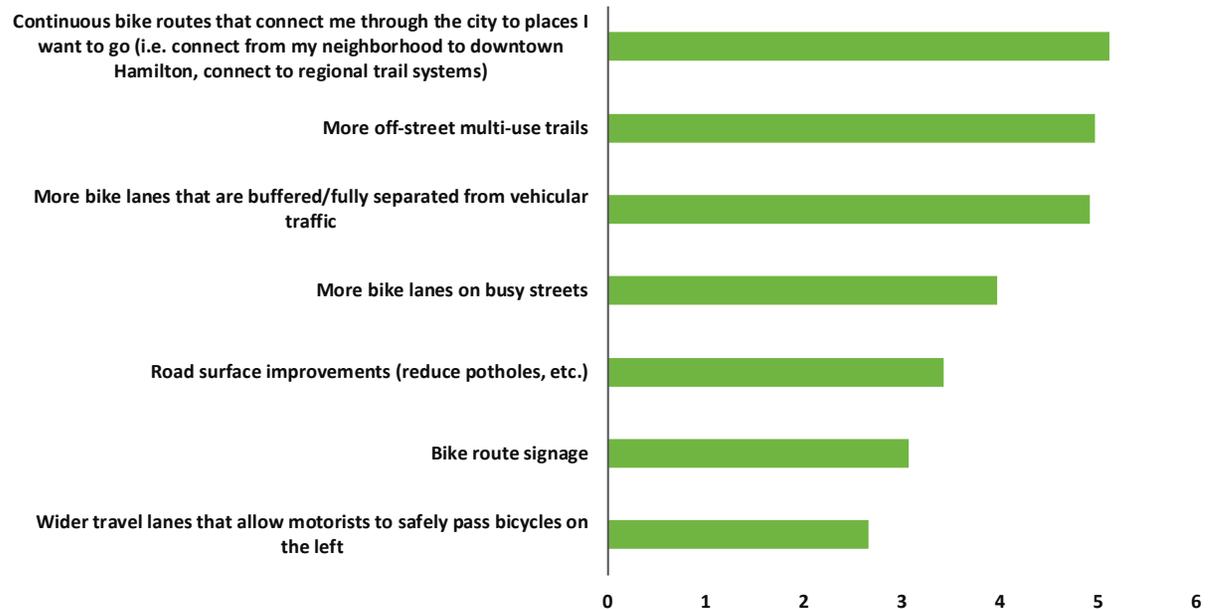


Figure 8. Which of the following street or trail improvements would encourage you to bike more often? Rank in order of importance.



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# Community Engagement Summary

# Community Engagement Summary

Community engagement was an essential tool in the plan development process. Involving the public builds trust in the Plan and improves the overall quality of the findings. Public input was collected through three primary methods: advisory team meetings, neighborhoods meetings, and online surveys.

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## Advisory Team Meetings

The Hamilton Active Transportation Plan was guided by an Advisory Team comprised of City staff and officials and local stakeholders. Advisory Team members are listed under Acknowledgments at the beginning of this document. The Advisory Team met four times over the course of plan development.

- » A **Field Assessment** was conducted and included a driving assessment to multiple neighborhoods with the client in the morning followed by a walking field assessment in downtown that members of the Advisory team were invited to attend. Both assessments identified and reviewed areas of concern for bicyclists and pedestrians.
- » **Meeting One** kicked off the planning process with stakeholders including a mapping exercise to identify opportunities and challenges.
- » **Meeting Two** focused on a review and discussion of the draft network recommendations.

- » **Meeting Three** included a review and discussion of the revised network recommendations and data-driven project prioritization.

## Neighborhood Meetings

During the existing conditions planning phase, City staff attended seven regularly scheduled neighborhood meetings in the following neighborhoods:

- » German Village
- » Dayton Lane
- » North End
- » Riverview
- » East End
- » Jefferson
- » Lindenwald

Neighborhood meetings attended were predominantly on the East side of town, which in general is lower income and the City has found harder to reach via email and social media in the past.



Field Assessment with Advisory Team

## Online Surveys

Two online surveys were distributed during the course of the project:

- » **Survey One** focused on existing conditions and understanding where people currently bike/walk around Hamilton and where they would like to be able to walk/bike. Online survey response was greater on the west side of Hamilton which helped balance out input received mostly from neighborhoods located on the east side through the in-person neighborhood meetings. 330 people responded to the survey.
- » **Survey Two** asked residents to identify high priority projects to be implemented in the short term. This survey replaced in-person neighborhood meetings due to COVID-19

gathering restrictions. The survey was advertised through social media, emails to stakeholders, and a short TvHamilton ad. 154 people responded to the survey representing residents from 16 of the 17 Hamilton neighborhoods.

## Incorporating Community Input

All top destinations identified in Neighborhood Meetings (listed in Chapter 2) were considered in the proposed draft network. Specific comments from each neighborhood that were addressed in the draft network (Chapter 4) are listed below. If comments overlapped from the Advisory Team meetings (AT), another neighborhood, the field assessment, or another plan, it is noted in parentheses after the comment.

### German Village

- » Better connections to Great Miami Trail (River Master Plan & AT).
- » Improvements along MLK (AT).
- » Improvements to crossings along High Street (Field Assessment, Dayton Lane).
- » Underpass under railroad tracks – High Street doesn't feel safe (Dayton Lane, AT).

### Dayton Lane

- » MLK Crossings (German Village, AT).
- » Underpass under railroad tracks – High Street doesn't feel safe (German Village, AT).
- » Sidewalks along Eaton Road north of HS (AT).

- » Sidewalks along North B Street to Freshman School (AT).

### North End

- » Crossing MLK Blvd at Dayton, Heaton, and Buckeye Streets (AT, German Village, Dayton Lane).

### Riverview

- » Underpass under railroad tracks – High Street (German Village, Dayton Lane, AT).
- » Access to Great Miami River Trail over Nielan Blvd/ Knightsbridge.
- » Maple Avenue & Route 4.

### East End

- » No sidewalk along Hancock Avenue from Vista Drive to Five Points intersection (AT).

### Jefferson

- » Intersection of East Avenue and Hanover Street.
- » **Route 4**
  - Missing Sidewalks along South Erie Boulevard (AT).
  - Too large and too many curb cuts make walking on Erie Boulevard dangerous (AT).
- » Going Under railroad tracks on High Street doesn't feel safe (German Village, Dayton Lane, Riverview, AT).

### Lindenwald

- » Missing Sidewalks portions of Van Hook Avenue, Putnam Avenue, and Madison Avenue (AT, SRTS application).

- » Excessive speed on St Clair Avenue – long straight street with no stops.
- » Need shareway for bicycles along Joe Nuxhall Way at the St Clair Ave entrance to Joyce Park (AT).

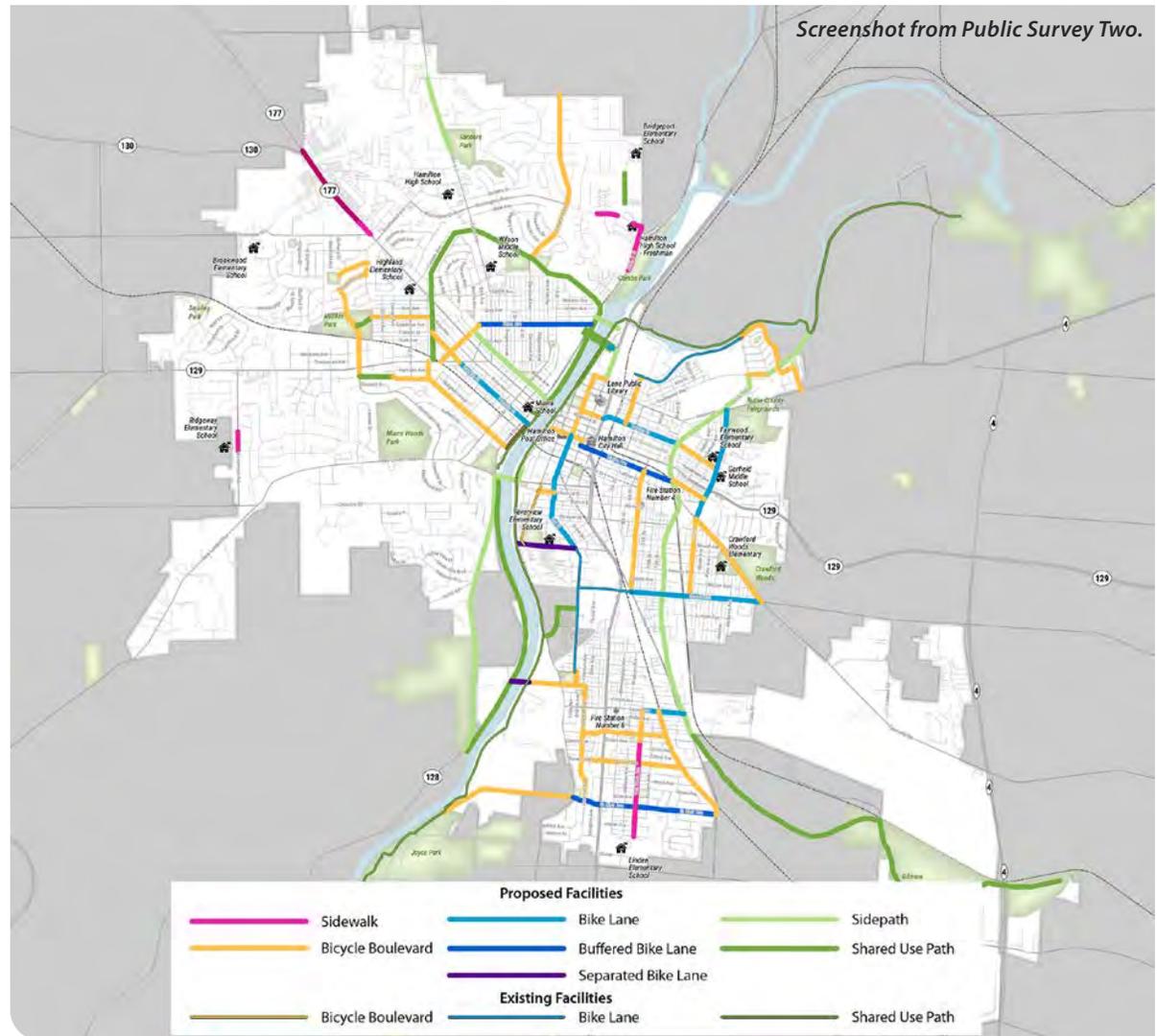
### All Neighborhoods

- » Railroad tracks at Grand Boulevard & Mosler Avenue (Pedestrian crash).
- » Missing sidewalks on Wasserman Road near Ridgeview Elementary School (AT).
- » Route 4 corridor.
- » Gaps in sidewalk along South Erie Blvd/Dixie Highway (AT).
- » Missing sidewalks on north Main Street (AT).

There were a few specific locations that were mentioned in Survey One that were not covered in the neighborhood meetings or AT meeting and addressed in the plan:

- » Walking trails in Millikan Woods.
- » Difficult to walk around Kroger/Wal-Mart/ Aldi's on Main Street.
- » Better connectivity between Miami University Hamilton and Great Miami River Trail.
- » Sidewalks on West Elkton Road.

Respondents to Survey Two prioritized top sidewalk, bicycle facilities, and shared use path projects that they would like to see implemented in the short term. This was taken into consideration in the data-driven prioritization (Chapter 5). In addition, two site specific changes were addressed based on general feedback in Survey Two:



- » Proposed facility for Rhea Avenue was changed from a Buffered Bike Lane to Separated Bike Lane.
- » A proposed sidewalk connection along Millville Avenue (State Route 129) was added.



# Recommendations

4

# Recommendations

This plan makes recommendations that will promote and support active transportation through a combination of infrastructure projects, policies, and programs. Infrastructure recommendations refer to physical, built projects that will change how roadways are configured to provide space for all roadway users. Policy and program recommendations aim to re-prioritize walking and bicycling and to change the culture around active transportation and help increase its use through engagement, education, encouragement, and evaluation.

.....

## Infrastructure

Recommendations are divided into linear and spot improvements (Map 8). Linear recommendations include infrastructure on roads (bike lanes), adjacent to roads (sidewalks, sidepaths), or off road (shared use paths, trails). Spot improvements include recommendations such as crossing and intersection enhancements. The following section describes the process for selecting bicycle and pedestrian facility types following by specific facility types proposed for Hamilton.

## Bicycle Facility Recommendations

Local infrastructure and routes will help riders of varying abilities access their daily destinations such as schools, grocery stores, parks, and work. The bicycle recommendations in this plan are informed by national guidance on bikeway planning, while also recognizing and responding to the unique bicycling needs in Hamilton.

### Design Users

There are several important factors to consider during bicycle facility selection, but the final decision depends in large part on the types of bicyclists that are expected on a particular route.

Understanding which types of bicyclists feel comfortable using a given facility is key to building a safe, convenient, and well-used network.

Bicyclists are most commonly classified according to their comfort level, bicycling skill and experience, age, and trip purpose. These characteristics can be used to develop generalized profiles of various bicycle users and trips, also known as “design users,” which inform bicycle facility design. Comfort, skill, and age may affect bicyclist behavior and preference for different types of bicycle facilities. Selecting a design user profile is often the first step in assessing a street’s



compatibility for bicycling. The design user profile should be used to select a preferred type of bikeway treatment for different contexts.

People who bicycle are influenced by their relative comfort operating with or near motor vehicle traffic. Many people are interested in bicycling for transportation, but are dissuaded by the potential for stressful interactions with motor vehicles. Of adults who have stated an interest in bicycling, research has identified three types of potential and existing bicyclists,<sup>27</sup> which are explained in the sidebar and shown in Figure 9. Children were not included in the research and require special consideration in the design of bicycle facilities.

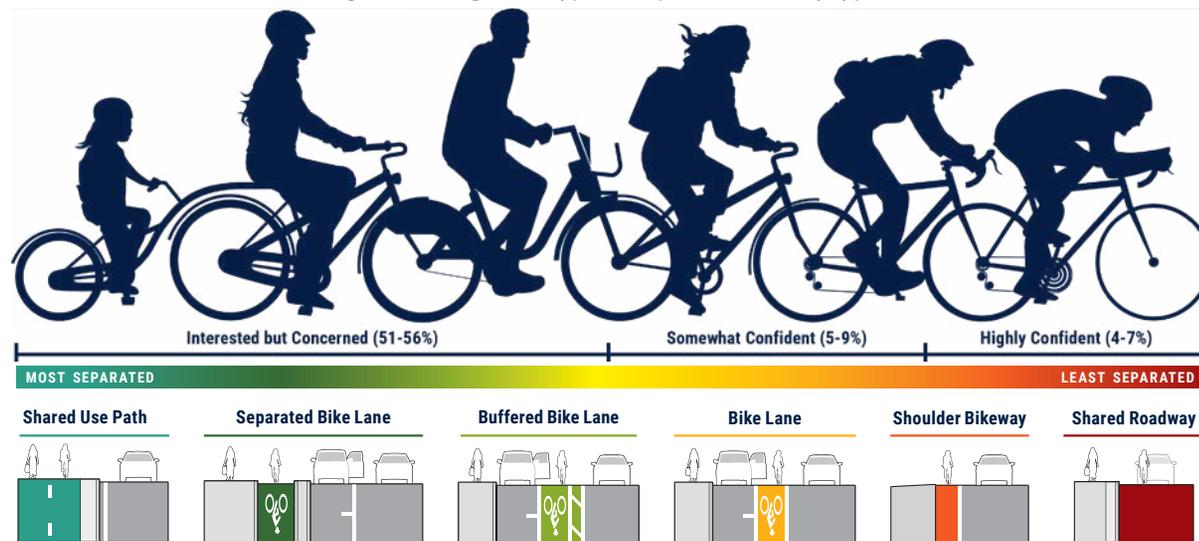
## Network Rationale and Facility Selection Methodology

Bicycle networks should be continuous, connect seamlessly across jurisdictional boundaries,

and provide access to destinations. Anywhere a person would want to drive to for utilitarian purposes, such as commuting or running errands, is a potential destination for bicycling. As such, planning connected low-stress bicycle networks is not achieved by simply avoiding motor vehicle traffic. Rather, planners should identify solutions for lowering stress along higher traffic corridors so that bicycling can be a viable transportation option for the majority of the population.

The bicycle network recommendations made in this plan considered the “interested but concerned” rider as the design user for most recommendations. After potential routes were identified, recommended facility types were selected by following guidance from the Federal Highway Administration (FHWA)’s Bikeway Selection Guide.<sup>28</sup> Figure 10 is excerpted from those guidelines.

Figure 9. Design user types and preferred facility types



## Design User Profiles

### Highly Confident Bicyclist (~4-7%)

- » Smallest group.
- » Prefer direct routes and will operate in mixed traffic, even on roadways with higher motor vehicle operating speeds and volumes.
- » Many also enjoy separated bikeways.
- » May avoid bikeways perceived to be less safe, too crowded with slower moving users, or requiring deviation from their preferred route.

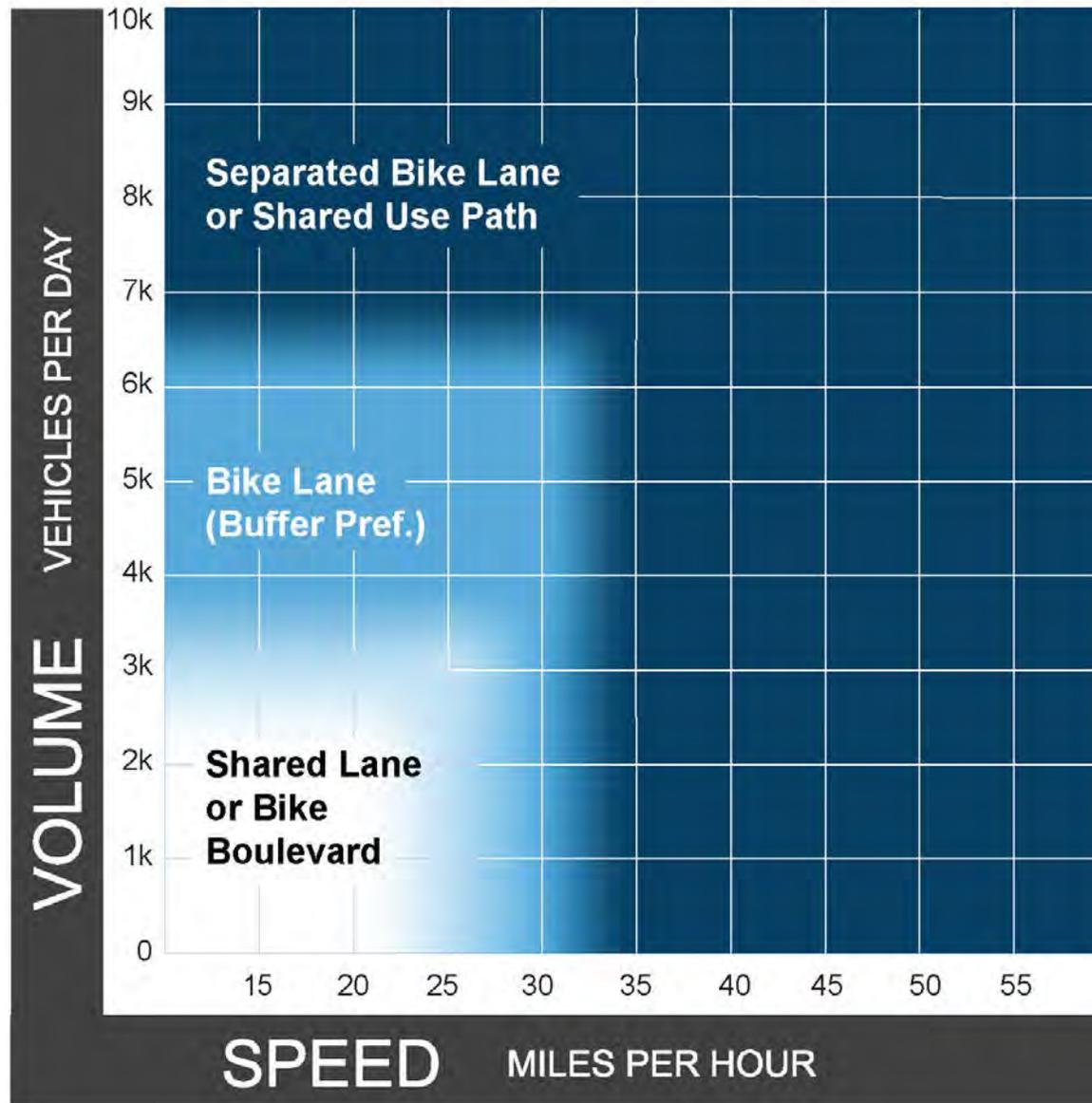
### Somewhat Confident Bicyclist (~5-9%)

- » Comfortable on most types of facilities.
- » Lower tolerance for traffic stress, prefer striped or separated bike lanes on major streets and low-volume residential streets.
- » Willing to tolerate higher levels of traffic stress for short distances.

### Interested but Concerned Bicyclist (~51-56%)

- » Largest group.
- » Lowest tolerance for traffic stress.
- » Avoid bicycling except with access to networks of separated bikeways or very low-volume streets with safe roadway crossings, which suppresses cycling.
- » Tends to bicycle for recreation but not transportation.
- » Generally the recommended design user profile to maximize potential for bicycling.

Figure 10. Urban Bicycle Facility Selection Matrix



Source: FHWA 2019

## Pedestrian Facility Recommendations

Plan Hamilton identified several areas that were inadequate for pedestrians. Building on that the advisory team and public helped identify several areas in need of sidewalks and new or enhanced pedestrian crossings.

### Facility Toolkit

Bicycle infrastructure recommendations include six bicycle facility types to accommodate riders of varying ability and in different riding environments. These facility types aim to accommodate a broad range of bicyclists in the county’s urbanized and rural areas. Research shows that the provision of low-stress, connected bicycle networks improves bicyclist safety and encourages bicycling for a broader range of user types.

Pedestrian infrastructure is primarily provided in the form of sidewalks or shared use paths. The presence of sidewalks along a roadway corresponds to a 65 to 89 percent reduction in “walking along road” pedestrian crashes.<sup>29</sup> Additional treatments can also be implemented along roadways or at crossing locations to improve the bicycling and pedestrian experience, encourage more walking, and decrease the number of crashes that occur.

All facility types are described in Table 1.

Table 1. Facility Toolkit

|                                     |    |    |
|-------------------------------------|--|---|
|                                     | <b>Bicycle Boulevard (Shared Lane Markings)</b>  | <b>Bike Lane &amp; Buffered Bike Lanes</b>  |
| <b>Description</b>                  | Where traffic volumes and speeds are low, many bicyclists can comfortably share lanes with motor vehicles. Shared lane markings and signs are added to inform people driving that bicyclists may operate in the lane and where to expect bicyclists. Wayfinding signage and traffic calming can help increase user comfort and prioritize bicycle travel.  | One-way facilities within the roadway demarcated with painted lane lines. Standard bike lanes provide some improvements to bicyclist safety, and can be enhanced with painted buffers, bike lane extensions through intersections, green colored pavement and regulatory signs.   |
| <b>Intended Users</b>               | Bicyclists   | Bicyclists  |
| <b>Context</b>                      | Urban and Urban Periphery  | Urban   |
| <b>Posted Speed Limit</b>           | 25 mph or lower (preferred)<br>35 mph or lower (acceptable)  | 30 mph or lower   |
| <b>Motor Vehicle Traffic Volume</b> | 3,000 ADT or lower (preferred)<br>5,000 ADT or lower (acceptable)  | 6,000 ADT or lower (preferred)<br>20,000 ADT or lower (preferred)   |
| <b>Other Considerations</b>         | May be used in conjunction with wide outside lanes. Explore opportunities to provide parallel facilities for less confident bicyclists. Where motor vehicles are allowed to park along shared lanes, place markings to reduce potential conflicts with opening car doors.<br>On low speed (<25 mph) low traffic (<3,000 ADT) streets, traffic calming and diversion can be used to slow traffic or create a bicycle boulevard. | Intersection designs should promote visibility of bicyclists and raise awareness of potential conflicts. Painted buffers can increase actual and perceived safety and are preferred when feasible. Bike lanes located next to parked cars should have a painted buffer next to the parking lane to prevent “dooring” crashes. |



**Separated Bicycle Lane**



**Shared Use Path and Sidepath**



**Traffic Calming/ Gateway**

| Description                  | <p>One- or two-way facilities within the roadway and physically separated from adjacent travel lanes with vertical elements such as a curb, flex posts or on-street parking. Such facilities reduce the risk of injury and can increase bicycle ridership due to perceived and actual safety and comfort.</p> | <p>Typically designed as two-way facilities physically separated from motor vehicle traffic and used by bicyclists, pedestrians, and other non-motorized users, shared use paths provide a low-stress and comfortable travel environment for users of all confidence levels. They are used for recreational opportunities in addition to transportation. Shared use paths that run parallel to roads are referred to as sidepaths.</p> | <p>Traffic calming and gateway treatments alert motorists that they are entering special areas and encourage slower driving speeds. Treatments may include curb extensions, raised intersections, speed tables, and narrowed lanes. Gateway features such as signage, public art and landscaping can be used at the entrances to communities, commercial areas, town centers, or busy places of activity to showcase the history and unique qualities of communities, acting as placemaking tools and a key ingredient in revitalizing commercial districts.</p> |
|------------------------------|---|--|--|
| Intended Users               | Bicyclists  | Bicyclists and Pedestrians   | N/A  |
| Context                      | Urban   | Urban and Rural  | Urban  |
| Posted Speed Limit           | Any speed (typically 30 mph or higher)  | Urban: Any speed (typically 30 mph or higher)<br>Rural: Any speed (typically 55 mph or higher)   | Any Speed  |
| Motor Vehicle Traffic Volume | Any volume (typically 15,000 ADT or greater)  | Urban: Any volume (typically 15,000 ADT or greater)<br>Rural: Any volume (typically 6,500 ADT or greater).   | Any Volume   |
| Other Considerations         | <p>Intersection designs should promote visibility of bicyclists and raise awareness of potential conflicts. Separation may be provided through temporary measures such as planters or removable bollards as an interim and low-cost design.</p>   | <p>Sidepaths should be at least 10 feet wide (wider where higher bicycle and pedestrian traffic is expected, e.g., urban areas). Special consideration must be given to the design of roadway crossings to increase visibility, clearly indicate right-of-way, and reduce crashes. Alternative accommodations should be sought when there are many intersections and commercial driveway crossings per mile.</p>                       | N/A  |



**Yield Roadway**



**Sidewalk**



**Crossing**

| Description                  | <p>Yield Roadways accommodate pedestrians, bicyclists, and motor vehicles in slow-speed, low-volume shared travel areas. Commercial yield roadways are located in commercial areas with high pedestrian volumes and maintain access for vehicles operating at low speeds while expanding the space available to pedestrians. These streets offer additional space and freedom of movement to pedestrians, additional space for amenities and public events, increased safety through lower motor vehicle speeds, and a boost to economic activity.</p> | <p>Sidewalks are intended for exclusive use by pedestrians. They are adjacent to but separated from the roadway by a curb and/or buffer, such as a tree lawn. As roadway speeds and volumes increase, more separation is needed to maintain a safe and comfortable walking environment for pedestrians. Common in urban areas, they may also be necessary in rural areas with pedestrian generators, such as schools and businesses. May notably increase levels of walking in areas with high traffic speeds/volumes.</p> | <p>A variety of solutions can be employed to make intersections and mid-block crossings safer and more convenient for people walking. These treatments range from painted facilities, such as high-visibility crosswalks, to lights and signals, such as rectangular rapid flashing beacons (RRFB). Painted crosswalks delineate the safest pathway for pedestrians, and RRFBs enhance user safety and convenience at crossing points when full signalization is not warranted.</p> |
|------------------------------|--|--|---|
| Intended Users               | Bicyclists, Pedestrians, and Motorists   | Pedestrians  | Bicyclists and Pedestrians  |
| Context                      | Urban  | Urban  | Urban and Rural   |
| Posted Speed Limit           | 20 mph (preferred)<br>30 mph (acceptable)  | 30 mph or lower (preferred)<br>50 mph (acceptable)   | Any Speed (appropriate treatment will vary)   |
| Motor Vehicle Traffic Volume | 500 ADT or lower (preferred)<br>2,000 ADT (acceptable)   | 12,000 ADT or lower (preferred)  | Any Volume (appropriate treatment will vary)  |
| Other Considerations         | <p>Roadways used by pedestrians must meet the same accessibility guidelines for walkways, as required by the Americans with Disabilities Act (ADA). Warning signs can be used to inform motorists that they may encounter pedestrians and/or bicyclists sharing the road. Textured pavements that are flush with the curb can reinforce pedestrian priority space. Shared streets may be delineated or closed to traffic using movable street furniture.</p>   | N/A  | <p><b>Treatments</b> may include:</p> <ul style="list-style-type: none"> <li>•High visibility markings</li> <li>•Advance yield lines and signage</li> <li>•Curb extensions</li> <li>•Raised crosswalk</li> <li>•RRFB</li> <li>•Textured intersection pavement</li> </ul>  |

# Recommendations

Recommendations are separated into linear and spot improvements that respond to the existing conditions analysis and community input. Major proposed projects that serve as spines of the network include:

- » Beltline Shared Use Path;
- » Adding shared use paths around the riverfront to create a loop to connect the future Spooky Nook Complex, Main Street businesses, and the downtown core;
- » Route 4 Multimodal Corridor; and
- » Miami 2 Miami Connection.

Multiple neighborhood facilities, including many bicycle boulevards, are proposed to serve as feeders to the above mentioned major projects. Where feasible and appropriate proposed bicycle facilities should be separated from vehicular traffic by buffers with flexible delineators.

Map 8 displays all proposed recommendations and the following pages (Maps 9-11) include zoomed in snapshots of the network for more detail and project numbering. Table 2 and 3 list all projects with facility type, descriptions, and potential funding sources.



Map 8. Network Recommendations

## LEGEND

### Recommendations

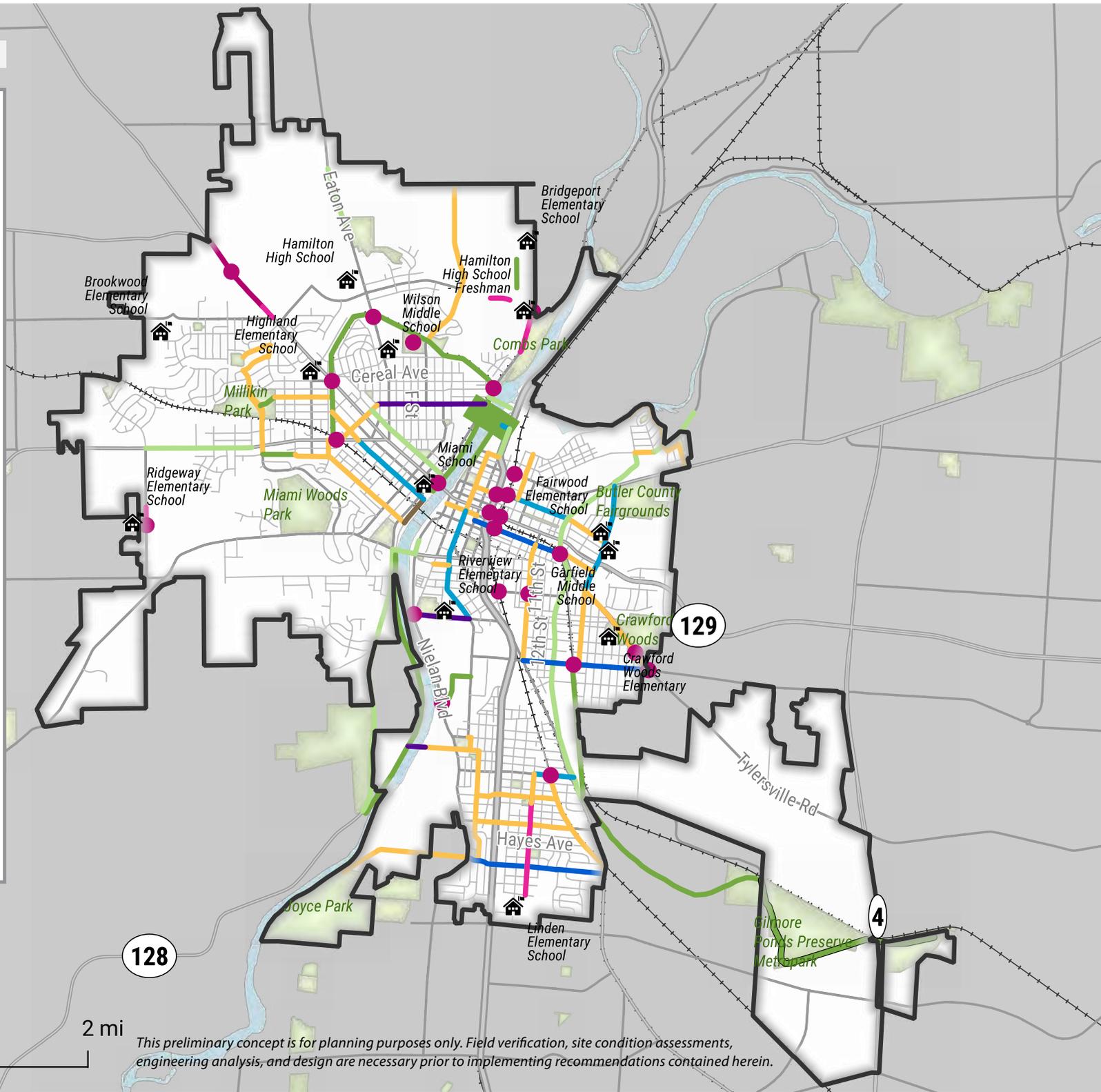
-  Yield Roadway
-  Sidewalk One Side
-  Sidewalk Both Sides
-  Bicycle Boulevard
-  Bike Lane
-  Buffered Bike Lane
-  Separated Bike Lane
-  Sidepath
-  Shared Use Path
-  Spot Recommendations

### Points of Interest

-  Fire Station
-  Library
-  Post Office
-  School
-  City Hall

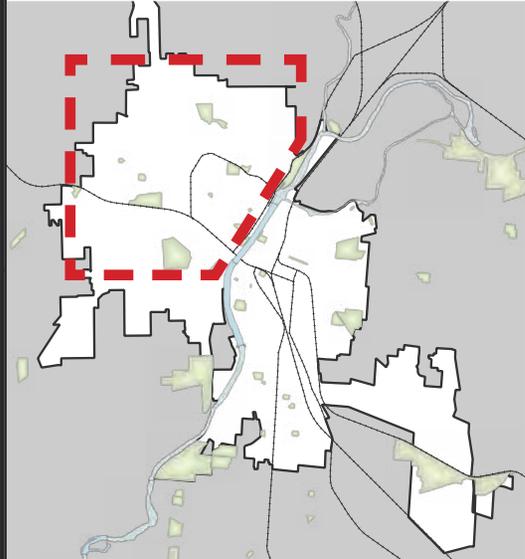
### Existing

-  Bike Lane
-  Shared Lane Markings
-  Trail
-  Railroad
-  Parks
-  Waterway



*This preliminary concept is for planning purposes only. Field verification, site condition assessments, engineering analysis, and design are necessary prior to implementing recommendations contained herein.*

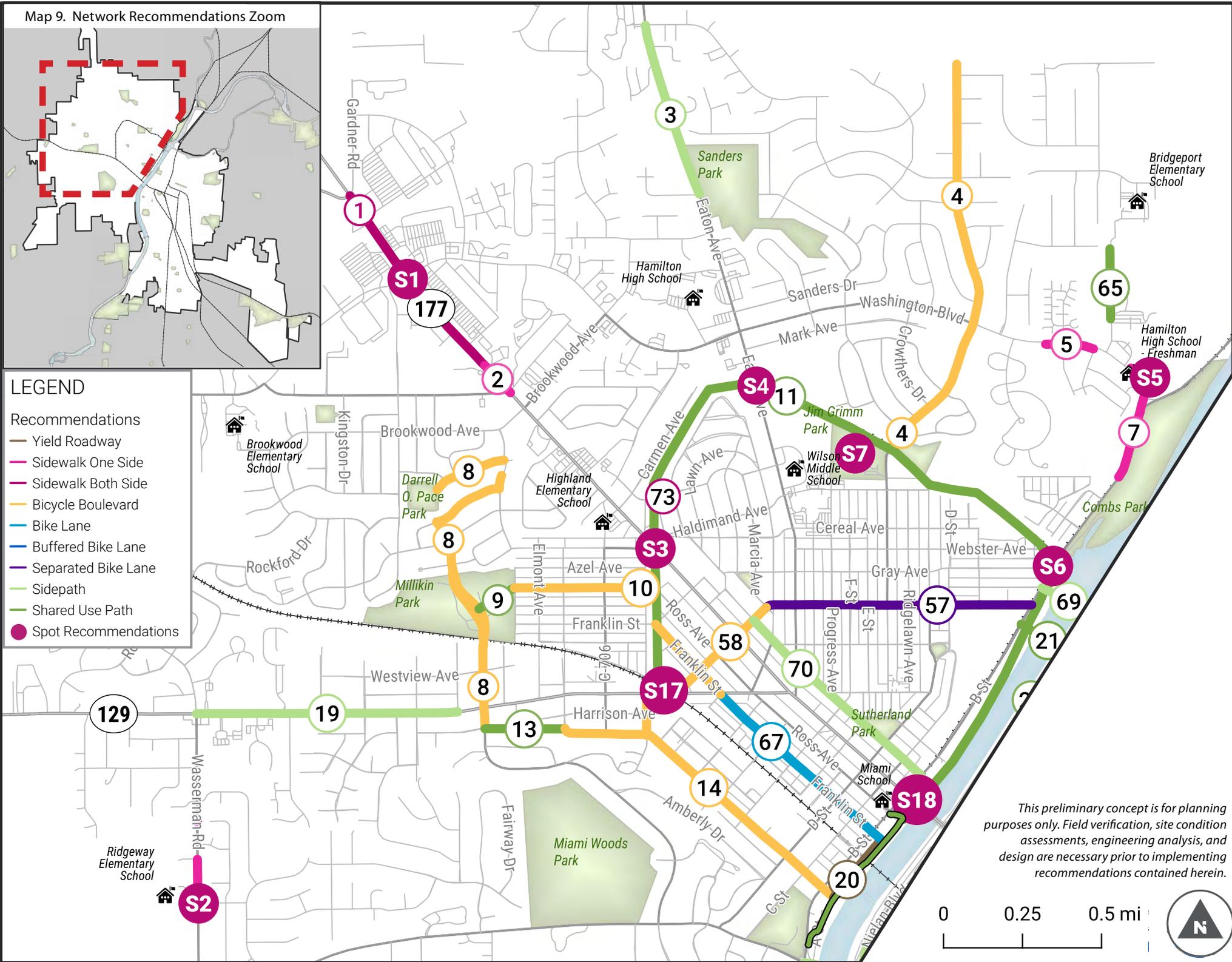
Map 9. Network Recommendations Zoom



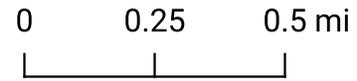
LEGEND

Recommendations

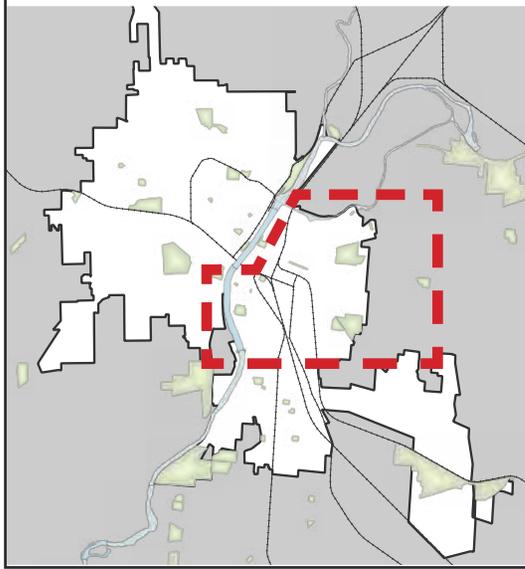
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- Shared Use Path
- Spot Recommendations



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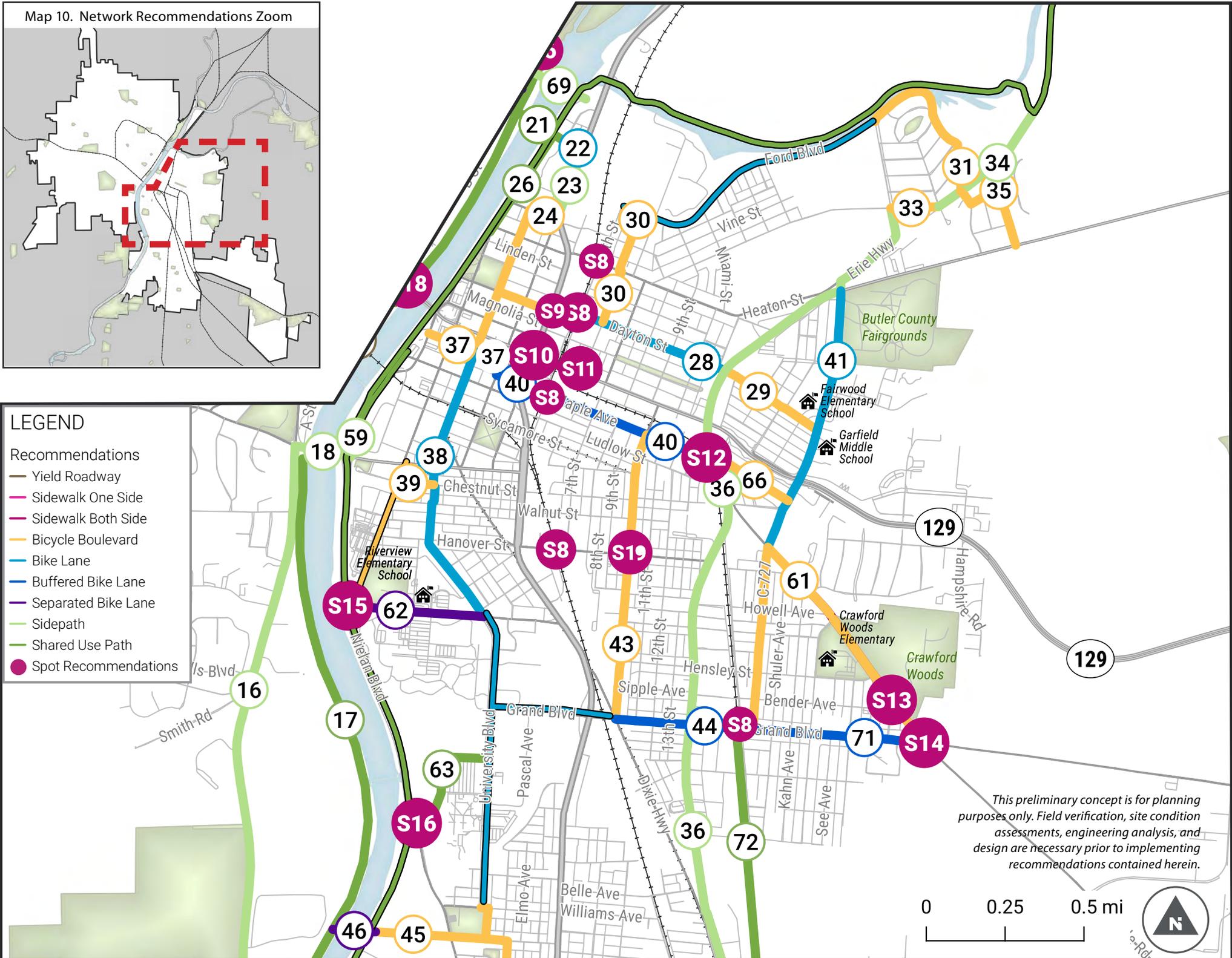


Map 10. Network Recommendations Zoom

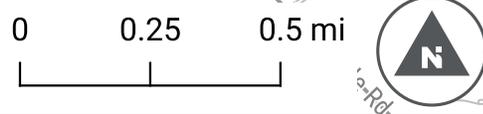


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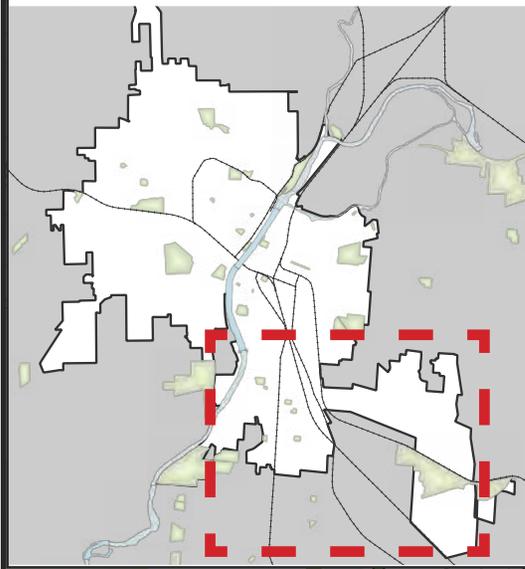
- Recommendations
- Yield Roadway
- Sidewalk One Side
- Sidewalk Both Side
- Bicycle Boulevard
- Bike Lane
- Buffered Bike Lane
- Separated Bike Lane
- Sidepath
- Shared Use Path
- Spot Recommendations



*This preliminary concept is for planning purposes only. Field verification, site condition assessments, engineering analysis, and design are necessary prior to implementing recommendations contained herein.*



Map 11. Network Recommendations Zoom



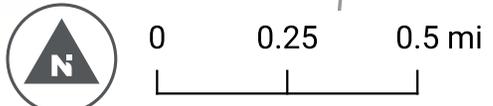
### LEGEND

Recommendations

- Yield Roadway
- Sidewalk One Side
- Sidewalk Both Side
- Bicycle Boulevard
- Bike Lane
- Buffered Bike Lane
- Separated Bike Lane
- Sidepath
- Shared Use Path
- Spot Recommendations



*This preliminary concept is for planning purposes only. Field verification, site condition assessments, engineering analysis, and design are necessary prior to implementing recommendations contained herein.*



Joyce Park

Gilmore Ponds Preserve Metropark

Table 2. Linear Recommendations

| Map ID | Priority (HIGH, MED, LOW) | Facility Type       | Location                            | Extents   | Description   | Plan          | Funding         |
|--------|---------------------------|---------------------|-------------------------------------|---|---|---------------|-----------------|
| 1      | HIGH                      | Sidewalk Both Sides | Main St                             | Gardner Rd to 600 ft North of Stahlheber Rd                       | Add sidewalk on both sides of street to connect commercial uses along Main St.                        |               | HSIP, TA        |
| 2      | HIGH                      | Sidewalk One Side   | Main St                             | 600 ft North of Stahlheber Rd to Stahlheber Rd                    | Fill sidewalk gaps on west side.  |               | HSIP, TA        |
| 3      | LOW                       | Sidepath            | Eaton Rd                            | Gordon Smith Blvd to Peregrine Way                                | Add sidepath on west side to connect neighborhood to Hamilton High School.                            |               | HSIP, TA        |
| 4      | LOW                       | Shared Lane         | Cleveland Ave                       | Tabor Ln to future Belt Line Trail                                | Add shared lane markings and traffic calming treatments to connect to future Belt Line Trail.         | Plan Hamilton | Local funding   |
| 5      | MEDIUM                    | Sidewalk One Side   | NW Washington Blvd                  | 300 ft West of Autum Walk to Lisa Renee Dr                        | Add sidewalk to south side of NW Washington Blvd.   |               | HSIP, TA        |
| 6      | HIGH                      | Sidewalk One Side   | NW Washington Blvd and W Elkton Rd  | Hamilton High School Freshman Campus to West Elkton Rd            | Add sidewalk to north side of Washington Blvd.  |               | HSIP, TA        |
| 7      | HIGH                      | Sidewalk One Side   | North B St                          | NW Washington Blvd to 400 ft north of N B St                      | Add sidewalk to east side to connect to Hamilton High School - Freshman Campus                        |               | HSIP, TA        |
| 8      | LOW                       | Shared Lane         | N Washington Blvd and Brookcrest Dr | Darrell O. Pace Park to Harrison Ave                              | Add shared lane markings, traffic calming, and wayfinding.  | Plan Hamilton | Local funding   |
| 9      | LOW                       | Shared Use Path     | Millikin Woods Park                 | N Washington Blvd to Ross Ave                                     | Add shared use path to connect N Washington Blvd through park to Ross Ave and future Belt Line Trail. | Plan Hamilton | RTP, COTF, GSCP |
| 10     | LOW                       | Shared Lane         | Ross Ave                            | Millikin Park to future Belt Line Trail                           | Add shared lane markings, traffic calming treatments, and wayfinding.                                 | Plan Hamilton | Local funding   |
| 11     | HIGH                      | Shared Use Path     | Beltline                            | Millville Ave (SR 129) to Black St Bridge                         | Add shared use path on former railroad tracks.  | Plan Hamilton | RTP, COTF, GSCP |
| 12     | MEDIUM                    | Sidewalk One Side   | Wasserman Rd                        | 200 ft south of Barbara Ave to Imperial Dr                        | Add sidewalk to east side of Wasserman Rd   |               | HSIP, TA, SRTS  |
| 13     | LOW                       | Shared Use Path     | City ROW                            | S Washington Blvd to Millikin St                                  | Add shared use path to connect from S Washington to Millikin St.                                      |               | RTP, COTF, GSCP |
| 14     | LOW                       | Shared Lane         | Milliken St                         | Shared Use Trail south of Harrison Ave to A St / Shared Use Trail | Add shared lane markings, traffic calming treatments, and wayfinding.                                 | Plan Hamilton | Local funding   |

|   |   |
|---|---|
| <b>Funding Source Acronyms</b><br><b>COTF:</b> Clean Ohio Trails Fund<br><b>RTP:</b> Recreational Trails Program<br><b>HSIP:</b> Highway Safety Improvement Program | <b>SRTS:</b> Safe Routes to School<br><b>GSCP:</b> Green Space Conservation Program<br><b>TA:</b> Transportation Alternatives Program<br>See Chapter 5 for full details on funding opportunities. |
|---|---|

Table 2. Linear Recommendations

| Map ID | Priority (HIGH, MED, LOW) | Facility Type          | Location                       | Extents                                     | Description  | Plan                               | Funding         |
|--------|---------------------------|------------------------|--------------------------------|---|--|------------------------------------|-----------------|
| 15     | LOW                       | Shared Use Path        | West of Great Miami River      | End of shared use path to Black St Bridge   | Close gap between end of shared use path and Black St Bridge (future site of Spooky Nook)  | Plan Hamilton, Hamilton River Plan | RTP, COTF, GSCP |
| 16     | LOW                       | Sidepath               | SR 128                         | Pershing Ave to Pyramid Hill Sculpture Park | Add a sidepath to connect to Pyramid Hill Sculpture Park   | Hamilton River Plan                | HSIP, TA        |
| 17     | HIGH                      | Shared Use Path        | West bank of Great Miami River | Pershing Ave to Pyramid Hill Sculpture Park | Add shared use path along west bank of river to connect to Pyramid Hill Sculpture Park and proposed bicycle/pedestrian bridge to Fairview Ave. | Hamilton River Plan                | RTP, COTF, GSCP |
| 18     | MEDIUM                    | Sidepath               | SR 128                         | Nielan Blvd to A St                         | Expand sidewalk into 10' sidepath to connect Great Miami Trail to Shared Use Path on west bank of river.                                       | Plan Hamilton                      | HSIP, TA        |
| 19     | LOW                       | Shared Use Path        | Millville Ave                  | Marven Ave to Wasserman Rd                  | Add Shared Use Path.<br>Alternative: Fill sidewalk gaps on both sides of street.   |                                    | RTP, COTF, GSCP |
| 20     | LOW                       | Yield Roadway          | A St                           | Milliken St to Franklin St                  | Repave and convert street to yield roadway shared by bicyclists, pedestrians, and motorists.   | Plan Hamilton                      | Local funding   |
| 21     | LOW                       | Shared Use Path Bridge | Black St                       | B St to 2nd St                              | Convert into a pedestrian, bicycle, and transit only bridge.   | Hamilton River Plan                |                 |
| 22     | LOW                       | Bike Lane              | Black St                       | 2nd St to N 3rd St                          | Add bike lanes to connect Spooky Nook to downtown.   |                                    | HSIP, TA        |
| 23     | LOW                       | Sidepath               | N 3rd St (SR 127)              | Black St to Hensel Pl                       | Convert and enhance sidewalk on west side into a sidepath to connect Black St to German Village neighborhood.                                  |                                    | HSIP, TA        |
| 24     | LOW                       | Shared Lane            | Hensel Pl                      | N 3rd St to 2nd St                          | Add shared lane markings and wayfinding.   |                                    | Local funding   |
| 25     | MEDIUM                    | Shared Lane            | 2nd St                         | Hensel Pl to Court St                       | Add shared lane markings, traffic calming treatments, and wayfinding.  | Plan Hamilton                      | Local funding   |
| 26     | LOW                       | Shared Use Path        | East side of Great Miami River | Marcum Park to Black St                     | Add shared use path on top of levee to connect Macrum Park to Black Street bridge and future Spooky Nook.                                      |                                    | RTP, COTF, GSCP |
| 27     | LOW                       | Shared Lane            | Dayton St                      | N 2nd St to MLK Jr BLVD (SR 127)            | Add shared lane markings, traffic calming treatments, and wayfinding.  | Plan Hamilton                      | Local funding   |
| 28     | MEDIUM                    | Bike Lane              | Dayton St                      | MLK Jr Blvd (SR 127) to N Erie Blvd (SR 4)  | Add bike lanes to connect Dayton Lane neighborhood to downtown.  | Plan Hamilton                      | HSIP, TA        |
| 29     | MEDIUM                    | Shared Lane            | Dayton Ln                      | N Erie Blvd (SR 4) to Fair Ave              | Add shared lane markings, traffic calming treatments, and wayfinding to connect neighborhood to Fairwood Elementary School.                    | Plan Hamilton                      | Local funding   |
| 30     | LOW                       | Shared Lane            | 6th St                         | Ford Blvd to Dayton St                      | Add shared lane markings, traffic calming, and wayfinding to connect from neighborhood to Great Miami Trail.                                   |                                    | Local funding   |

**Funding Source Acronyms**  
**COTF:** Clean Ohio Trails Fund  
**RTP:** Recreational Trails Program  
**HSIP:** Highway Safety Improvement Program  
**SRTS:** Safe Routes to School  
**GSCP:** Green Space Conservation Program  
**TA:** Transportation Alternatives Program  
 See Chapter 5 for full details on funding opportunities.

Table 2. Linear Recommendations

| Map ID | Priority (HIGH, MED, LOW) | Facility Type      | Location                                    | Extents                                      | Description   | Plan   | Funding        |
|--------|---------------------------|--------------------|---|--|---|--|----------------|
| 31     | LOW                       | Shared Lane        | Campbell Dr                                 | Neal Blvd to Canal Rd                        | Add shared lane markings, traffic calming treatments, and wayfinding to connect to Hamilton Bird Sanctuary.             | Plan Hamilton                                | Local funding  |
| 32     | LOW                       | Sidepath           | Neal Blvd                                   | N Fair Ave to Greenwood Ave                  | Add sidepath along Neal Blvd to connect Hamilton Loop Trail to Great Miami Trail.                                       | Plan Hamilton, M2M Action Plan               | HSIP, TA, RTP  |
| 33     | LOW                       | Shared Lane        | Greenwood Ave                               | Neal Blvd to Elaine Ave                      | Add shared lane markings, traffic calming, and wayfinding to connect proposed Hamilton Loop Trail to Great Miami Trail. | Plan Hamilton, M2M Action Plan               | Local funding  |
| 34     | LOW                       | Sidepath           | Canal Rd                                    | Elaine Ave to Great Miami Trail              | Add sidepath to connect proposed Hamilton Loop to Great Miami Trail.  | Plan Hamilton, M2M Action Plan               | HSIP, TA, RTP  |
| 35     | LOW                       | Shared Lane        | Campbell Dr, Carter Ter, and East View Pkwy | Canal Rd to N Erie Blvd (SR 4)               | Add shared lane markings, traffic calming, and wayfinding.  | Plan Hamilton                                | Local funding  |
| 36     | HIGH                      | Sidepath           | Erie Blvd (SR 4)                            | Fair Ave to Bobmeyer Rd                      | Add sidepath along SR4 and enhance streetscape to become multimodal corridor, including consolidating driveways.        | Plan Hamilton, M2M Action Plan (Alternative) | HSIP, TA, RTP  |
| 37     | MEDIUM                    | Shared Lane        | Court St and 3rd St                         | Monument St to 3rd St; Court St to Maple Ave | Add shared lane markings, traffic calming treatments, and wayfinding.   | Plan Hamilton                                | Local funding  |
| 38     | HIGH                      | Bike Lane          | 2nd St                                      | Court St to Knightsbridge Dr                 | Add bike lanes on both sides.   | Plan Hamilton                                | HSIP, TA       |
| 39     | LOW                       | Shared Lane        | Chestnut St                                 | Front St to 2nd St                           | Add shared lane markings and wayfinding to connect existing bicycle network on Front St to proposed bike lane on 2nd St |  | Local funding  |
| 40     | MEDIUM                    | Buffered Bike Lane | Maple St                                    | 3rd St to S Erie Blvd (SR 4)                 | Add buffered bike lanes.  | Plan Hamilton                                | HSIP, TA       |
| 41     | MEDIUM                    | Bike Lane          | Fair Ave                                    | N Erie Blvd (SR 4) to Hancock Ave            | Add bike lanes.   | Plan Hamilton                                | HSIP, TA, SRTS |
| 42     | MEDIUM                    | Shared Lane        | Harmon Ave                                  | Hancock Ave to Grand Blvd                    | Add shared lane markings, traffic calming treatments, and wayfinding.   | Plan Hamilton                                | Local funding  |
| 43     | MEDIUM                    | Shared Lane        | East Ave                                    | Maple Ave to Grand Blvd                      | Add shared lane markings, traffic calming treatments, and wayfinding.   | Plan Hamilton                                | Local funding  |
| 44     | HIGH                      | Buffered Bike Lane | Grand Blvd                                  | East Ave to RR                               | Add bike lanes to connect Great Miami Trail to SR 4 and future M2M connection.  | Plan Hamilton                                | HSIP, TA       |

**Funding Source Acronyms**  
**COTF:** Clean Ohio Trails Fund  
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**TA:** Transportation Alternatives Program  
 See Chapter 5 for full details on funding opportunities.

Table 2. Linear Recommendations

| Map ID | Priority (HIGH, MED, LOW) | Facility Type       | Location                                      | Extents  | Description  | Plan                               | Funding         |
|--------|---------------------------|---------------------|---|--|--|------------------------------------|-----------------|
| 45     | LOW                       | Shared Lane         | Fairview Ave, Power Ave, and Williams Ave     | Trailhead to University Blvd                               | Add shared lane markings, traffic calming treatments, and wayfinding to connect from Great Miami Trailhead to existing bike lanes on University Blvd | Plan Hamilton, Hamilton River Plan | Local funding   |
| 46     | LOW                       | Separated Bike Lane | Great Miami River (Fairview Ave)              | Great Miami Trail to proposed trail on west side of river. | Any future bridge should have separated pedestrian and bicycle facilities to connect trails and to Pyramid Hill Sculpture Park.                      | Hamilton River Plan                | HSIP, TA        |
| 47     | LOW                       | Shared Lane         | Joe Nuxhall Way                               | Great Miami Trail to River Rd                              | Add shared lane markings and wayfinding to connect Great Miami Trail to neighborhood.  | Plan Hamilton                      | Local funding   |
| 48     | LOW                       | Shared Lane         | Freeman Ave                                   | Fairview Ave to St Clair Ave                               | Add shared lane markings, traffic calming treatments, and wayfinding.  | Plan Hamilton                      | Local funding   |
| 49     | MEDIUM                    | Bike Lane           | Laurel Ave                                    | Van Hook Ave to S Erie Blvd (SR 4)                         | Add bike lanes on both sides to connect neighborhood to SR 4.  | Plan Hamilton                      | HSIP, TA        |
| 50     | MEDIUM                    | Shared Lane         | Hooven Ave                                    | Freeman Ave to Zimmerman Ave                               | Add shared lane markings, traffic calming treatments, and wayfinding.  | Plan Hamilton                      | Local funding   |
| 51     | MEDIUM                    | Shared Lane         | Corwin Ave                                    | Freeman Ave to Zimmerman Ave                               | Add shared lane markings, traffic calming treatments, and wayfinding.  | Plan Hamilton                      | Local funding   |
| 52     | MEDIUM                    | Buffered Bike Lane  | St Clair Ave                                  | River Rd to Zimmerman Rd                                   | Add buffered bike lanes to connect Joyce Park to neighborhood.   | Plan Hamilton                      | HSIP, TA, SRTS  |
| 53     | MEDIUM                    | Shared Lane         | Van Hook Ave                                  | Laurel Ave to Hoadley Ave (Linden Elementary School)       | Add shared lane markings, traffic calming treatments, and wayfinding.  | Plan Hamilton                      | Local funding   |
| 54     | MEDIUM                    | Sidewalk One Side   | Van Hook Ave                                  | Hooven Ave to Hoadley Ave (Linden Elementary School)       | Fill in sidewalk gaps.   | SRTS Application 2020              | HSIP, TA, SRTS  |
| 55     | LOW                       | Shared Lane         | Zimmerman Ave                                 | Laurel Ave to St Clair Ave                                 | Add shared lane markings and wayfinding.   | Plan Hamilton                      | Local funding   |
| 56     | LOW                       | Shared Use Path     | Ramona/Canal right-of-way, Canal right-of-way | Bobmeyer Road to existing Canal Trail                      | Add shared use path to connect SR 4 sidepath to existing Canal Trail.  | Plan Hamilton, M2M Action Plan     | RTP, COTF, GSCP |
| 57     | LOW                       | Separated Bike Lane | Rhea Ave                                      | Virginia Ave to future Beltline Trail                      | With relocation of Rhea Ave add buffered bike lanes to both sides of the street.   |                                    | HSIP, TA        |
| 58     | LOW                       | Shared Lane         | Edgewood Ave                                  | Millville Ave (SR 129) to Virginia Ave                     | Add shared lane markings, traffic calming treatments, and wayfinding to connect to future Beltline Trail.  |                                    | Local funding   |

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| <p><b>Funding Source Acronyms</b><br/> <b>COTF:</b> Clean Ohio Trails Fund<br/> <b>RTP:</b> Recreational Trails Program<br/> <b>HSIP:</b> Highway Safety Improvement Program</p> | <p><b>SRTS:</b> Safe Routes to School<br/> <b>GSCP:</b> Green Space Conservation Program<br/> <b>TA:</b> Transportation Alternatives Program<br/>                 See Chapter 5 for full details on funding opportunities.</p> |
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Table 2. Linear Recommendations

| Map ID | Priority (HIGH, MED, LOW) | Facility Type       | Location  | Extents  | Description   | Plan            | Funding         |
|--------|---------------------------|---------------------|---|--|---|-----------------|-----------------|
| 59     | LOW                       | Sidepath            | Nielan Blvd   | Great Miami Trail to SR 128  | Expand sidewalk to become sidepath and connect Great Miami Trail to bridge crossing.                            |                 | HSIP, TA        |
| 60     | HIGH                      | Sidewalk Both Sides | Hancock Ave   | Vista Dr to Grand Blvd   | Add sidewalks to both sides of roadway to connect neighborhoods to schools.                                     |                 | HSIP, TA, SRTS  |
| 61     | MEDIUM                    | Shared Lane         | Hancock Ave   | Harmon Ave to Grand Blvd   | Add shared lane markings, traffic calming treatments, and wayfinding.   |                 | SRTS            |
| 62     | LOW                       | Separated Bike Lane | Knightsbridge Dr  | Neilan Blvd to University Blvd   | Add a separated bike lane to connect Great Miami Trail along Knightsbridge Dr.                                  |                 | HSIP, TA        |
| 63     | LOW                       | Shared Use Path     | Miami University Hamilton Campus                          | Great Miami Trailhead at Nielan Blvd to University Blvd                  | Add shared use path to connect from University Blvd to Great Miami trailhead at Nielan Blvd.                    | M2M Action Plan | RTP, COTF, GSCP |
| 64     | LOW                       | Shared Lane         | Hyde Park Dr  | Millville Ave to Milliken St   | Add shared lane markings and wayfinding to connect future Beltline trail to Milliken St and downtown.           |                 | Local funding   |
| 65     | LOW                       | Shared Use Path     | Bridgeport Elementary School and Hamilton Freshman School | End of existing sidewalk to Hamilton Freshman School fields/parking lot. | Add shared use path to connect Bridgeport Elementary School and Hamilton Freshman School.                       |                 | RTP, COTF, GSCP |
| 66     | MEDIUM                    | Shared Lane         | Maple Ave   | S Erie Blvd (SR 4) to Fair Ave   | Add shared lane markings, traffic calming treatments, and wayfinding.   | Plan Hamilton   | Local funding   |
| 67     | LOW                       | Bike Lane           | Franklin St   | Route 129 to B St  | Add contraflow bike lane southbound, shared lane markings and wayfinding northbound.                            |                 | HSIP, TA        |
| 68     | LOW                       | Shared Lane         | Franklin St   | Future Beltline to Route 129   | Add shared lane markings, traffic calming treatments, and wayfinding.   |                 | Local funding   |
| 69     | LOW                       | Sidepath            | Hamilton North Crossing                                   | TBD  | Build new bridge to accommodate vehicular traffic and include separated bicycle and pedestrian facilities.      |                 | HSIP, TA        |
| 70     | LOW                       | Sidepath            | Park Ave  | B St to Edgewood Ave   | Add sidepath along Park Ave.  |                 | HSIP, TA        |
| 71     | LOW                       | Buffered Bike Lane  | Grand Blvd  | RR to Hancock Ave  | Add buffered bike lanes to connect Great Miami Trail to SR 4 and future M2M connection.                         | Plan Hamilton   | HSIP, TA        |
| 72     | MEDIUM                    | Shared Use Path     | Adjacent to RR  | Bobmeyer Rd to Grand Blvd  | Add shared use path to connect Great Miami Trail to SR 4 and future M2M connection.                             | M2M Action Plan | RTP, COTF, GSCP |
| 73     | MEDIUM                    | Sidewalk Both Sides | Highland Av   | Armo Ave to N McKinley Ave   | Road segment was previously block off, but since re-opening needs sidewalks to be added to both side of street. |                 | SRTS, HSIP, TA  |

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| <b>Funding Source Acronyms</b><br><b>COTF:</b> Clean Ohio Trails Fund<br><b>RTP:</b> Recreational Trails Program<br><b>HSIP:</b> Highway Safety Improvement Program | <b>SRTS:</b> Safe Routes to School<br><b>GSCP:</b> Green Space Conservation Program<br><b>TA:</b> Transportation Alternatives Program<br>See Chapter 5 for full details on funding opportunities. |
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Table 3. Spot Recommendations

| Map ID | Priority (HIGH, MED, LOW)   | Location  | Facility Type                  | Description   | Funding             |
|--------|-----------------------------|---|--------------------------------|---|---------------------|
| S01    | IMPLEMENT W/ LINEAR REC #1  | Main St and NW Washington   | Crosswalks, Pedestrian Signal  | Add high visibility crosswalks and pedestrian signal at all four crossing legs.   | HSIP, TA            |
| S02    | HIGH                        | Wasserman Rd and Imperial Dr  | Crosswalks, RRFB               | Add high visibility crosswalks to north and east legs and RRFB to cross Wasserman Rd.   | TA, RTP, COTF       |
| S03    | IMPLEMENT W/ LINEAR REC #11 | Main St and Western Ave/Cereal Ave  | Crosswalk                      | Enhance crosswalk to accommodate future trail traffic, such as widening crossing and adding wayfinding.   |                     |
| S04    | HIGH                        | Eaton Ave and future Beltline Trail   | Crosswalk, RRFB                | Add high visibility crosswalk and RRFB to cross Eaton Ave from future Beltline trailhead to Flub's Ice Cream.   | HSIP, SRTS          |
| S05    | IMPLEMENT W/ LINEAR REC #7  | NW Washington Blvd and W Elkton Rd  | Crosswalk, RRFB                | Add high visibility crosswalks on west and north legs of intersection and a RRFB on the north leg of crossing.  | SRTS                |
| S06    | IMPLEMENT W/ LINEAR REC #11 | B St and future Beltline Trail  | High visibility trail crossing | Add signage and high visibility crosswalk for future trail crossing.  | SRTS                |
| S07    | MEDIUM                      | Jim Grimm Park  | Park Trails                    | Add trails within Jim Grimm Park and connect the middle school and Fort Hamilton Hospital to the future Beltline Trail.   | TA, RTP, COTF       |
| S08    | MEDIUM                      | RR and Heaton St, Dayton St, Maple Ave, Hanover St, Grand Blvd, and Laurel Av | Enhance RR Crossing            | Formalize pedestrian crossing by painting or adding sidewalk, adding ADA ramps where needed, and relocating crossbuck to include pedestrian crossing.   | TA, RTP, COTF       |
| S09    | MEDIUM                      | N MLK Jr Blvd (SR 127) and Dayton St  | Enhance Crossing               | Add high visibility crosswalks to all legs of intersection, install sidepath on northwest corner to connect shared lane to existing crosswalk and add pedestrian signal to cross right turn lane. | TA, RTP, COTF       |
| S10    | HIGH                        | High St (SR 129) and MLK Jr Blvd (SR 127)                                     | Signals                        | Reprogram pedestrian signal phasing, Options include: pedestrian scramble, no turn on red (signage), longer pedestrian crossing phase, or allowing pedestrian to cross before left turn signal.   | HSIP, TA            |
| S11    | MEDIUM                      | High St (SR 129) and 5th St (Underpass)                                       | Enhance Underpass              | Add lighting and artwork under bridge; evaluate if one lane can be removed and sidewalk expanded.   | HSIP, TA            |
| S12    | MEDIUM                      | Maple Ave and Railroad/SR 4   | Enhance railroad crossing      | Formalize pedestrian and bicycle crossing by adding sidepath perpendicular to RR tracks and relocating crossbuck to include sidepath.   | SRTS                |
| S13    | HIGH                        | Hancock Ave and entrance to Crawford Woods                                    | Crosswalk, RRFB                | Add high visibility crosswalk and RRFB to connect neighborhood, school, and park.   | SRTS, HSIP, TA      |
| S14    | HIGH                        | Hancock Ave, Grand Blvd, Tuley Rd, and Tylersville Rd                         | Crosswalks                     | Add high visibility crosswalks to all legs of intersection.   | HSIP, TA, RTP, COTF |
| S15    | IMPLEMENT W/ LINEAR REC #62 | Knightsbridge Dr and Nielan Blvd  | Crosswalk, Signage             | Add high visibility crosswalks to Neilan Blvd and Front St crossing, add signage to Front St crosswalk, expand sidewalk between Nielan Blvd and Front St and connection to Trail into sidepath.   | TA                  |

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| <p><b>Funding Source Acronyms</b><br/> <b>COTF:</b> Clean Ohio Trails Fund<br/> <b>RTP:</b> Recreational Trails Program<br/> <b>HSIP:</b> Highway Safety Improvement Program</p> | <p><b>SRTS:</b> Safe Routes to School<br/> <b>GSCP:</b> Green Space Conservation Program<br/> <b>TA:</b> Transportation Alternatives Program<br/>                 See Chapter 5 for full details on funding opportunities.</p> |
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Table 3. Spot Recommendations

| Map ID | Priority (HIGH, MED, LOW)   | Location                         | Facility Type                         | Description   | Funding       |
|--------|-----------------------------|----------------------------------|---------------------------------------|---|---------------|
| S16    | IMPLEMENT W/ LINEAR REC #63 | Neilan Blvd                      | HAWK Signal                           | Add a HAWK signal for trail crossing to connect to Neilan Blvd trailhead.   | TA, RTP, COTF |
| S17    | IMPLEMENT W/ LINEAR REC #11 | Millville Ave and RR Tracks      | Crosswalk                             | Add high visibility crosswalk and signage to connect future BeltLine Trail to Hyde Park Dr. Expand sidewalk to sidepath on south side of Millville Ave. | GSCP          |
| S18    | HIGH                        | Park Ave and Main St (Route 129) | HAWK Signal and sidewalk improvements | Add a HAWK signal to cross Park Ave and add sidewalk to north side of Main St between Park Ave and B St to connect pedestrians to Main St businesses.   | HSIP, TA      |
| S19    | MEDIUM                      | Hanover St and East Ave          | Crosswalk, Pedestrian Signal          | Add high visibility crosswalks and pedestrian signal.   | TA            |

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| <p><b>Funding Source Acronyms</b><br/> <b>COTF:</b> Clean Ohio Trails Fund<br/> <b>RTP:</b> Recreational Trails Program<br/> <b>HSIP:</b> Highway Safety Improvement Program</p> | <p><b>SRTS:</b> Safe Routes to School<br/> <b>GSCP:</b> Green Space Conservation Program<br/> <b>TA:</b> Transportation Alternatives Program<br/>                 See Chapter 5 for full details on funding opportunities.</p> |
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## 2025 Active Transportation Plan - New and Updated Project List

| ATP Update Recommended Projects and Modifications |                     |                       |   |  |
|---|---------------------|-----------------------|---|--|
| Map ID  | Facility Type       | Location              | Extents   | Description  |
| 3.1   | Sidewalk Both Sides | Eaton Ave.            | Gordon Smith Blvd to Hamilton High School       | Add missing sidewalks on one or both sides to connect neighborhood to Hamilton High School   |
| 5.1   | Shared Use Path     | NW Washington Blvd    | Bethel Community Church - West Elkton Rd        | Add a shared use path on south side of NW Washington Blvd for neighborhood connectivity to school & important community centers        |
| 7.1   | Shared Use Path     | North B St            | 400 ft. North of Starr Ave - NW Washington Blvd | Add a shared use path on west side of North B St for neighborhood connectivity to schools  |
| 8.1   | Bike Lane           | North Washington Blvd | Brookcrest Dr - Millville Ave                   | Install a road diet, a bike lane, and/or bike lane enhancements along Northwest Washington Blvd for pedestrian connectivity and safety |
| 19.1  | Shared Use Path     | Millville Ave         | Hamilton Church, Place of Grace - Mavern Ave    | Add a shared use path on the south side of Millville Ave for improved connectivity and safety  |
| 28.1  | Street Improvement  | Dayton St             | MLK Jr Blvd (SR 127) to N Erie Blvd (SR 4)      | Add additional sidewalk improvements and high visibility crosswalk enhancements to improve safety along Dayton St                      |
| 36.1  | Sidewalk One Side   | Erie Blvd. (SR 4)     | Maple Ave to Hanover St                         | Add sidewalk to the west side of Erie Blvd to connect neighborhood to Garfield Middle School.  |
| 40.1  | Bike Lane           | Maple Ave             | S MLK Blvd (SR 127) - S Erie Blvd (SR 4)        | Add a protected bike lane along Maple Avenue for pedestrian connectivity and safety  |
| 41.1  | Bike Lane           | Fair Ave              | High St (SR 129) - Heaton St                    | Install a road diet, a protected bike lane, and/or bike lane enhancements along Fair Ave for pedestrian connectivity and safety        |

## 2025 Active Transportation Plan - New and Updated Project List

| ATP Update Recommended Projects and Modifications |                       |                                |                                       |  |
|---|-----------------------|--------------------------------|---------------------------------------|--|
| Map ID  | Facility Type         | Location                       | Extents                               | Description  |
| 45.1  | Bike Lane             | Power Ave, Fairview Ave        | Officer Bob Gentry Park               | Add a bike lane and/or bike lane enhancements on the west side of Power Ave and north side of Fairview at Officer Bob Gentry Park (#45, #46).                    |
| 47.1 & 52.1                                       | Shared Lane Markings  | St Clair Ave & Joe Nuxhall Way | Rose Ave - Great Miami Path Trailhead | Add shared lane markings along St Clair Ave & Joe Nuxhall Way for pedestrian connectivity and safety   |
| 70.1  | Street Improvement    | Park Ave                       | B St - Edgewood                       | Add additional sidewalk improvements and high visibility crosswalk enhancements to improve safety along Park Ave   |
| S2.1  | Shared Use Path       | Wasserman Rd                   | Wasserman Rd                          | Add a shared use path on west side of Wasserman Road to close the gaps near Ridgeway Elementary School   |
| S3.1  | Crosswalk Enhancement | Main St and Western Ave        | Spot Recommendation                   | Add high visibility crosswalk enhancements to existing crosswalks at the Millville Ave & Western Ave intersection for improved safety at this high conflict area |
| S6.1  | Crosswalk Enhancement | North B St. & Gordon Ave       | Spot Recommendation                   | Add a motion activated crossing signal along the north and south legs of N B St and a high visibility crosswalk along Gordon Ave                                 |
| S10.1   | Crosswalk Enhancement | High St & MLK Jr Blvd          | Spot Recommendation                   | Add high visibility crosswalk enhancements to existing crosswalks at the High St & MLK Jr Blvd intersection for improved safety at this high conflict area       |
| S12.1   | Crosswalk Enhancement | Maple Ave./SR 4                | Spot Recommendation                   | Consolidate to one crossing on the south side of Maple and remove curb ramps on the northwest corner   |
| S18.1   | Crosswalk Enhancement | Park Ave & North B ST          | Spot Recommendation                   | Add high visibility crosswalk enhancements to existing crosswalks at the Park Ave & North B St intersection for improved safety at this high conflict area       |

## 2025 Active Transportation Plan - New and Updated Project List

| ATP Update Recommended Projects and Modifications |                       |                                  |  |   |
|---|-----------------------|----------------------------------|--|---|
| Map ID  | Facility Type         | Location                         | Extents  | Description   |
| U1  | Sidewalk One Side     | Stahlheber Rd.                   | Arbor Springs Dr. to Brookwood Elementary School   | Add sidewalk to the south side of Stahlheber Rd to connect neighborhood to Brookwood Elementary School  |
| U2  | Crosswalk Enhancement | Eaton Ave. and Elvin Ave.        | Spot Recommendation  | Add high visibility crosswalks to both legs of intersection that cross Eaton Ave  |
| U3  | Sidewalk One Side     | Huston Rd.                       | Allen Ave to St. Claire Ave  | Add sidewalk to the west side of Huston Rd to fill in gap.  |
| U4  | Sidewalk Both Sides   | Symmes Rd./Madison Ave./Hill Ave | Symmes Rd - Pleasant Ave to 450 east of Madison Ave; Madison Ave - Symmes Rd to Hill Ave; Hill Ave - Pleasant Ave to Madison Ave | Add sidewalks on both sides of the roadway to connect neighborhood to Linden Elementary School  |
| U5  | Sidewalk One Side     | River Rd.                        | Clinton Ave to St. Clare Ave   | Add a sidewalk to the west side of River Rd from Corwin Ave to Clinton Ave with RRFB at Chase Ave; add sidewalk to the east side of River Rd from St. Claire Ave to 550 ft north. |
| U6  | Crosswalk Enhancement | Main St and Stahlheber Rd        | Spot Recommendation  | Add high visibility crosswalks to all legs of the intersection crossing Main St. and Stahlheber Rd.   |
| U7  | Crosswalk Enhancement | Millville Ave and Main St        | Spot Recommendation  | Add high visibility crosswalk enhancements to existing crosswalks at the Millville Ave & Main St intersection for improved safety at this high conflict area                      |
| U8  | Crosswalk Enhancement | Neilan Blvd & Pershing Ave       | Spot Recommendation  | Add high visibility crosswalk enhancements to existing crosswalks at the Neilan Blvd & Pershing Ave intersection for improved safety at this high conflict area                   |
| U9  | Crosswalk Enhancement | High St & South Erie Blvd        | Spot Recommendation  | Add high visibility crosswalk enhancements to existing crosswalks at the High St & South Erie Blvd intersection for improved safety at this high conflict area                    |

## 2025 Active Transportation Plan - New and Updated Project List

| ATP Update Recommended Projects and Modifications |                       |  |                          |   |
|---|-----------------------|--|--------------------------|---|
| Map ID  | Facility Type         | Location                               | Extents                  | Description   |
| U10   | Sidewalk One Side     | South Erie Blvd                        | Grand Blvd - Bobmeyer Rd | Add sidewalks where none currently exist along the east side of South Erie Blvd for pedestrian connectivity   |
| U11   | Crosswalk Enhancement | Laurel Ave & Pleasant Ave              | Spot Recommendation      | Add high visibility crosswalk enhancements to existing crosswalks at the Laurel Ave & Pleasant Ave intersection for improved safety at this high conflict area  |
| U12   | Crosswalk Enhancement | South 7th St & High St                 | Spot Recommendation      | Add high visibility crosswalk enhancements to existing crosswalks at the South 7th St & High St intersection for improved safety at this high conflict area   |
| U13   | Street Improvement    | North 7th St                           | Dayton St - High St      | Add high visibility crosswalks where none currently exist along N 7th St  |
| U14   | Sidewalk Both Sides   | East Ave                               | Maple Ave - High St      | Add sidewalks where none currently exist along both sides of East Avenue  |
| U15   | Crosswalk Enhancement | Heaton St & North MLK Jr Blvd (SR 127) | Spot Recommendation      | Add high visibility crosswalk enhancements to existing crosswalks at the Heaton St & North MLK Jr Blvd intersection for improved safety at this high conflict area  |
| U16   | Crosswalk Enhancement | North 3rd St & Black St                | Spot Recommendation      | Add high visibility crosswalk enhancements to existing crosswalks at the North 3rd St & Black St intersection for improved safety at this high conflict area  |
| U17   | Crosswalk Enhancement | Carmen Ave & Main St                   | Spot Recommendation      | Add high visibility crosswalk enhancements to existing crosswalks and a high visibility crosswalk along the south leg of the Main St & Carmen Ave intersection for improved safety at this high conflict area |
| U18   | Crosswalk Enhancement | Pleasant Ave (SR 127) & Belle Ave      | Spot Recommendation      | Adding high visibility crosswalk enhancements to existing crosswalks at the Pleasant Ave & Belle Ave intersection for improved safety at this high conflict area  |

## 2025 Active Transportation Plan - New and Updated Project List

| ATP Update Recommended Projects and Modifications |                          |  |  |  |
|---|--------------------------|--|--|--|
| Map ID  | Facility Type            | Location   | Extents  | Description  |
| U19   | Intersection Improvement | Laurel Ave & Dixie Hwy (SR 4)  | Spot Recommendation  | Add high visibility crosswalk, pedestrian signal, and a pedestrian refuge island across the north crossing legs of Dixie Hwy for improved safety at this high conflict area  |
| U20   | Crosswalk Enhancement    | N Brookwood Ave & Main St  | Spot Recommendation  | Add high visibility crosswalk enhancements to existing crosswalks along all legs of the N Brookwood Ave & Main St intersection   |
| U21   | Crosswalk Enhancement    | North B St & Black St  | Spot Recommendation  | Add high visibility crosswalk enhancements to existing crosswalks and a high visibility crosswalk along the north leg of the North B St & Black St intersection for pedestrian safety  |
| U22   | Crosswalk Enhancement    | Pleasant Ave (SR 127) & Williams Ave                                   | Spot Recommendation  | Add high visibility crosswalk enhancements to existing crosswalks along all legs of the Pleasant Ave & Williams Ave intersection   |
| U23   | Shared Use Path          | Hamilton Mason Rd  | Hamilton Mason Rd  | Add a shared use path along Hamilton Mason Road through collaboration with Fairfield Township  |
| U24   | Street Improvement       | Dixie Hwy (Rt 4) & Railroad Underpass                                  | Spot Recommendation  | Improve sidewalks at the Dixie Hwy & Railroad Underpass for pedestrian safety  |
| U25   | Street Improvement       | German Village, Highland Park, North End, and Lindenwald Neighborhoods | German Village, Highland Park, North End, and Lindenwald Neighborhoods | Add neighborhood-wide hatching for Hamilton's neighborhoods to increase pedestrian safety  |
| U26   | Sidewalk One Side        | Pleasant Avenue  | Andover Ave - Symmes Road  | Add sidewalks where none currently exist along the west side of Pleasant Avenue  |
| U27   | Street Improvement       | Grand Blvd   | Grand Blvd Roundabout - Parkamo Ave                                    | Add sidewalks and high visibility crosswalks where none currently exist along both sides of Grand Blvd to serve all residential properties on Grand Boulevard. Additionally adding a RRFB crossing at the intersection of Grand Blvd and Parkamo Ave |

## 2025 Active Transportation Plan - New and Updated Project List

| ATP Update Recommended Projects and Modifications |                          |                                    |                                       |   |
|---|--------------------------|------------------------------------|---------------------------------------|---|
| Map ID  | Facility Type            | Location                           | Extents                               | Description   |
| U28   | Street Improvement       | High St & Main St                  | S Erie Blvd - Eaton Ave               | Program the ATS network to slow traffic for improved safety along this high conflict corridor   |
| U29   | Street Improvement       | Main St                            | Meijer's - McKinley Ave               | Program the ATS network to slow traffic for improved safety along this high conflict corridor   |
| U30   | Street Improvement       | North & South MLK Jr Blvd          | Black St - Pershing Ave               | Program the ATS network to slow traffic for improved safety along this high conflict corridor   |
| U31   | Intersection Improvement | NW Washington Blvd & Cleveland Ave | Spot Recommendation                   | Add 4 new ATS traffic signals and/or a roundabout at the NW Washington Blvd & Cleveland Ave intersection along with high visibility crosswalk enhancements for improved safety at this high conflict area |
| U32   | Shared Use Path          | Main St                            | Gardner Rd - North Brookwood Ave      | Add a shared use path along Main St. for improved connectivity and safety   |
| U33   | Shared Use Path          | Hancock Ave                        | Grand Blvd Roundabout - S Fair Ave    | Add a shared use path along Hancock Ave for neighborhood connectivity   |
| U34   | Shared Use Path          | Spooky Nook & Black St             | Spooky Nook & Black St                | Continue a new path along river levy top behind the Spooky Nook parking lot to Black St   |
| U35   | Shared Use Path          | Bobmeyer Rd                        | Bobmeyer Rd - Gilmore Ponds Trailhead | Add a new shared use path to the Miami regional connector for pedestrian connectivity   |
| U36   | Shared Use Path          | Knightsbridge & Neilan             | Spot Recommendation                   | Construct a new shared use path ramp down the levy for Great Miami Trail access   |
| U37   | Shared Lane Markings     | Fairview Ave                       | Fairview Ave                          | Add shared lane marking and signage along Fairview Avenue leading to a sewage plant for the GM trailhead  |
| U38   | Street Improvement       | Pershing Ave                       | 2nd St - MLK Jr Blvd                  | Extend the road diet, 2023 SS4A demonstration project on Knightsbridge, to now include Knightsbridge from 2nd St. to MLK and incorporating a new design for resident parking                              |

## 2025 Active Transportation Plan - New and Updated Project List

| ATP Update Recommended Projects and Modifications |                          |  |  |   |
|---|--------------------------|--|--|---|
| Map ID  | Facility Type            | Location   | Extents  | Description   |
| U39   | Bike Lane                | South 3rd St                                       | Pershing Ave - Sycamore Aly                        | Add a bike lane and/or bike lane enhancements on the east side of S 3rd St for pedestrian connectivity and safety   |
| U40   | Shared Lane Markings     | South Front St                                     | Knightsbridge Dr - Ludlow St                       | Add and repaint shared lane markings along South Front St for pedestrian connectivity and safety  |
| U41   | Shared Lane Markings     | S Front St   | Ludlow St - Greater Miami Trailhead                | Add and repaint shared lane markings along S Front St to connect to the Greater Miami Trailhead at the Fitton Center  |
| U42   | Shared Lane Markings     | Rose Ave & Brough Ave                              | St. Clair Ave to Corwin Ave; Rose Ave - Zimmerman  | Add shared lane markings along Rose Avenue and Brough Ave for pedestrian connectivity and safety  |
| U43   | Bike Lane                | University Blvd Bike Lane & Nuxhall Blvd Bike Lane | University Blvd Bike Lane & Nuxhall Blvd Bike Lane | Repaint University Blvd bike lane and Nuxhall Blvd bike lane and/or utilize bike lane enhancements for pedestrian safety  |
| U44   | Intersection Improvement | Hamilton   | Four Lane Thoroughfares                            | Install ped/bike refuge islands on four lane thoroughfares in Hamilton's Active Transportation Plan (i.e. MLK & Hanover also Rt.4 and Hanover)                              |
| U45   | Shared Use Path          | Hamilton   | ATP Gaps   | Install shared use paths, buffered bike lanes, and sidewalks at all gaps of Hamilton's Active Transportation Plan   |
| U46   | Bike Lane                | Hamilton   | Bike Lane Connections in Hamilton                  | Build new bike lane connections throughout Hamilton   |
| U47   | Crosswalk Enhancement    | North Brookwood Ave & NW Washington Blvd           | Spot Recommendation                                | Add high visibility crosswalk enhancements at the North Brookwood Ave & NW Washington Blvd intersection for improved safety at this high vehicular/pedestrian conflict area |
| U48   | Crosswalk Enhancement    | Eaton Ave & NW Washington Blvd                     | Spot Recommendation                                | Add high visibility crosswalk enhancements at the Eaton Ave & NW Washington Blvd intersection for improved safety at this high vehicular/pedestrian conflict area           |

## 2025 Active Transportation Plan - New and Updated Project List

| ATP Update Recommended Projects and Modifications |                       |                                       |                     |   |
|---|-----------------------|---------------------------------------|---------------------|---|
| Map ID  | Facility Type         | Location                              | Extents             | Description   |
| U49   | Crosswalk Enhancement | Main St & Victory St                  | Spot Recommendation | Add high visibility crosswalk enhancements at the Main St & Victory St intersection for improved safety at this high vehicular/pedestrian conflict area               |
| U50   | Crosswalk Enhancement | North Washington Blvd & Millville Ave | Spot Recommendation | Add high visibility crosswalk enhancements at the NW Washington Blvd & Millville Ave intersection for improved safety at this high vehicular/pedestrian conflict area |
| U51   | Crosswalk Enhancement | Main St & N Dick Ave                  | Spot Recommendation | Add high visibility crosswalk enhancements at the Main St & N Dick Ave intersection for improved safety at this high vehicular/pedestrian conflict area               |
| U52   | Crosswalk Enhancement | Main St & North B St                  | Spot Recommendation | Add high visibility crosswalk enhancements at the Main St & North B St intersection for improved safety at this high vehicular/pedestrian conflict area               |
| U53   | Crosswalk Enhancement | Ross Ave & South B St                 | Spot Recommendation | Add high visibility crosswalk enhancements at the Ross Ave & South B St intersection for improved safety at this high vehicular/pedestrian conflict area              |
| U54   | Crosswalk Enhancement | New London & Pershing Ave (SR 128)    | Spot Recommendation | Add high visibility crosswalk enhancements at the New London & Pershing Ave intersection for improved safety at this high vehicular/pedestrian conflict area          |
| U55   | Crosswalk Enhancement | High St & North Monument Ave          | Spot Recommendation | Add high visibility crosswalk enhancements at the High St & North Monument Ave intersection for improved safety at this high vehicular/pedestrian conflict area       |

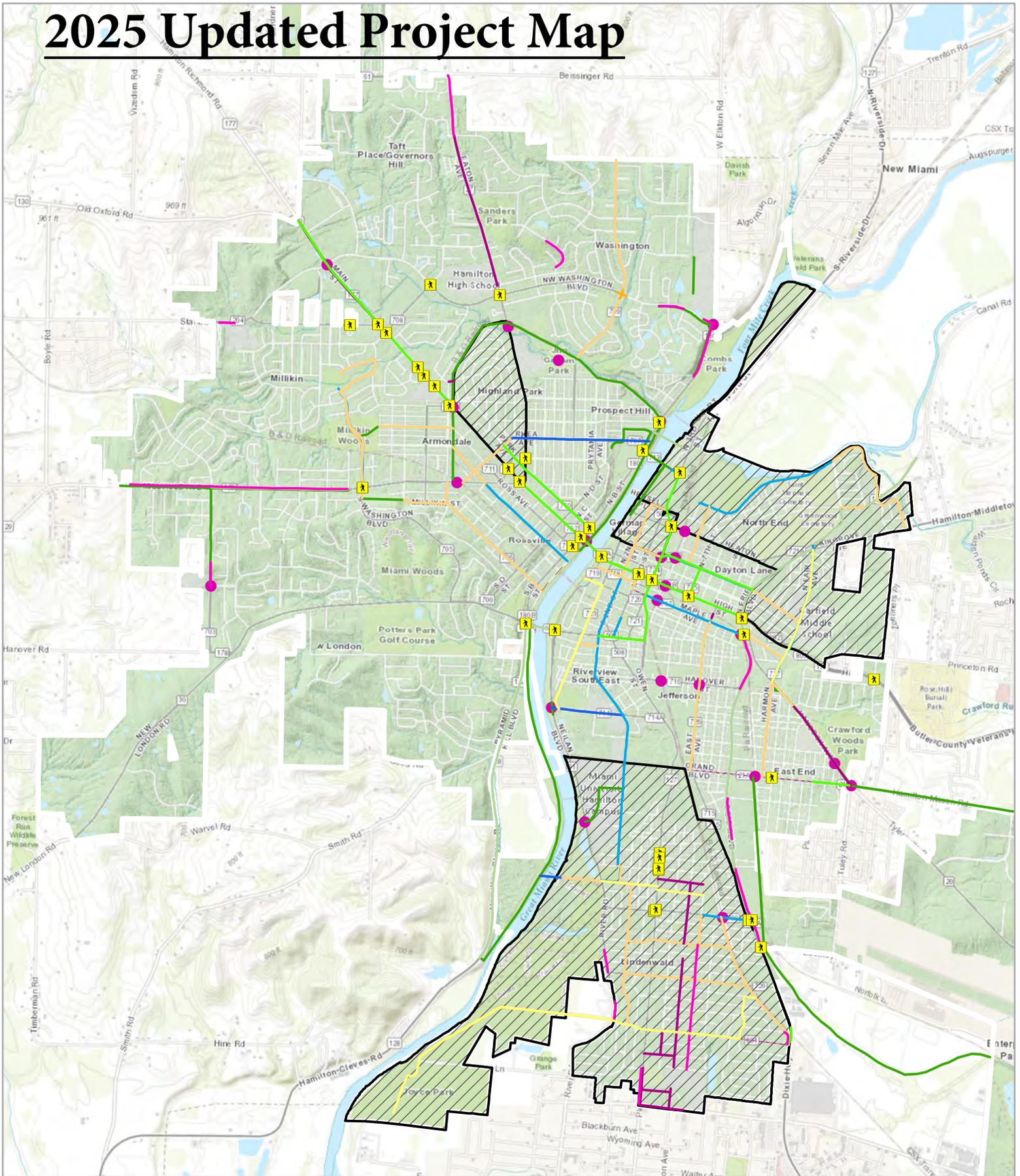
## 2025 Active Transportation Plan - New and Updated Project List

| ATP Update Recommended Projects and Modifications |                       |                                |   |  |
|---|-----------------------|--------------------------------|---|--|
| Map ID  | Facility Type         | Location                       | Extents   | Description  |
| U56   | Crosswalk Enhancement | High St & North 3rd St         | Spot Recommendation                                       | Add high visibility crosswalk enhancements at the High St & North 3rd St intersection for improved safety at this high vehicular/pedestrian conflict area  |
| U57   | Crosswalk Enhancement | Hamshire Dr & High St (SR 129) | Spot Recommendation                                       | Add high visibility crosswalk enhancements at the Hamshire Dr & High St intersection for improved safety at this high vehicular/pedestrian conflict area   |
| U58   | Crosswalk Enhancement | Grand Blvd & Shuler Ave        | Spot Recommendation                                       | Add high visibility crosswalk enhancements at the Grand Blvd & Shuler Ave intersection for improved safety at this high vehicular/pedestrian conflict area |
| U59   | Crosswalk Enhancement | Bobmeyer Rd & Dixie Hwy (SR 4) | Spot Recommendation                                       | Add high visibility crosswalk enhancements at the Bobmeyer Rd & Dixie Hwy intersection for improved safety at this high vehicular/pedestrian conflict area |
| U60   | Sidewalk One Side     | Hermay Dr                      | 200 ft north of Sanders Dr - 250 ft west of Mayflower Ter | Add a sidewalk to the west side of Hermay Drive where none currently exists for neighborhood connectivity to Hamilton High School                          |
| U61   | Crosswalk Enhancement | Westover & Stahlheber          | Spot Recommendation                                       | Add a RRFB Crossing to the south leg of Westover Apt & Stahlheber Rd to connect neighborhoods to Brookwood Elementary School                               |
| U62   | Sidewalk              | Hill Avenue                    | Pleasant Avenue to Madison Avenue                         | Add Sidewalks on each side of Hill Avenue.   |
| U63   | Sidewalk              | Foster Avenue                  | Pleasant Avenue to Madison Avenue                         | Add sidewalks and fill in gaps on each side of Foster Avenue   |

## 2025 Active Transportation Plan - New and Updated Project List

| ATP Update Recommended Projects and Modifications   |                                   |                           |                                  |  |
|---|-----------------------------------|---------------------------|----------------------------------|--|
| Map ID  | Facility Type                     | Location                  | Extents                          | Description  |
| U64   | Crosswalks,<br>pedestrian signals | Erie Blvd (State Route 4) | Laurel Avenue at State Route 4   | Add high visibility crosswalks and pedestrian signals to one leg of SR 4 and to Laurel Avenue. |
| U65   | Sidewalk                          | Benninghofen Avenue       | Foster Avenue to St Clair Avenue | Add sidewalks and fill in gaps on each side of Benninghofen Avenue.                            |
| Glossary  |                                   |                           |                                  |  |
| High Visibility Crosswalk - All-encompassing term including a variety of crosswalk enhancements to improve connectivity and safety such as 3M Paint, street art, daylighting, bump outs, centerline hardening, and Leading Pedestrian Intervals (LPI's) |                                   |                           |                                  |  |
| Bike Lane Enhancements- When recommending bike lanes the City also recommends enhancements such as green bike boxes nearby  |                                   |                           |                                  |  |

# 2025 Updated Project Map



- Crosswalk Enhancement
- Shared Lane Markings
- Intersection Improvements
- Street Improvements
- Yield Roadway
- Sidewalk One Side
- Sidewalk Both Sides
- Bicycle Boulevard
- Bike Lane
- Buffered Bike Lane
- Separated Bike Lane
- Sidepath
- Shared Use Path
- Spot Recommendations
- Neighborhood Street Improvement

## Active Transportation Plan 2025 Updated Project Map



## General Infrastructure Recommendations

In addition to location-specific recommendations identified in the maps, there are several general infrastructure recommendations to support the walking and bicycling recommendations on the previous pages. These should be considered when roadways are repaved, signals are replaced, or in conjunction with the implementation of the other facilities recommended in this plan.

### 1. Continue to install bike racks and add long-term bike parking to Central Bus Hub.

**Leads: City of Hamilton, City of Sculpture 501c3, and BCRTA**

As mentioned in Chapter 1, sculpture bike racks have been installed throughout the city by the “City of Sculpture” program and should continue to be installed. To support this, the City should promote the existing policy that they will waive two vehicular parking spaces if a bike rack is installed. Bike lockers or on-demand lockers should be considered at the Central Bus Hub to support multimodal commuting.

### 2. Install wayfinding signage along new walking and bicycling routes.

**Leads: City of Hamilton, OKI**

Uniform regional wayfinding signs have been added along the Great Miami River Trail. New regional routes should continue to add wayfinding to direct route users to destinations within Hamilton.

## Programs and Policies

While infrastructure recommendations can improve safety and encourage more walking and bicycling, these improvements must be supplemented by programs and policies that encourage new people to try active transportation and bring attention to the need for investment. This section proposes several non-infrastructure recommendations for Hamilton.

### Education

#### 1. Incorporate bicycle and pedestrian education into physical education and other school curricula.

**Lead: School District**

When people receive training on how to safely bicycle and walk while interacting with other users, they become empowered and encouraged to use active transportation regularly. Students can develop brainstorming, reporting,

interviewing, observation, investigation, group collaboration, design and other skills using [the SRTS Lesson Guides](#), an effective approach to institutionalizing Safe Routes to School concepts. The lesson guides can be integrated into the annual curricula of specific grades, whole schools and/or the entire districts. Hands-on events, such as Bicycle Rodeos can also be incorporated into school events or after-school activities. A bicycle rodeo is an event that gives bicyclists the opportunity to practice and develop skills to help them ride safely, including bicycle skills activities, exhibits and games. Rodeos can be geared towards riders of all different ages and abilities.

#### 2. Expand Safety Town to older students.

**Lead: Greater Hamilton Safety Council, School District**

The current Safety Town program is extremely popular in Hamilton, but only reaches four and five year olds and is administered during the summer.



36 children participate each week for five weeks in the summer, for a total of 180 attendees. With more support and potential partnership with the City and School District Safety Town could be expanded to accept more four and five olds to the program and reach older students and could become a field trip or hands-on safety learning for older students. There have been requests from the community for the program to accept six to eight year olds.

A few physical infrastructure improvements could help extend the period that the program is implemented, such as a cover or trees to help with heat in the summer or inclement weather. Hamilton has many active railroad tracks and installing a railroad gate could teach children about how to safely cross a railroad crossing. Other desired improvements include adding a mural and expanding the program to include bicycle safety, since children over the age of five are typically cannot fit in the kett cars that are used right now with the four and five year olds.

### 3. Educate students and residents on railroad crossing safety

**Lead: Greater Hamilton Safety Council, School District, City of Hamilton**

The presence of multiple at-grade railroad crossings within the City can create dangerous conflicts between bicycles or pedestrians and trains. The Crash Analysis Map (Chapter 2) shows several recent crashes, including a pedestrian fatality at an at-grade railroad crossing. [Operation Lifesaver](#) is an organization with a network of certified volunteer speakers and trained

instructors that offers rail safety education programs at no cost to schools. It is co-sponsored by federal, state and local government agencies, highway safety organizations and America's railroads.

### 4. Educate residents and decision-makers through experiential rides.

**Lead: City of Hamilton**

Organized group bicycle rides can be a tool to educate new riders on how to ride safely in traffic and can raise the visibility of people bicycling in the community, helping to change attitudes and reduce stigmas. Inviting elected officials and decision makers on rides can also help raise their awareness of the challenges faced by bicyclists.

## Encouragement

### 5. Make Hamilton a regional biking destination.

**Lead: City of Hamilton, OKI**

Hamilton currently has the Great Miami River Trail running through the core of downtown and multiple proposed regional trail connections, such as the M2M Trail connection. Hamilton has the potential to draw recreational bicyclists on day trips or multi-day trips. The City could consider encouraging restaurants, and business such as hotels to become bicycle friendly by offering ample bike parking on overnight bike storage at hotels. Hamilton could also explore encouraging businesses to create a Bicycle Benefits program that offers discounts to those who travel by bike to their business. The program could be modeled off of or join the existing [Bicycle Benefits](#) program.



*Example of a Bike to School Day.*

### 6. Participate in Walk and Bike to School Day, Bike Month and Bike To Work Day

**Lead: Greater Hamilton Safety Council, School District, City of Hamilton, Miami University Hamilton Campus**

Special events are one type of encouragement activity that provide a way for families to try a new way of getting around. They also highlight school travel issues to local leaders and build political support for SRTS funding. Ohio participates in these events and identifies October of each year as Walk and Bike to School Month, and many cities and villages designate every May as Bike Month. When a majority of the school participates in a special event, it creates a snapshot of what life could look like if every day was a "Walk and Bike to School Day." Currently, Highland Elementary School has participated in "Walk to School" Day over the past five years. Other schools in the

district could organize activities on this day, such as group rides and walks. Miami University, the City of Hamilton, and local employers could also organize events for adults during Bike Month and Bike to Work Day, such as organized rides or incentives.

## 7. Organize walking school buses and bike trains.

### **Lead: School District**

Walking School Buses and Bike Trains create opportunities for parents to walk and bike with groups of children who live together in a neighborhood. These activities help eliminate many parental fears of walking and bicycling by ensuring a supervised commute and creating strong community cooperation. Children get to practice safe pedestrian and bike skills, have fun, increase socialization time with friends and arrive at school alert and ready to learn. Schools could hold these activities periodically, weekly or



*Example of students participate in a walking school bus.*

daily depending on the level of enthusiasm and support.

## 8. Develop an after-school bike club for students.

### **Lead: School District**

After-school bike clubs focus on teaching safe bicycle skills and cover topics such as bicycle maintenance. They encourage children to bicycle by keeping track of their mileage and rewarding them for being physically active. Bike clubs can be led by teachers or volunteers from local bicycle organizations, getting students and staff excited about making bicycling a part of their daily routine. Clubs could follow a curriculum such as that of [the Girls in Gear program](#), available from ODOT, or other nationally developed curricula linked on [ODOT's SRTS page](#).

## 9. Provide free safety equipment

### **Lead: School District, Greater Hamilton Safety Council**

Students may not have the proper equipment to safely bike to school. While this could happen at any school, low-income students in particular may not have the funds to purchase bike helmets, locks, lights or other safety items. A relatively low-cost way for schools to encourage bicycling is offering discounted, loaned or free bicycle safety equipment to students. Schools could directly coordinate giveaways, working with outside organizations to raise funds for the program. ODOT and the Ohio American Academy of Pediatrics' ["Put a Lid On It" campaign](#) distributes thousands of free children's helmets every year.

## 10. Create Student Safety Scouts programs.

### **Lead: School districts**

### **Support: Local law enforcement**

Students should assist with school arrival and departure. Students should be supervised by a teacher, staff member or parent volunteer to help assist with pedestrian flow at and near the school during drop-off and pickup times. The schools should provide additional training to students as new infrastructure is installed and involving them as leaders for other walking and bicycling activities.

## 11. Promote and expand BCRTA programs.

### **Lead: BCRTA, City of Hamilton**

Currently, the Butler County Regional Transit Authority (BCRTA) has a training program that trains about four people each week on how to ride the bus. This program could be expanded. Riding the bus awareness campaigns could be created to promote and encourage people to try riding the bus. Consider promotions like having a free ride day or free rides to a major event to encourage people to try the bus. Multimodal trips could also be promoted by advertising that all bus have bike racks on them.

## 12. Develop a speed reduction program.

### **Lead: Hamilton Police Department**

Speed reduction programs strengthen enforcement and assure that vehicle speeds are safe for vulnerable users such as bicyclists and pedestrians. An integrated approach to speed enforcement might include driver education, speed feedback signs, progressive ticketing, and other elements targeted at key corridors where crashes or frequent speeding occur. Driver

education may include yard signs urging drivers to “slow down,” and safe driver pledges. Speed feedback signs can be used to increase driver awareness about their speed and collect motor speed and volume data. The latter may be helpful for prioritizing locations for police enforcement. Each Highway Patrol District in Ohio has a speed feedback trailer that local jurisdictions can request. Progressive ticketing is a method of introducing police enforcement in stages. First an announcement is made that police enforcement will take place. Officers initially give only warnings and proceed to ticketing only after a specified warning period has passed. Enforcement should take place at irregular times.



*Sculptural bicycle rack in Hamilton.*

### 13. Limit stoppage of trains across intersections

**Lead: Hamilton Police Department, City of Hamilton, Ohio Rail Development Commission**

With multiple at-grade railroad crossings within Hamilton, stopped trains can create major barriers for people walking and bicycling. Local officials should work collaboratively with railroad operators to limit roadway blockages, especially during peak school arrival and dismissal times. Intersection blockages should also be monitored and reported to the [Public Utilities Commission of Ohio](#), who will submit reports to the Federal Railroad Administration.

## Evaluation and Planning

### 14. Conduct regular bicycle and pedestrian counts.

**Lead: City of Hamilton, OKI**

To determine how many people are walking and bicycling every day in Hamilton, the City should conduct several days of bicycle and pedestrian counts every year. This program would help identify popular active transportation corridors and how levels of walking and bicycling change over time. Count locations should include key infrastructure such as bridges or trails, and locations for which data already exist. The [UCLA Bike Count Data Clearinghouse](#) has resources for starting a count program.

### 15. Perform regular plan updates.

**Lead: City of Hamilton**

Revisiting and updating this Plan on a regular basis (every four-six years) will maintain momentum for active transportation in Hamilton. As funding,

political, and community circumstances evolve, updating the Plan to reflect such changes will ensure its continued relevance.

## Policy

### 16. Implement Complete Streets policy in Hamilton.

**Lead: City of Hamilton**

A [Complete Streets policy](#) commits a jurisdiction to planning and designing roadways to be safe and comfortable for all users, not just motor vehicles. This context-sensitive approach to planning and design can help create livable communities and ensure a consistent roadway design approach for people walking and bicycling throughout the city.

The City of Hamilton adopted a Complete Streets Ordinance in 2012 (OR 2014-4-27). The policy states that all transportation projects in the City should be evaluated to include nonmotorized users. A few action items could be done to help better implement the policy. The policy identifies an Advisory Board that should be re-created if not active and could help ensure a Complete Streets approach is applied to all transportation projects. Since the policy was adopted eight years ago, the Advisory Board could review the current Policy and make recommendations on revisions based on current best practice. This could include adding more detail on project selection criteria, implementation, and performance measures. In addition, complete streets trainings could be conducted to educate staff that work on transportation projects, such as staff in the Public Works Department.

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# Implementation

# Implementation

This chapter describes major factors involved in implementation including the roles of key stakeholders, funding and maintenance strategies, and the process used to prioritize infrastructure recommendations. The implementation of this plan is a long-term investment in maintaining and expanding the use of active transportation in Hamilton.

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## Funding Strategies

Active transportation projects comprise a fraction of overall transportation network construction and maintenance. While they generally do not serve as many users as highways, bridges, and other critical infrastructure, they can have a substantial positive effect on local economies. Additionally, providing opportunities for active living promotes public health and may reduce the burden on tax-payer funded healthcare systems over time. In this light, active transportation infrastructure is a critical component of a complete transportation network and results in a positive return on investment for communities that fund such projects. Several state and federal funding sources can be used to supplement local funding sources to build out Hamilton’s active transportation network and fund related programming efforts.

### Clean Ohio Trails Funds

Infrastructure recommendations include several shared use path (or trail) projects that could be funded through the [Clean Ohio Trails Fund](#)

(COTF). The COTF works to improve outdoor recreational opportunities for Ohioans by funding trails for outdoor pursuits of all kinds. Eligible projects include: Land acquisition for a trail, trail development, trailhead facilities, engineering, and design. Local governments, park and joint recreation districts, conservancy districts, soil and water conservation districts, and non-profit organizations are eligible to receive grants for conservation projects from the COTF. Applicants must provide a 25 percent local match, which can include contributions of land, labor, or materials. Up to 75 percent matching State of Ohio funds are reimbursed under the COTF. All projects must be completed within 15 months from the date that they are signed into contract.

### Recreational Trails Program

The federal [Recreational Trails Program](#) (RTP) provides funds to states to develop and maintain trails and trail-related facilities for both non-motorized and motorized recreational trail

## Roles and Responsibilities

Collaboration is the first step towards successful implementation of the Hamilton Active Transportation Plan. Stakeholders involved in the planning process will be collectively responsible for the design, funding, construction, maintenance, monitoring, and/or evaluation of the network. Primary stakeholders include:

- » City of Hamilton
- » ODOT
- » School District
- » BCRTA
- » City of Sculpture 501c3
- » Tri-State Trails
- » Butler County TID
- » OKI
- » Greater Hamilton Safety Council
- » Local businesses

uses. In Ohio, the RTP is administered by the Ohio Department of Natural Resources. Eligible projects include: Maintenance and restoration of existing trails, development and rehabilitation of trailside and trailhead facilities and trail linkages for recreational trails, purchase or lease of recreational trail construction and maintenance equipment, construction of new recreational trails, land acquisition for trail construction, operation of educational programs to promote safety and environmental protection as those objectives relate to the use of recreational trails. Eligible applicants can be local governments, state governmental agencies, federal governmental agencies, and non-profits. Up to 80 percent of eligible project costs can be reimbursement under the Recreational Trails Program with a 20 percent local match, which can include contributions of land, labor, or materials. All projects must be completed within 15 months from the date that they are signed into contract.

## Highway Safety Improvement Program

Most of Ohio's fatalities, serious injuries, and total crashes occur on local roads, and ODOT recognizes the public safety benefit of engineering improvements in high-crash locations beyond the ODOT network. ODOT works with MPOs and local governments to identify locations with severe safety problems and fund infrastructure improvements in these areas through the [Highway Safety Improvement Program](#) (HSIP) funding. HSIP can cover up to 100 percent of funding for a given project.

## Safe Routes to School

[Safe Routes to School](#) (SRTS) projects include traffic calming, enhanced crossing treatments, signal upgrades, sidewalks, and other countermeasures. These treatments are most effective when used in combination with non-infrastructure solutions (i.e. engagement, education, encouragement, and evaluation). Several public schools in Hamilton are located on or near roads with proposed infrastructure improvements as part of this Plan. Proposed infrastructure projects must be located within two miles of a school to qualify. Information on the SRTS program, requirements for funding, and resources on developing School Travel Plans can be found at [walk.ohio.gov](http://walk.ohio.gov). SRTS can cover up to 100 percent of funding for a given project up to \$400,000.

## Green Space Conservation Program

The [Green Space Conservation Program](#) is administered by the Ohio Public Works Commission. Its goals include enhancing ecotourism and economic development related to outdoor recreation in economically challenged areas and providing pedestrian or bicycle passageways between natural areas and preserves. Applicants must provide a 25 percent local match. Green Space Conservation Program funding can also be used to match federal sources. The program has funded projects such as greenways and acquisition of railroad right-of-way for trail development.

## Transportation Alternatives Set-Aside

Transportation Alternatives Set-Aside is one of the most common funding sources of active transportation projects. TA Set-Aside funds for the City of Hamilton would be allocated through [OKI](#). Eligible projects include on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; and safe routes to school projects.

## Other Funding Resources

ODOT and the Ohio Department of Health developed an [Active Transportation Funding Matrix](#). Communities may use this tool to search for potential funding sources to support infrastructure and non-infrastructure projects that advance walking and bicycling.

In 2020, the Great Outdoors Act was passed making the [Land and Water Conversation Fund \(LWCF\)](#) for state and local funding permanent. This 50/50 matching grant can help fund land acquisition, development, and planning of outdoor recreation opportunities. The funds would be most applicable to projects connecting the Great Miami River Trail.

Table 4 lists additional federal funding sources for bicycle and pedestrian infrastructure projects based on project type and eligibility.

Table 4. Applicability of Federal and State Funding Sources for Active Transportation Projects (adapted from [FHWA Pedestrian and Bicycle Funding Opportunities](#))

| Project Type                          | Funding Sources |       |     |     |      |      |      |      |    |     |      |      |
|---------------------------------------|-----------------|-------|-----|-----|------|------|------|------|----|-----|------|------|
|                                       | BUILD           | TIFIA | FTA | ATI | CMAQ | HSIP | NHPP | STBG | TA | RTP | COTF | SRTS |
| Bicycle and pedestrian overpasses     | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Bicycle parking                       | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Bicycle and pedestrian scale lighting | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Crosswalks (new or retrofit)          | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Curb ramps                            | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Bike lanes                            | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Paved shoulders                       | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Separated bike lanes                  | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Shared use paths                      | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Sidewalks (new or retrofit)           | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Signed routes                         | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Signs and signals                     | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Streetscaping                         | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Traffic calming                       | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Trail bridges                         | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Trail crossings                       | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Trail facilities (e.g. restrooms)     | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |
| Tunnels/underpasses                   | ●               | ●     | ●   | ●   | ●    | ●    | ●    | ●    | ●  | ●   | ●    | ●    |

- Funds may be used for this activity
- See program for restrictions
- Eligible, but not competitive unless part of a larger project
- Not eligible

**Program Abbreviations**

**BUILD:** Better Utilizing Investments to Leverage Development grant program  
**TIFIA:** Transportation Infrastructure Finance and Innovation Act (loans)  
**FTA:** Federal Transit Administration Capital Funds  
**ATI:** Associated Transit Improvement (1% set-aside of FTA)  
**CMAQ:** Congestion Mitigation and Air Quality Improvement Program

**HSIP:** Highway Safety Improvement Program  
**NHPP:** National Highway Performance Program  
**STBG:** Surface Transportation Block Grant Program  
**TA:** Transportation Alternatives Set-Aside (formerly Transportation Alternatives Program)  
**RTP:** Recreational Trails Program  
**COTF:** Clean Ohio Trails Fund  
**SRTS:** Safe Routes to School



# Maintenance Strategies

The long-term performance of bicycle and pedestrian networks depends on both the construction of new facilities and an investment in continued maintenance. Maintaining bicycle and pedestrian facilities is critical to ensuring those facilities are accessible, safe, and functional.

## Frequency

The first step to approaching maintenance is to understand how often maintenance should be performed. Many activities, such as signage updates or replacements, are performed as needed, while other tasks such as snow removal are seasonal (see Table 5). Creating a winter maintenance approach is important to encourage year-round travel by walking and biking. One key component of this approach should be identifying priority routes for snow removal. More information on winter maintenance such as types of equipment needed for different facility types and how to consider snow removal in the design of facilities can be found in [Toole Design's Winter Maintenance Resource Guide](#).

Table 5. Maintenance Activity Frequency

| Frequency        | Maintenance Activity   |
|------------------|--|
| <b>As Needed</b> | Tree/brush clearing and mowing   |
|                  | Sign replacement   |
|                  | Map/signage updates  |
|                  | Trash removal/litter clean-up  |
|                  | Replace/repair trail support amenities (parking lots, benches, restrooms, etc.)                |
|                  | Repair flood damage: silt clean-up, culvert clean-out, etc.                                    |
|                  | Patching/minor regrading/concrete panel replacement  |
|                  | Sweeping   |
| <b>Seasonal</b>  | Snow and Ice Control   |
|                  | Planting/pruning/beautification  |
|                  | Culvert/drainage cleaning and repair   |
|                  | Installation/removal of seasonal signage   |
| <b>Yearly</b>    | Surface evaluation to determine need for patching/regrading/re-stripping of bicycle facilities |
|                  | Evaluate support services to determine need for repair/replacement                             |
|                  | Perform walk audits to assess ADA compliance of facilities                                     |
| <b>5-year</b>    | Repaint or repair trash receptacles, benches, signs, and other trail amenities, if necessary   |
|                  | Sealcoat asphalt shared use paths  |
| <b>10-year</b>   | Resurface/regrade/re-stripe shared use paths   |
| <b>20-year</b>   | Assess and replace/reconstruct shared use paths/ sidewalks                                     |

## Plan for Maintenance

Creating a strong maintenance program begins in the design phase. The City of Hamilton or other responsible agencies should be party to discussions about the placement of infrastructure and its design, as well as maintenance investment decisions. Maintenance staff should help identify typical maintenance issues, such as areas with poor drainage or frequent public complaints. They may have suggestions for design elements that can mitigate these issues or facilitate maintenance activities and can provide estimates for ongoing maintenance costs for existing and proposed facilities.

## Maintenance Activities

Different facility types require different types of strategies to be maintained. Table 6 breaks down maintenance activities and strategies for each by facility type.

Table 6. Maintenance Strategy Recommendations

|   | Maintenance Activity  | Strategy  |
|---|---|---|
| Shared Use Paths/ Separated Bike Lanes  | Pavement Preservation   | Develop and implement a comprehensive pavement management system for Hamilton’s shared use path network.  |
|   | Snow and Ice Control  | Design shared-use paths to accommodate existing maintenance vehicles.   |
|   | Drainage Cleaning/Repairs   | Clear debris from all drainage devices to keep drainage features functioning as intended and minimize trail erosion and environmental damage.   |
|   |   | Check and repair any damage to trails due to drainage issues.   |
|   | Sweeping  | Implement a routine sweeping schedule to clear shared-use paths of debris.  |
|   |   | Provide trail etiquette guidance and trash receptacles to reduce the need for sweeping.   |
|   | Vegetation Management   | Implement a routine vegetation management schedule to ensure user safety.   |
|   |   | Trim or remove diseased and hazardous trees along trails.   |
| Preserve and protect vegetation that is colorful and varied, screens adjacent land uses, provides wildlife habitats, and contains prairie, wetland and woodland remnants. |   |   |
| ADA Requirements  | Conduct walk and bike audits to assess accessibility of new, proposed, and existing shared-use paths. |   |
|   | Ensure that ADA compliance is incorporated into the design process for new facilities.                |   |
| Paved Shoulders/ Bike Lanes   | Pavement Markings   | Explore approaches to routinely inspect pavement markings for bicycle infrastructure and replace as needed.   |
|   |   | Consider preformed thermoplastic or polymer tape on priority bikeways (identified in this Plan) adjacent to high-volume motor vehicle routes (preformed thermoplastic or polymer tape are more durable than paint and requires less maintenance). |
|   | Snow and Ice Control  | Clear all signed or marked shoulder bicycle facilities after snowfall on all state-owned facilities that do not have a maintenance agreement with a local governmental unit in place.   |
| Sweeping  | Implement a routine sweeping schedule to clear high-volume routes of debris.                          |   |
|   |   |   |
| Bicycle Boulevards/ Shared Lanes  | Sign Replacement  | Repair or replace damaged or missing signs as soon as possible.   |
| Sidewalks   | Pavement Preservation and Repair  | Conduct routine inspections of high-volume sidewalks and apply temporary measures to maintain functionality (patching, grinding, mudjacking).   |
|   |   | Consider using public agency staff or hiring contractors for sidewalk repairs, rather than placing responsibility on property owner (property owner can still be financially responsible).  |
|   | Snow and Ice Control  | Educate the public about sidewalk snow clearance.   |
|   |   | Require sidewalk snow clearance to a width of five feet on all sidewalks.   |
|   |   | Establish required timeframes for snow removal.   |
|   | Implement snow and ice clearing assistance programs for select populations.                           |   |



## Project Prioritization

The infrastructure recommendations in Chapter 4 are conceptual routes, meant to show the potential of a comprehensive active transportation system in Hamilton. The recommendations are planning level in scope and are not necessarily constrained by existing challenges. Funding, land use, property rights, terrain, and other project specific factors may make certain recommendations less practicable than others. Project prioritization uses measurable data to determine which projects are both feasible, given real-world constraints, and align with stakeholders' priorities.

### Methodology

As with most municipalities, Hamilton has a limited amount of funding with which to build bicycle and pedestrian infrastructure. Because of this, it is important that the projects providing the most benefit be prioritized over others. The prioritization for linear recommendations occurred in two steps, while the spot recommendations only used the second step (steps shown to the right).

### Prioritization Steps

1

**A data-driven process that uses source GIS datasets to score and rank projects based on conditions in their relative locations.**

| Variable                | Description   |
|-------------------------|---|
| AADT                    | Scored as the weighted average AADT value among the street segments which make up a project.  |
| Speed                   | Scored as the weighted average speed limit among the streets segments which make up a project.  |
| Synergy                 | Projects receive a point for overlap with ODOT District Work Plan projects.   |
| Previously Proposed     | Projects receive a point for overlap with another plan: Plan Hamilton, Riverfront, or M2M.  |
| Crashes                 | Bicycle and pedestrian crashes within 200 feet of each project weighted by severity rating. Source data includes all bike/ped crashes in Hamilton from 2014 - 2018 with severity ratings 1 - 4 based on degree of injuries reported. Weighting is applied by calculating the sum of the crash severity score within 200 feet.         |
| Connections             | Counts the number of connections to other proposed projects. Any other project within 200 feet of a project counts as a connection.   |
| Public Engagement Input | Based on public online survey.  |
| Cost                    | Measures relative cost of facility recommendation based on construction cost and prioritizes less-expensive projects. Ranking is as follows:<br>Yield Roadway, Bicycle Boulevard= 1 pt<br>Bike Lane, Buffered Bike Lane = 0.66 pts<br>Separated Bike Lane, Sidewalk One Side, Sidewalk Both Side, Sidepath, Shared Use Path= 0.33 pts |

2

**Input from the Advisory Team and City Manager**

## Factors

A factor is the combination of similar variables into a sub score by category. The Safety Score was the only combination of variables. For final calculation, all other variables are weighted separately.

$$\text{Safety Score} = \frac{\text{AADT} + \text{speed limit} + \text{crash score}}{3}$$

## Weighted Data Driven Priority Score

The final score is calculated as the sum of variables with relative weights applied.

$$\text{Priority Score} = \left( \begin{array}{l} (\text{Safety (Includes AADT, Speed, Crashes)} \times 25) + \\ (\text{Connections} \times 15) + \\ (\text{Project Cost} \times 15) + \\ (\text{Public Engagement} \times 20) + \\ (\text{Synergy} \times 10) + \\ (\text{Previously Proposed} \times 15) + \end{array} \right)$$

## Final Prioritized List of Projects

The Advisory Team and City Manger reviewed the data driven prioritization and proposed desired changes that were incorporated into the final list of prioritized projects. All projects were given a final priority ranking of High, Medium or Low as listed in Tables 2 and 3 in Chapter 4.



## Implementation Approach

Implementing this plan will take time and significant effort. The following implementation strategy identifies short-, medium-, and long-term plan priorities. While the Advisory Team has been involved in this planning process, implementation will require working with a larger number of partners, as well as building public support for priority projects. Whenever possible, recommendations in this plan should be incorporated into other roadway projects. Every year the City should re-evaluate the priority list to track which projects have been implemented and to make adjustments as needed.

### Short-, mid-, and long-term project phasing

Project phasing is based on the prioritization results. The top ten linear recommendations are classified as high (short-term), the next twenty as medium (medium-term), and the remaining as low (long-term) projects. The top six spot recommendations are classified as High (short-term) and the next six as medium (medium-term) projects. The rest of the spot recommendations are to be implemented with the linear recommendation that they intersect.

#### Short-Term (0-5 Years)

Short-term projects are the most important phase of implementation. Projects that are successfully completed early on in the process in a highly

visible area with the potential to serve many users would generate excitement around the Plan and show Hamilton's commitment to expanding active transportation as a valid means of travel. As such, funding, community support, and political will to pursue the recommendations in this Plan will be most important during the first phase of implementation. Short-term projects include critical sidewalks on north Main Street, sidewalks near schools, and shared use paths, such as the Beltline.

Table 7. Short-Term Projects

| Linear Projects |                     |
|-----------------|---------------------|
| Map ID          | Facility Type       |
| 1               | Sidewalk Both Sides |
| 2               | Sidewalk One Side   |
| 6               | Sidewalk One Side   |
| 7               | Sidewalk One Side   |
| 11              | Shared Use Path     |
| 17              | Shared Use Path     |
| 36              | Sidepath            |
| 38              | Bike Lane           |
| 44              | Buffered Bike Lane  |
| 60              | Sidewalk Both Sides |

| Spot Projects |                                       |
|---------------|---------------------------------------|
| Map ID        | Facility Type                         |
| S02           | Crosswalks, RRFB                      |
| S04           | Crosswalk, RRFB                       |
| S10           | Signals                               |
| S13           | Crosswalk, RRFB                       |
| S14           | Crosswalks                            |
| S18           | HAWK Signal and sidewalk improvements |

## Medium-Term (6-10 Years)

Medium-term projects include all remaining projects near and around schools. Many of the bicycle boulevards (shared lane marking projects) fall into medium term, although since bicycle boulevards mainly entail striping they may be completed prior to 6-10 years if paired with other roadway projects.

Table 8. Medium-Term Projects

| Linear Projects |                    |
|-----------------|--------------------|
| Map ID          | Facility Type      |
| 5               | Sidewalk One Side  |
| 12              | Sidewalk One Side  |
| 18              | Sidepath           |
| 25              | Shared Lane        |
| 28              | Bike Lane          |
| 29              | Shared Lane        |
| 37              | Shared Lane        |
| 40              | Buffered Bike Lane |
| 41              | Bike Lane          |
| 42              | Shared Lane        |
| 43              | Shared Lane        |
| 49              | Bike Lane          |
| 50              | Shared Lane        |
| 51              | Shared Lane        |
| 52              | Buffered Bike Lane |
| 53              | Shared Lane        |
| 54              | Sidewalk One Side  |
| 61              | Shared Lane        |
| 66              | Shared Lane        |
| 72              | Shared Use Path    |

| Spot Projects |                              |
|---------------|------------------------------|
| Map ID        | Facility Type                |
| S07           | Park Trails                  |
| S08           | Enhance RR Crossing          |
| S09           | Enhance Crossing             |
| S11           | Enhance Underpass            |
| S12           | Enhance railroad crossing    |
| S19           | Crosswalk, Pedestrian Signal |

## Long-Term (> 10 Years)

### All remaining Projects

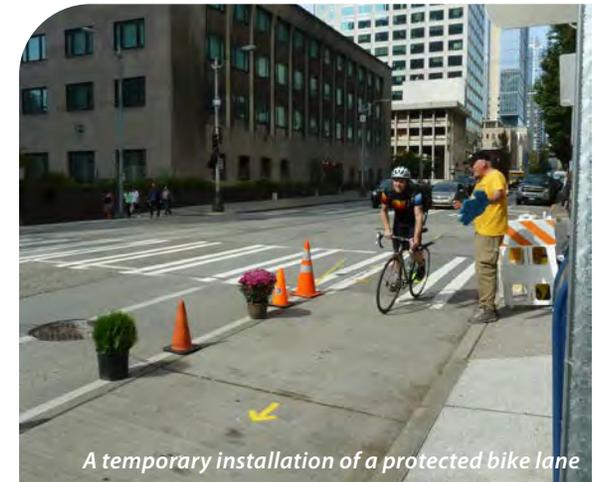
During the last phase of implementation, the completion of lower-priority projects would expand the walking and bicycling network throughout the City.

### Demonstration Projects

Active Transportation projects can take many years to go from concept to completion. Many of them require repurposing existing elements of the streetscape in new ways, which can cause concerns among the street users, adjacent residents and businesses, and the agencies that own and maintain the roadway. Demonstration projects, or temporary installations of the proposed changes, are a low-cost way to test and refine a proposed concept long before permanent construction. Many of the recommendations in this plan could be tested through demonstration or pilot projects.

Demonstration projects vary in size and complexity from taking over a single parking space with café tables to striping a temporary bike lane for several blocks. They can be part of a larger community event or stand on their own. Common

materials used for demonstration projects include traffic cones, duct tape, chalk and cardboard signs. For the best outcomes, demonstration projects should secure permission from the appropriate agency, notify community members in advance, and collect baseline data (i.e. bicycle and pedestrian counts, traffic speeds) before, during and after the demonstration.



*A temporary installation of a protected bike lane*

## Evaluating Performance

Measuring the performance of active transportation networks is essential to ongoing success. Bicycle and pedestrian counts, crash records, and other data contribute to a business case for continued improvement of and investment in multimodal infrastructure. As recommendations are implemented, the City must be able to measure whether these investments are paying active transportation dividends (i.e. more people walking and bicycling). An affirmative answer reinforces the Plan’s legitimacy, and provides evidence that future investments will also yield positive results. Every year the City should track how much of the proposed active transportation network is implemented.

The performance measures in Table 10 provide a framework for how Hamilton can begin charting its progress towards making walking and bicycling safe, connected and comfortable. The City should establish baseline targets and revisit these metrics as new plans and priorities occur. Data on these measures should be documented and published for public review annually. A robust performance measures program includes establishing baseline measurements, performance targets, data collection frequency, and data collection and analysis responsibility.

Table 9. Recommended Performance Measures

|   |   |
|---|---|
| Active Transportation Infrastructure      | Increase miles of pedestrian network built annually – target ___% increase per year.  |
|   | Increase miles of bicycle network built annually – target ___% increase per year.   |
|   | Increase miles of shared use path built annually – target ___% increase per year.   |
|   | Increase amount of bicycle parking facilities annually.   |
| Semi-Annual Pedestrian and Bicycle Counts | After developing a baseline of pedestrian and bicycle activity, aim for year over year increases.   |
|   | Update student travel tallies for all schools and identify a baseline percentage of students who walk and bike. Conduct travel tallies annually and measure the change in the number of students walking and bicycling. |
| Education Programming                     | Track the number of children and adults who participate in pedestrian and bicycle education programming every year.   |
|   | Track public education campaigns and programs that include targeted efforts for students, traditionally underserved populations and other key stakeholders with target outreach goals set for 2025 and 2030.            |
| Safety                                    | Track the number of crashes that occurs every year, including whether bicyclists or pedestrians were involved and the level of severity, if injuries occurred.  |
|   | Reduce rate of bicycle/pedestrian and motor vehicle crashes – target ___% decrease per year.  |
| Public Opinion                            | Conduct an annual active transportation survey to gauge resident comfort and opinion about active transportation in Hamilton  |

### Additional Performance Measure Resources

[Federal Highway Administration: Guidebook for Developing Pedestrian and Bicycle Performance Measures](#)

[Fehr and Peers: Active Transportation Performance Measures](#)

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## Priority Projects

The consultant team and Advisory Team members selected three projects for further study:

- » **Project #69: North Hamilton Crossing**
- » **Project #21: Black Street Multimodal Bridge**
- » **Project #36: Route 4 Multimodal Corridor**

The following pages describe each project in detail. Conceptual renderings were created for each along with a planning-level cost estimate for the Route 4 Multimodal Corridor.

## Project #69: North Hamilton Crossing

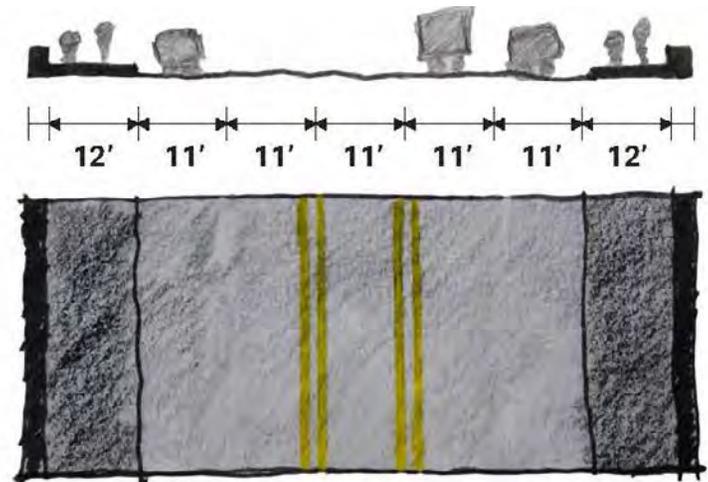
### Site Location

Exact location TBD (proposed to cross Great Miami River north of Black Street Bridge)

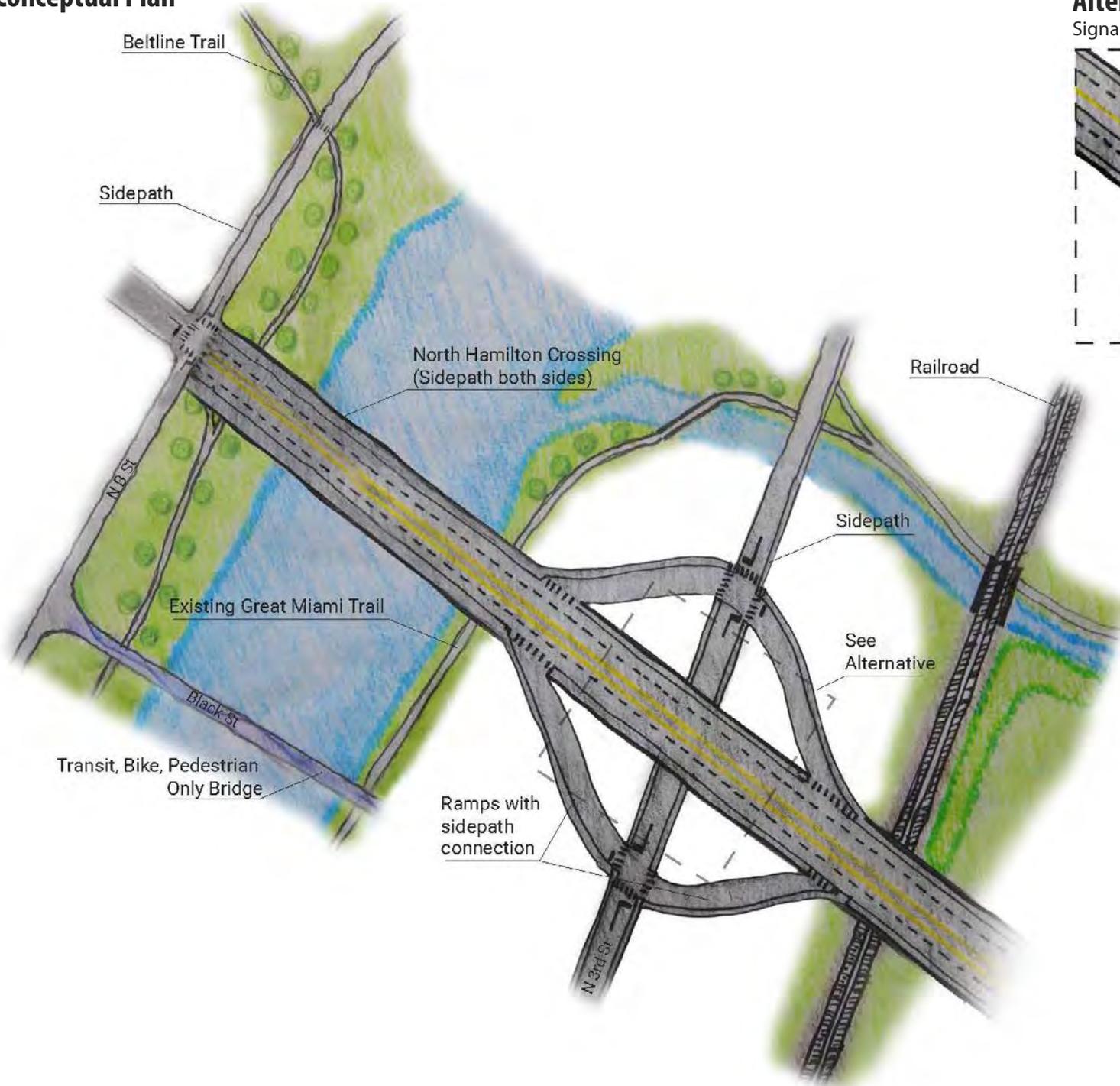
### Recommendations

Better east/west connections in Hamilton was an identified goal of Plan Hamilton. North Hamilton Crossing is a proposed project north of Black Street Bridge that will help make that connection for east/west travel as well as create a critical connection to the future Spooky Nook Complex. When constructed it will be key to accommodate pedestrians and bicyclists to continue to expand and support the active transportation network in the city. The section to the right shows proposed shared use paths on both sides of the bridge. The plan conceptual sketch shows how the bridge can tie into the larger network by connection to the proposed Beltline trail and existing Great Miami River Trail

### Bridge Section

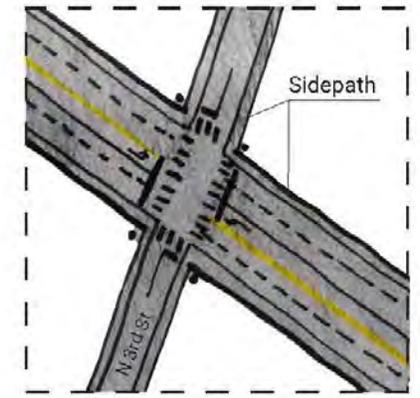


## Conceptual Plan



## Alternative Options

Signalized Intersection



*Preliminary Concept – Not for Construction*

## Project #21: Black Street Multimodal Bridge

### Site Location

Black Street between B Street and 2nd Street

### Recommendations

When North Hamilton Crossing is constructed, Black Street Bridge is to be transitioned from a vehicular bridge to a pedestrian, bicycle, and transit-only bridge. This will provide a critical connection to Spooky Nook by creating a loop to Downtown and Main Street via active transportation facilities (shared use paths or sidewalks).



*Existing Black Street Bridge.*



*Black Street Bridge reimagined as a pedestrian, bicycle, and transit only bridge.*

*Preliminary Concept – Not for Construction*

# Project #36: Route 4 Multimodal Corridor

## Site Location

State Route 4 from Fair Avenue to Bobmeyer Road

## Recommendations

State Route 4 has lot of curb cuts, long distances between crossings, and lack of continuous sidewalks. Plan Hamilton proposed reimagining Route 4 as a multimodal corridor with a sidepath along the entire length, enhanced streetscape with trees and amenities, and consolidated driveways. This Plan adjusted the typical section to better accommodate bicyclists and pedestrians by widening the shared use path and sidewalk. Based on the typical section below a planning level cost estimate for the corridor was created (Table 10).

**ROUTE 4 MULTIMODAL CORRIDOR:** Revised Typical Section

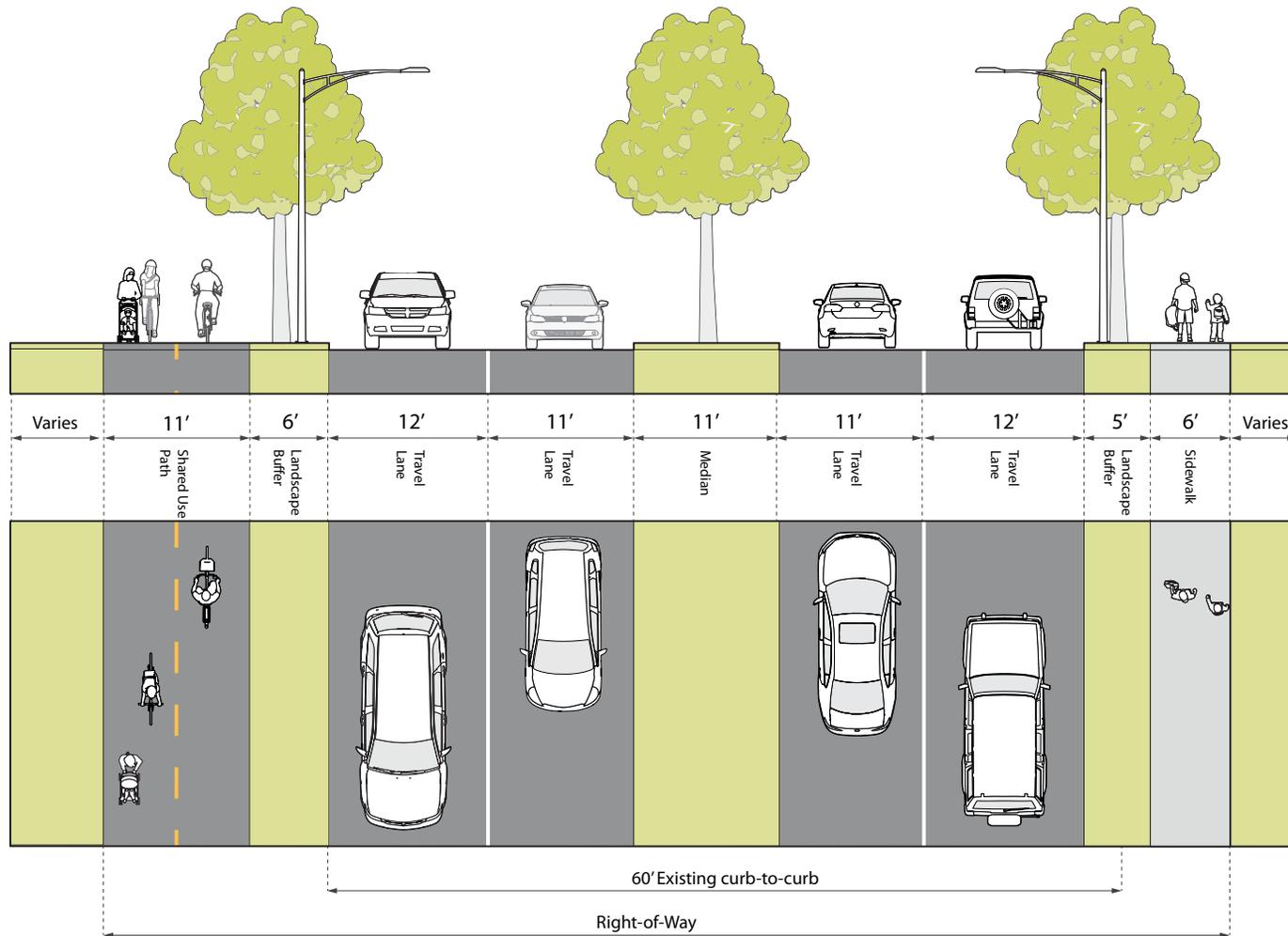


Table 10. Conceptual Design Opinion of Probable Construction\*

|                                    |      |
|------------------------------------|------|
| <b>Cost data year:</b>             | 2019 |
| <b>Expected construction year:</b> | 2023 |
| <b>Annual Inflation Assumed:</b>   | 2%   |

| Item                               | Units    | Unit Cost    | Quantity | Cost           | Cost Data Source**  | Assumptions  |
|------------------------------------|----------|--------------|----------|----------------|---|--|
| Earthwork/Excavation               | CY       | \$40.00      | 6979     | \$279,151.85   | Champion Bid  | Assumes 10" depth for walk and SUP   |
| Walk Removal                       | SF       | \$1.00       | 15661    | \$15,661.00    | Champion Bid  | Assume all walks present will be removed   |
| Pavement Removal                   | SF       | \$1.50       | 156748   | \$235,122.00   | Champion Bid  | For curb installation, lane width reduction, & parking lot encroachments. Remove 2.5' for C&G + .5' for installation on each side. Right side also includes 3' pavement removal for road diet. Also assumes some removal of parking lot encroachments (see calcs sheet for estiamte) |
| Asphalt Pavement Restoration       | SF       | \$7.00       | 14222    | \$99,554.00    | Champion Bid  | For curb installation  |
| Pavement Marking Removal           | LF       | \$0.25       | 43992.2  | \$10,998.05    | SHX   | 1 lane marking in each direction (2) + center turn lane (2) + markings for center and outside turn lanes ( estimated to be 5% of total corridor length or 10% to account for each side)  |
| 6' Walk (Concrete)                 | SF       | \$5.50       | 85332    | \$469,326.00   | Champion Bid  |  |
| Curb and Gutter (Remove & Replace) | LF       | \$35.00      | 28444    | \$995,540.00   | City Staff  | All curb removed and installed   |
| 11' Shared Use Path (Concrete)     | SF       | \$12.00      | 156442   | \$1,877,304.00 | City Staff  |  |
| Pavement Markings                  | MI       | \$6,500.00   | 8.3      | \$54,157.06    | Champion Bid  | 1 lane marking in each direction (2) + center turn lane (2) + markings for center and outside turn lanes ( estimated to be 5% of total corridor length or 10% to account for each side)  |
| Signing                            | EA       | \$150.00     | 54       | \$8,100.00     | Champion Bid  | Assume 20 Signs per mile   |
| HAWK                               | EA       | \$144,892.06 | 5        | \$724,460.28   | Pedbikeinfo. org, 2013 report, adjusted to cost data year | 5 Assumed  |
| Retaining Wall                     | LF       | \$500.00     | 1135     | \$567,500.00   | Canal Trail   | Location and length assumptions shown in KML file  |
| PE Watermain Replacement           | LF       | \$230.00     | 4835     | \$1,112,050.00 | City Staff  | Replace from Hamilton Ave to Hanover Ave and Dixie HWY to Corwin Ave (outside project limits)  |
| PE Watermain Incidentals           | Lump Sum | \$400,000.00 | 1        | \$400,000.00   | City Staff  | Replace from Hamilton Ave to Hanover Ave and Dixie HWY to Corwin Ave (outside project limits)  |
| Rain Gardens                       | EA       | \$18,000.00  | 30       | \$540,000.00   | City Staff  | Assume one on each side of the roadway every 1000 ft   |
| Medians (see Median Cost Sheet)    | LF       | \$120.53     | 5349     | \$644,719.59   | See Median Cost Sheet for Individual Sources              |  |

| Item   | Units          | Unit Cost     | Quantity | Cost                   | Cost Data Source**   | Assumptions   |
|--|----------------|---------------|----------|------------------------|--|---|
| Sig. Intersection (see Intersection Cost sheet)      | EA             | \$278,530.17  | 13       | \$3,620,892.19         | See Sig. Intersection Cost Sheet for Individual Sources      |   |
| Uncont. Intersection (see Intersection Cost sheet)   | EA             | \$31,400.04   | 4        | \$125,600.17           | See Uncont. Intersection Cost Sheet for Individual Sources   |   |
| Uncont. T Intersection (see Intersection Cost sheet) | EA             | \$17,200.02   | 6        | \$103,200.13           | See Uncont. T Intersection Cost Sheet for Individual Sources |   |
| Major Driveway (see Major Driveway Cost Sheet)       | EA             | \$24,555.26   | 9        | \$220,997.38           | See Major Driveway Cost Sheet for Individual Sources         |   |
| Drive/Alleyway (see Driveway Cost Sheet)             | EA             | \$2,621.25    | 125      | \$327,656.25           | See Driveway Cost Sheet for Individual Sources               | All driveway aprons visible. When no aprons were visible, assumed 1 per business. |
| <b>Construction Subtotal (2019):</b>                 |                |               |          | <b>\$12,431,989.96</b> |  |   |
| Mobilization   | % Construction |               | 5%       | \$621,599.50           |  |   |
| Clearing and Grubbing                                | % Construction |               | 1%       | \$124,319.90           |  |   |
| Maintaining Traffic                                  | % Construction |               | 10%      | \$1,243,199.00         |  |   |
| Street Furnishings, Bus Shelters, & Lighting         | % Construction |               | 5%       | \$621,599.50           |  |   |
| Utility Relocation                                   | % Construction |               | 20%      | \$2,486,397.99         |  |   |
| Landscaping/Turf Establishment                       | % Construction |               | 10%      | \$1,243,199.00         |  |   |
| Drainage   | % Construction |               | 30%      | \$3,729,596.99         |  |   |
| Environmental  | % Construction |               | 10%      | \$1,243,199.00         |  |   |
| Contingency  | % Construction |               | 30%      | \$3,729,596.99         |  |   |
| Construction Costs + Contingency (2023)              |                |               |          | \$29,739,496.49        |  |   |
| ROW (2023)   | LUMP SUM       | City Estimate |          | \$250,000.00           |  |   |
| Engineering Design -PM, Survey, Design (2023)        | % Construction | 25%           |          | \$7,434,874.12         |  |   |
| <b>Total Costs (2023)*</b>                           |                |               |          | <b>\$37,424,370.61</b> |  |   |

\*Opinions of probable cost were developed by identifying major pay items and establishing rough quantities to determine a rough order of magnitude cost. Additional pay items have been assigned approximate lump sum prices based on a percentage of the anticipated construction cost; however, these costs can vary widely depending on the exact details and nature of the work. Planning-level cost opinions include a 30% contingency to cover items that are undefined or are typically unknown early in the planning phase of a project. Unit costs were provided by the City of Hamilton, Ohio based on historical cost data from local construction projects. Cost opinions do not include permitting, inspection, or construction management; geotechnical investigation, special site remediation, escalation, or the cost for ongoing maintenance. The overall cost opinions are intended to be general and used only for planning purposes. Toole Design Group, LLC makes no guarantees or warranties regarding the cost estimate herein. Construction costs will vary based on the ultimate project scope, actual site conditions and constraints, schedule, and economic conditions at the time of construction.

\*\*Individual Cost Sheets available in Appendix.

# Endnotes

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## Additional Resources

### ODOT

[Bicycle and Pedestrian Resources for Engineers](#)

[Active Transportation Guide: A Reference for Communities](#)

[Active Transportation Guidance](#)

[Ohio Traffic Engineering Manual \(TEM\), Part 9 Bicycle Facilities](#)

[Location and Design \(L&D\) Manual, Sections 300, 400, 600, 700, & 800](#)

[Ohio Manual of Uniform Traffic Control Devices \(OMUTCD\), Part 9: Traffic Controls for Bicycle Facilities](#)

Guidance to inform Pedestrian/Bicycle infrastructure at Railroad Crossings

Multimodal Design Guide (forthcoming)

### Other

[FHWA Small Town and Rural Design Guide](#)

[FHWA Achieving Multimodal Networks: Applying Design Flexibility and Reducing Conflicts](#)

[FHWA Bikeway Selection Guide](#)

AASHTO Guide for the Development of Bicycle Facilities (2020 update forthcoming)

AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities

# Appendix

|  |           |
|--|-----------|
| <b>1. School Travel Maps .....</b>                     | <b>75</b> |
| <b>2. School Travel Tallies .....</b>                  | <b>81</b> |
| <b>3. Route 4 Corridor Individual Cost Sheets.....</b> | <b>82</b> |

## School Travel Maps

The following pages include school travel maps for each of the following schools:

- » Bridgeport Elementary
- » Brookwood Elementary
- » Crawford Wood Elementary
- » Fairwood Elementary
- » Garfield Middle School
- » Highland Elementary
- » Linden Elementary
- » Ridgeway Elementary
- » Riverview Elementary
- » Wilson Middle School

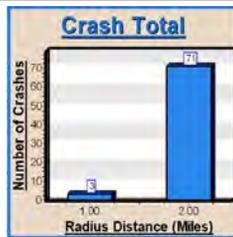
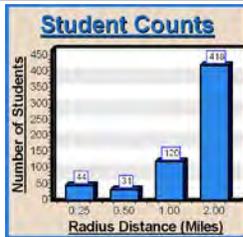
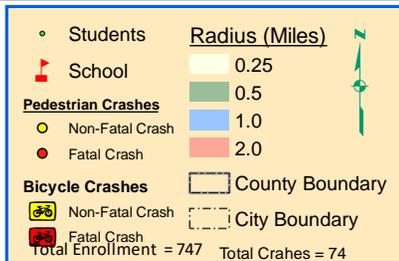
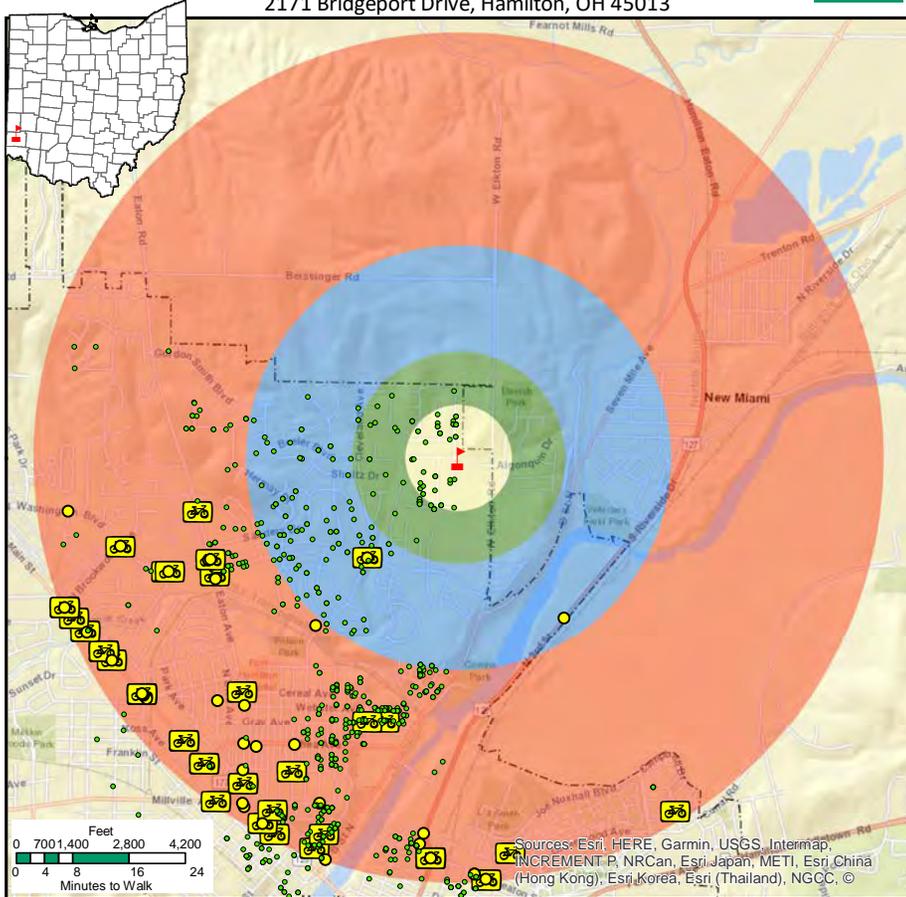


## Bridgeport Elementary - Hamilton City Schools - Butler Co

2171 Bridgeport Drive, Hamilton, OH 45013



1/30/2020

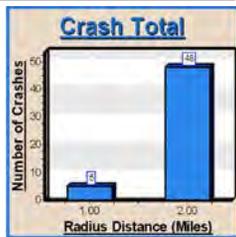
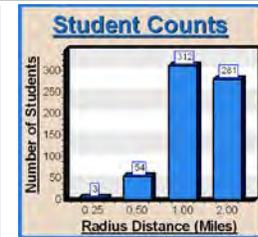
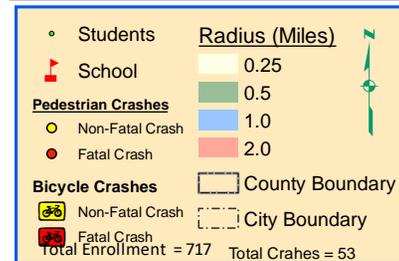
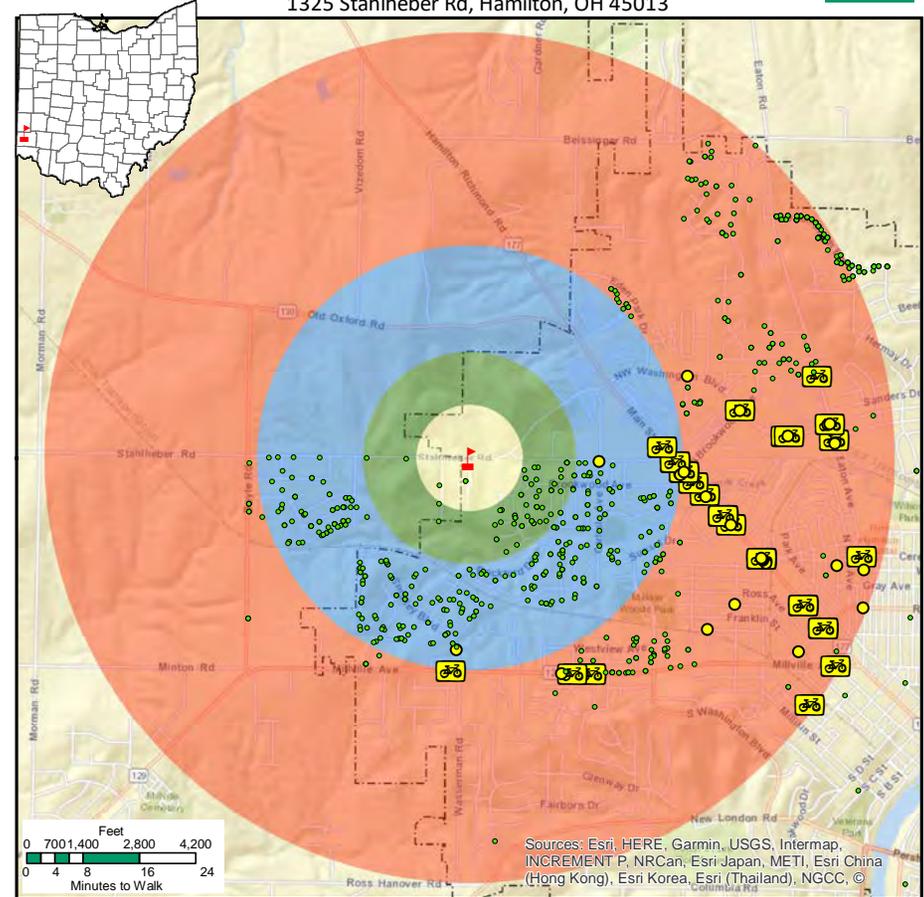


## Brookwood Elementary - Hamilton City Schools - Butler Co

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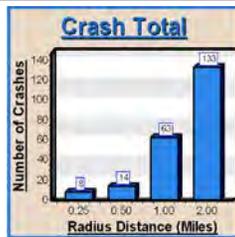
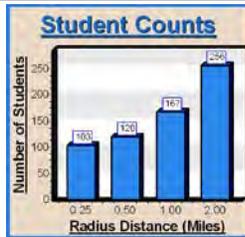
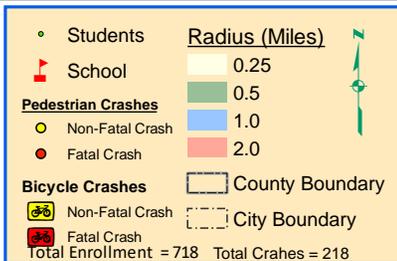
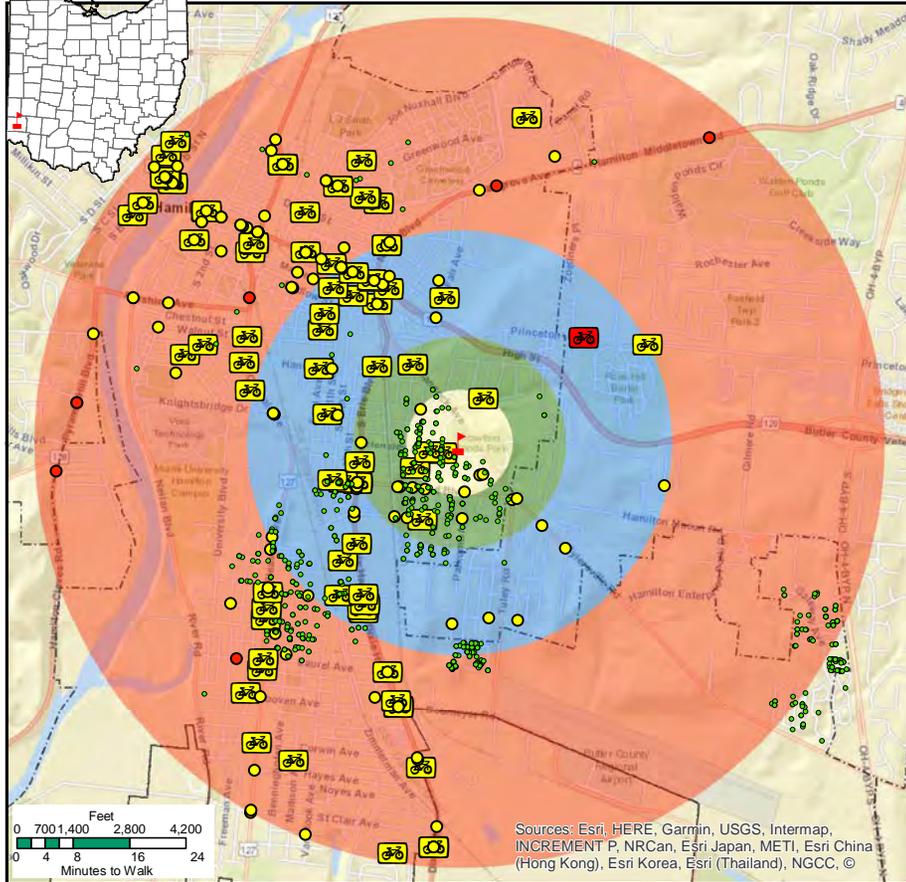
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### Crawford Woods Elementary - Hamilton City Schools - Butler Co

1/30/2020

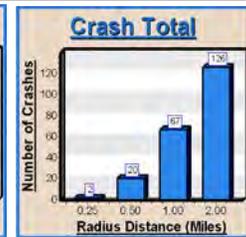
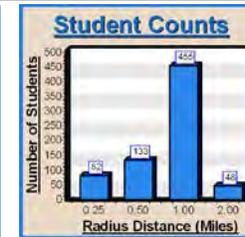
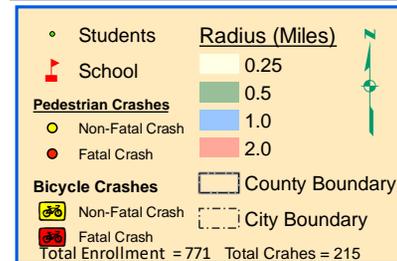
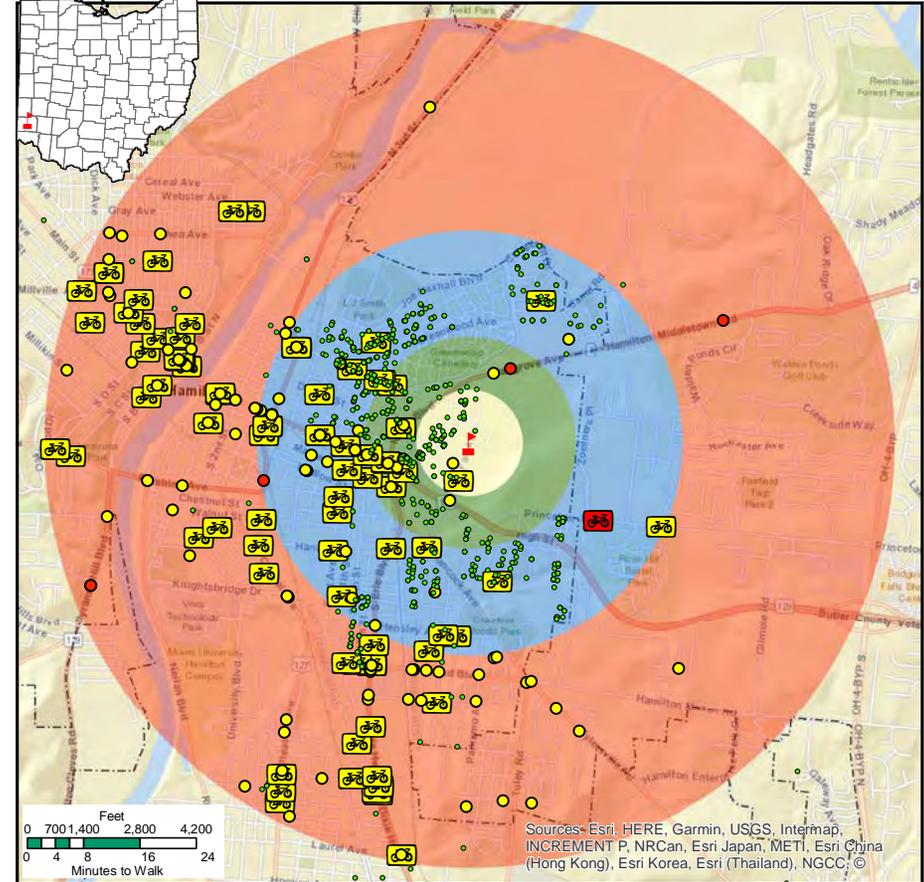
2200 Hensley Ave, Hamilton, OH 45011



### Fairwood Elementary - Hamilton City Schools - Butler Co

1/30/2020

281 Fair Avenue, Hamilton, OH 45011



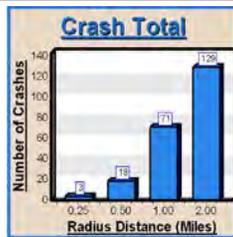
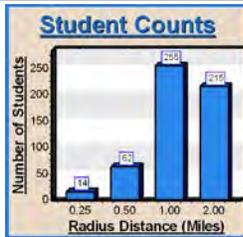
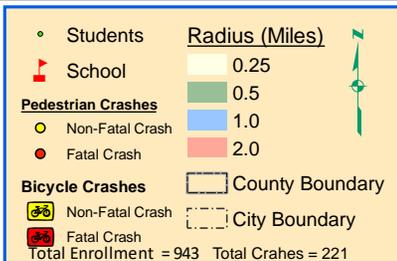
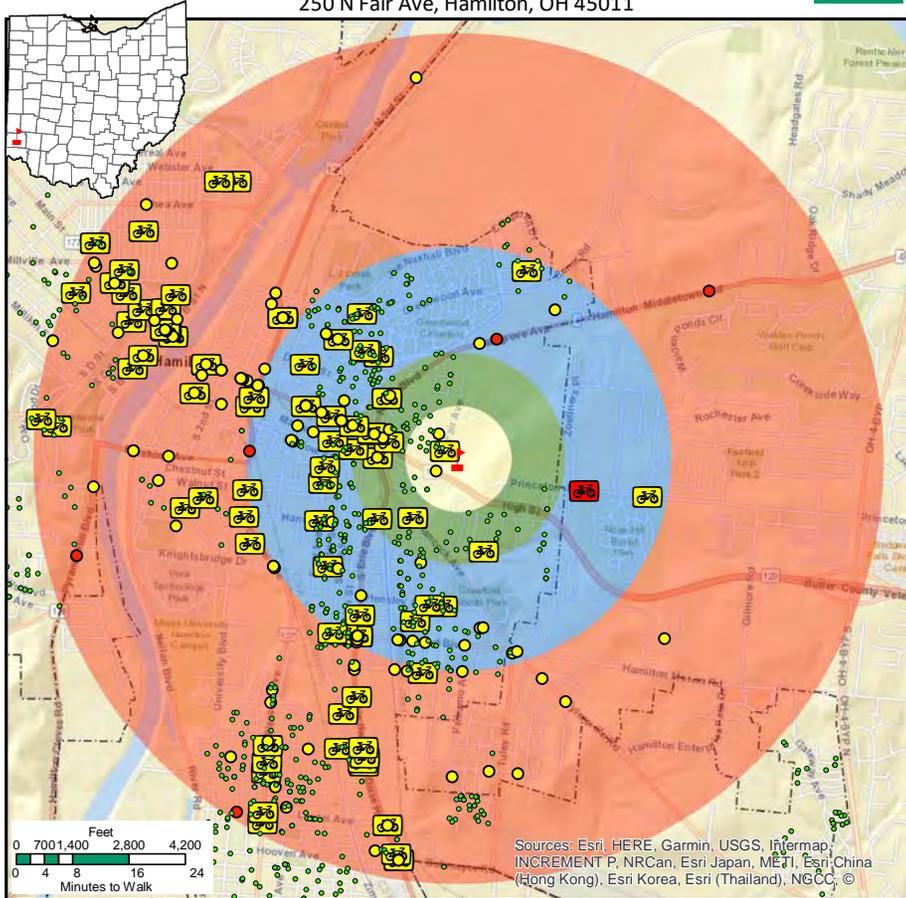


## Garfield Middle School - Hamilton City Schools - Butler Co

OHIO DEPARTMENT OF  
TRANSPORTATION  
Division of Planning  
Office of Program

1/30/2020

250 N Fair Ave, Hamilton, OH 45011

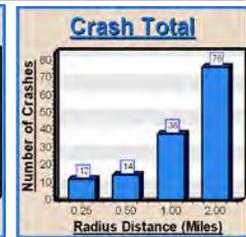
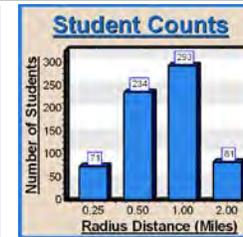
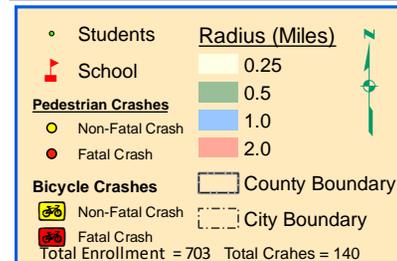
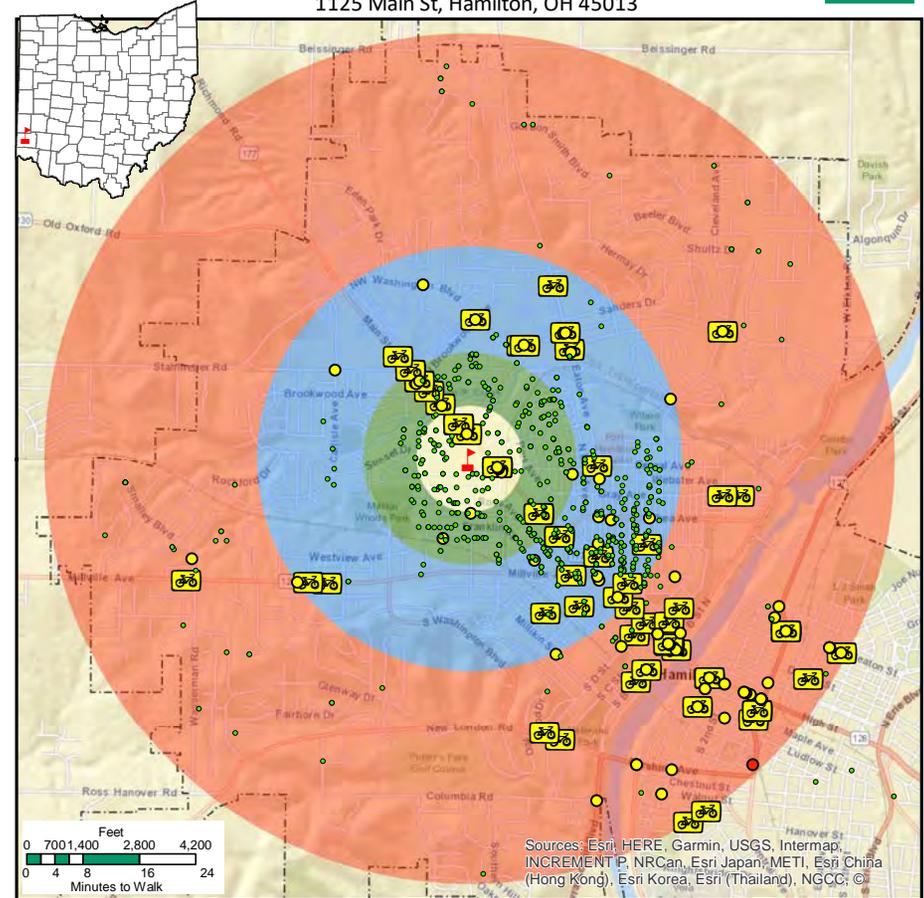


## Highland Elementary - Hamilton City Schools - Butler Co

OHIO DEPARTMENT OF  
TRANSPORTATION  
Division of Planning  
Office of Program

1/30/2020

1125 Main St, Hamilton, OH 45013



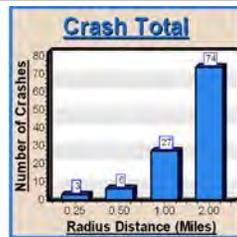
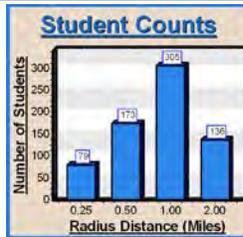
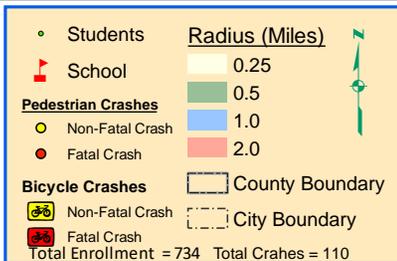
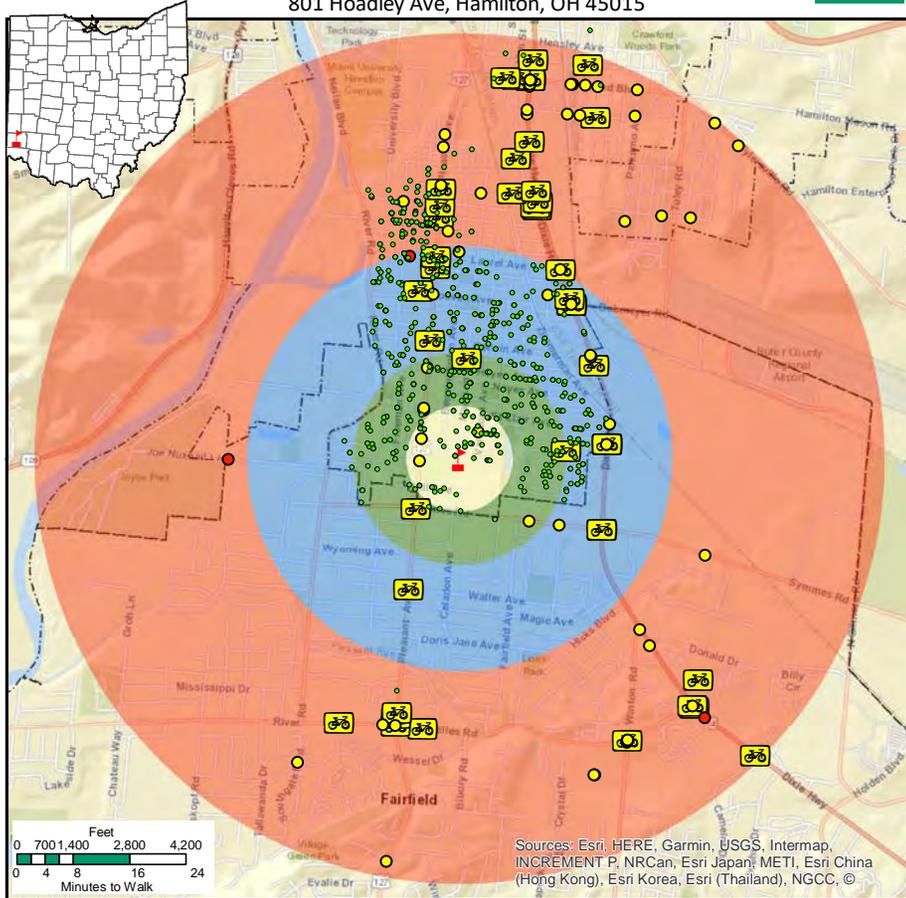


## Linden Elementary - Hamilton City Schools - Butler Co



1/30/2020

801 Hoadley Ave, Hamilton, OH 45015

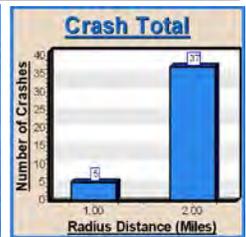
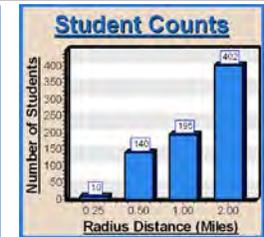
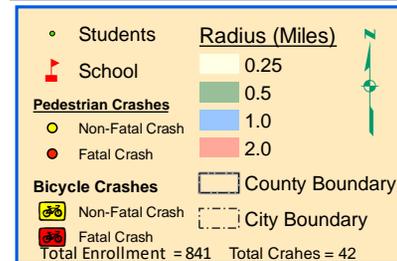
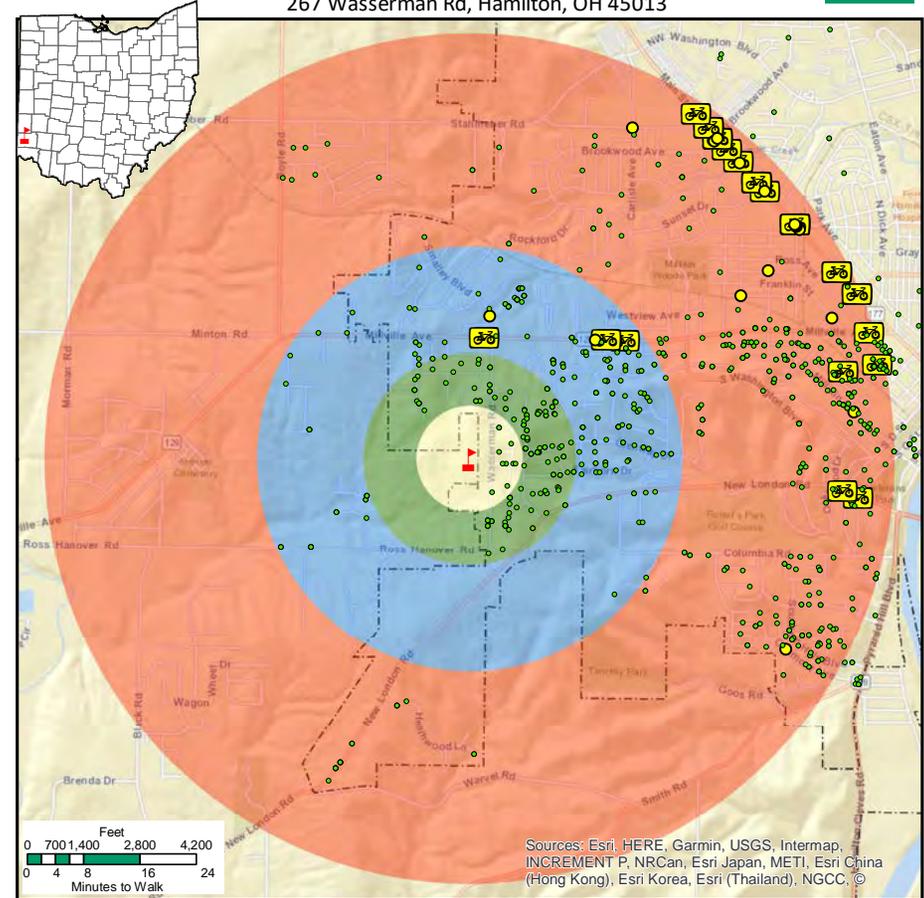


## Ridgeway Elementary - Hamilton City Schools - Butler Co



1/30/2020

267 Wasserman Rd, Hamilton, OH 45013



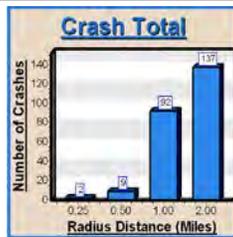
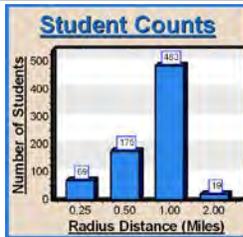
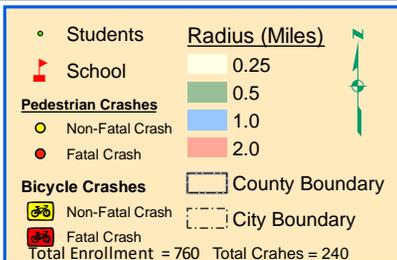
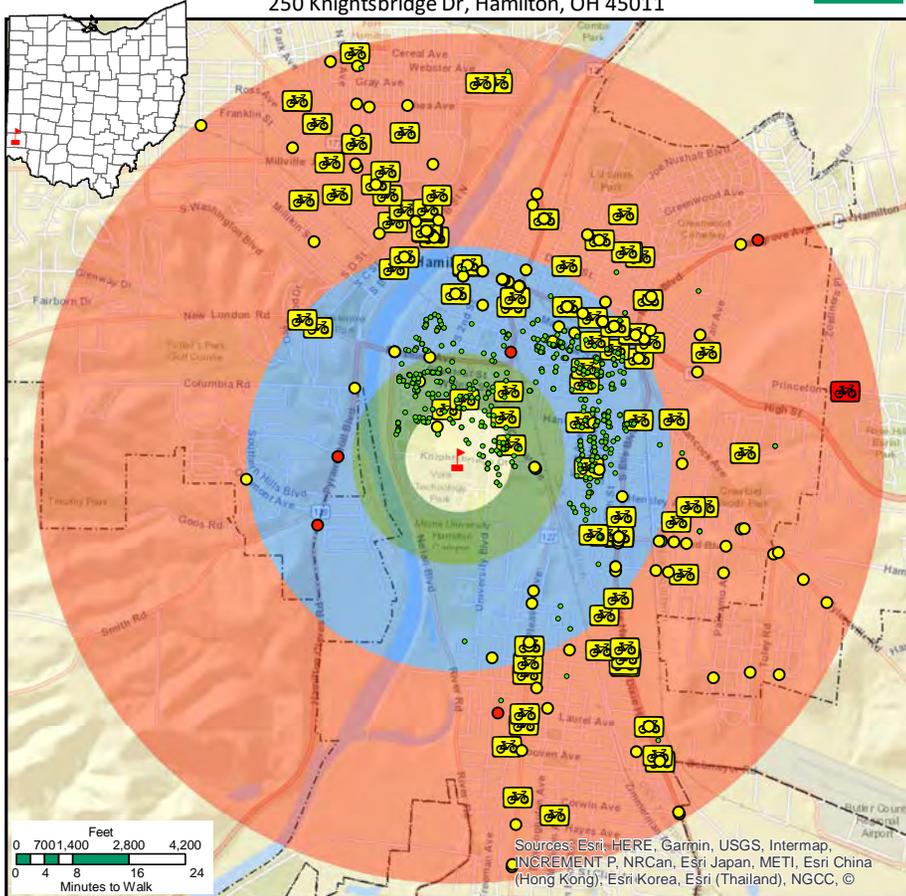


## Riverview Elementary - Hamilton City Schools - Butler Co

250 Knightsbridge Dr, Hamilton, OH 45011



1/30/2020

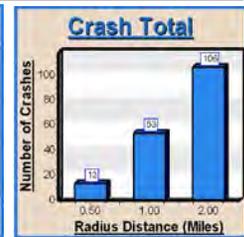
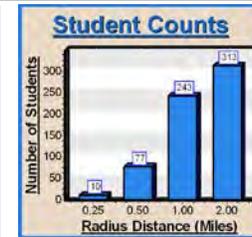
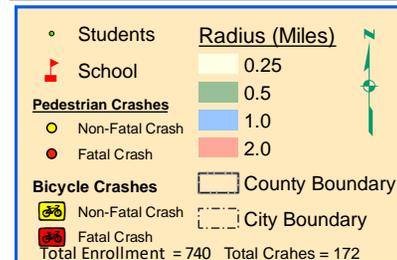
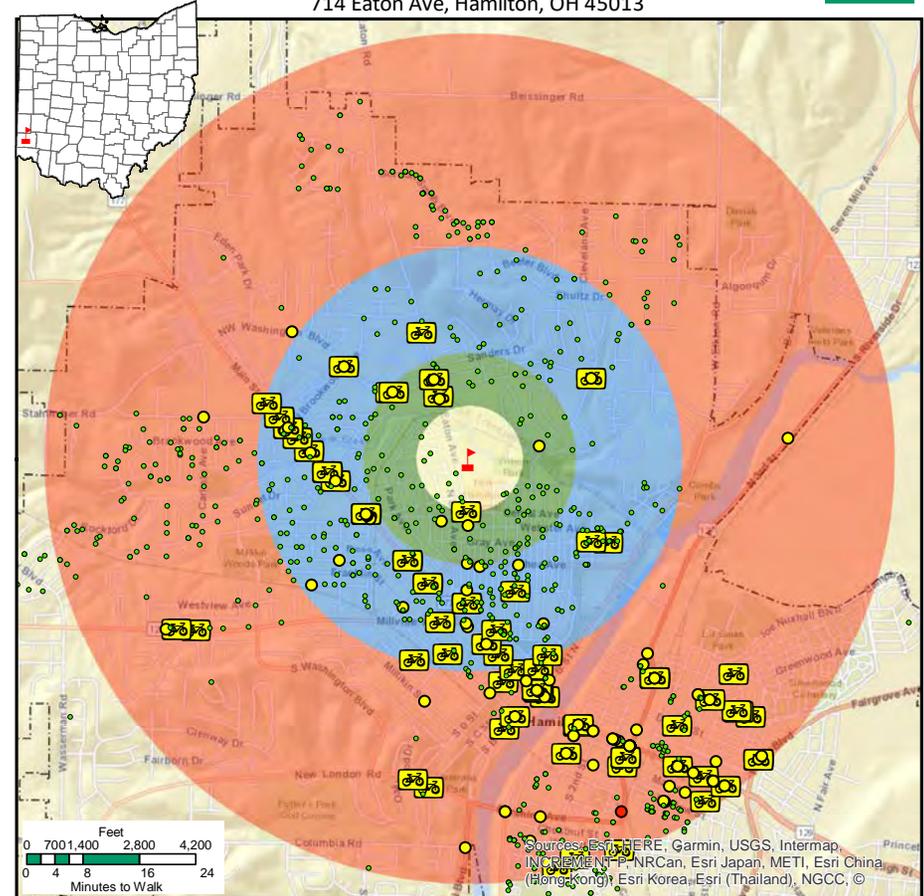


## Wilson Middle School - Hamilton City Schools - Butler Co

714 Eaton Ave, Hamilton, OH 45013



1/30/2020



## School Travel Tallies

The following table includes a travel tally summary from the following schools: Bridgeport Elementary, Brookwood Elementary, Crawford Wood Elementary, Fairwood Elementary, Garfield Middle School, Highland Elementary, Linden Elementary, Ridgeway Elementary, Riverview Elementary, and Wilson Middle School. Travel tallies were collected in August 2018.

| Morning and Afternoon Travel Mode Comparison by Day |                 |      |      |            |                |         |         |       |
|---|-----------------|------|------|------------|----------------|---------|---------|-------|
|   | Number of Trips | Walk | Bike | School Bus | Family Vehicle | Carpool | Transit | Other |
| Tuesday AM  | 3951            | 628  | 60   | 1782       | 1385           | 66      | 16      | 14    |
| Tuesday PM  | 3951            | 816  | 49   | 1793       | 1154           | 86      | 12      | 41    |
| Wednesday AM  | 3667            | 537  | 48   | 1642       | 1316           | 91      | 11      | 22    |
| Wednesday PM  | 3662            | 716  | 43   | 1657       | 1130           | 59      | 20      | 37    |
| Thursday AM   | 3537            | 530  | 47   | 1582       | 1266           | 87      | 12      | 13    |
| Thursday PM   | 3486            | 668  | 46   | 1597       | 1073           | 67      | 14      | 21    |

| Morning and Afternoon Travel Mode Comparison |                 |      |      |            |                |         |         |       |
|--|-----------------|------|------|------------|----------------|---------|---------|-------|
|  | Number of Trips | Walk | Bike | School Bus | Family Vehicle | Carpool | Transit | Other |
| Morning                                      | 11155           | 1695 | 155  | 5006       | 3967           | 244     | 39      | 49    |
| Afternoon                                    | 11099           | 2200 | 138  | 5047       | 3357           | 212     | 46      | 99    |

| Morning and Afternoon Travel Mode Comparison |                 |        |       |            |                |         |         |       |
|--|-----------------|--------|-------|------------|----------------|---------|---------|-------|
|  | Number of Trips | Walk   | Bike  | School Bus | Family Vehicle | Carpool | Transit | Other |
| Morning                                      | 11155           | 15.19% | 1.39% | 44.88%     | 35.56%         | 2.19%   | 0.35%   | 0.44% |
| Afternoon                                    | 11099           | 19.82% | 1.24% | 45.47%     | 30.25%         | 1.91%   | 0.41%   | 0.89% |

# Route 4 Corridor Individual Cost Sheets

The following pages have the individual cost sheets for the proposed Route 4 Corridor Multimodal conceptual design.

Table 11. Median Costs

**Median Costs**

Assume 11' median with additional .5' removal each side for installation  
 Assume one tree per 30 feet  
 Turfing accounted for in general estimate

| Item                        | Unit | Unit Cost | Quantity | Cost      | Source               |
|-----------------------------|------|-----------|----------|-----------|----------------------|
| Full depth pavement removal | SF   | \$1.50    | 12.00    | \$ 18.00  | Champion Bid         |
| Type 6 Curb                 | LF   | \$25.00   | 2.00     | \$ 50.00  | Champion Bid         |
| Planting medium             | CY   | \$100.00  | 0.31     | \$ 30.86  | East High Street Bid |
| Tree                        | EA   | \$650.00  | 0.03     | \$ 21.67  | Champion Bid         |
|                             |      |           |          |           |                      |
| <b>Cost/LF of Median</b>    |      |           |          | \$ 120.53 |                      |

Actual costs may vary based on project scope and current market conditions.

Table 12. Signalized Intersection Costs

**Signalized Intersection Costs**

Assumes 4 new installation of accessible pedestrian pushbuttons  
 Assume high visibility crosswalks for all four approaches (assume average side streets are 4 lanes 12' each, marking spacing is 2')  
 For northbound lanes, assume loop detection and signal head adjustments due to lane shift  
 Curb Ramps (assume 8 per intersection)  
 Assume 30' curb return radius for intersection replacement  
 Assume one signal pole relocation per signal (some signals will have none some may have >1)

| Item                               | Unit | Unit Cost    | Quantity | Cost          | Source               |
|------------------------------------|------|--------------|----------|---------------|----------------------|
| ACCESSIBLE PEDESTRIAN PUSHBUTTON   | EA   | \$ 1,500.00  | 4.00     | \$ 6,000.00   | East High Street Bid |
| CROSSWALK LINE, 24"                | EA   | \$ 55.00     | 54.00    | \$ 2,970.00   | East High Street Bid |
| Loop Detection Removal             | EA   | \$ 200.00    | 10.00    | \$ 2,000.00   | East High Street Bid |
| Signal camera detection            | EA   | \$ 15,000.00 | 10.00    | \$ 150,000.00 | City Staff           |
| Signal head, remove and reinstall  | EA   | \$ 3,800.00  | 2.00     | \$ 7,600.00   | East High Street Bid |
| Curb Ramps & Detectable Warnings   | EA   | \$ 750.00    | 8.00     | \$ 6,000.00   | Champion Bid         |
| Curb and Gutter (Remove & Replace) | LF   | \$ 35.00     | 2827     | \$ 98,960.17  | City Staff           |
| Signal pole relocation             | EA   | \$ 5,000.00  | 1.00     | \$ 5,000.00   | East High Street Bid |
|                                    |      |              |          |               |                      |
| <b>Cost per/Intersection</b>       |      |              |          | \$ 278,530.17 |                      |

Actual costs may vary based on project scope and current market conditions.

Table 13. Uncontrolled Intersection Costs

### Uncontrolled Intersection Costs

Assume high visibility crosswalks for side streets (assume average side streets are 2 lanes 12' each)  
 Curb Ramps (assume 8 per intersection)  
 Assume 15' curb return radius for intersection replacement

| Item                               | Unit | Unit Cost | Quantity | Cost         | Source               |
|------------------------------------|------|-----------|----------|--------------|----------------------|
| CROSSWALK LINE, 24"                | EA   | \$55.00   | 12.00    | \$ 660.00    | East High Street Bid |
| Curb Ramps                         | EA   | \$750.00  | 8.00     | \$ 6,000.00  | Champion Bid         |
| Curb and Gutter (Remove & Replace) | LF   | \$35.00   | 707      | \$ 24,740.04 | City Staff           |
|                                    |      |           |          |              |                      |
|                                    |      |           |          |              |                      |
| <b>Cost per/Intersection</b>       |      |           |          | \$ 31,400.04 |                      |

Actual costs may vary based on project scope and current market conditions.

Table 14. Uncontrolled T-Intersection Costs

### Uncontrolled T-Intersection Costs

Assume high visibility crosswalks for all side street  
 Curb Ramps (assume 6 per intersection)  
 Assume 15' curb return radius for intersection replacement

| Item                               | Unit | Unit Cost | Quantity | Cost         | Source               |
|------------------------------------|------|-----------|----------|--------------|----------------------|
| CROSSWALK LINE, 24"                | EA   | \$55.00   | 6.00     | \$ 330.00    | East High Street Bid |
| Curb Ramps                         | EA   | \$750.00  | 6.00     | \$ 4,500.00  | Champion Bid         |
| Curb and Gutter (Remove & Replace) | LF   | \$35.00   | 353      | \$ 12,370.02 | City Staff           |
|                                    |      |           |          |              |                      |
|                                    |      |           |          |              |                      |
| <b>Cost per/Intersection</b>       |      |           |          | \$ 17,200.02 |                      |

Actual costs may vary based on project scope and current market conditions.

Table 15. Major Driveway or Commercial Entrance Regarding Costs

### Major Driveway or Commercial Entrance Regrading Costs

Defined as driveways with existing curb returns and typically wider than two lanes. We expect these to need curb ramps and curbing replacement. Driveway impact are assumed to be 19' (left) and 13' (right). SUP and walk are accounted for in general estiamte so impacts are 19'-11' = 8' and 13'-6' = 7'. Assume a driveway left of 8' for cost estimating purposes  
 Width of impact assumed to be two 12' lanes with 12' left turn lane  
 Curbing, walk, and SUP accounted for in general cost estimate  
 Curb radius assumed to be 20'

| Item                                | Unit | Unit Cost | Quantity | Cost         | Source       |
|-------------------------------------|------|-----------|----------|--------------|--------------|
| Pavement Removal                    | SF   | \$1.50    | 373.84   | \$ 560.76    | Champion Bid |
| 6" Aggregate Base                   | SY   | \$1.25    | 373.84   | \$ 467.30    | Champion Bid |
| 8" Non-Reinforced Concrete Pavement | SY   | \$8.50    | 373.84   | \$ 3,177.65  | Champion Bid |
| Type 6 Curb (Remove and Replaced)   | LF   | \$30.00   | 628.32   | \$ 18,849.56 | Champion Bid |
| Curb Ramps                          | EA   | \$750.00  | 2.00     | \$ 1,500.00  | Champion Bid |
|                                     |      |           |          |              |              |
| <b>Cost per Drive/Alleyway</b>      |      |           |          | \$ 24,555.26 |              |

Actual costs may vary based on project scope and current market conditions.

Table 16. Driveway or Alleyway Regarding Costs

### Driveway or Alleyway Regrading Costs

Driveway impact are assumed to be 19' (left) and 13' (right). SUP and walk are accounted for in general estiamte so impacts are 19'-11' = 8' and 13'-6' = 7'. Assume a driveway left of 8' for cost estimating purposes  
 Width of impact assumed to be 26ft based on general existing patterns  
 Curbing, walk, and SUP accounted for in general cost estimate  
 Flares: min 5' wide

| Item                                | Unit | Unit Cost | Quantity | Cost        | Source       |
|-------------------------------------|------|-----------|----------|-------------|--------------|
| Pavement Removal                    | SF   | \$1.50    | 233.00   | \$ 349.50   | Champion Bid |
| 6" Aggregate Base                   | SY   | \$1.25    | 233.00   | \$ 291.25   | Champion Bid |
| 8" Non-Reinforced Concrete Pavement | SY   | \$8.50    | 233.00   | \$ 1,980.50 | Champion Bid |
|                                     |      |           |          |             |              |
| <b>Cost per Drive/Alleyway</b>      |      |           |          | \$ 2,621.25 |              |

Actual costs may vary based on project scope and current market conditions.