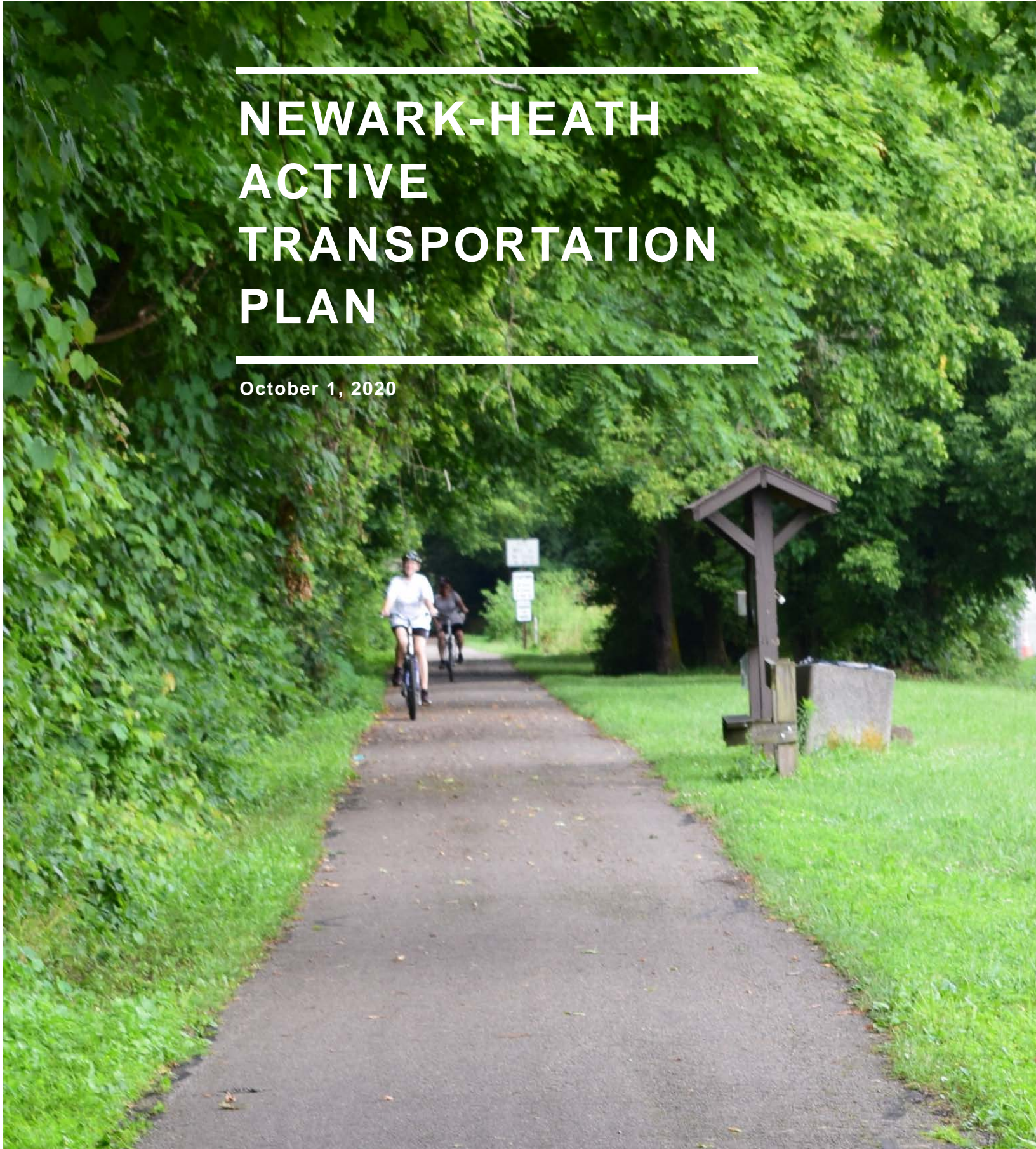


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# NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

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October 1, 2020



## ACKNOWLEDGEMENTS

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### Sponsors

Ohio Department of Health

Licking County Health Department

Licking County Area Transportation Study

Ohio Department of Transportation

*Information contained in this document is for planning purposes and should not be used for final design of any project. All results, recommendations, concept drawings, cost opinions, and commentary contained herein are based on limited data and information and on existing conditions that are subject to change. Existing conditions have not been field-verified. Further analysis and engineering design are necessary prior to implementing any of the recommendations contained herein.*

# NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

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# CHAPTER 1

## INTRODUCTION





## INTRODUCTION

### ACTIVE TRANSPORTATION

“Active Transportation” is an umbrella term for all the ways people can get around without using a motorized vehicle – walking or biking, using mobility assistance devices (such as wheelchairs and scooters), skating or skateboarding, and more. Physically active forms of transportation play a crucial role in improving community health. The term active transportation reinforces that bicycling and walking are valid forms of transportation, not just forms of recreation. Active transportation planning involves a 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.

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

Supporting active transportation is one way that communities can help make the active choice the easy choice for their residents, by providing comfortable, activity-friendly routes to everyday destinations. 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; developing an Active Transportation Plan is a first step towards that investment.

## OHIO ACTION INSTITUTE 2020

The Ohio Action Institute 2020 was an interactive, guided planning process for Ohio cities, villages and counties interested in making their communities safer and more accessible for walking, bicycling, and transit. All sub-grantees of the Ohio Department of Health (ODH)'s [Creating Healthy Communities \(CHC\) Program](#) were invited to bring together a cross-sector team to apply to the Action Institute. Through the Action Institute they would learn about active transportation, receive hands-on training and technical assistance from local, state, and national experts, and ultimately develop a recommended active transportation network and action plan for their community. The Action Institute was funded by the Centers for Disease Control and Prevention (CDC)'s [State Activity and Physical Nutrition \(SPAN\) Grant](#), which helps state recipients to implement evidence-based strategies at state and local levels to improve nutrition and physical activity, and was coordinated by CHC, partners at the Ohio Department of Transportation (ODOT), and the active transportation consulting firm Toole Design. CHC is a chronic disease prevention program that funds coordinators at 23 local health departments to improve access to and affordability of healthy food and increase opportunities for physical activity where Ohioans live, work and play.

Eight CHC coordinators applied for the program, and four teams were selected to participate. Each was led by the local CHC coordinator and was comprised of four or more local partners from local government, planning organizations, engineering offices, health departments and more. Toole Design provided personalized assistance to each community throughout the process. While the Institute was originally envisioned as an in-person experience of two workshops in May and August, the realities of the 2020 COVID 19 pandemic led to a shift to an all-online format. The first workshop covered how to analyze existing conditions for active transportation and how to effectively engage communities; teams developed a draft active transportation network, engagement messaging, and an action plan for the summer. Each team received resources and tools to conduct community engagement to gather feedback on the draft network, primarily through an online interactive map. At the second workshop teams finalized the active transportation network maps and finished developing an action plan for implementation, then completed this document as the final product of the Action Institute.

## GOALS

### Goals

- 1** Educate the community on the importance of active transportation for health, equity, and the environment.
- 2** Make the community safer and more accessible for walking, bicycling, and other forms of active mobility.
- 3** Create new network connections that bridge the active transportation infrastructure gaps and enable reaching everyday destinations.

# CHAPTER 2

## EXISTING CONDITIONS







## EXISTING CONDITIONS ANALYSIS

### EXISTING PLANS

#### STREET DESIGN AND CONNECTIVITY

Type of Plan	List plans available for your jurisdiction
Comprehensive Plan	Vision 2028
Thoroughfare Plan	N/A
Transportation Element of a Comprehensive Plan	N/A
Land Use Element of a Comprehensive Plan	N/A
Metropolitan Planning Organization (MPO) or Regional Transportation Planning Organization (RTPO) Long Range Transportation Plan	Transportation Improvement Plan 2021-2024 Long Range Transportation Plan 2021-2050
Subdivision Regulations	City of Newark Subdivision Ordinance 1994 City of Heath Development Regulations 2017

1. Does the jurisdiction have a Major and Collector Street Plan—either as a stand-alone document or as part of a Transportation System Plan or Comprehensive Plan—which describes existing and future streets constructed by the municipality and through future development?

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

The City of Newark does not have a thoroughfare plan. Functional Classification is specified on ODOT's classification map which was updated a few years ago to reflect current usage. The City's Subdivision Regulations contain roadway specifications for subdivisions only.

City of Heath Development Regulations cover street classifications and design standards in section 41.20. Its Planning Commission is given the authority to designate road classifications and developers must comply with regulatory design standards for each specific road class as laid out in this plan. Heath includes major classified roads in its territory and describes specific classifications for those roads and how development shall handle spacing, radii, stopping distances, right-of-way measurements, turn lanes, access, etc in Sec 82.

- a. Does this Plan have street connectivity goals?

In Vision 2028, Objective 3.1 is to improve access to community hubs and destinations within Newark through enhanced public transit options. It also notates a need for public transit, to connect local residents to regional employment centers, and several barriers for pedestrians. Objective 4.5 is to improve health through improved access to neighborhood goods (with a reference to healthy foods and food insecurity issues in Newark). Under Arts & Rec, Objective 6.6 is to expand the bike path network with new key connections, as well as a desire for more connected bike and pedestrian connections in the region.

- b. Does the Plan consider modes of transportation other than automobiles (such as walking, biking, public transportation)?

Vision 2028 mentioned adding mobility options to elevate local quality of life (under transportation & mobility). The Licking County Area Transportation Study (LCATS) Long Range Transportation Plan mentions including accessible pedestrian, cyclists, motorists and other intermodal facilities

Heath Development Regulations Sec 41.70 describes sidewalk standards and Sec 41.71 mandates bicycle/walking path.

2. Does the jurisdiction have a Plan that identifies high- and low-stress streets for bicyclists?  
No; however, there is a good understanding of what the high-stress streets are.
3. Does the jurisdiction's land use plans (such as a Comprehensive Plan, Zoning or Subdivision Regulations) discuss any of the items below?
  - a. Set maximum block lengths or block size requirements?

No - City of Newark

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

Yes- City of Heath has 1500 ft block max

- b. Set connectivity standards?

No

- c. Encourage alleyways?

No

- d. Allow for or encourage greenways or paths?

City of Heath Development Regulations Sec 45.10 requires a minimum amount of open space/recreational land as determined by Planning Commission and City Parks Dept. Not specifically for the City of Newark; however, the LCATS multi-use trail plan is considered with new projects.

- e. Discourage cul-de-sacs?

No

- f. Require pedestrian and street connectivity between neighborhoods?

No; however, this is considered by staff when new developments are proposed.

- g. Require sidewalks to be installed when new streets are built in subdivisions?

Yes

## INFRASTRUCTURE TO ACCOMMODATE PEDESTRIANS AND BICYCLISTS

Type of Plan	List plans available for your jurisdiction
Metropolitan Planning Organization (MPO) or Regional Transportation Planning Organization (RTPO) Active Transportation,	N/A

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

Long Range Transportation, or Bicycle/Pedestrian Plan	
Complete Streets Policy, Ordinance, or Resolution	City of Newark Complete Streets Resolution 2011
Vision Zero Plan	N/A
Parks Districts, Shared-Use Path, or Trails Plan	MPO Multi-Use Trail Plan 2014 Newark Bike Trails Comprehensive Plan 2009

1. Does the jurisdiction address reducing traffic related deaths and injuries using Vision Zero or another systematic approach through a plan, policy, ordinance, or resolution?

No official plan, but safety improvements are considered by staff with all projects. LCATS supports and follows ODOT for Vision Zero guidelines.

2. Does the jurisdiction address Complete Streets through a plan, policy, ordinance, or resolution? How is your Complete Streets plan, policy, ordinance, or resolution used in decision-making about bicycle and pedestrian infrastructure?

City of Newark Resolution 11-3A addressing support for complete streets principles and creating a policy which equally considers all users in transportation policies, planning, and design projects. Opportunities to create complete streets should be given consideration with other infrastructure improvements such as water, sanitary sewer, and storm sewer projects. Examples include the work done in Downtown Newark as a part of the redesign of roadways around the courthouse square during the separation of the underground storm water system.

3. Does the jurisdiction address linking or connecting existing and planned shared-use paths through a plan or policy?

Yes, the LCATS Multi-Use Trail Plan is consulted on existing projects and to develop new projects. Further discussions have been made to connect shared-use paths in Heath to shared-use paths in Newark. Although the county has a very extensive path/trail system, the connection between the two largest communities in Licking County has been absent. This connection will make a great difference in being able to not only link Heath and Newark, but to allow for continuous usage from the south end of the county in Buckeye Lake all the way to both the northwest portion of the county in Johnstown and the easternmost section of the county past Hanover.

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

4. How many linear miles of shared-use paths are currently available in the jurisdiction? This does not include sidewalks.

58.2, which includes approximately 5.7 miles of natural path hiking trail (Ohio Canal Greenway and westernmost segment of TJ Evans Trail)

5. Is there a map of the jurisdiction's shared-use paths available to the public? (not including outside sources such as Google Maps.)

Yes, it is widely available, although it is missing the most recent trail addition (.3 mile segment)

6. Does the jurisdiction routinely perform maintenance on shared-use paths?

Yes, this is generally completed by the Licking Parks District and funding is typically shared with the Cities of Newark and Heath when the trail runs through either jurisdiction.

7. Does the jurisdiction routinely count users on shared-use paths?

Up through 2019, there were not any updated pedestrian counts for the area. However, LCATS recently purchased and installed new hardware that allows for a permanent pedestrian count location that has been installed at the convergence of two of the most heavily traveled shared-use paths in the county, the TJ Evans Trail and the Cherry Valley Trail. Also included are portable count stations. LCATS plans on collecting data for shared-use paths throughout the whole county, including in this jurisdiction.

8. Does the jurisdiction have funding identified for pedestrian and bicycle projects? Does the jurisdiction have staff that work on bicycle and pedestrian projects, either as all or part of their job (e.g. city engineer, bicycle/pedestrian planner, parks planner, etc.)?

The City of Newark routinely applies for Transportation Alternatives grants and Congestion Mitigation Air Quality (CMAQ) funding for Active Transportation projects. The City received funding on the first Active Transportation grant; however, it appears this funding source has been suspended. SRTS funds have been used in the past, but the plan has lapsed and has not been updated for a variety of reasons. ODNR funds have also been used in the past, but have not been pursued recently. AT items are always considered as part of larger projects. The local TJ Evans Foundation also builds trails as part of their philanthropic efforts. The City no longer has a planning department and all work is completed by the City Engineer's Office in which no staff member is dedicated to bike/ped facilities.

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

Besides the Licking Park District, LCATS designates time to work on shared-use paths and other pedestrian and bicycle projects as a part of their MPO work. Specifically, CMAQ funding has been spent on this very type of work. Just in our group that will participate in this Action Institute, each person has spent time working and spent money on pedestrian and bicycle projects with their respective organization.

9. Does the jurisdiction ask or require developers to install new sidewalks or paths in new projects, and/or require them to pay a fee as a substitute if not?

Yes, but other than sidewalks within subdivisions, there are no documented regulations, policies, etc.

### PUBLIC TRANSPORTATION

Type of Plan	List plans available for your jurisdiction
Metropolitan Planning Organization (MPO) or Regional Transportation Planning Organization (RTPO) Long Range Transportation Plan	N/A
Transportation Element of a Comprehensive Plan	N/A
Transit Agency Short- or Long-Range Plan	N/A
Locally Developed Coordinated Public Transit-Human Services Transportation Plan	Transit Development Plan 2020 Coordinated Plan 2020-2025

1. Is the jurisdiction currently served by public transit?

Yes, an on-demand, door-to-door service.

2. What type of public transit is available in the jurisdiction?

Dial-a-ride paratransit is the current offering of public transit. This has proven to be inefficient with lengthy wait times for riders.

3. Does the jurisdiction have a plan focused on public transit?

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

Yes, a Transit Development Plan and a Coordinated Plan were recently developed and adopted in the summer of 2020.

4. Does your jurisdiction's public transit plans or policies address equitable transit infrastructure (e.g. spacing between routes, network connectivity to employment centers, route directness, bus stop siting/spacing requirements)?

These are items proposed to be addressed. The plan suggests adding fixed/deviated routing over the next 4-7 years. This includes a centralized 'transit hub,' a focus on employment connectors, education institutions, and medical, service and retail corridors.

5. Does the jurisdiction have a group tasked with advising on transit-related policies and/or plans?

Somewhat, there is currently a Stakeholders Group for the production of these plans. There is also a transit board that oversees transit policies and the MPO was charged with managing the plans.

6. Is the jurisdiction served by a mobility manager?

Not currently, but in accordance with the Transit Development Plan and Coordinated Plan, a mobility manager will be added within the next 5 years.

NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

NON-INFRASTRUCTURE PROGRAMS

Program Name	E Category	Program Lead (organization)	Target Audience	How does this program support active transportation?
Bike Buckeye Lake (BBL)	Encouragement, Evaluation	Bike Buckeye Lake	Bicyclists	BBL is a nonprofit whose Mission is the development of a multiuse trail surrounding Buckeye Lake. They aim to create healthy, vibrant and economically enhanced communities with a recreation trail and local business support. BBL hosts the annual Tour de Buckeye Lake bike ride. Proceeds go towards trail expansion and maintenance. BBL also gives bikes away to low-income families around the lake at Christmas.
Change Gears	Education, Encouragement, Engagement	Licking County Health Department (LCHD)	All ages	Event encourages Licking County residents to get out and ride their bikes on our extensive bike trail network. Education on bike safety and helmets is also provided.
Newark Bike Infrastructure 2019 Project	Education, Engagement, Equity	Licking County Health Department, Creating Healthy Communities (CHC)	Bicyclists; low-income families	CHC coordinated a bike training with Toole Design in 2019 to educate Newark residents on safe on-street riding and riding through roundabouts. The training targeted experienced riders as well as novel riders, including lower-income groups. CHC worked with the City of Newark and LCATS to install covered bike parking downtown. Surveys about bike parking were distributed in the community to gather feedback.



## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

Program Name	E Category	Program Lead (organization)	Target Audience	How does this program support active transportation?
Multi-Use Trail Way-finding Project 2019	Evaluation, Engagement	LCATS Licking Parks District (LPD) LCHD CHC	Licking County residents	LCATS, CHC, and LPD completed an extensive trail audit in 2019 on the entire Licking County bike trail network. A community survey was also part of the assessment to identify improvements from users. Wayfinding signage was added as a result of the project.
Safe Routes to School – Newark City Schools	Equity, Education	City of Newark	K-5 grade; low-income students	Safe Routes to School is an initiative that works to make it safe, convenient, and fun for children to walk and bicycle to and from schools. The goal is to get more children walking and bicycling to school, improve kids' safety, and increase health and physical activity. As a result of SRTS, the City of Newark built a shared use path bridge to connect Legend Elementary and Liberty Middle Schools, and initiated a walking school bus for those schools.
Trail to Health	Education, Encouragement	LCHD LPD	All ages	This website houses a plethora of local active living resources. It includes a resource map for all active lifestyle opportunities, from parks to trails, as well as identifying and providing descriptions of these sundry amenities throughout the region.
LCATS Trail Count Program	Evaluation	LCATS	Trail users	The MPO acquired its first permanent trail counter in late 2019, along with a pair of mobile counters. These are primarily used along the trail network, but also can and have been used to take counts on sidewalks

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

Program Name	E Category	Program Lead (organization)	Target Audience	How does this program support active transportation?
Taste of the Trails	Encouragement, Education	LCATS LPD LCHD City of Newark YMCA Evans Foundation Explore Licking County	All ages	This is an initiative aimed to encourage the public to explore the trail network by highlighting locally unique trail experiences and combining them with food trucks. It also educates the public about these trail amenities and trail access points. This event will be annually recurring, but was put on hold due to the 2020 public health crisis.

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

Does your community have non-infrastructure programs that address all five E's?

Yes

Are there any E's that are especially well-represented? If yes, which ones?

Education

Encouragement (specifically for our bike trails)

Engagement

Are there any E's that are underrepresented? If yes, which ones?

Equity- The Health Department is a big leader for overcoming inequities in the community, but they need more active partners in overcoming inequities. Other organizations need to recognize this and provide programming options.

Evaluation- The trail wayfinding project was a strong start for evaluating the trail network, and the trail count program has only just begun. There needs to be strong leadership to ensure these programs continue and additional partners to make them more effective.

Who are the main leaders in non-infrastructure programming in your community? Select the top three organizations with the most involvement and influence in current programs.

- a. LCATS
- b. Licking Park District
- c. Licking County Health Department

Who are the target audiences for the current non-infrastructure programs? Select the top three target audiences.

- a. Bicyclists
- b. Low-income individuals/families
- c. Children

Which underrepresented populations are not captured in the current programming? List all groups.

- a. People with disabilities
- b. Low-income populations

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

- c. People without vehicles
- d. Non-English speakers
- e. People of color
- f. Elderly

# NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

## OPPORTUNITIES AND CHALLENGES

### Newark - Heath Active Transportation Plan: Existing Conditions

TOOLE  
DESIGN

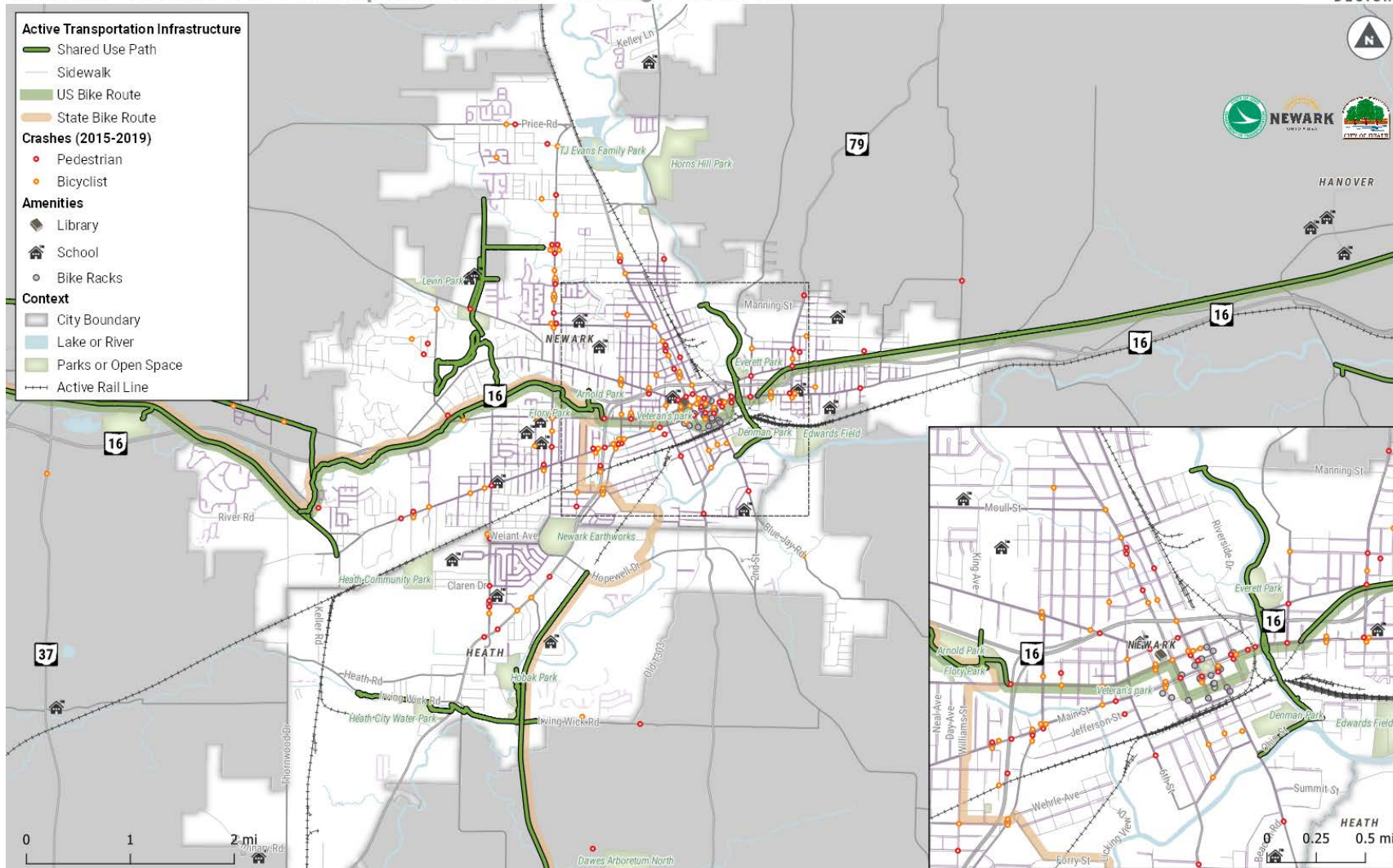


Figure 1: Map of Existing Conditions

# NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

## OPPORTUNITIES

- Extensive bike trail network
- Close proximity between communities
- Bike racks are prevalent in downtown Newark
- Sidewalks throughout downtown Newark



*Bike Rack in Downtown Newark*



*Sidewalk connection into trail network, 21<sup>st</sup> Street Kroger and TJ Evans Recreational Trail*

- Granville Road Shared Use Path
- 4th Street connection to Riverview Trail
- 4th Street Roundabouts will help calm traffic



*Eastbound bike lane on East Main Street*

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

### CHALLENGES

- Sidewalk gaps along major corridors in both Heath and Newark
  - SR-79, 21st Street, West Main Street, SR-13
- Other sidewalk gaps
  - Goose Pond Road
  - West side of Country Club Drive by OSU-N Campus
  - Manning Street
  - Around new HS in Newark
  - Heath City Schools in general
- There are no transit stops; transit is currently an on-demand service.
- Major gaps exist in connectivity between Heath and Newark.
- Lack of right-of-way is a limiting factor in many areas.
- Prioritization of motorists is a barrier in high volume traffic corridors.
- SR-79/Main Street interchange
- SR-16/Country Club Drive interchange
- Certain corridors have a high volume of pedestrian and bicycle crashes.
  - 21st Street
  - Main Street
  - SR-13
  - 30th Street
  - SR-79
- Funding, Processes, and Regulations
  - Funding seems to get used up on design, environmental, and right-of-way acquisition before ever making it to construction



*Sidewalk gap along 21st Street has led to this desire path*



*This segment of sidewalk along 21st Street has shifted and creates a hazard for users*



*Sidewalk gap along National Drive caused this desire path*

# NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

## GAPS AND BARRIERS

### Newark - Heath Active Transportation Plan: Gaps & Barriers Analysis

**TOOLE**  
DESIGN

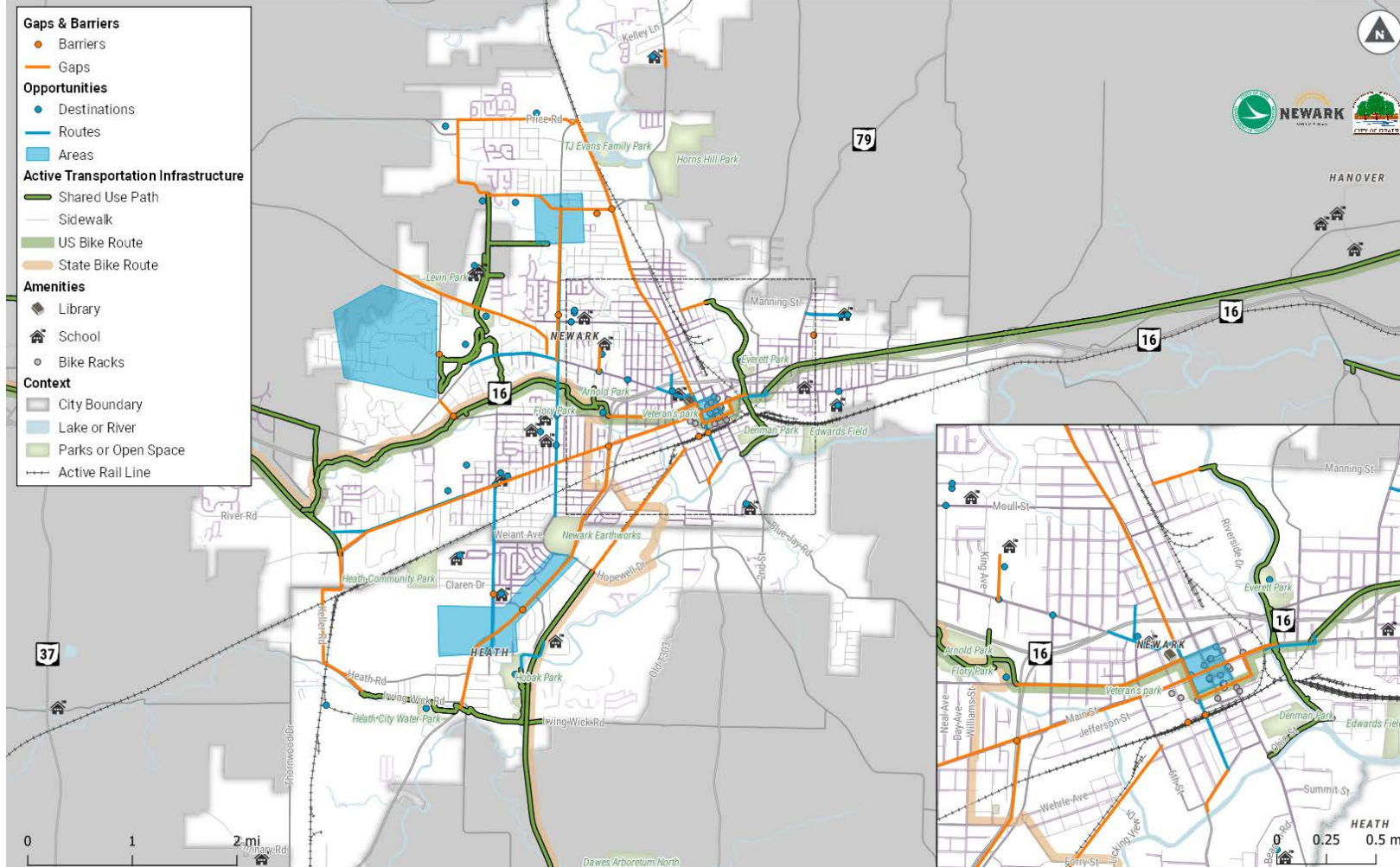
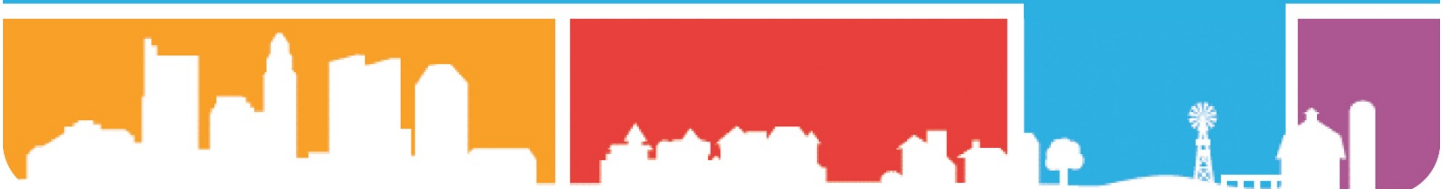


Figure 2: Map of Opportunities, Gaps and Barriers Exercise



# CHAPTER 3

## COMMUNITY ENGAGEMENT





## COMMUNITY ENGAGEMENT

### STRATEGIES

#### ONLINE ENGAGEMENT STRATEGIES

An interactive online WikiMap was created by Toole Design for community feedback, which was utilized by 122 respondents. The Licking County Action Institute Team supplemented the map with a website that directed users to the WikiMap, provided links to give comments via phone/email, and outlined the purpose of an Active Transportation Plan. Facebook was utilized to engage the public with several posts on both the LCATS' and Licking County Health Department's (LCHD) accounts. Toole made a short video ad that was also utilized on the aforementioned website and Facebook accounts. Emails were also sent out to a wide network of local stakeholders in the communities.

#### IN-PERSON ENGAGEMENT STRATEGIES

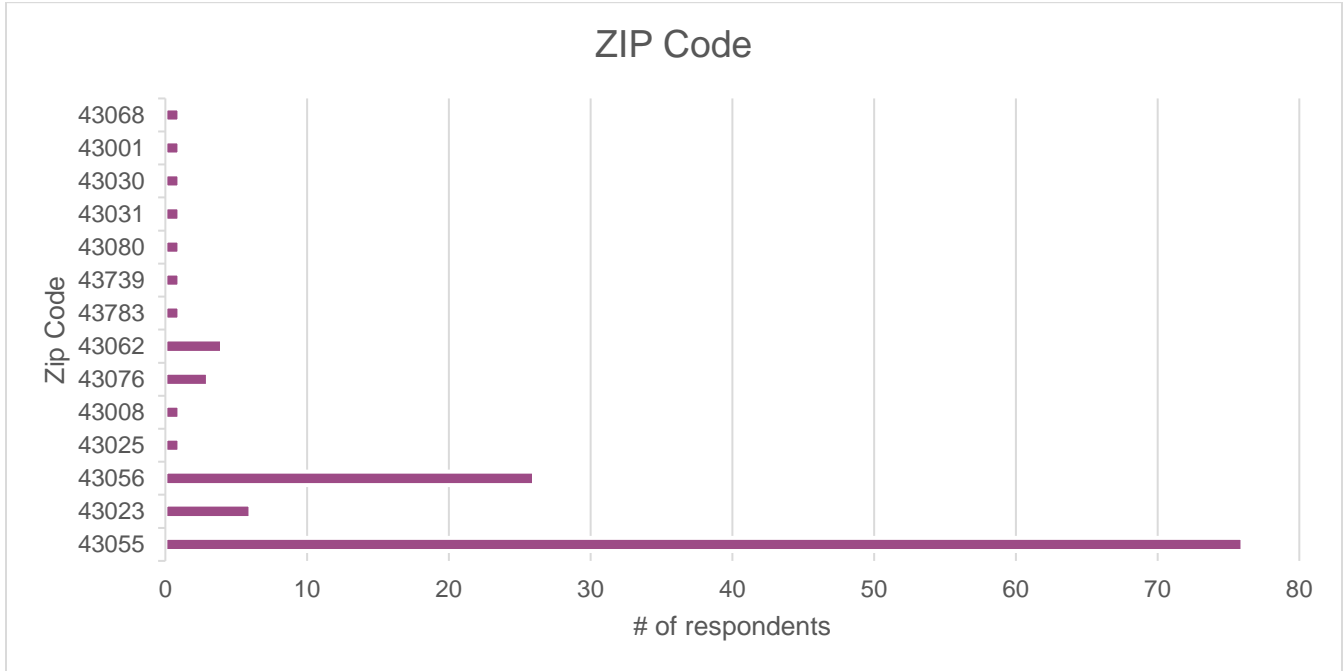
In-person engagement was much more difficult during the public health crisis. LCATS paid for the production of yard signs that were placed in Heath and Newark along trails and other frequently used pedestrian routes. The signs had QR codes that linked to the website, which in turn linked to the survey and WikiMap.

#### TARGETED ENGAGEMENT STRATEGIES

A mailer was sent out by the LCHD with paper surveys and return envelopes to target low income neighborhoods. Around 400 of these mailers were sent out randomly to residents of these neighborhoods, with over 25 being submitted.

## WHO WE HEARD FROM

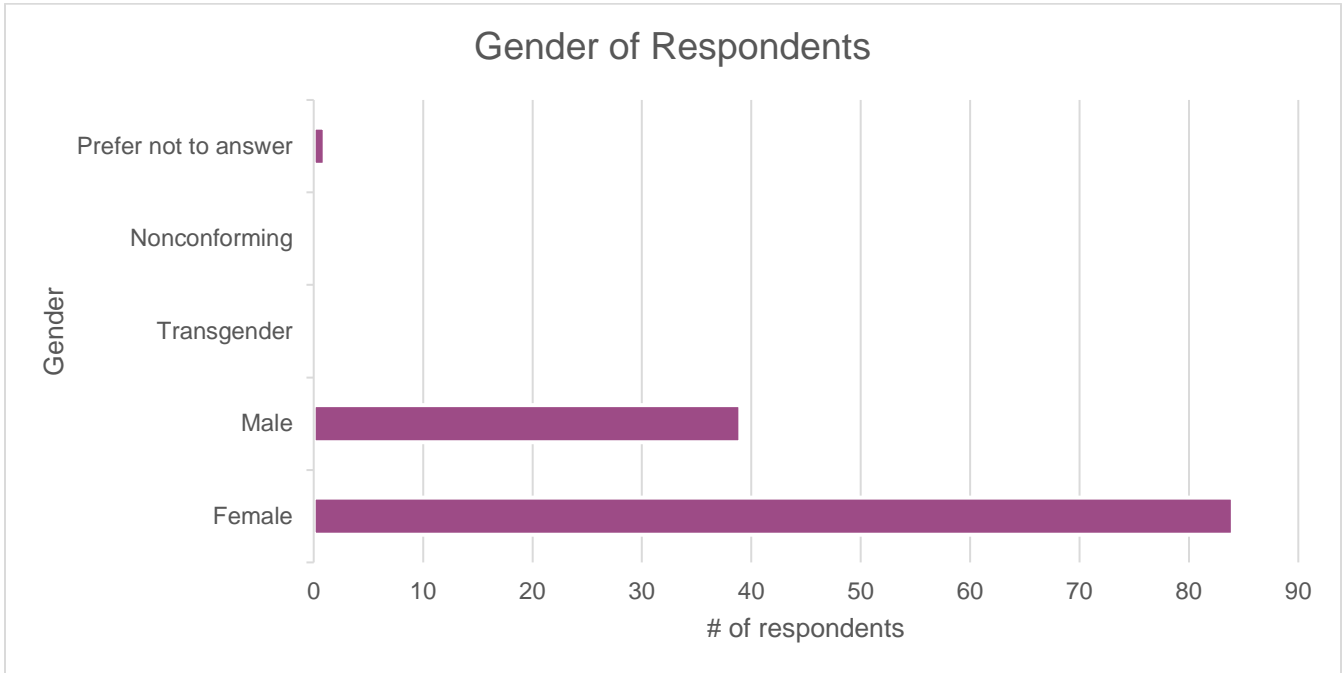
What is your ZIP code?



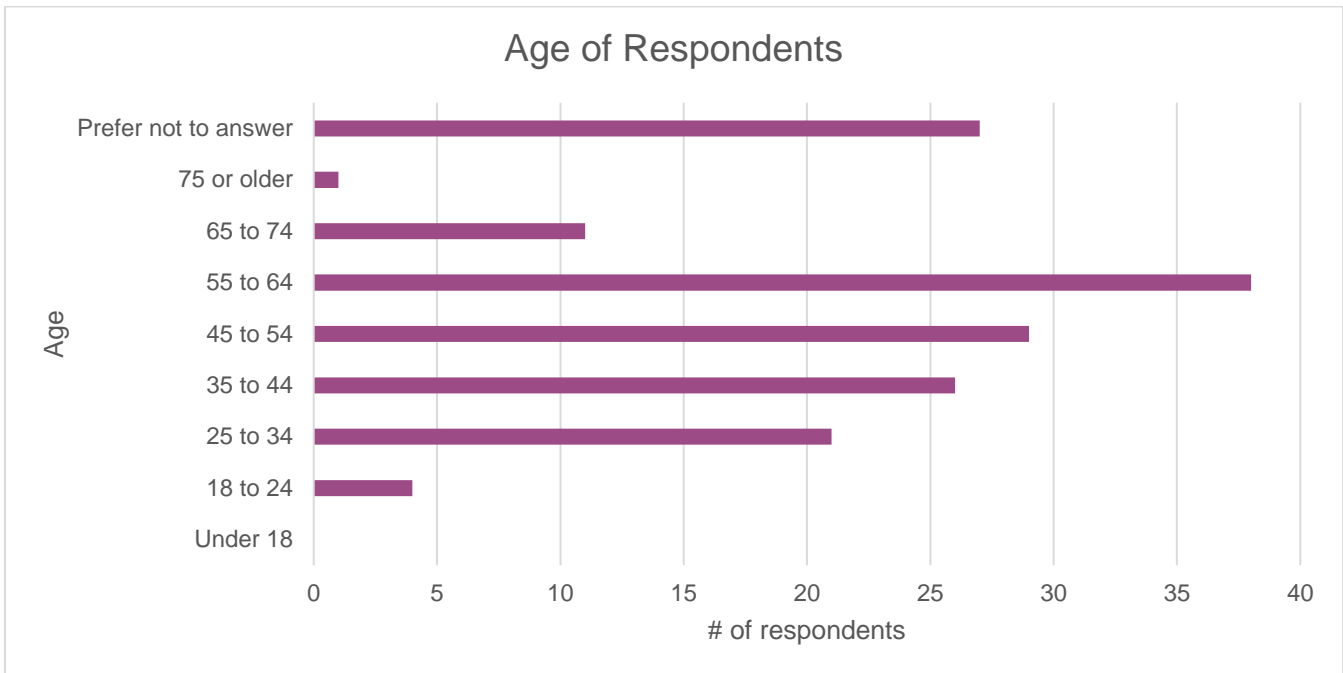
The ZIP code with the most respondents, 43055, is the primary ZIP code for Newark. 43056 is the City of Heath’s main ZIP code. All other ZIP codes are from within Licking County and are mostly the residential locations of the Newark and Heath commuting workforce. Notably, 43023 is immediately west of Heath and Newark’s 43056 and 43055, respectively. 43062 comprises most of the southwestern portion of the county and 43076 is located southeast of Heath.

# NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

## What gender do you identify as?

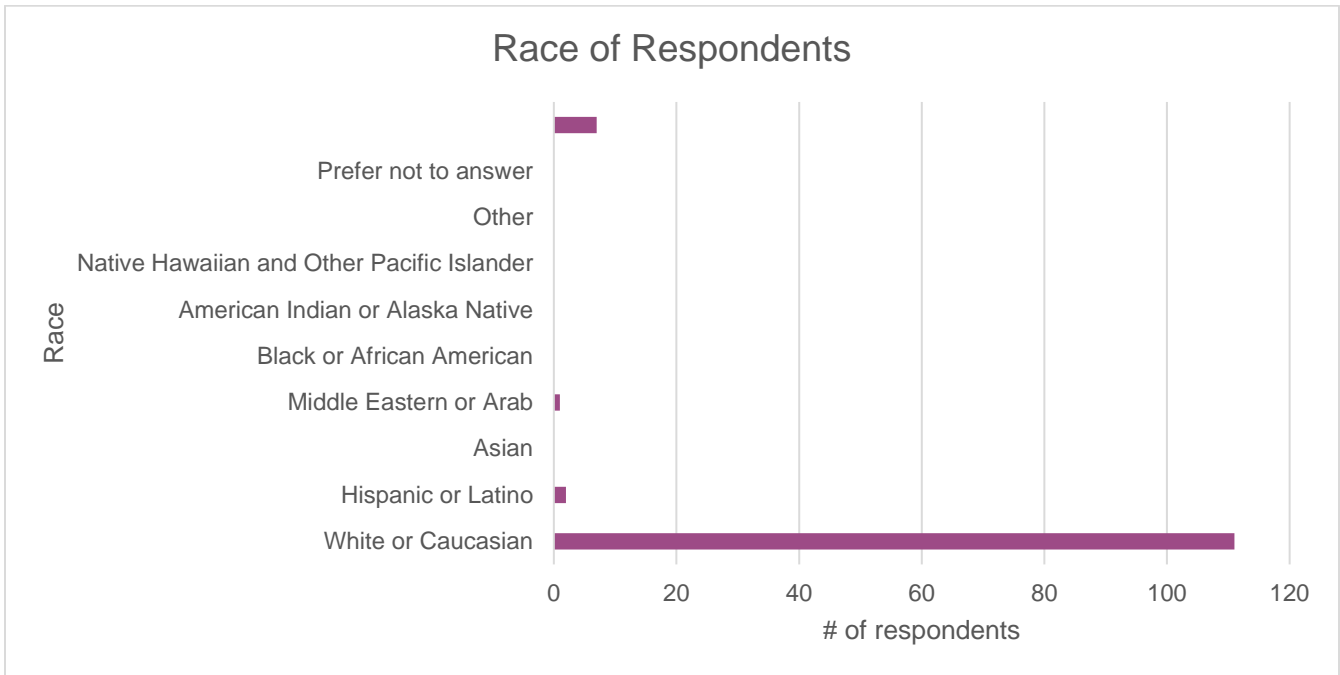


## What is your age?

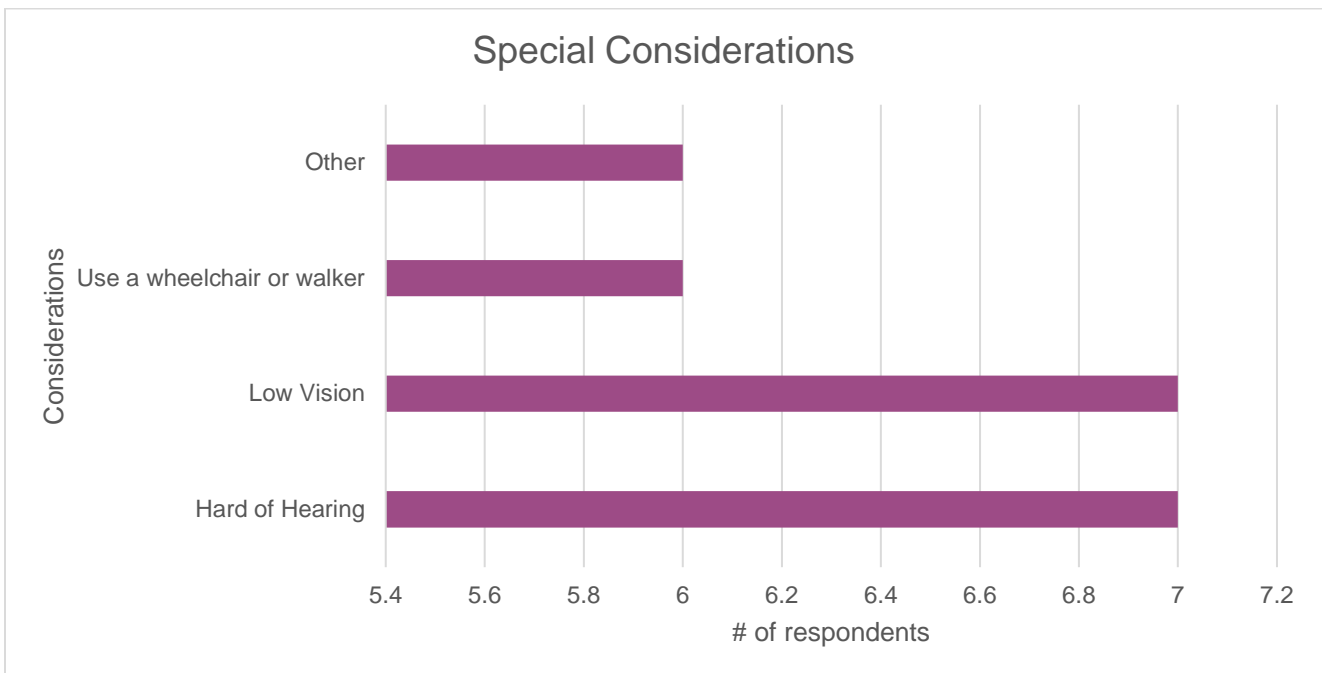


# NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

## What is your race?

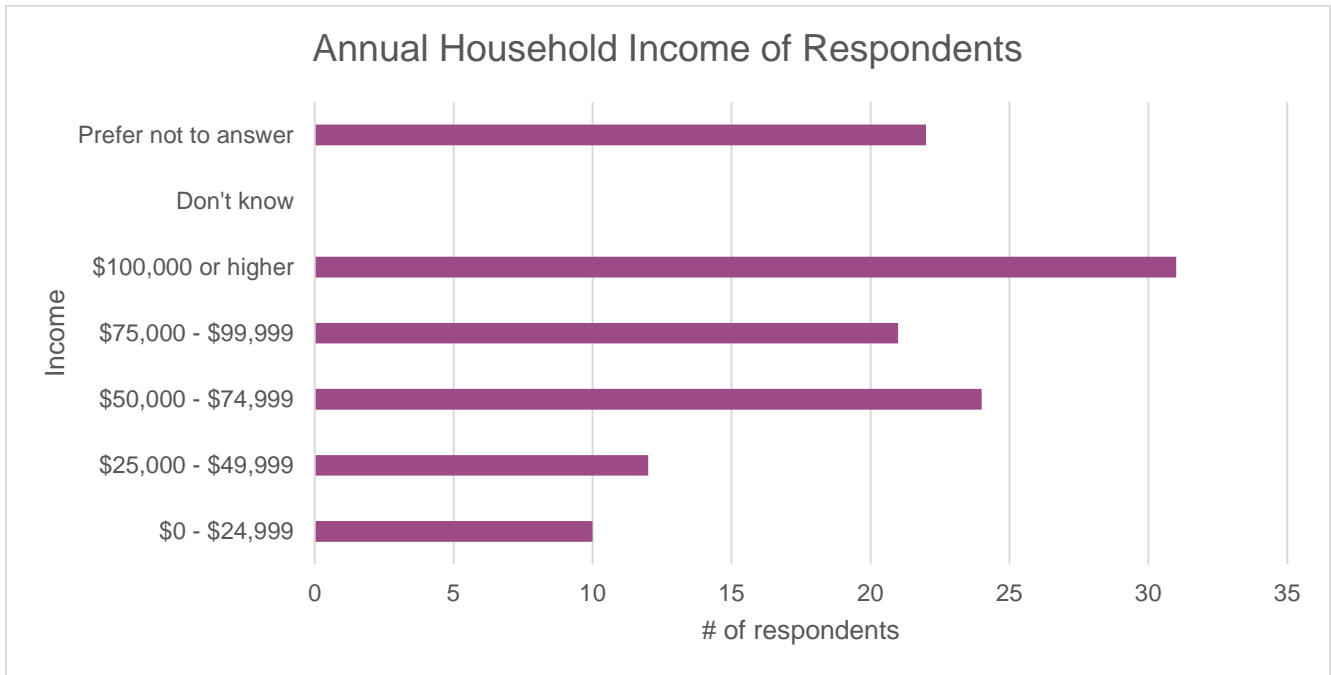


## Do any of the following apply to you?



## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

### What is your annual household income?



## WHAT WE HEARD

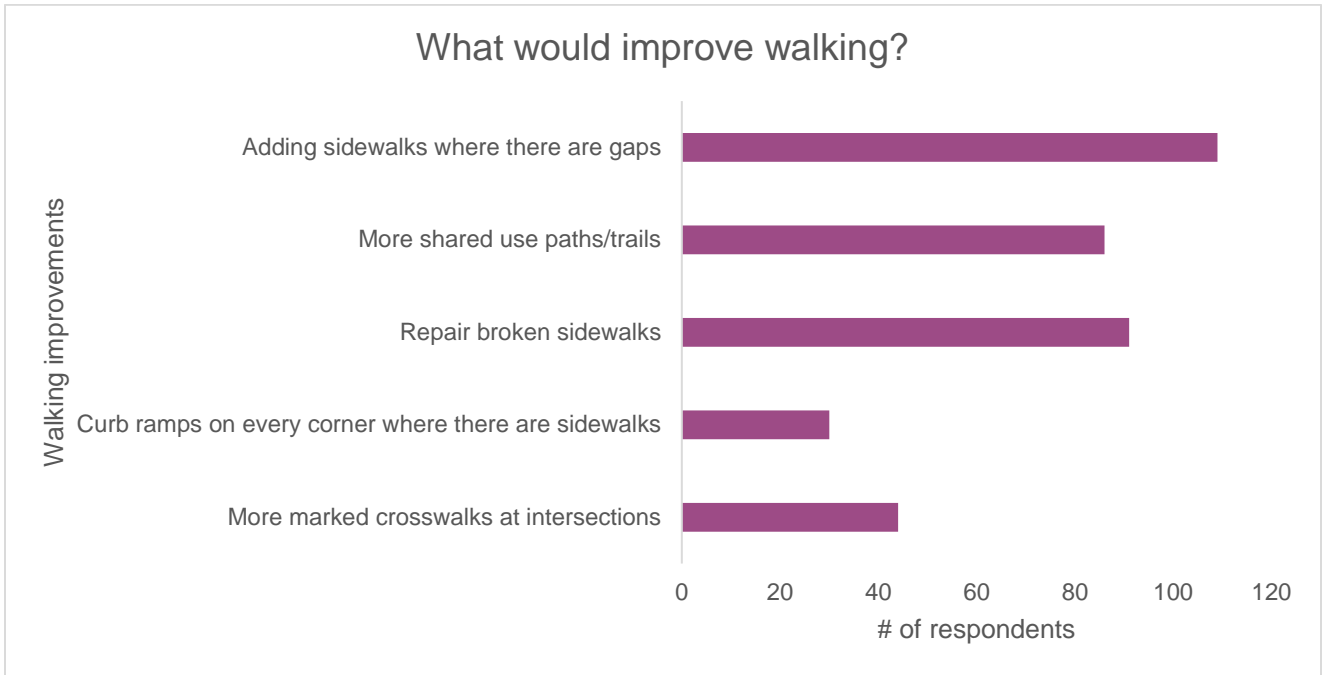
### SURVEY RESULTS

#### Why do you walk?

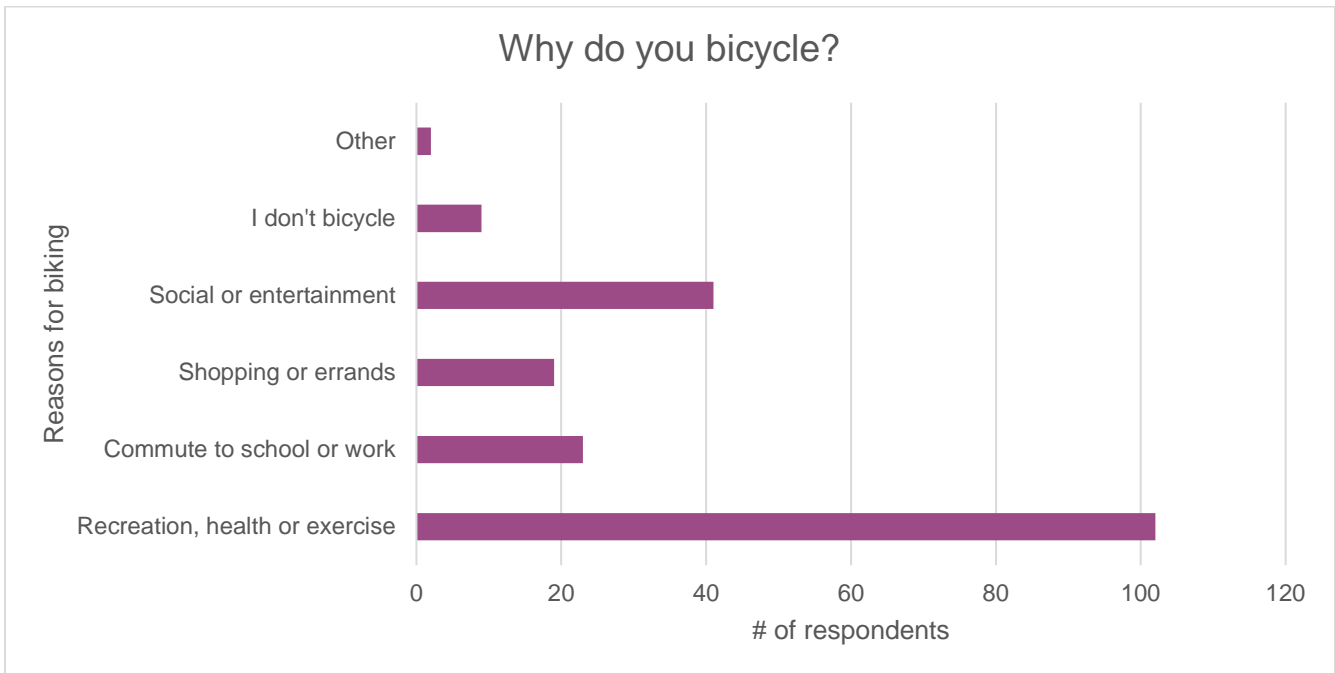


# NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

## What would improve walking in Newark and Heath?

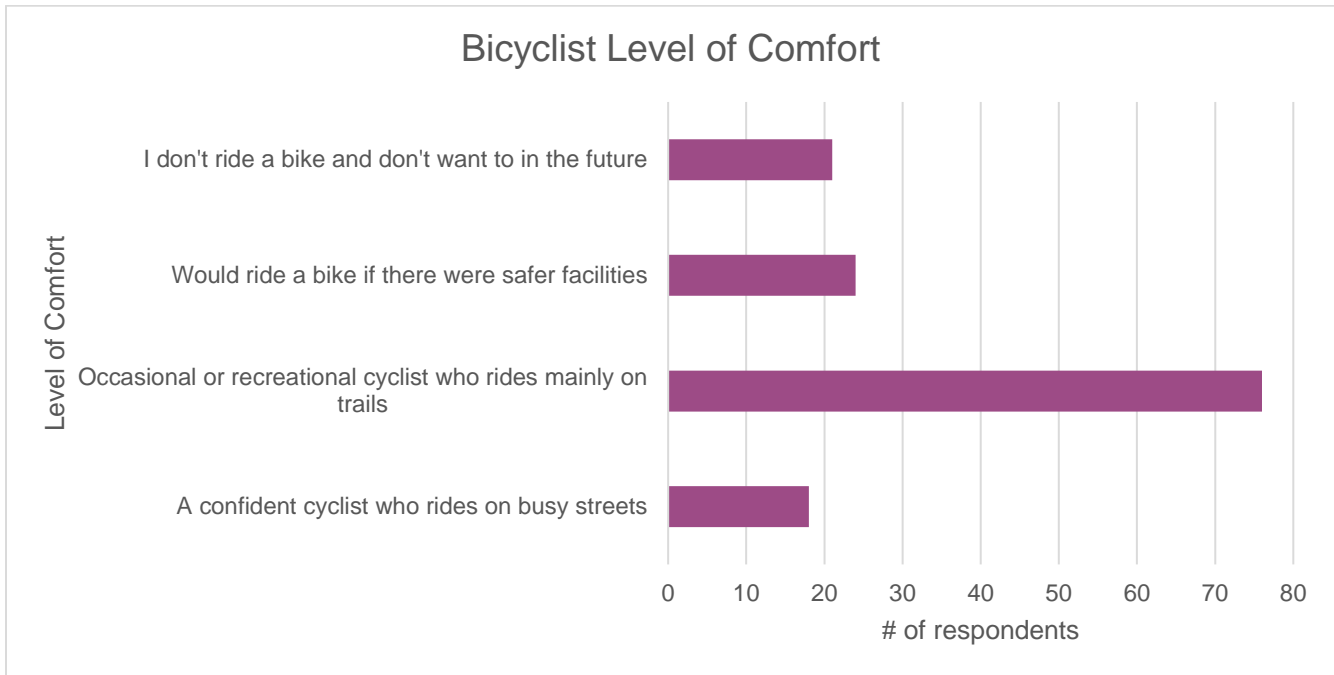


## Why do you bicycle?

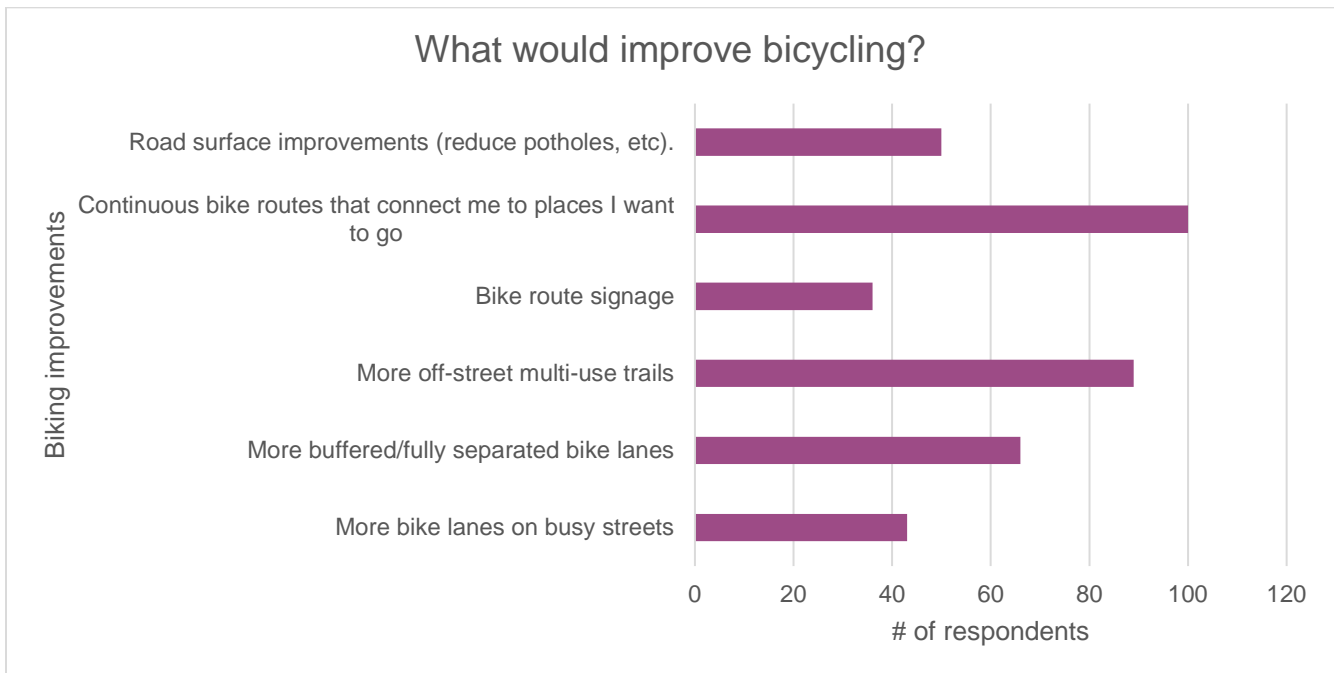


## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

### Which of the following best describes you?



### What would improve bicycling in Newark and Heath?





# NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

## WIKIMAP COMMENTS

### Newark - Heath Active Transportation Plan: WikiMap Comments

TOOLE  
DESIGN

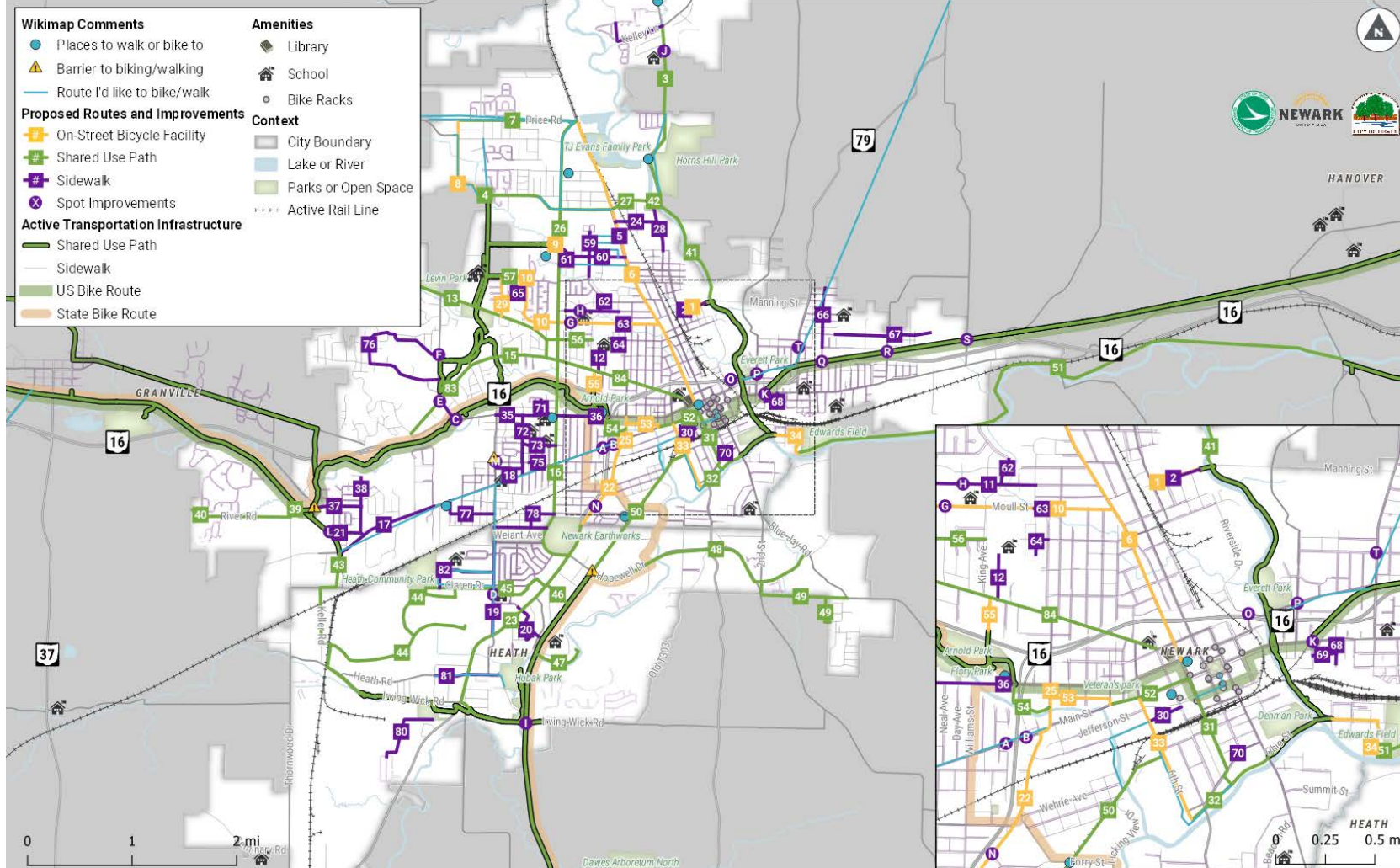


Figure 3: WikiMap Comments

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

The WikiMap Online Map was actively promoted and commented on for approximately a month, the end of June through the end of July 2020. 122 people filled out the *Welcome Survey* and there were 133 location specific map comments (Appendix B). Over half of the survey respondents bike or walk primarily for recreation, exercise or health. About 20% say they walk or bike for entertainment or social engagement. When asked about improving walking, 30% said “adding sidewalk where there are gaps” was a priority, 25% prioritized sidewalk repair and maintenance, and 24% wanted more shared use paths and trails. Similarly, 23% of bicyclists also had a desire for more shared use paths and trails. Another 26% of them wanted “continuous bike routes” to connect them to their desired destinations.

### Popular and desired walking and biking routes

Many respondents seem to have habitual routes that they utilize when walking or biking. This seems due to a combination of level of comfort of the individual as well as any barriers that prevent them from diversifying the routes they might take. Route suggestions were mostly for connections between existing, disconnected corridors, in order to create and utilize the entire network of trail and sidewalk. Namely, the West Main Street corridor, in order to give access to medical facilities, Deo Drive, as an active corridor connector, Church Street, as a YMCA connector, 21<sup>st</sup> Street, and Newark’s primary business district, were mentioned. Also, various routes between residential districts and existing trailheads were noted. These routes aligned with the preliminary project map and reaffirmed the Licking County Action Institute Team’s project recommendations.

### Places residents like to walk or bike to

It was repeatedly expressed by the public that they want more connections to recreational and shopping destinations. Their preferences are for better sidewalks and more shared use paths to make these connections to their desired destinations. There were several comments regarding access to employment and commerce. Multiple comments were made about getting to businesses, in both cities’ shopping districts. There was also a plurality of desire for improved connections between residences and schools. Some of the specified destinations were the YMCA, Family Video, libraries and educational facilities. This feedback was taken into consideration and new connections were added to the project list, in addition to the residential, educational, and recreational destinations already considered by the team.

### Barriers for walking/biking

Sidewalk gaps and missing trail connections are physical barriers mentioned on survey comments from several participants. As such, there were no comments disagreeing with the proposed sidewalk. Specific barriers noted by survey results are: Cherry Valley Road being a crossing obstacle for residents east of the trail near it, accessibility of the Buckeye Scenic Trail at both Hopewell Drive and US-40, the lack of 30<sup>th</sup> Street crossings directly to the Octagon Mound for those that wish to walk or bike from north and east of the site, and the removal of a crosswalk at Dorsey Mill at SR-79.

Additionally, there was a common perception of walking and bicycling infrastructure as not being safe, particularly after dark. There is a desire to provide more lighting along sidewalks and trails to alleviate these fears.

# CHAPTER 4

## RECOMMENDATIONS





## RECOMMENDATIONS

### FACILITY SELECTION METHODOLOGY

#### FACILITY TYPES

This plan identifies four types of recommendations: 1) Sidewalks; 2) On-Street Bicycle Facilities; 3) Shared Use Paths; and 4) Crossing Improvements. The following images show examples of each facility type, and the following section explains the recommended methodology that should be used for further selecting specific types of pedestrian and bicycle facilities in the planning and design process.

#### Sidewalks



Sidewalk

# NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

## On-Street Bicycle Facilities



Bicycle Boulevard



Bike Lane



Buffered Bike Lane



Physically Separated Bike Lane

## Shared Use Paths



Sidepath



Shared Use Path

## Crossing Improvements



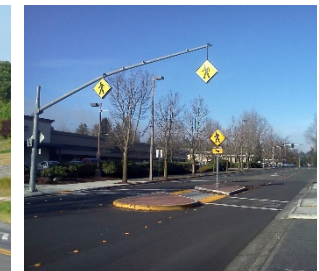
Rectangular Rapid Flashing Beacon (RRFB)



Pedestrian Hybrid Beacon (PHB)



Enhanced Trail Crossings



Refuge Islands and Curb Bump-Outs

## PEDESTRIAN FACILITY RECOMMENDATIONS

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>1</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.

<sup>1</sup> FHWA (2017). Desktop Reference for Crash Reduction Factors, FHWA-SA-08-011, Table 11. Referenced in <https://safety.fhwa.dot.gov/provencountermeasures/walkways/>

### 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.

#### 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.

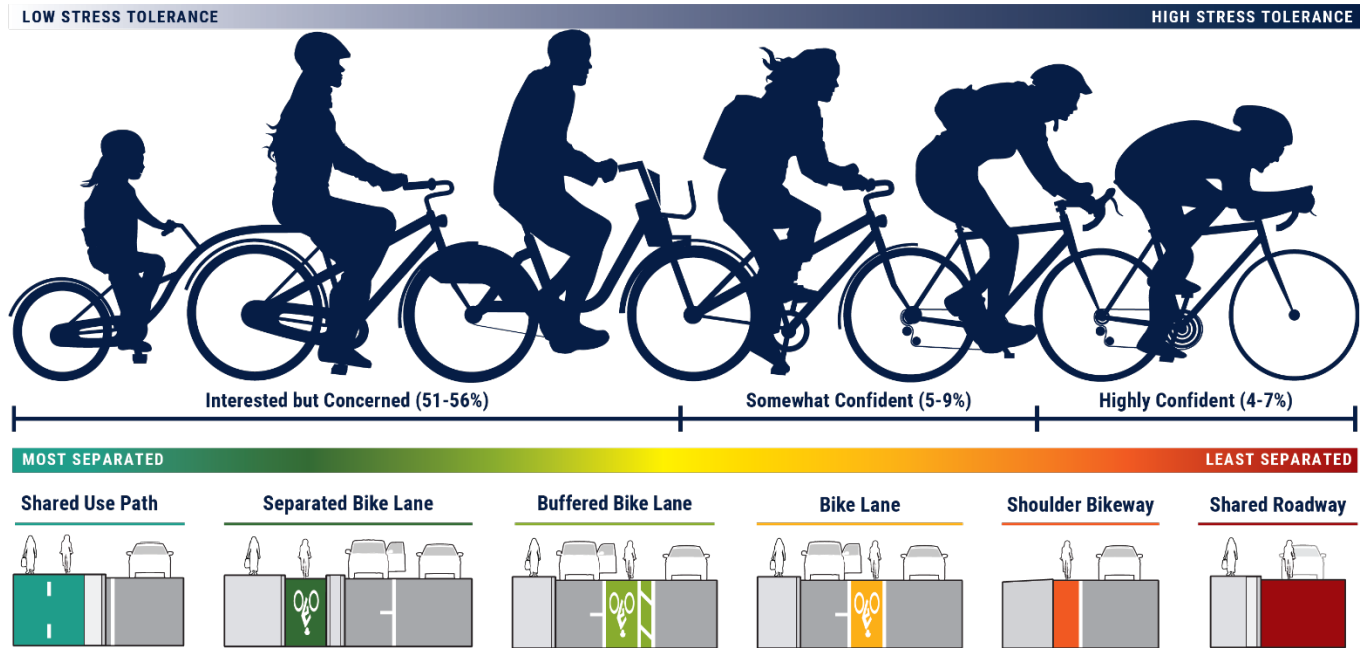
People who bicycle are influenced by their relative comfort operating with or near motor vehicle traffic. Of adults who have stated an interest in bicycling, research has identified three types of potential and existing bicyclists (see Figure 4). Around 56 percent of adults fall into the category of “interested but concerned” – they are interested in bicycling for transportation but are dissuaded by the potential for stressful interactions with motor vehicles.<sup>2</sup> They generally prefer biking facilities that are more separated from motor vehicle traffic. (Note that children were not included in the research and require special consideration in the design of bicycle facilities). In order to achieve a significant increase in numbers of people biking, the “Interested but Concerned” rider should be the primary user type that facilities are designed for. In some contexts, such as rural roadways, the Somewhat Confident or Highly Confident rider is the most relevant design user.

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<sup>2</sup> Schultheiss, B., Goodman, D., Blackburn, L., Wood, A., Reed, D., and Elbech, M. (2019). Bikeway Selection Guide. Federal Highway Administration. [https://safety.fhwa.dot.gov/ped\\_bike/tools\\_solve/docs/fhwas18077.pdf](https://safety.fhwa.dot.gov/ped_bike/tools_solve/docs/fhwas18077.pdf)

# NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

Figure 2: Types of Bicyclists



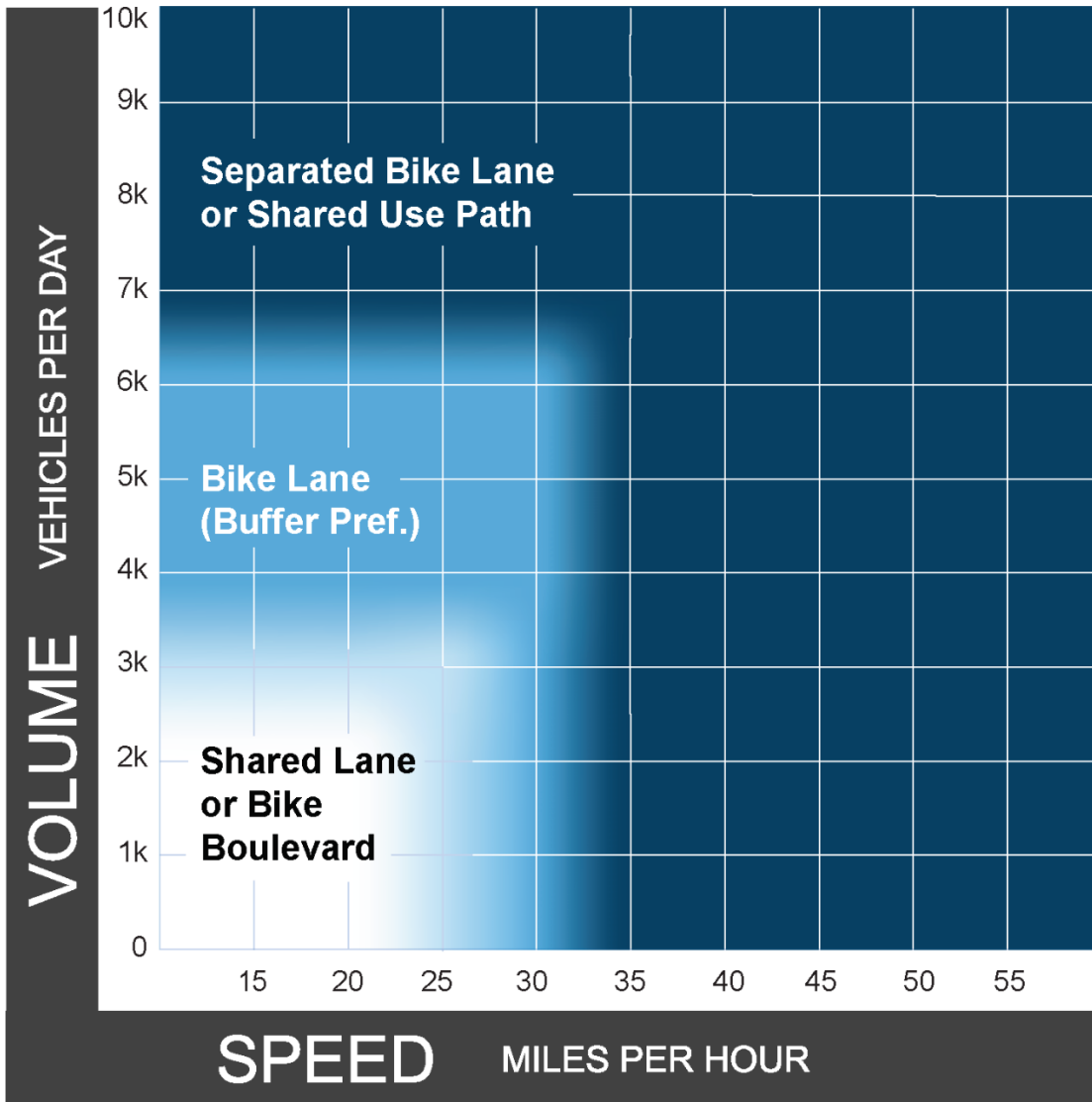
## Network Rationale and Facility Selection Methodology

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 are categorized as either an on-street bicycle facility or shared use path. Before projects can be implemented the type of on-street bicycle facility will need to be defined. The [Federal Highway Administration \(FHWA\)'s Bikeway Selection Guide](#)'s facility selection matrices (Figure 5 and Figure 6) can be used to help determine the best facility for the roadway based on context, speed, and volume as well as the relevant design user type. See the full guide for further detail on facility selection.

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

**Figure 3: FHWA Bikeway Facility Matrix: Preferred Bikeway Type for Urban, Urban Core, Suburban and Rural Town Contexts (Design User: Interested but Concerned)**



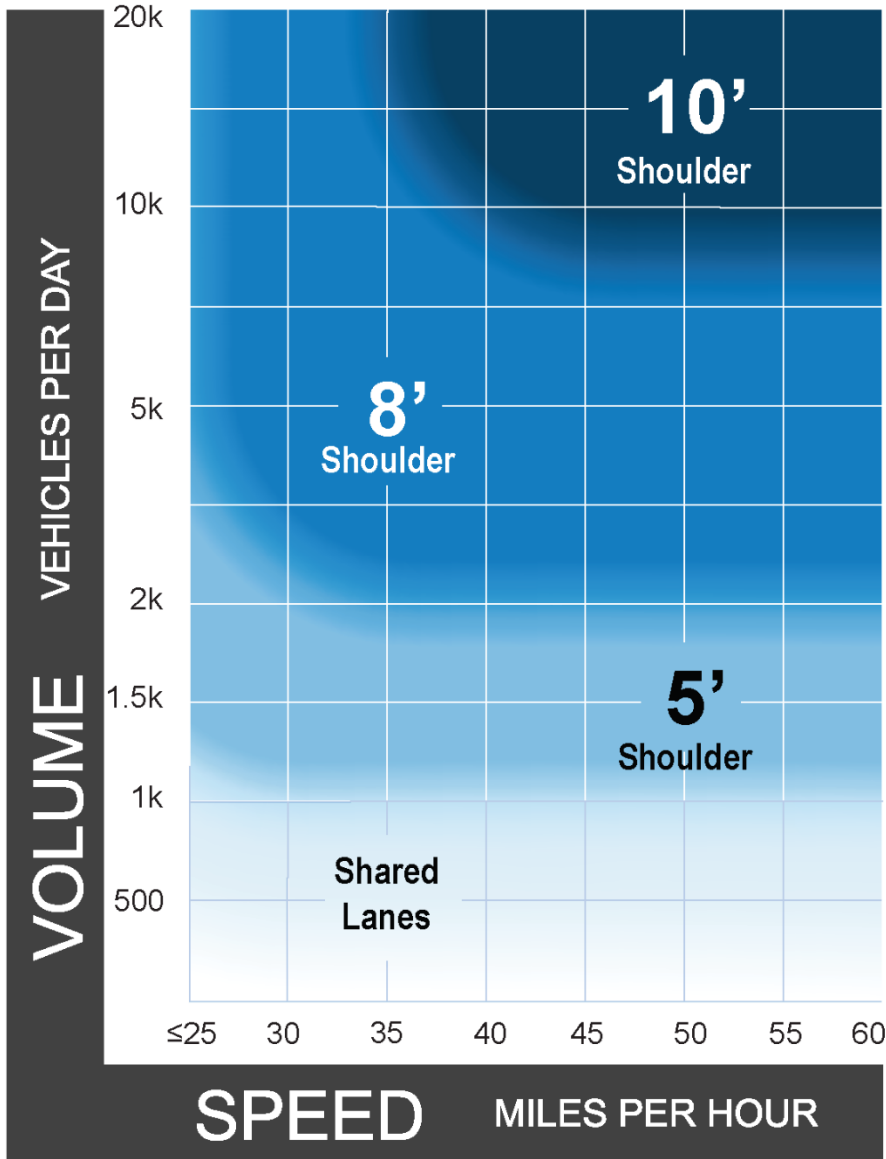
**Notes**

- 1 Chart assumes operating speeds are similar to posted speeds. If they differ, use operating speed rather than posted speed.
- 2 Advisory bike lanes may be an option where traffic volume is <3K ADT.
- 3 See page 32 for a discussion of alternatives if the preferred bikeway type is not feasible.



## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

**Figure 4: FHWA Bikeway Facility Matrix: Preferred Shoulder Widths for Rural Roadways (Design User: Somewhat Confident or Highly Confident)**



**Notes**

- 1 This chart assumes the project involves reconstruction or retrofit in constrained conditions. For new construction, follow recommended shoulder widths in the AASHTO Green Book.
- 2 A separated shared use pathway is a suitable alternative to providing paved shoulders.
- 3 Chart assumes operating speeds are similar to posted speeds. If they differ, use operating speed rather than posted speed.
- 4 If the percentage of heavy vehicles is greater than 5%, consider providing a wider shoulder or a separated pathway.

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

Design guidance for pedestrian and bicycle facilities can be found at:

- » [Safe Transportation for Every Pedestrian \(Federal Highway Administration\)](#)
- » [Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations \(FHWA\)](#)
- » [Small Town and Rural Design Guide \(FHWA\)](#)
- » [Urban Bikeway Design Guide \(NACTO\)](#)
- » [Bicycle and Pedestrian Resources for Engineers \(ODOT\)](#)
- » Ohio Multimodal Design Guide (ODOT, Forthcoming)

# NETWORK RECOMMENDATIONS

## Newark - Heath Active Transportation Plan: Proposed Network and Spot Improvements

**TOOLE**  
DESIGN

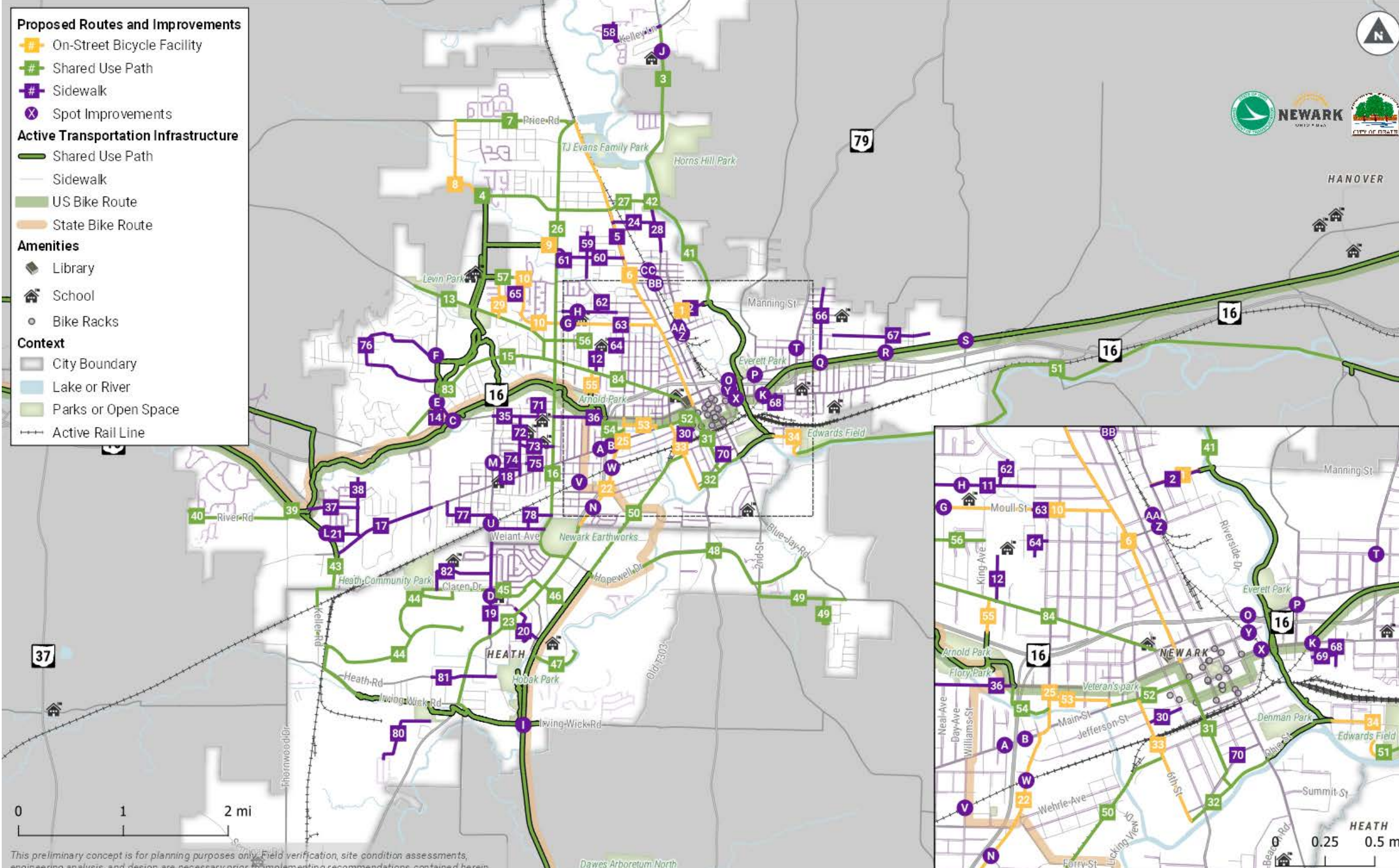


Figure 5: Proposed Active Transportation Projects

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.

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

**Table 1: Proposed Active Transportation Projects (Routes)**

Overall, the proposed active transportation network includes:

- 21.37 miles of Proposed Sidewalk
- 10.05 miles of Proposed On-Street Bikeway
- 44.37 miles of Proposed Shared Use Path
- 20 Proposed Spot Improvements (e.g. crossing improvements, etc.)

The following tables and Figure 7 provide locations and descriptions of all proposed improvements. For more details on projects including priority, timeframe, and City location see Appendix A.

Number	Name/Location	Type	Description	Miles
1	Manning St	On-Street Bicycle Facility	Add on-street bicycle facility including signage to connect residential area to existing trail.	0.32
2	Manning St	Sidewalk	Fill sidewalk gaps to connect residential area to existing trail.	0.32
3	Horns Hill Rd NE	Shared Use Path	Add shared use path to connect homes to Hillview Elementary School.	0.84
4	Goosepond Rd, Deo Dr	Shared Use Path	Add sidepath to connect existing trail to 21 <sup>st</sup> St/Commercial Corridor to the East and Church Parking Lot to the West (alternative fill sidewalk gaps).	1.71
5	Mount Vernon Rd	Sidewalk	Add sidewalks to connect residential area to Deo Dr/Commercial area	0.54
6	Mount Vernon Rd	On-Street Bicycle Facility	Add on-street bicycle facility and signage to connect downtown to N 21 <sup>st</sup> St	3.07
7	Price Rd	Shared Use Path	Add shared use path to connect homes and 21st/Commercial area to Health Department (alternative sidewalks if not enough space for shared use path).	1.44
8	King Rd	On-Street Bicycle Facility	Need to explore feasibility of sidepath or on-street bicycle facility to connect Health Department to existing trail. Alternative option could be a bicycle boulevard through neighborhood.	0.91
9	Baker Blvd	On-Street Bicycle Facility	Add on-street bicycle facility and wayfinding to connect existing shared use path to 21st St Commercial Corridor.	0.15
10	Sharon Glyn Dr, Midway Dr, Moull St	On-Street Bicycle Facility	Add on-street bicycle facility such as shared lane markings and wayfinding, traffic calming measures, to connect Liberty Middle School, Legend Elementary, John Clem Elementary School, and 21st St Commercial Corridor.	2.42
11	Jefferson Rd	Sidewalk	Fill sidewalk gap to connect 21st/Commercial Corridor and John Clem Elementary School.	0.66
12	Brennan St	Sidewalk	Fill sidewalk gaps to connect Granville St to Newark High School.	0.23
13	Sharon Valley Rd	Shared Use Path	Add shared use path to connect Granville St, residential areas, Rotary Park, Existing Trails, and	1.86

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

			Levin Park. (Grading needs to be explored, could consider sidewalks)	
14	Country Club Dr	Sidewalk	Fill sidewalk gaps to connect existing trail and OSU Newark to restaurants.	0.24
15	Granville St	Shared Use Path	Add sidepath to north side of Granville St (currently planned and in process of designing - 2023).	0.9
16	S 21 <sup>st</sup> St, Parkview Dr	Shared Use Path	Fill sidewalk gaps to connect 21st/Commercial Corridor, Newark Earthworks, and existing trail.	2.49
17	Main St	Sidewalk	Fill sidewalk gaps to connect hospital, residential area and downtown.	1.28
18	N 28 <sup>th</sup> St	Sidewalk	Add sidewalks to connect Main St and residential area to library and Cherry Valley Elementary.	0.11
19	S 30 <sup>th</sup> St	Sidewalk	Fill sidewalk gaps to connect Main St to 79 and Commercial District.	0.89
20	Oberlin Dr	Sidewalk	Add sidewalks to connect residential areas and two schools, Garfield Elementary School and Heath High School.	0.58
21	Cherry Valley Rd	Sidewalk	Fill sidewalk gap between medical corridor/Main St and connection to existing trail.	0.43
22	Union St	On-Street Bicycle Facility	Add on-street bicycle facility (wide street may allow for separated bike lane) to connect Main St to 79 Commercial Corridor.	0.98
23	State Route 79	Shared Use Path	Add shared use path (if space allows) to provide bicycle and pedestrian access from Newark to Heath and connect 79 Commercial Corridor.	2.52
24	Riverview Dr	Sidewalk	Add sidewalk to connect commercial area to residential area.	0.38
25	N 11 <sup>th</sup> St	On-Street Bicycle Facility	Add on-street bicycle facility to connect 79/Commercial Corridor to W Church St and existing trail.	0.28
26	N 21 <sup>st</sup> St	Shared Use Path	Shared Use Path first choice. Explore sidepath and sidewalk as second option to connect to Granville St (and Downtown), commercial corridor, and residential area.	2.38
27	Waterworks Rd	Shared Use Path	Explore ROW space and connect to pool.	0.45
28	Hollander St	Sidewalk	Add sidewalk to connect to Maple and pool.	0.55
29	Sharon Valley Rd Connector	On-Street Bicycle Facility	Add to connect to Moull and Sharon Valley	0.19
30	Wilson St	Sidewalk	Fill sidewalk gaps to complete network.	0.22
31	4 <sup>th</sup> St	Shared Use Path	In the works, mark as in-development	0.52
32	National Dr Connector	Shared Use Path	City Owned, utility project, add shared use path to connect to path.	0.38
33	S 6 <sup>th</sup> St	On-Street Bicycle Facility	Add on-street bicycle facility to connect Main St to future bike trails (project 50 & 32).	0.62

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

34	Ohio St	On-Street Bicycle Facility	An on-street bicycle facilities to connect existing trail to future proposed trail (project 51).	0.53
35	Church St #1	Sidewalk	In development	0.55
36	Church St #2	Sidewalk	Fill sidewalk gaps to YMCA	0.63
37	Reddington Rd	Sidewalk	Reddington Rd, Connect to trail, Cherry Valley Rd going away, connection to Thornwood Dr	0.61
38	40th St	Sidewalk	Fill gaps, in development	0.53
39	River Rd #1	Shared Use Path	Connect from neighborhood to existing trail	1.14
40	River Rd #2	Shared Use Path	Add shared use path to connect existing trail to residential area.	0.28
41	North Fork Licking River	Shared Use Path	Horns Hill Park portion needs to be evaluated for feasibility.	2.17
42	Waterworks Rd Bridge	Shared Use Path	Add shared use path to connect proposed shared use path to Deo Dr/Waterworks Rd proposed sidepath.	0.17
43	Coffman Rd, Keller Dr, Irving Wick Dr	Shared Use Path	Connect existing trails by a shared use path.	1.94
44	Off Street, Central Parkway	Shared Use Path	Connect proposed shared use trail to mall.	2.94
45	Claren Dr, Partridge Ct, Putnam Rd	Shared Use Path	Connect Heath Community Park to mall, residents, and commercial on Rt 79.	1.68
46	Off-Street	Shared Use Path	Add connection from Rt 79 to existing trail.	0.32
47	Off-Street	Shared Use Path	Add shared use path to connect from existing trail to Heath High School.	0.6
48	Hopewell Dr, Blackfoot Trail	Shared Use Path	Add sidepath to connect existing trail to residential areas to provide access.	2.97
49	Off-Street	Shared Use Path	Add sidepath to connect existing trail to residential areas for trail access.	1.5
50	RR, Raccoon Dr	Shared Use Path	Need to study feasibility further. Convert RR to Shared Use Path and Raccoon Dr to bicycle/pedestrian only.	1.59
51	Off-Street	Shared Use Path	Extend existing trail by Edwards Field to connect to existing trail further east.	7.5
52	Main St	Shared Use Path	Expand sidewalk to become shared use path and accommodate bicyclists.	0.54
53	Western Ave	On-Street Bicycle Facility	Add shared lane markings and wayfinding to connect downtown to school fields.	0.42
54	Off-Street	Shared Use Path	Connect downtown to existing trail to fields and existing trail.	0.33
55	Hull St	On-Street Bicycle Facility	Add wayfinding and shared lane markings to connect existing trail to proposed Granville Rd trail and Newark HS campus.	0.16
56	Shields St.	Shared Use Path	Add shared use path or expand sidewalks where appropriate to connect Sharon Valley Rd to Newark HS Campus.	0.57

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

57	Off-Street	Shared Use Path	Add shared use path to connect existing trail to neighborhood.	0.2
58	Kelley Ln	Sidewalk	Add sidewalk to connect neighborhood to school.	0.76
59	Grafton Rd	Sidewalk	Fill sidewalk gaps to connect commercial area to neighborhood.	0.42
60	Pierson Blvd	Sidewalk	Add sidewalk to connect neighborhood to commercial area.	0.73
61	Pierson Dr	Sidewalk	Add sidewalks to connect neighborhood to commercial area.	0.28
62	King Ave	Sidewalk	Fill sidewalk gaps to complete network.	0.14
63	Moull St	Sidewalk	Fill sidewalk gaps to complete network.	0.1
64	W Shields St	Sidewalk	Fill sidewalk gaps to complete network.	0.15
65	Midway Dr	Sidewalk	Fill sidewalk gaps to complete network.	0.11
66	Oakwood Ave	Sidewalk	Fill sidewalk gaps to complete network.	0.57
67	Garfield Ave	Sidewalk	Fill sidewalk gaps to complete network.	1.18
68	Arch St	Sidewalk	Fill sidewalk gaps to complete network.	0.12
69	Race St	Sidewalk	Fill sidewalk gaps to complete network.	0.16
70	West National Dr	Sidewalk	Fill sidewalk gaps to complete network.	0.03
71	Dietrich St	Sidewalk	Fill sidewalk gaps to complete network.	0.12
72	20th St	Sidewalk	Fill sidewalk gaps to complete network.	0.56
73	Camp St	Sidewalk	Fill sidewalk gaps to complete network.	0.41
74	Glenmore Ave	Sidewalk	Fill sidewalk gaps to complete network.	0.32
75	Fairbanks	Sidewalk	Fill sidewalk gaps to complete network.	0.16
76	Stonewall Dr	Sidewalk	Fill sidewalk gaps to complete network.	2.09
77	Shide Ave, 35th St	Sidewalk	Fill sidewalk gaps to complete network.	0.67
78	Wells Ave, 24th St	Sidewalk	Fill sidewalk gaps to complete network.	0.42
79	Idlewild Ave	Sidewalk	Fill sidewalk gaps to complete network.	0.65
80	Kaiser Dr	Sidewalk	Fill sidewalk gaps to complete network.	0.84
81	Heath Rd/Dorsey Mill Rd E	Sidewalk	Fill sidewalk gaps to connect residents, commercial on SR 79, and Hoback Park.	0.78
82	Cynthia St/Louise Ave	Sidewalk	Add sidewalk to connect residents to school and Heath Community Park.	0.85
83	Granville Rd	Shared Use Path	Connect Newark OSU campus to residential areas.	0.86
84	Granville Rd	Shared Use Path	Connect downtown to commercial on 21st and Newark OSU campus.	1.24

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

Table 2: Proposed Active Transportation Projects (Spot Improvements)

Number	Name/Location	Type	Description
A	W Main St	Enhance Crosswalk	Add high visibility crosswalks, check pedestrian signal phasing.
B	W Main St	Enhance Crosswalk	Add high visibility crosswalks, check pedestrian signal phasing.
C	W Church St	Add Pedestrian Crossing	Add pedestrian signal and marked crosswalk.
D	S 30 <sup>th</sup> St	Enhance Crossing	Add mid-block crossing (possible HAWK signal).
E	Granville Rd and County Club Dr	Enhance Crossing	Potential to add northern leg of crossing.
F	Pleasant Valley Dr and Country Club Dr	Enhance Crossing	Add high visibility crosswalk markings, signage, and possible RRFB.
G	Moull St	Enhance Crossing	Improve crossing by adding high visibility crosswalk markings and signage.
H	Jefferson Rd	Enhance Crossing	Add high visibility crosswalk markings and signage.
I	Irving Wick Dr E	Add Trail Crossing	Add mid-block crosswalk markings, signage, and possible RRFB.
J	Horns Hill Rd and Creeks Edge Dr	Enhance Crossing	When sidewalks are added, add ADA ramps, high visibility crosswalks, and possible RRFB.
K	E Main St	Enhance Crossing	Add high visibility crosswalk markings, signage, and possible RRFB.
L	Cherry Valley Rd	Add Trail Crossing	Add mid-block trail crossing including high visibility markings, signage, and possible RRFB.
M	Parkview Rd/Fairbanks Ave and 30th St	Enhance Crossing	Add high visibility crosswalk to cross 30th from west to east side where sidewalk ends on west side.
N	Hancock St and Edgewood Dr	Enhance Crossing	Add high visibility crosswalks and potential RRFB to cross Union.
O	Riverside Dr and N Front St	Enhance Crossing	Add high visibility crosswalk markings, signage, and ADA ramps where needed.
P	Buena Vista St and Everett Ave	Enhance Crossing	Add high visibility crosswalks, signage, and potentially flexible delineators and striping to tighten turning radius and shorten crosswalk distance.
Q	Oakwood Ave and Trail	Enhance Crossing	Add high visibility crosswalk, signage, and ADA ramps. Install sidewalk to connect trail to existing sidewalk north of RR tracks.
R	O'Bannon Ave and Trail	Enhance Crossing	Add high visibility crosswalk, signage, and ADA ramps.
S	Dayton Rd and Trail	Enhance Crossing	Add high visibility crosswalk, signage, and ADA ramps.
T	Cedar St and Clarendon St	Enhance Crossing (In-Progress)	RRFB being added to intersection crossing.
U	S. 30th St. & RR	Enhance Crossing	Enhance pedestrian and railroad crossing.
V	S. William St. & RR	Enhance Crossing	Enhance pedestrian and railroad crossing.
W	Union St. & RR	Enhance Crossing	Enhance pedestrian and railroad crossing.
X	E. Main St & RR at Front St.	Enhance Crossing	Enhance pedestrian and railroad crossing.



## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

<b>Y</b>	E. Church St & RR	Enhance Crossing	Enhance pedestrian and railroad crossing.
<b>Z</b>	E. Shield St & RR	Enhance Crossing	Enhance pedestrian and railroad crossing.
<b>AA</b>	E. North St & RR	Enhance Crossing	Enhance pedestrian and railroad crossing.
<b>BB</b>	E. Stevens St & RR	Enhance Crossing	Enhance pedestrian and railroad crossing.
<b>CC</b>	E. Channel St & RR	Enhance Crossing	Enhance pedestrian and railroad crossing.

## NON-INFRASTRUCTURE RECOMMENDATIONS

Program Name	E Category	Program Lead (organization)	Target Audience	How does this program support active transportation?
<b>Safe Routes to School (Newark and Heath)</b>	Education	School Leadership (Newark- need to determine a school champion; Heath- have not participated in the past, need to gauge interest) LCATS CHC	Students	SRTS will help ensure student safety while creating active ways to commute to and from schools. Additional programming linked to SRTS, such as, bike rodeos, safety education, and walking school buses can also be included.
<b>Websites (Trail to Health and LCATS ATP)</b>	Education, Encouragement	LCATS LCHD Explore LC Licking Parks District	All	Continued updates and enhancements for each of these websites, including the addition of performance measures and further education for all modes.
<b>Your Move Campaign</b>	Education, Encouragement	LCATS LCHD	All	Statewide program aimed at educating road users, encouraging active transportation, and increasing safety for bicyclists and pedestrians.

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

<b>Vision Zero/Toward Zero Deaths</b>	Evaluation	LCATS	All	(Pedestrian) safety movement aiming to reduce number of serious and fatal crashes to 0.
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# CHAPTER 5

## IMPLEMENTATION





# IMPLEMENTATION

## FUNDING STRATEGIES

Active transportation projects comprise a fraction of overall transportation network construction and maintenance. While AT infrastructure generally does not serve as many users as highways, bridges, and other critical infrastructure, it 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 the active transportation network and fund related programming efforts. Table 3 lists the primary funding sources for active transportation projects in Ohio; click on the name of each funding source to access web pages with further information. In addition, ODOT and CHC have developed an [Active Transportation Funding Matrix](#). Communities may use this tool to search for additional potential funding sources to support infrastructure and non-infrastructure projects that advance walking and bicycling. For information on funding for public transit, visit the [ODOT Office of Transit's website](#).

**Table 3: Primary Active Transportation Funds in Ohio**

Funding Source	Distributed By	Eligible Project Examples	Eligible Project Sponsor
<u>Transportation Alternatives</u>	Metropolitan Planning Organization (if applicable), or Ohio Department of Transportation (ODOT) if not	Bicycle & pedestrian facilities Safe routes for non-drivers Conversion & use of abandoned railroad facilities Overlooks & viewing areas	Local governments
<u>Safe Routes to School</u>	ODOT	Infrastructure Non-Infrastructure School Travel Plan assistance	Local governments (infrastructure) Local governments, school or health district, or non-profit (non-infrastructure)
<u>Highway Safety Improvement Program</u>	ODOT (Coordinate with local ODOT District to submit a safety study)	Signalization Turn lanes Pavement markings Traffic signals Pedestrian signals/crosswalks Bike lanes Road diets	Local governments
<u>Recreational Trails Program</u>	Ohio Department of Natural Resources (ODNR)	New recreational trail construction Trail maintenance/restoration Trailside and trailhead facilities Purchase/lease of construction & maintenance equipment Acquisition of easements Educational programs	Local governments State and federal agencies Park districts Conservancy districts Soil and water conservation districts Non-profits
<u>Clean Ohio Trails Fund</u>	ODNR	New trail construction Land acquisition for a trail Trail planning/engineering and design (must include construction)	Local governments Park districts Conservancy districts Soil and water conservation districts Non-profits
<u>Clean Ohio Green Space Conservation Program</u>	Ohio Public Works Commission (OPW)	Open space acquisition including easements Bike racks Kiosks/Signs Hiking/Biking trails Pedestrian bridges Boardwalks	Local governments Park districts Conservancy districts Soil and water conservation districts Non-profits

## PROJECT PRIORITIZATION

### PRIORITIZATION FACTORS

Project prioritization is a process to determine which projects are most feasible, given real-world constraints, and align with stakeholders and community priorities. Through this planning process, stakeholder and public input were considered to help group projects into three “buckets” – short-term priorities to focus on in the next five years to kick-start the implementation of this plan and build local support; medium-term projects that may be more complicated and take 6-10 year to implement; and longer-term projects that are not prioritized for immediate implementation, but would help complete the full active transportation network.

The proposed routes and spot improvements contained in this plan are conceptual, and are meant to show the potential of a comprehensive active transportation system. 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.

Additional data analysis could be analyzed to further rank projects based on safety, cost, need and other factors. In addition, local priorities may change as new opportunities become available or conditions change. Plan priorities should be revisited and reconfirmed on a regular basis. Should additional data analysis be performed, the factors in Table 4 could be considered and ranked:

**Table 4: Prioritization Factors**

Factor	Variables
Public input	Tally of votes
Safety	Roadway Annual Average Daily Traffic (AADT) Number of bicycle and pedestrian crashes along the route Roadway speed
Opportunities	Planned roadway maintenance projects (ODOT District Work Plan, local Capital Improvement Plan, or other)
Project cost and ease of implementation	Relative cost and difficulty depending on project type and length
Connectivity	Number of connections to existing or other planned projects
Demand	Walk.Bike.Ohio Statewide Active Transportation Demand analysis, or other local analysis ( <a href="#">Data</a> , <a href="#">Explanation</a> ) (Factors may include employment, population and intersection density, density of destinations, walk and bike commute share, etc.)

## NEWARK-HEATH ACTIVE TRANSPORTATION PLAN

Equity/Need	Walk.Bike.Ohio Statewide Active Transportation Equity analysis, or other local analysis ( <a href="#">Data</a> , <a href="#">Explanation</a> ) (Factors may include access to motor vehicles, poverty, minority groups, youth and older adults, limited English proficiency, etc.)
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Alternatively, a data-based methodology for prioritizing local projects that is readily available is the [Active Trans Priority Tool](#). This tool is published by the National Cooperative Highway Research Board (NCHRP), and includes a guidebook and programmable spreadsheet for ranking projects.

### PRIORITY PROJECTS

#### Short-Term Priorities (0-5 years)

Number	Name/Location	Type
15	Granville Rd #1	Shared Use Path
20	Oberlin Dr	Sidewalk
22	Union St	On-Street Bicycle Facility
31	S 4th St	Shared Use Path
35	W Church St #1	Sidewalk
43	Coffman Rd, Keller Dr, Irving Wick Dr	Shared Use Path
46	Off-Street	Shared Use Path

#### Medium-Term Priorities (6-10 years)

Number	Name/Location	Type
6	Mt Vernon Rd	On-Street Bicycle Facility
11	Jefferson Rd	Sidewalk
17	W Main St	Sidewalk
37	National Dr Connector	Shared Use Path

#### Long-Term Priorities (10+ years)

Number	Name/Location	Type
3	Horns Hill Rd	Shared Use Path
4	Goose Pond Rd, Deo Dr	Shared Use Path
12	Brennan St	Sidewalk
13	Sharon Valley Rd	Shared Use Path
14	Country Club Dr	Sidewalk
16	S 21st St, Parkview Dr	Shared Use Path
21	Cherry Valley Rd	Sidewalk
26	N 21st St	Shared Use Path
28	Hollander St	Sidewalk
50	RR	Shared Use Path



66	Oakwood Ave	Sidewalk
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## 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-striping 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. Agencies responsible for maintenance should be involved in discussions about the placement of infrastructure and its design, as

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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 the 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.

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<b>Bicycle Boulevards/ Shared Lanes</b>	Sign Replacement	Repair or replace damaged or missing signs as soon as possible.
<b>Sidewalks</b>	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.	

## PERFORMANCE MEASURES

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, Newark and Heath 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. The performance measures in Table 7 have been identified to chart progress towards making walking and bicycling safe, connected and comfortable. Newark and Heath 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 7: Performance Measures**

Performance Measure	Goal	Timeline	Responsibility
<b>Pedestrian/Bicycle Facilities/Shared Use Path</b>	Increase miles of network built for each implementation target period.	Annually	City of Newark City of Heath Licking Park District
<b>Pedestrian Facilities</b>	Increase # of curb ramps built.	Annually	City of Newark City of Heath
<b>Bicycle Facilities</b>	Install bike racks in business districts,	Annually	City of Newark City of Heath Licking Park District

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	medical districts, parks, schools		
<b>Maintenance</b>	Track maintenance efforts (patching, vegetation, sidewalk, trail)	Annually	City of Newark City of Heath Licking Park District
<b>Semi-Annual Pedestrian and Bicycle Counts</b>	Collect trail data regularly, collect sidewalk data as often as relevant.  Collect student travel tallies as percentage of students who walk and bike.	Permanent Count Locations- every 2 months Portable Counters- by request/cycle through trail network  Semi-annually	LCATS Support from Cities of Newark and Heath  School Districts
<b>Education Programming</b>	Track pedestrian and bicycle education programming attendance.  Track public education campaigns and programs with target on underserved populations.	Measure attendance at events	CHC  School Districts
<b>Safety</b>	Track bicycle/pedestrian crashes via TIMS and publish on website.  Reduce bicycle/pedestrian crash rate.	Quarterly  Annually	LCATS  City of Newark City of Heath LCATS
<b>Public Opinion</b>	Conduct active transportation survey through website to get resident comfort and opinion.	Annually	LCATS CHC
<b>Mode Share</b>	Increase bicycle and pedestrian mode share.	Annually	LCATS City of Newark City of Heath

## 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.

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.

Additional resources for planning demonstration projects:

- » [Street Supplies Community Guidance \(NOACA\)](#)
- » [Tactical Urbanist's Guide](#)
- » [Pop-Up Projects: A Community Guide for Fort Worth](#)

## PROJECT IDEAS

Demonstration projects are important to prove the safety and feasibility of some of these proposed projects, as well as to get the community engaged and excited about improvements that benefit the public. Within the scope of our project list, several demonstrations are possible. Several examples of demonstration projects were considered, such as painted crosswalks, urban parklets, and closing roads to motorist traffic for pedestrian and bicycle access. The types of projects that would be most beneficial to the area are curb extensions, bike lanes, and traffic circles.

A pop-up bike lane would be most beneficial along a section of SR-13, where bike lanes are being proposed. These corridors would be beneficial for demonstrations as they are important connections for active transportation in the City of Newark. Temporary bike lanes would at least be marked using cones and tape, but ideally, something more decorative and community-friendly can be utilized. Both locations have been proposed as future homes to permanent bike lanes, and are located on roads that see a lower volume of traffic than other proposed sites.

There are several spot improvement locations that can demonstrate curb extensions. Similarly to bike lanes, these would use cones or temporary barriers to zone off the extension and shorten the crossings. These temporary fixtures would improve these intersections before projects are completed and get the public adjusted to the new conditions at these sites before permanent site improvements are made.

Traffic circles would be utilized in residential areas as a calming measure where motorists tend to speed. These would force vehicles to slow down, thereby making it a friendlier environment for safe active transportation. Temporarily traffic circles can be installed using traffic cones, tape, and/or small

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vegetation. Permanent traffic circles can be used both for traffic calming and as a way to make a neighborhood more attractive with gardens and public art.

The goal for these demonstration projects is to begin planning efforts during the winter of 2020-2021 and to roll out the first demonstrations in the spring of 2021 with future demonstrations as needed for projects with a later horizon. These projects will be led by LCATS and LCHD CHC with assistance from the Cities of Newark and Heath.