

DAYTON ACTIVE TRANSPORTATION PLAN

August 31, 2023



Mr. Joseph v.... No 6746-23

A RESOLUTION

Adopting the Dayton Active Transportation Plan.

WHEREAS, Active transportation includes walking, biking, and other means of transportation that are generally considered human-powered; and,

WHEREAS, An active transportation plan provides guidance and justification for the prioritization of projects and programs that will improve the ability to walk and bike in the City of Dayton; and,

WHEREAS, The creation of the Dayton Active Transportation Plan occurred with extensive engagement, including targeted focus groups, pop-up tables, community events, partner newsletters and mailing lists, surveys, and social media, leading to input from more than 1,500 individuals; and,

WHEREAS, The City Plan Board, reviewed and approved the Dayton Active Transportation Plan at a public meeting on August 8, 2023, as case number PLN2023-00256; now therefore,

BE IT RESOLVED BY THE COMMISSION OF THE CITY OF DAYTON:

Section 1. The City shall implement the Dayton Active Transportation Plan in partnership and collaboration with neighborhoods, institutions, businesses, and other public agencies who are critical to advancing active transportation implementation in Dayton.

Section 2. The Dayton Active Transportation Plan is brought forth in conformance and alignment with previously adopted plans and policies, including the City of Dayton Livable Streets Policy (2010), The City of Dayton 2025 Bicycle Action Plan (2011), the Dayton Transportation Plan (2017), the Dayton Riverfront Plan (2018), the four Neighborhood Vision Plans (2019 through 2021), and Dayton Forward: 2040 Comprehensive Plan (2023).

Section 3 The Dayton Active Transportation Plan will be used for the prioritization of projects and programs through which implementation will advance a balanced, equitable, and safe transportation network.

Section 4. The City Plan Board may, from time to time, interpret and modify the Plan by notifying the Clerk of the City Commission of such action. The Plan shall be available publicly online, accessed from the City's official website, and also available in hard-copy form for those without home internet access.

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Section 5. Upon adoption, progress monitoring and reporting shall occur as specified in the plan, and such efforts shall be communicated with interested parties and the general public.

Sept 20, 2023 ADOPTED BY THE COMMISSION. Sept 20, 2023 SIGNED BY THE MAYOR. Dayton, Ohio Attest: hoan Clerk of the Commission Approved as to form: hot for Attorney TIN

ACKNOWLEDGEMENTS

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Partners

Ohio Department of Transportation *Working Committee members

Consultant Team







The **Greenway** Collaborative, Inc.

OHIO DEPARTMENT OF

TRANSPORTATION

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This plan was facilitated by Toole Design, Burton Planning Services, and Greenway Collaborative and is for planning purposes and should not be used for final design of any project.



Figure 1. E 2nd Street cycle track

EXECUTIVE SUMMARY





EXECUTIVE SUMMARY

INTRODUCTION

Dayton is notable for its unique geography along the Great Miami River and its tributaries, the Stillwater River, Mad River, and Wolf Creek. Due to these natural amenities and relative lack of major elevation change, Dayton is ideal for active transportation pursuits, as it is part of the Miami Valley region's 350+ mile network of paved, multi-use recreational trails--the Nation's Largest Paved Trail Network--connecting schools, parks, historic landmarks, and area attractions. By establishing a clear vision and implementation plan for Dayton's Active Transportation Plan (ATP), the city can leverage this network to improve the quality of life of its residents and further cement its reputation as a recreation destination.

Dayton's neighborhoods, streets, sidewalks, and bike paths have changed substantially since the adoption of its Bicycle Action Plan in 2011. Best practices for pedestrian and bicycling plans and infrastructure have evolved, growing more inclusive with a greater emphasis on equity and accessibility. Municipalities are moving toward Active Transportation planning to ensure streets and sidewalks are more accessible and planned with more intention for all users. Over the course of the planning process for Dayton's Active Transportation Plan the team met with, spoke with, and listened to over a thousand residents. These residents' voices, experiences, concerns, and hopes for Dayton drove the recommendations and prioritization included in this document and we are eager to begin implementation with their help.

This chapter defines active transportation, describes the planning process, provides an overview of proposed projects, highlights priority projects, and touches upon next steps and implementation.

WHAT IS ACTIVE TRANSPORTATION AND WHY IS IT IMPORTANT?

"Active Transportation" is an umbrella term for all the ways people can get around without using a motorized vehicle – walking or bicycling, using mobility assistance devices (such as wheelchairs and scooters), skating or skateboarding, and more. In short, active transportation is human-powered travel. Active transportation represents fundamental transportation modes for many Ohioans to access transit, work, school, retail stores, or any number of destinations in urban, suburban, and rural settings. Active transportation can provide many community benefits beyond personal mobility, such as improved public health, economic development, greater quality of life, and enhanced environmental quality.

Active transportation planning involves community engagement specific to the needs of people who walk and bicycle, but also those who use mobility devices, such as scooters. An active transportation plan outlines the vision, goals, and strategies needed to support safe, convenient, and accessible active transportation options. It is important and beneficial to meet the needs of people walking and bicycling by planning for and directing investments in infrastructure and programs that support active transportation options.

Benefits of Active Transportation

Physical Health

Increased opportunities for recreation and destination-oriented trips using active modes of travel are key to increasing daily physical activity and reducing the risk of developing preventable, chronic diseases.

Mental Health

Physical activity has been shown to reduce depression, improve sleep quality and improve cognitive function for older adults.* Active transportation can also improve social conditions in communities, which contributes to positive mental well-being among residents.

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. A 2018 study conducted by the Miami Valley Regional Planning Commission indicates that the regional trail network results in over \$13M in direct economic impact annually.**

Quality of Life

Comfortable and accessible options for bicycling and walking provide a host of quality of life benefits. They increase the number of travel options for everyone and can lead to greater independence for older residents, young people, and others who cannot or choose not to drive. Providing a high-quality active transportation network is especially important for the mobility of community members who do not have full access to a vehicle.

Environmental Quality

Shifting to bicycling and walking trips, and concentrating development in dense walkable and bicycle friendly communities can reduce transportation-based emissions and sprawling land use that impacts the natural environment.***

*U.S. Department of Health and Human Services. 2008 PHYSICAL ACTIVITY GUIDELINES FOR AMERICANS. Washington, DC: U.S. Dept of Health and Human Services; 2008. http://health.gov/ paguidelines/pdf/paguide.pdf

** Tale of the Trails, 2018. https://www.mvrpc.org/transportation/bikeways-pedestrians/tale-trails)

*** Federal Highway Administration, National Bicycling and Walking Study, "Case Study No. 15 The Environmental Benefits Of Bicycling And Walking," 1993 http://safety.fhwa.dot.gov/ped_bike/docs/ case15.pdf

PROJECT TIMELINE

Dayton's Active Transportation Plan was kicked off by members of the City's Bike.Walk.Ride committee in the summer of 2021. With their support, the city was successful in securing an in-kind consulting services grant from the Ohio Department of Transportation's (ODOT) Active Transportation initiative which resulted in this plan. This document was created under the leadership of a Steering Committee which ensured that the Active Transportation Plan represents the variety of interests and stakeholders in Dayton. The Steering Committee, comprised of health officials, school staff, regional active transportation organizations, parks and recreation organizations, and local transit authorities, guided the development of the Dayton Active Transportation Plan. The process to develop the Active Transportation Plan began with an assessment of existing conditions and a review of other relevant plans and studies. Public input and a technical analysis conducted in the Fall 2021 through Summer 2022 provided a foundation for proposed projects and prioritization of those recommendations. Guidance for implementation was developed in Summer 2023 based on the prioritization process conducted in the Spring of that same year (see Figure 2 for a project timeline).

202320232023Winter/SpringSpringSummerFinish existing conditions analysisFinalize project recommendationsPresent plan to City CouncilUpdate network and facility visionDetermine priority projects and programsFinal plan for adoptionDefine network rationaleDraft plan ready for reviewFinal plan for adoptionSecond round ofDetermine priority programsFinal plan for adoption	Proposed Projects and Programs	Priority Projects and Draft Plan	Final Adoption and Implementation
community engagement Develop project prioritization framework	2023 Winter/Spring Finish existing conditions analysis Update network and facility vision Define network rationale Identify programs Second round of community engagement Develop project prioritization framework	2023 Spring Finalize project recommendations Determine priority projects and programs Draft plan ready for review	2023 Summer Present plan to City Council Final plan for adoption Implementation begins

Figure 2. Project Timeline

DOCUMENT ORGANIZATION

In 2021, ODOT completed an Active Transportation Plan Development Guide as a resource for local and regional planning organizations developing active transportation plans in Ohio. Dayton's Active Transportation Plan utilizes the AT Plan Template developed in concert with ODOT's Plan Development Guide. The template provides tools and resources for communities including standardized sections based on national best practices. The City of Dayton's funding and maintenance strategy sections (included in the **Implementation** chapter) rely on these standards to set the tone for future implementation.

This document, based on the AT Plan Template, summarizes the findings of the planning process and is organized into the following chapters:

- » Executive Summary
- » Vision and Goals
- » Community Engagement
- » Existing Conditions
- » Proposed Projects and Programs
- » Priority Projects
- » Implementation

» Appendixes

VISION

Initiated with the Working Committee and refined with the Steering Committee, city staff developed a vision statement for active transportation in Dayton. The statement is complimented by five goals by which to measure success and guide implementation. The Steering Committee approved the following vision for a more connected and equitable Dayton:

People of all ages and abilities living, working, and visiting the City of Dayton have access to affordable, safe, and convenient methods of cycling, walking, and other types of micro-mobility.

GOALS

The five goals listed below are paired with individual action items, included in the **Vision and Goals** chapter, to provide clear structure for implementation activities and future analysis. Loosely based on the concept of the 5 E's used in bicycle friendly planning (Equity & Accessibility, Engineering, Education, Encouragement, and Evaluation),¹ the planning team adapted and modified these categories to be more in line with Dayton's needs.

¹ 5 E's. The Essential Elements of a Bicycle Friendly America. The League of American Bicyclists. https://bikeleague.org/bfa/5-es/

ENGAGEMENT EFFORTS

EDUCATION AND OUTREACH

Our Plan identifies avenues and best practices for education and outreach that empower Daytonians to feel safe, confident, and comfortable when using active transportation infrastructure.

HEALTH AND SAFETY

Our Plan promotes active lifestyles by providing a safe roadway environment for all modes of travel and a network of comfortable bikeways for everyone to enjoy.

ALIGNMENT AND COLLABORATION

Our Plan aligns with and leverages existing plans, community partners, funding opportunities, partner agencies, and maintenance approaches to increase our collective impact and effectiveness.

EQUITY AND ACCESS

Our Plan identifies and supports an increase in well-maintained pedestrian and cycling access for neighborhoods with the greatest need (lowest income, highest transportation burden, highest transit use) and focuses on connecting neighborhood destinations.

INFRASTRUCTURE AND SERVICES

Our Plan identifies specific improvements for active transportation infrastructure and amenities and develops processes and procedures to maintain facilities once implemented.

KEY TAKEAWAYS

The project team collected community input through several strategies including: targeted focus groups, mini-meetings, pop-up tables, community events, partner newsletters and mailing lists, surveys, social media, and more. A project website was created (<u>walkbike.info/Dayton</u>) and will be maintained as a record of the planning process. The team interacted with more than 1,500 people during the engagement phases both online and in person.

Key takeaways include concerns about safety, access, and maintenance. People had concerns about safety including speeding vehicles, difficult pedestrian crossings, and unpleasant infrastructure barriers like interstates and railroads. They wanted it to be easier to walk around their neighborhoods with maintained, accessible sidewalks and better lighting. Cyclists wanted better connections to neighboring jurisdictions and regional attractions, including easier access to our regional trail network. In particular, the Flight Line project rose to the top as it would connect numerous neighborhoods to downtown via a safe, off-street path. See the **Community Engagement** chapter for a summary of all engagement efforts.

EXISTING CONDITIONS

KEY TAKEAWAYS

The project team completed an existing conditions analysis to understand the current transportation system and where safety and network improvements could be made for people using active transportation. Currently the City of Dayton has more than 1,800 miles of sidewalks, 22 miles of existing bicycle facilities in the form of bike lanes, bike paths, and sharrows, and is connected to over 350 miles of paved trails. In addition, 18 bus routes extend throughout the region which generate an estimated six million trips every year.

Several roadways and intersections were identified as part of the high-risk network due to a history of crashes and roadway characteristics, such as high speeds and volume. During the time period reviewed (2017-2021), there were 552 crashes involving bicyclists and pedestrians in the City of Dayton, 99 of which resulted in serious injuries, and 24 of which resulted in fatalities. In addition, the project team reviewed volume and speed data as well as the Ohio Department of Transportation's (ODOT's) Demand and Needs Analyses, which identified areas with strong potential for bicycling and walking. See the **Existing Conditions** chapter for a summary of all analyses and Appendix A (State of Walking and Biking) for the Demand and Needs maps.

PROPOSED PROJECTS AND PROGRAMS

The existing conditions analysis, public input, and steering committee meetings led to the final active transportation network, see Figure 3 below. Infrastructure recommendations include adding:

» 10 miles of sidewalks,

- » 124 miles of on-street bikeways,
- » 12 miles of shared use paths; and
- » improvements to 252 intersections.

The plan also proposes establishing supportive programs such as educational campaigns, encouragement programs, policies, and school-related programs. See the **Proposed Projects and Programs** chapter for details on the proposed bicycle and pedestrian projects and supportive programs.



Figure 3: Proposed Recommendation

suitable for legal, engineering, or surveying purposes. Mapping products presented herein are based on information collected at the time of preparation. Toole Design Group, LLC makes no warranties, expressed or underlying source data used in this analysis,

HIGHLIGHT PRIORITY PROJECT(S)

Three projects were selected to highlight and create visualizations of what the implemented projects could look like and are shown in Figure 5, Figure 5, Figure 6. More details on the projects can be found in the **Priority Projects** chapter.



Figure 4: Visualization of Project 12 (W 3rd Street from western boundary to Williams Street)



Figure 5: Visualization of Project 38 (W Stewart Street and Randolph Street from E Edwin C Moses Boulevard to McCall Street)



Figure 6: Visualization of Project 49 (E Monument Avenue from N Jefferson Street to N Keowee Street)

IMPLEMENTATION

The creation of this plan and final recommendations intentionally focused on collaboration and community input; implementation will follow the same standard. The **Implementation** chapter outlines how the city will kick-off implementation starting with its Planning, Neighborhoods & Development and Public Works Departments. The city team also identifies key stakeholders and their role in developing and activating programs and designing, funding, constructing, maintaining, and evaluating the active transportation network.

A key element of implementation is securing the appropriate funding for design and construction. Several state and federal funding sources are identified in the plan that can be used to supplement local funding sources to build out the active transportation network and fund related programming efforts. The **Funding Strategies** section provides clear justification for the importance of building out the proposed network and funding supportive programs and policies. The section highlights the substantial positive effect improved active transportation facilities have on local economies and the reduction of taxpayer funded healthcare systems over time due to an increase in active living and subsequent improvements in public health. The City will utilize the funding information provided to appropriately match financial sources to priority projects and incrementally implement the vision of a more connected, accessible, and equitable active transportation network.

During public outreach phases and in all conversation with stakeholders, maintenance was a key topic. 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. The **Maintenance Activities** section includes a table with recommended maintenance activities and strategies for each facility type based on national best practices. The City will refer to this table as it moves forward with updating maintenance policies and coordinating with regional partners.

Finally, the **On-going Monitoring and Evaluation** section covers how the city and its partners will monitor and evaluate the performance of our active transportation networks. As recommendations are implemented, Dayton must be able to measure whether these investments are increasing the number of people walking and bicycling across the city. Recommendations include utilizing the Bike.Walk.Ride committee to formalize tracking processes and creating an online dashboard where annual performance metrics may be posted.

The vision for a more accessible, affordable, safe, and convenient active transportation network requires that the recommendations within this plan be activated. The city and its partners look forward to sharing updates on progress over the coming years.

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VISION AND GOALS



VISION AND GOALS

Initiated with the Working Committee and refined with the Steering Committee, city staff developed a vision statement for active transportation in Dayton. The statement is complimented by five goals by which to measure success and guide implementation. The Steering Committee approved the following vision for a more connected and equitable Dayton: Vision Statement

People of all ages and abilities living, working, and visiting the City of Dayton have access to affordable, safe, and convenient methods of cycling, walking, and other types of micro-mobility.

GOALS

Dayton's active transportation goals reflect priorities raised during focus group conversations, steering committee meetings, and best practices reviews. These goals are paired with specific actions outlined in the chapter on Proposed Projects and Programs and performance measures identified in the chapter on Implementation.

EDUCATION AND OUTREACH

Our Plan identifies avenues and best practices for education and outreach that empower Daytonians to feel safe, confident, and comfortable when using active transportation infrastructure.

Action Item 1: Ensure staff, specifically law enforcement, are trained to positively interact with and educate the public on active transportation elements.

Action Item 2: Provide Daytonians with educational materials on where active transportation facilities are located and how to use them (e.g., trails, bike infrastructure).

Action Item 3: Continue Safe Routes to School efforts, specifically programming and non-infrastructure countermeasures.

Action Item 4: Develop programming that encourages Daytonians to use active transportation (e.g., group rides, bike month events).

HEALTH AND SAFETY

Our Plan promotes active lifestyles by providing a safe roadway environment for all modes of travel and a network of comfortable bikeways for everyone to enjoy.

Action Item 1: Implement infrastructure recommendations that improve safety for pedestrians and bicyclists.

Action Item 2: Make roadways safer by reducing speeding and traffic fatalities and serious injuries.

Action Item 3: Work with Dayton law enforcement and community members, especially historically disenfranchised people and those that are socio-economically disadvantaged, to develop recommendations and guidance for addressing traffic issues, such as speeding.

Action Item 4: Reduce carbon emissions via a mode shift, where community members use active modes of transportation, like biking or walking, for some trips around Dayton.

ALIGNMENT AND COLLABORATION

Our Plan aligns with and leverages existing plans, community partners, funding opportunities, partner agencies, and maintenance best practices to increase our collective impact and effectiveness.

Action Item 1: Identify funding sources for programs and infrastructure and non-infrastructure projects.

Action Item 2: Collaborate with neighboring jurisdictions, Montgomery County, and ODOT on active transportation initiatives.

Action Item 3: Support multi-jurisdictional collaboration on active transportation issues and complaints (e.g., trail maintenance requests).

Action Item 4: Create a clear charter for the Bike.Walk.Ride committee with an annual action plan and goals.

Action Item 5: Review and update existing policies and guidelines as best practices change.

EQUITY AND ACCESS

Our Plan identifies and supports an increase in well-maintained pedestrian and cycling access for neighborhoods with the greatest need (lowest income, highest transportation burden, highest transit use) and focuses on connecting neighborhood destinations.

Action Item 1: Identify and prioritize areas that have the greatest need for active transportation infrastructure and programs.

Action Item 2: Prioritize infrastructure projects that connect neighborhood destinations.

Action Item 3: Ensure neighborhood collaboration and community engagement during all parts of the planning and implementation process.

Action Item 4: Develop infrastructure projects and non-infrastructure recommendations that make it safer, easier, and more comfortable for children, older adults, and all those with disabilities to travel around Dayton.

INFRASTRUCTURE AND SERVICES

Our Plan identifies specific improvements for active transportation infrastructure and amenities and develops processes and procedures to maintain facilities once implemented.

Action Item 1: Prioritize specific active transportation infrastructure improvements.

Action Item 2: Increase and improve existing active transportation amenities (e.g., bicycle parking, benches along trails).

Action Item 3: Continue working with Dayton Public Schools to assist with Safe Routes to School infrastructure projects.

Action Item 4: Establish a collaborative maintenance plan and procedure for active transportation infrastructure and amenities.

COMMUNITY ENGAGEMENT





COMMUNITY ENGAGEMENT

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. Steering Committee meetings occurred throughout the planning process, and there were two major rounds of public engagement. The first focused on understanding the current barriers to walking and bicycling and the second sought feedback on draft recommendations. During the two rounds of engagement, the project team used several strategies to collect public input including stakeholder interviews, focus groups, neighborhood meetings, public surveys, and pop-up events. See Figure 7 for a map of outreach events.

ENGAGEMENT TIMELINE (MILESTONE TOUCHPOINTS)





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STRATEGIES

WORKING COMMITTEE

Dayton's Active Transportation Plan was kicked off by members of the City's Bike.Walk.Ride committee in the summer of 2021. This small team was dubbed a "Working Group" due to their recognition of the need to update the city's Bike Action Plan and their desire to facilitate an updated plan. Members are identified under Acknowledgments at the beginning of this document and have an "*" in front of their names. Through regular meetings, the Working Group determined that an active transportation plan met best practices and should take the place of a traditional bicycle or pedestrian plan. Working collaboratively, the team drafted the rough outline for this plan's visions and goals and helped define a robust engagement strategy. The Working Group helped identify additional models from other cities, shared resources, and guides. Due to this Working Group's efforts, the city was successful in securing one of ODOT's first round of Active Transportation in-kind consulting services grants. Upon the creation of the Steering Committee, the Working Committee was dissolved. Without this initial team's efforts, commitment, and passion for the City of Dayton, this plan would not be a reality.

STEERING COMMITTEE MEETINGS

The Steering Committee, comprised of health officials, school staff, regional active transportation organizations, parks and recreation organizations, and local transit authorities, guided the development of the Dayton Active Transportation Plan. Steering Committee members are listed under Acknowledgments at the beginning of this document. The Steering Committee met three times over the course of the plan development.

- » **Meeting One** kicked off the planning process with the committee 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 of the revised network and project prioritization discussion.

STAKEHOLDER INTERVIEWS

The City of Dayton and the Greenway Collaborative performed interviews with six stakeholder groups, including Greater Dayton Regional Transit Agency (RTA), Ohio Department of Transportation, Miami Valley Regional Planning Commission (MVRPC), Montgomery County, Five Rivers MetroParks, and the Downtown Dayton Partnership. There were six key themes that repeatedly showed up in every interview: safety, education, connectivity and access, wayfinding, funding, and overall concerns.

Relating to safety, stakeholders often brought up key points on how to keep all users safe, perceived safety, and overall crime. Education for all users was discussed throughout the stakeholder interviews. Suggestions for driver education focused on how to recognize and interact with bike lanes and the three-foot rule. Also discussed was education for bicyclists, such as how to use bike boxes, and education for maintenance staff, including street sweeping of bike lanes and winter maintenance. The third theme that was discussed throughout the interviews was connectivity and access both in the downtown area and surrounding neighborhoods. A particular emphasis was given to ensuring equitable access from west-side neighborhoods to the regional trail system. Wayfinding, the fourth theme, included implementing a

consistent wayfinding system to provide necessary walking and bicycling information throughout the city. In terms of funding, stakeholders mentioned the importance of tracking new funding that is released and ensuring that the plan is aligned with federal funding opportunities. Lastly, stakeholders discussed overall concerns, such as the lack of an ADA Transition Plan, flooding issues, maintenance - specifically who is responsible for what, and the importance of creating a plan that serves all users.

FOCUS GROUPS

First Round of Public Engagement: Information Gathering

The City of Dayton and the Greenway Collaborative conducted five focus groups based on the following topics: community health, bike clubs and micro-mobility, business and economy, higher education, and historically excluded populations. Attendees expressed that the Active Transportation Plan should address issues such as safety, amenities, maintenance, creating safe routes, and medical transportation. When asked what the top priority for the Plan should be, responses ranged from decreasing the language barrier, increasing education, addressing the needs of west Dayton, safety for all, beautification of streets, having quality facilities, and expanding the availability of facilities.

Second Round of Public Engagement: Draft Recommendations

The City of Dayton held four follow-up conversations with focus group participants and the City's Priority Land Use Boards during the second round of engagement to vet our draft recommendations. The five initial focus groups were combined into three: community health and the underserved; business, economy, and higher education; and micro-mobility communities (bike clubs, scooter companies, and bike share). A separate meeting was held with all five of the City's Priority Land Use Boards including West, North Central, Northeast, Southeast, and Greater Downtown. An overview of the draft recommendations was shared, and priorities were discussed. Attendees expressed their priorities for infrastructure improvements calling out Gettysburg, Broadway, the Wolf Creek multi-use path, and Salem Avenue. Lighting, slowing traffic, and building out the cycling network from the center city were all highlighted. Questions were raised about the inclusion of traffic cameras, but support shared for increasing access to transit, promoting educational opportunities (i.e. establishing a Community Ambassadors Program and making information about resources more visible), and adopting a Vision Zero Policy and Action Plan.

POP-UP EVENTS

Pop-up events have a broader reach than conventional public meetings. By leveraging existing events or popular destinations, the project team reached a wide cross-section of Dayton community members, especially those who might not want to or be able to participate in online or traditional forms of engagement.

The project team held 58 pop-up events over the course of the project. Pop-up events included World Refugee Day, Bike to Work Day, a Saturday at the 2nd Street Market, Fiver Rivers Health Centers, and more. The purpose of the pop-up events was two-fold: to gather information about existing walking and bicycling conditions during the first half of the project, and to share preliminary recommendations with the public during the second half.

ONLINE: PROJECT WEBSITE AND SOCIAL MEDIA

A new project website was launched for this plan: walkbike.info/Dayton. All planning materials, including events, notes from stakeholder interviews, live surveys, and drafts for review, were hosted on this platform throughout the planning process. With the conclusion of the plan, the website will remain active as a record of the planning process.

The City utilized all of its standard online platforms throughout this plan to encourage public participation. Posts were shared on NextDoor, Facebook and the City of Dayton website to highlight opportunities to engage and provide feedback. In addition, the city's Youtube channel highlighted the project with a short interview, explanation of active transportation, and an invitation to complete the initial listening survey.

SURVEYS

First Round of Public Engagement: Information Gathering

Each round of public engagement was accompanied by a survey. The first survey was translated to five languages, and respondents ranged from 8 to 80 years. Over 1,000 community members shared their input by completing the survey or sharing comments on existing and future active transportation needs in Dayton. Figure 8 and Figure 9 provide a breakdown of who took the survey and respondents' answers on how they get around Dayton. The majority of respondents were white (56%) and travel by car (83%), and a decent percent of respondents walk (66%).



Figure 8: Who We Heard From



Figure 9: How do You Get Around Dayton?

Second Round of Public Engagement: Draft Recommendations

The second survey received over 100 responses and asked community members for feedback on the draft walking and biking network and the draft program recommendations. In addition, respondents ranked which projects were most important to them.

LOCATION SPECIFIC FEEDBACK

During the first round of engagement, an interactive Google Map was developed that allowed community members to provide direct input on specific locations (Figure 10). Respondents added input on the map in the form of point and line comments. A red point or line indicated that there was an issue or concern; a blue point or line indicated an idea or suggestion; and yellow points or lines indicated something else that was not an issue, concern, idea, or suggestion.



Figure 10: Public Input Google Map

KEY TAKEAWAYS

The first round of public engagement and stakeholder interviews helped determine popular destinations, barriers to walking and bicycling in Dayton, and key streets that people are currently using to bike or walk. The second round of public engagement helped determine projects that the community was most excited about and should be prioritized. This second round also allowed community members to identify projects that had been missed.

STREETS CURRENTLY SERVING AS KEY ROUTES FOR BICYCLING/WALKING

An analysis of bicycle and pedestrian activity (Streetlight Analysis) was performed to understand key routes. The majority of streets that serve as key walking and bicycling routes tend to be major north-south or east-west routes that would benefit from additional facilities and overall improvements. Streets that currently serve as key routes for bicycling and walking include:

- » Salem Avenue
- » Main Street
- » 3rd Street
- » Wayne Avenue
- » N Ludlow Street (W 1st Street to W 3rd Street)
- » Monument Avenue (N Ludlow Street to N Jefferson Street; N St Clair Street to Sears Street)
- » 3rd Street (Ludlow Street to Madison Street)
- » N Jefferson Street (E 4th Street to E 2nd Street)
- » Brown Street/Warren Street (south of Vine Street)
- » Portions of Main Street, 5th Street

See Appendix A (State of Walking and Biking) for a summary of the Streetlight Analyses.

TOP BARRIERS TO WALKING AND RIDING

Figure 11 and Figure 12 provide a summary of a variety of responses from people who walk and bicycle, including the top six responses about the barriers to walking and bicycling. Overall, most respondents walk and bicycle for fitness and recreation. The top barrier for those who walk is personal safety/security, while the top barrier for those who bicycle is a lack of safe bikeways. Those who bicycle would like to see more separated bike facilities and those who walk would like to see more lighting installed.

People Walking....



TOP 6 ANSWERS

Figure 11: Variety of questions and top responses for those who walk and roll

People Riding...



IS ANYTHING PREVENTING YOU FROM BIKING TO THOSE DESTINATIONS RIGHT NOW?



4 More Enforcement (reckless motorists, cars in bike lane)
5 Improve access to trails (from neighborhoods, along river, between trails)
6 Slow Down Drivers / Speeding Countermeasures

TOP 6 ANSWERS

Figure 12: Variety of questions and top responses for those who ride bikes, scooters, skates, etc.

The draft proposed network was presented in the second round of public engagement and in the second steering committee meeting. Feedback from the public lead to the addition of several projects including:

Map ID	Connection	Street Name	Start	End	Description
68	On-street	Superior Avenue	Rosedale Drive	Salem Avenue	Create a connection, through northwest Dayton neighborhoods, that connects to the Gem City Market
69	On-street	E Fairview Avenue, W Fairview Avenue, Benson Drive	W Hillcrest Avenue	Riverside Drive	Create a connection to multiple destinations including Fairview Park, Fairview PreK-6, Edwin Joel Brown Middle School, the Dayton Metro Library - Northwest Branch, and future bike paths along Riverside Drive
70	On-street	McClure Street, Fillmore Street	E 5th Street	Wyoming Street	Create a connection between St. Anne's Hill and Twin Towers
71	On-street	Lakeview Avenue, Lakeside Drive, Home Avenue	Germantown Pike	McCall Street	Create a neighborhood connection and alternate path for Germantown Street to Lakeview Park
72	On-street	S Broadway Street, Dona Avenue	Nicholas Road	Home Avenue	Create a connection through west Dayton that connects multiple neighborhood destinations, existing bike lanes, and proposed bike lanes
73	On-street	James H McGee Boulevard	Rosedale Drive	McCall Street	Create a connection south from existing Wolf Creek Trail
74	On-street	Home Avenue, Frontage Street	S James H McGee Boulevard	S Ardmore Avenue	Create a neighborhood connection to existing bike lanes
74	On-street	Adelite Avenue	Home Avenue	McCall Street	Create a neighborhood connection to existing bike lanes
75	On-street	Danner Avenue	Germantown Pike	Guthrie Road	Create a north-south neighborhood connection
76	On-street	Miami Chapel Road, Trieschman Avenue	Danner Avenue	Gillespie Park	Create a neighborhood connection that connects multiple schools and Gillespie Park
77	On-street	Fillmore Street	Xenia Avenue	Wyoming Street	Create a neighborhood connection

Map ID	Connection	Street Name	Start	End	Description
78	On-street	Woodbine	Watervliet	Iron Horse	Create a neighborhood connection and
		Avenue	Avenue	Trail	connect to Belmont Park
79	On-street	Lynhurst	Belmont	Watervliet	Create a neighborhood connection and
		Avenue	Park	Avenue	connect to Belmont Park
80	On-street	Nordale	Wilmington	S Smithville	Create a neighborhood connection and
		Avenue	Avenue	Road	connect to Nordale Park
81	On-street	Patterson Road	Kling Drive	Eastern city boundary (east of Watervliet Avenue)	Create a neighborhood connection
82	On-street	E 1st Street	N Keowee Street	N Findlay Street	Connect to programmed bike lanes and into downtown

The second round of public engagement and survey allowed residents to select which projects they would like to see implemented first.

Top identified projects

- » Wayne Avenue
- » Flight Line
- » 3rd Street

Top identified programs

- » Review and update city maintenance practices for walking and bicycling facilities and coordinate with regional agencies
- » Pursue grant funding sources for pedestrian and bicycle facilities
- » Install bike racks

» Explore Open Streets (temporarily closing access to motorists and allowing bicyclists and pedestrians to occupy the entire roadway) opportunities, including temporary special events and permanent programming changes

EXISTING CONDITIONS





EXISTING CONDITIONS

This chapter examines several elements of the City of Dayton's transportation system. It presents a demographic profile of Dayton and a plan and policy review summarizing existing active transportation and related efforts to date, framing the current planning process as a logical next step in Dayton's active transportation evolution. This chapter also summarizes existing programs that support active transportation. A set of analyses that examines the active transportation system from various perspectives (e.g., equity, safety, connectivity) was also performed as part of the existing conditions and can be found in Appendix A.

DEMOGRAPHIC PROFILE

The City of Dayton is a medium-sized city located in the center of the Miami Valley region of Ohio, approximately 50 miles north of Cincinnati. It is the county seat of Montgomery County, Ohio and the sixth largest city in the state. Dayton covers approximately 56.76 square miles² and is home to 137,644 residents.³ At its peak in the 1960s, Dayton's population reached 262,332 people.⁴ From 2000 to 2010, the City's population declined by 15 percent, but current trends show a stabilization of Dayton's population loss; according to the 2020 census Dayton's population declined only three percent⁵ between 2010 and 2020. Such significant population losses impacted Dayton's tax revenue creating challenges for maintaining existing infrastructure and challenging the ability to install comprehensive new trail systems

² U.S. Census Bureau (2022). Quick Facts. Retrieved from [https://www.census.gov/quickfacts/fact/table/daytoncityohio,US/LND110220].

³ U.S. Census Bureau (2020). Decennial Census. Retrieved from [https://data.census.gov/table?g=1600000US3921000].

⁴ U.S. Census Bureau (1960). Decennial Census. Retrieved from

[[]https://usa.ipums.org/usa/resources/voliii/pubdocs/1960/Population/Vol1/37749282v1p37_ch02.pdf]. (Page 11). ⁵ U.S. Census Bureau (2010). Decennial Census. Retrieved from

[[]https://data.census.gov/table?q=population+in+Dayton+city,+Ohio+in+2010&y=2010].
or bicycle infrastructure. Streets built for over 260,000 residents (wide, fast, few signals) are now serving about half that number and create safety challenges as vehicles travel at higher speeds.

Over the past ten years, Dayton has experienced exciting economic renewal, resulting in new jobs and attracting new residents to the city. New high-tech and creative industries, in addition to a strong foundation of local entrepreneurs, are fueling the revitalization of the downtown area and surrounding historic residential districts. The Active Transportation Plan complements the economic redevelopment of the city by identifying opportunities to increase access to and promote the already abundant outdoor amenities that exist in the city and regionally. Investing in cycling and walking facilities and amenities will help attract and retain new employers focused on quality of life for their employees and new residents looking for a place where they can work, live, and play.

Compared to State of Ohio averages, Dayton is highly affordable. The median value of owner-occupied housing in Dayton is \$73,300 compared to \$159,900 statewide, and the median gross rent is \$766 compared to \$870. In terms of income and poverty in Dayton, there is a significant gap between the average for Ohio and the City with the median household income in Dayton being \$37,536 compared to \$61,938 and the percentage of persons in poverty being 28.6 percent compared to 13.4 percent statewide.⁶ Dayton's affordability is an asset in the age of remote-work and the housing affordability crisis. By improving our transit and recreation amenities and increasing access to existing assets, Dayton advocates and developers can attract new residents to the region.

Five-year data from the American Community Survey (2020) provides Race⁷, Age⁸, Car Ownership by Household, and Commute Mode Share⁹ percentages for Dayton. The results included in the following Figures 10 through 13 show that Dayton is a diverse and highly auto-oriented city with 8.1 percent of households not owning a car, 7.8 percent of commuters walking or cycling and 5.6 percent utilizing public transit. The low number of cyclists commuting indicates an opportunity to grow the number of active transportation users. Taking time to understand what prevents residents from walking or cycling will help us address those barriers and shift the community's culture.

⁶ U.S. Census Bureau (2016-2020). Quick Facts. Retrieved From

[[]https://www.census.gov/quickfacts/fact/table/daytoncityohio,OH,US/HSG495220].

⁷ U.S. Census Bureau (2020). ACS 5-Year Estimates. Retrieved from

[[]https://data.census.gov/cedsci/table?q=Dayton%20city,%200hio&t=Populations%20and%20People&y=2020&d=ACS%205-

Year%20Estimates%20Subject%20Tables&tid=ACSST5Y2020.S0601].

⁸ U.S. Census Bureau (2020). ACS 5-Year Estimates. Retrieved from

[[]https://data.census.gov/cedsci/table?q=Dayton%20city,%200hio&t=Populations%20and%20People&y=2020&d=ACS%205-Year%20Estimates%20Subject%20Tables&tid=ACSST5Y2020.S0101].

⁹ U.S. Census Bureau (2020). ACS 5-Year Estimates. Retrieved from

[[]https://data.census.gov/cedsci/table?q=Dayton%20city,%200hio&t=Populations%20and%20People%3A&y=2020&d=ACS%205-Year%20Estimates%20Subject%20Tables&tid=ACSST5Y2020.S0801].





Figure 13. City of Dayton Race

Figure 14. City of Dayton Age







Figure 16. City of Dayton Commute Mode Share

TRANSPORTATION FUNDING AND INVESTMENTS

HISTORIC

The City of Dayton has utilized a wide variety of funding sources for its active transportation projects, from planning through design to construction.

Local and regional partners have also received funding for related projects that serve Dayton. Dayton Public Schools' Safe Routes to School Travel Plan in 2018 is an example of one such planning-level investment.

CURRENT OR PLANNED

Dayton has committed funding for nearly 20 active transportation-related projects from 2022 through 2027 (Table 1: Funded Active Transportation Projects). The city is focusing on securing safety funding to redesign its primary corridors and to build bike lanes.

In general, these projects include the reconstruction of existing and installation of new bicycle and pedestrian infrastructure. Both on- and off-street improvements such as sidewalks, bike lanes, cycle tracks, and bike paths will be funded through city, state, and federal programs. The Surface Transportation Program (STP), Transportation Alternatives (TA) program, and the Congestion Mitigation & Air Quality (CMAQ) Improvement Program are three of the most common federal and state funding streams that Dayton will utilize to build these projects. The remainder of the projects scheduled through 2027 are traffic calming projects funded by the ODOT Safety program or local funding streams such as ballot measures.

Funded Projects	
Frontage Street Improvements (recently completed)	Multi use path and lighting Improvements along Frontage St from Home Ave to West Dayton Library
Salem Avenue Cycle Track (recently completed)	Installation of a cycle track on Salem Avenue from Riverview Avenue to Grand Avenue
East Second Street Cycle Track (recently completed)	Installation of a cycle track on East Second Street from Patterson Blvd to Webster Street
Xenia Avenue Bikeway	Installation of bike lanes on Xenia Avenue and installation of a bike ramp from Xenia Avenue to Steve Whalen Boulevard
Great Miami River Trail West Extension, Phase 2	Installation of a bikeway along the Great Miami River from Edwin C. Moses Boulevard to West River Road
West Riverview Bike Path	Installation of a bike path on top of the west levee of the Great Miami River from Monument to Third
Gettysburg Reconstruction	Reconstruction of Gettysburg Avenue from West Third Street to West Second Street with the addition of side multi use path
West Third Street Bikeway	Constructing two-way cycle track on West Third Street from Perry Street to Robert Drive
North Main Street Safety Improvements	Road diet with curb extensions, median and street lighting along North Main St from Great Miami Blvd to Shoop Mill Rd

Table 1: Funded Active Transportation Projects

Funded Projects	
Wolf Creek Bikeway Connector Phase 1	Constructing a bike path along Wolf Creek from Wesleyan Park to Hickorydale Park
Wesleyan Bike Path	Constructing a bike path along the north side of Wolf Creek from Bridge Street to Wesleyan Park
Wayne Avenue Traffic Calming	Traffic Calming Project will add bump outs and repair broken curb, walk, curb ramps and driveways and pedestrian lighting.
Germantown St Bike Lane	Bike Lanes on Germantown Street from Edwin C. Moses Blvd to Euclid Ave.
Findlay Street Reconstruction	Reconstruction of Findlay Street from East First Street to Monument Avenue with the addition of bike lanes
West Stewart St Enhancements	Bumpouts on West Stewart St at Conley St and Hopeland St
Smithville Road Reconstruction	Reconstruction of Smithville Road from US Route 35 to Huffman Avenue including a side multi-use path
West Third Street Reconstruction	Reconstruction of West Third Street from Gettysburg Avenue to Almond Avenue including a side multi-use path
East Third Street Improvements	East Third Street from Webster Street to North Keowee Street
Ludlow Street Urban Paving Lane	Resurfacing of Ludlow Street from Monument Ave to Washington Street with the addition of a south bound protected bike lane
Oregon St Bollards	Installation of Bollards to be able to temporarily close East Fifth Street to vehicular traffic in support of Open Street events.
South Main Street Reconstruction	Road diet of South Main Street from Sixth Street to Buckeye Street

EXISTING PLANS, POLICIES, AND SUPPORTIVE PROGRAMS

This plan builds on prior plans and initiatives developed by entities within Dayton, Montgomery County, and the State of Ohio. It looks to these plans for existing **conditions data, issue identification, and recommendation support (**Table 2 and Table 3).

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Table 2. Existing Plans and Policies

Plan/ Policy	Lead Agency	Year Completed	Key Takeaways (what proposed projects/policies will impact the Active Transportation Plan?)
<u>City of Dayton</u> <u>Livable Streets</u> <u>Policy</u>	City of Dayton	2010	The Policy puts forth a vision, purpose, set of goals, and list of directives to consider when identifying, planning, scoping, and designing all City of Dayton roadway projects, ranging from simple maintenance to comprehensive reconstruction. The Policy additionally, supports other City planning efforts to promote alternative forms of transportation (e.g., the Zoning Code & Urban Design Guidelines).
<u>City of Dayton</u> <u>2025 Bicycle</u> <u>Action Plan</u>	City of Dayton	2011	When adopted, the Bicycle Action Plan outlined the City's commitment to work with local, regional, state, and national partners to create a culture of bicycling in the City of Dayton. The Plan summarized bicycle-related projects and programs that strove to build on the City's network of intermodal transportation corridors. The document formalized the Bike/Walk committee (now called Bike.Walk.Ride), which is still in existence today but in need of a formal charter and annual goals
<u>Dayton</u> <u>Forward</u>	City of Dayton	2022	Dayton Forward is Dayton's Comprehensive Plan. The Comprehensive Plan is a guide for future planning efforts and development. The plan includes a mobility section which focuses on personal vehicles, active transportation, transit, and advances in transportation. The mobility section emphasizes equity and mobility and includes five goals: equity and access; education and outreach; infrastructure and long-term maintenance; health and safety; and alignment and collaboration.
<u>Dayton</u> <u>Transportation</u> <u>Plan 2040</u>	City of Dayton	2017	The Dayton Transportation Plan is a guide for the design of Dayton transportation projects over the next 25 years, focusing specifically on Complete Streets design. The plan classifies Dayton's entire street network to create Complete Streets Typologies, which shows how Complete Streets treatments can be applied in certain situations depending upon right-of-way and pavement width as well as land use. Appendix B provides guidance regarding the recommended types of pedestrian and bicycling facilities based upon the typology of the street. These guidelines are based on national standards and provide clear direction for how future projects within the city should be designed.
<u>Dayton</u> <u>Riverfront Plan</u>	Five Rivers MetroParks	2018	The Dayton Riverfront Plan presents a vision for Dayton's riverfronts as a more connected, activated, and healthier resource for the future. Downtown Dayton lies at the center of the riverfront planning area and expands out three miles

Plan/ Policy	Lead Agency	Year Completed	Key Takeaways (what proposed projects/policies will impact the Active Transportation Plan?)
			in four different directions. The Plan includes an overall framework for the greater downtown area and river corridors as well as conceptual designs to improve ten riverfront parks and connectivity into the regional paved trail network.
<u>Dayton Public</u> <u>Schools Safe</u> <u>Routes to</u> <u>School Travel</u> <u>Plan</u>	Dayton Public Schools	2018	In 2018, Dayton Public Schools (DPS) led the planning effort to complete a School Travel Plan (STP), a required document for funding requests through the Ohio Department of Transportation (ODOT) Safe Routes to School (SRTS) program. The STP outlined the community's intentions for enabling students to engage in active transportation (i.e., walking or bicycling) as they travel to and from school. The STP follows the same five E's as the Dayton 2025 Bicycle Action Plan: Engineering, Education, Enforcement, Encouragement and Evaluation. Recently, planning agencies and advocacy organizations have dropped enforcement from these types of plans due to equity implications.
Downtown Streetscape Guidelines & Corridor Plan	Downtown Dayton Partnership	2020	The Streetscape Guidelines and Corridor Plan centers on Downtown Dayton, creating a street-by- street outline for infrastructure changes that include traffic calming as well as bicycle and pedestrian facility improvements. The document builds on previous plans and sets the placemaking vision for downtown Dayton over the next 15 years. Infrastructure investments already planned for the area include, but are not limited to, the Third Street and Second Street cycle tracks. Infrastructure recommendations that are included in the recommendation table: South Main Street road diet, Third Street streetscape and bumpouts from Ludlow to Jefferson, Jefferson Street protected lane and streetscape sextension, Ludlow Street protected bike lane and streetscape upgrades, Fifth Street restriping to add bike lanes and streetscape upgrades, Second Street streetscape upgrades and center median, First Street lane restripe to two-way street and streetscape upgrades, St. Claire Street lane restripe for protected bike lanes and streetscape upgrades.
<u>Miami Valley</u> <u>Bike Plan</u> <u>Update 2015</u>	Miami Valley Regional Planning Commission	2015	The 2015 Miami Valley Bike Plan Update provides an overview of the development and current state of cycling and cycling infrastructure in the Miami Valley Region. The update documents past accomplishments, highlights critical features of the present state of cycling in the region, and points to a future where more people choose to bicycle more

Plan/ Policy	Lead Agency	Year Completed	Key Takeaways (what proposed projects/policies will impact the Active Transportation Plan?)
			often for more reasons. The update focuses on complete streets, user comfort and safety, and plan implementation.
<u>Miami Valley</u> <u>Regional Active</u> <u>Transportation</u> <u>Plan</u>	Miami Valley Regional Planning Commission	2021	The Miami Valley Regional Active Transportation Plan expands on past planning work for regional bikeways by including, for the first time, examination of walking infrastructure and also how walking and bicycling infrastructure serves residents accessing public transit. The plan studies the connectivity and accessibility of infrastructure supporting non-motorized modes and recommends projects, policies and implementation approaches. Chapter 6 includes a list of recommended active transportation-related projects, including traffic calming or safety enhancements on Fifth and Burkhardt, traffic calming and a protected bike lane on Third Street from Keowee to Linden, traffic calming on Philadelphia from James H. McGee to N. Main Street, and a shared use path along railroad right- of-way from Creekside Trail to Fourth Street.
Walk.Bike.Ohio	Ohio Department of Transportation	2021	Walk.Bike.Ohio (WBO) is Ohio's first statewide pedestrian and bicycle plan, and provides a roadmap for overcoming challenges and capitalizing on opportunities as the state moves towards creating a more walkable and bikeable Ohio. It documents the current performance of Ohio's transportation system with respect to active modes of transportation (walking and bicycling) and outlines goal areas that set the stage for increased collaboration between the Ohio Department of Transportation (ODOT) and its partners.

Table 3. Existing Supportive Programs

Program	Program lead	Target	Key Takeaways (how does this program support active transportation?)
Name	(organization)	Audience	
Dayton Bike Route Map	City of Dayton	City of Dayton Residents	Originally created in 2010, the bike route map identified novice, skilled, and experienced cycling pathways including specific infrastructure (sharrows, bike lanes, and shared-use paths). No current version of this map exists. The goal for the City's bike map is to host an interactive version on the web versus printing annual updates with destinations, city and metro parks, accommodations, libraries, and schools identified.

Program	Program lead	Target	Key Takeaways (how does this program support active			
Name	(organization)	Audience	transportation?)			
Downtown Walking Wednesdays	Downtown Dayton Partnership	City of Dayton Residents; Downtown employees	These fun walks feature a different downtown route each week, walking past a variety of landmarks and parts of our city while introducing guests to other downtown workers who like to walk. Walks start at Courthouse Square during its free "The Square Is Where" entertainment. All walking routes are loops, and short enough to complete in 30-45 minutes to easily fit a walk during the lunch hour.			
Link: <u>Dayton</u> <u>Bike Share</u>	Bike Miami Valley	Miami Valley Residents and Visitors	Founded in 2015, Link is a Dayton bike sharing system. It is a hub-based system that allows users to access bikes at 37 different locations in Dayton. Users are able to use the bike share system through an app. Since launching, 18,500 users have taken over 140,000 trips. Dayton Bike Share is operated by Bike Miami Valley.			
Scooter Share	Spin	Miami Valley Residents	Spin is a scooter sharing company that operates within the Miami Valley Region and Dayton, Ohio. Users are able to access scooters by downloading an app.			
League of American Bicyclists: Bicycle Friendly Community Program	League of American Bicyclists	City of Dayton Residents	The League of American Bicyclists' (LAB) is a national cycling advocacy organization that focuses on four key programs: Bicycle Friendly America which helps provide guidelines for communities as they work to improve cycling conditions; Smart Cycling which certifies trainers to provide bicycle education; Promoting Bicycling, a national promotional campaign that works to raise awareness and encourage people to ride; and Making Biking Better their advocacy arm that works to make bicycling better nationwide. LAB also has the Bicycle Friendly Community Program, which provides hands-on assistance and award recognition for communities that actively support bicycling. A Bicycle Friendly Community welcomes bicyclists by providing safe accommodations for bicyclists and encouraging people to bicycle for transportation and recreation. The City of Dayton was awarded Bronze Medal Bicycle Friendly Status by the LAB in May 2010, becoming one of only two such communities in Ohio to achieve this honorable distinction at the time. Designation is reviewed every four years and the City's Bronze status is current through 2023.			
<u>Miami Valley</u> <u>Trail User</u> <u>Survey</u>	Miami Valley Regional Planning Commission	Residents of Ohio; Visitors using trails	Starting in 2009, the Miami Valley Regional Planning Commission (MVRPC) and partners conduct the Miami Valley Trail User Survey (and subsequent counts and reports) every four years. This survey serves as a baseline for understanding how, when, and by whom the Miami Valley Trails are being experienced. Using surveys collected, the MVRPC estimates			

Program	Program lead	Target	Key Takeaways (how does this program support active
Name	(organization)	Audience	transportation?)
			the trail system's region-wide annual economic impact via hard (equipment) and soft goods (food) purchased and overnight accommodations. It also illustrates the regional draw and tourism impacts of the trails. Previous surveys and reports will be considered in the City of Dayton's Active Transportation Plan effort.
<u>Rideshare</u> program	Miami Valley Regional Planning Commission	Miami Valley Residents	MVRPC's Rideshare Program is a partner of Gohio Commute, a free service with information on bicycle commute options for the region. This program allows you to map your route, find others to join your bicycle commute, and track your CO2 emissions and money saved for each bicycle trip you take instead of a single-occupancy vehicle. Residents may visit <u>MiamiValleyRideshare.org</u> to register for this free program.
<u>Walkability</u> <u>Audits</u>	Miami Valley Regional Planning Commission	Miami Valley Residents	MVRPC provides assistance to local communities to audit their built environment. A technical review, with criteria established by Federal Highway Administration (FHWA), the audit can assist a community in deciding where to change or improve their streets, intersections, and sidewalks to be more walk-friendly, safer, and accessible. The walking audit is also a great educational tool for school groups, planning commission members, and community advocates to better understand multimodal transportation issues.
Bicycle Advocacy	Bike Miami Valley	Miami Valley Residents	Bike Miami Valley advocates, promotes, and creates opportunities for all forms of cycling in the region. The intention of the group is to help local advocacy groups or chapters spark change faster. Bike Miami Valley has a Dayton Chapter that focuses on local advocacy, cycling outreach and education.
Bicycles for All	Bicycles for All	Miami Valley Residents	Bicycles for All provides community resources that promote bicycling for recreation, transport, and sport. They are a non-profit organization lead by volunteers.
Mike's Bike Park	Mike's Bike Park	Miami Valley Residents	Mike's Bike Park is an indoor bike park and the City of Dayton's only bicycle shop. They have been actively involved in the community and provide a compliment to the (city owned) outdoor bicycle park.
Local Cycling Groups	Major Taylor Cycling Club of Dayton, Miami Valley Cycling, Dayton Cycling	Miami Valley Residents	There are also multiple cycling groups within Dayton that meet on a regular basis. They are often led by volunteers and provide group rides, youth events, and raise awareness of the benefits and joys of cycling.

Program	Program lead	Target	Key Takeaways (how does this program support active transportation?)
Name	(organization)	Audience	
	Club, Dayton Bike Meet, East Side Riders Ohio Chapter		

ANALYSES

The project team performed several analyses to better understand the equity of the network, its connectivity, use of walking and bicycling facilities, safety, and infrastructure conditions. The analyses that were performed include:

- » Gaps and Barriers Analysis
- » Local Crash Trends Analysis
- » Non-Motorized Activity Analysis
- » Systemic Safety Analysis

- » Needs Analysis
- » Demand Analysis
- » Equity Analysis
- » Level of Traffic Stress Analysis

Full summaries of all analyses can be found in Appendix A.

TAKEAWAYS

The City of Dayton, located along the Great Miami River, is an ideal location for active transportation with its low elevation changes and natural amenities. The existing sidewalk network is fairly complete throughout the city with only a few neighborhoods experiencing major gaps in the network, but existing cycling infrastructure is often segmented and heavily concentrated in the downtown core. The connectivity of the active transportation network is heavily reliant on sidewalks which support a high volume of pedestrians on a daily basis. Gaps in the bicycle network are located in the northeast, northwest, southeast, and southwest quadrants of the city, and two major missing links include the primary east/west and north/south corridors connecting to downtown.

Downtown Dayton and the inner-ring historic neighborhoods benefit from the most comprehensive sidewalk network in the city, however, existing sidewalks outside of downtown are often in substandard conditions due to tree roots and crumbling curbs. The neighborhoods with large gaps in the sidewalk network are generally outside the inner-ring historic neighborhoods. A comprehensive sidewalk survey was not available at the time of this plan's creation. In late 2023, the City of Dayton will undergo a condition assessment of existing sidewalk infrastructure within focused neighborhoods and results from this survey will be used to guide future improvements.

The off-street bicycle network in Dayton provides connections to the regional trail system through the Creekside Trail, Iron Horse Trail, Mad River Trail, Dayton-Kettering Connector Trail, and Wolf Creek Trail. However, on-street bike paths are primarily concentrated in or near downtown. There are many opportunities to provide additional connections throughout the city.

The City of Dayton engaged the public and stakeholders in the summers of 2022 and 2023to determine major issues of concern and areas for improvement to support walking and bicycling in the city. Recommendations received from the public engagement period included requesting improvements to pedestrian crossings, underpasses, and bridges in the downtown area. Residents voiced support for the Flight Line and also provided specific recommendations for new pedestrian and bicycle facilities throughout the city.

Conducting a crash trend and network screening analysis for the Dayton active transportation network illustrates a need for improved safety measures for bicyclists and pedestrians. Safety improvements and countermeasures should be focused along two-lane and four-lane roadways where no bike lane, sharrow, or shared use paths are present and also at four-way intersections with traffic controls. Additionally, priority consideration should be given to safety and connectivity improvements along the primary east/west and north/south corridors where there is overlap between the high-risk network and major connectivity gaps. Overlap between system gaps and the high-risk network indicates a high need for safe connections in these areas.

Finally, the Active Transportation (AT) Demand/Need analysis, conducted by the Ohio Department of Transportation as part of its statewide bicycle and pedestrian plan, Walk.Bike.Ohio, shows there is high demand for active transportation in a large portion of the city. Areas that will benefit the most from additional investment have both high demand and high need for active transportation. New infrastructure or safety improvements should be prioritized in areas with a higher level of disparity (Equity Index), high demand and need for active transportation, and along the high-risk network or as an alternative route to the high-risk network.

Dayton has a comprehensive sidewalk network and has experienced a downward trend in serious injuries and fatalities related to bicycle and pedestrian crashes over the past five years (2017-2021). However, there continue to be many opportunities to make it even safer and to provide better connections and access for achieving a more equitable transportation system in the future.

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PROPOSED PROJECTS AND PROGRAMS





PROPOSED PROJECTS AND PROGRAMS

The Dayton Active Transportation 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 users. Policy and program recommendations aim to re-prioritize walking and bicycling, to change the culture around active transportation, and to help increase its use by completing the individual action items under each of the plan's goal areas. This will include education and outreach activities, promotion of active lifestyles, collaboration with partner agencies, focusing on equity and access for our entire community, and monitoring our progress over time. Infrastructure Projects

The final network is based on the existing conditions analysis, Steering Committee meetings, and public input. The network includes critical east/west connections such as 3rd Street, major north/south connections such as Riverside Drive, Gettysburg Avenue, Smithville Road, as well as smaller neighborhood connections. The network also identifies multiple intersections that should be improved to make walking and bicycling safer along major roads, such as at Edwin C Moses Boulevard and Germantown Pike; Findlay Street, E 1st Street, and Springfield Street; West Grand Avenue and Salem Avenue; Sable Lane, Salem Avenue, and Superior Avenue. See Figure 17 for a network recommendations map and Table 4 and Table 5 for a complete list of all proposed projects with descriptions. Infrastructure recommendations include adding:

» 10 miles of sidewalks,

» 124 miles of on-street bikeways,

- » 13 miles of shared use paths; and
- » improvements to **252** intersections.

For zoomed in maps for specific neighborhoods: see Figure 18 for northwest Dayton, see Figure 19 for southwest Dayton, see Figure 20 for northeast Dayton, see Figure 21 for southeast Dayton, see Figure 22for downtown Dayton.



Figure 17: Proposed Recommendations



Figure 18: Proposed Recommendations - Northwest Dayton

Sidewalk Gap Recommendations

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Figure 19: Proposed Recommendations - Southwest Dayton

Existing and Funded Facilities

- - Funded On Street Bicycle Facility

- Sidewalk Recommendations
- Sidewalk Gap Recommendations

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Figure 20: Proposed Recommendations – Northeast Dayton





Figure 21: Proposed Recommendations - Southeast

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Figure 22: Proposed Recommendations - Downtown Dayton

- - Funded On Street Bicycle Facility

- **Sidewalk Gap Recommendations**

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Table 4: Bikeway Project Recommendations

Project ID	Level of Traffic Stress (LTS)	Туре	Street Name	Start	End	Description	Prioritization Ranking	Candidate for SRTS
1	LTS 3	Separated Bike Lane	N Gettysburg Avenue	W Hillcrest Avenue	W 3rd Street	Create a major north/south connection through west Dayton that connects to existing facilities and multiple destinations	34	
2	LTS 4	Separated Bike Lane or Shared Use Paths	S Gettysburg Avenue	W 3rd Street	Lyleburn Road	Create a major north/south connection through west Dayton that connects multiple destinations	14	
3	LTS 3	Separated Bike Lane	Philadelphia Drive	Siebenthaler Avenue	Riverview Avenue	Create a north/south connection through northwest Dayton that connects to existing facilities	12	
4	LTS 3	Separated Bike Lane	Riverside Drive	Northern city boundary (north of Redwood Avenue)	Monument Avenue	Create a north/south connection through north Dayton that connects to existing facilities	15	Yes; Connection to Rivers Edge Montessori
5	LTS 3	Separated Bike Lane	Patterson Boulevard	E Monument Avenue	Stewart Street	Create a connection through downtown Dayton that connects to multiple facilities	3	
6	LTS 3	Separated Bike Lane	N Keowee Street	Embury Park Road	E Helena Street	Create north/south connection that connects to multiple existing facilities	52	
7	LTS 4	Separated Bike Lane or Shared Use Paths	Keowee Street	Webster Street	Wayne Avenue	Create a north/south connection through east Dayton that connects to existing facilities and multiple destinations	39	
8	LTS 3	Separated Bike Lane	Wayne Avenue	E 5th Street	Wilmington Avenue	Create a connection to the existing bike lanes on 5th Street and Wayne Avenue	16	
9	N/A	Shared Use Paths	Flight Line	Bainbridge Street	Creekside Trail	Create an east/west connection through east Dayton that connections to existing facilities and destinations (rail to trail)	18	
10	LTS 1	Bicycle Boulevard	N Smithville Road	Springfield Street	E 3rd Street	Create a connection to the existing bike lanes, trails, and parks	68	
11	LTS 4	Separated Bike Lane or Shared Use Paths	S Smithville Road	E 3rd Street	Southern city limits (south of Ashland Avenue)	Create a north/south route through east Dayton that connects to multiple destinations	25	
12	LTS 4	Separated Bike Lane or Shared Use Paths	W 3rd Street	Western city boundary (west of Bluecrest Avenue)	Williams Street	Create an east/west connection that connects to existing facilities and multiple destinations	2	Yes; Connection to Roosevelt School and connect to existing northern bike lanes to Edison Elementary School
13	LTS 3	Separated Bike Lane	2nd Street	Perry Street	St. Clair Street	Create an east/west connection in downtown that connects to existing facilities and multiple destinations	30	
14	LTS 4	Separated Bike Lane or Shared Use Paths	3rd Street	Edwin C Moses Boulevard	Eastern city boundary	Create an east/west connection through downtown that connects to existing facilities and multiple destinations	1	Yes; Connection to Roosevelt School
15	LTS 4	Separated Bike Lane or Shared Use Paths	Germantown Street	Western city limit (west of Illinois Avenue)	S Edwin C Moses Boulevard	Create an east/west connection that connects to existing facilities and multiple destinations	7	Yes; Connection to Mound Street Academy, Wogaman Middle School, and Dayton Digital Academy

Project ID	Level of Traffic Stress (LTS)	Туре	Street Name	Start	End	Description	Prioritization Ranking	Candidate for SRTS
16	LTS 3	Separated Bike Lane	W 5th Street	S Edwin C Moses Boulevard	S Patterson Boulevard	Create an east/west connection that connects to existing facilities and multiple destinations	17	
17	LTS 3	Separated Bike Lane	Wyoming Street	Wayne Avenue	Pursell Avenue	Create a connection through east Dayton that connects to existing facilities and multiple destinations	33	Yes; Connection to Cleveland Elementary School
18	LTS 4	Separated Bike Lane or Shared Use Paths	Linden Avenue	E 3rd Street	S Smithville Road	Create a connection through east Dayton that connects to existing facilities and multiple destinations	5	
19	LTS 3	Separated Bike Lane	Dearborn Avenue, Abbey Avenue, Brooklyn Avenue, Fairbanks Avenue	Maplehurst Avenue	Germantown Street	Create a connection through west Dayton neighborhoods to the Wolf Creek Trail	42	
20	LTS 2	Paved Shoulder or Bike Lane / Buffered Bike Lane	Catalpa Drive, Rosedale Drive	W Hillcrest Avenue	N James H McGee Boulevard	Create a north/west connection to the Wolf Creek Trail through northwest Dayton neighborhoods	19	
21	LTS 1	Bicycle Boulevard	Emerson Avenue	W Hillcrest Avenue	Salem Avenue	Create a north/south connection to Salem Avenue along north Dayton neighborhood streets	79	
22	LTS 3	Separated Bike Lane	Richmond Avenue, North Avenue, Salem Avenue	Marathon Avenue	Superior Avenue	Create a north/south connection through north Dayton to connect to existing facilities and multiple destinations	8	
23	LTS 4	Separated Bike Lane or Shared Use Paths	Ludlow Street	W Monument Avenue	S Stout Street	Create a connection through Downtown that connects to existing bike lanes on Monument Avenue, existing shared lanes on 4th Street and 5th Street, and the programmed path on Washington Street	4	
24	LTS 1	Bicycle Boulevard	Jackson Street	Wayne Avenue	Park Manor Drive	Create a connection to existing facilities and destinations on Wayne Avenue and the existing pedestrian bridge across US-35	72	
25	LTS 3	Separated Bike Lane	N Dixie Drive, N Keowee Street	E Siebenthaler Avenue	Embury Park Road	Create a north/south connection through northeast Dayton that connects to multiple existing facilities	54	
26	LTS 3	Separated Bike Lane	Webster Street	Great Miami River Trail	E 3rd Street	Create a connection through northeast Dayton to downtown connecting to multiple destinations and existing facilities	24	
27	LTS 1	Bicycle Boulevard	Kiser Street	Leo Street	Milburn Avenue	Create a north/south neighborhood route through northeast Dayton	75	
28	LTS 4	Separated Bike Lane or Shared Use Paths	Troy Street	Stanley Avenue	Valley Street	Create a north/south connection through northeast Dayton connecting to existing facilities and destinations	20	Yes; Connection to Kiser Elementary School
29	LTS 1	Bicycle Boulevard	S Terry Street	E 1st Street	E 5th Street	Create a north/south connection that connects to existing facilities and destinations	70	
30	LTS 3	Separated Bike Lane	Stanley Avenue, Findlay Street	Farr Drive	E 5th Street	Create a north/south connection through east Dayton that connects to existing facilities and destinations	26	
31	LTS 3	Separated Bike Lane	Hillcrest Avenue	Hickorydale Park	Riverside Drive	Create an east/west connection through northwest Dayton that connects to multiple destinations and major roads such as Gettysburg Avenue, Salem Avenue, Main Street, and Riverside Drive	49	Yes; Connection to Fairview Elementary School

Project ID	Level of Traffic Stress (LTS)	Туре	Street Name	Start	End	Description	Prioritization Ranking	Candidate for SRTS
32	LTS 3	Separated Bike Lane	Kings Highway, Kensington Drive Otterbein Avenue, Salem Avenue, Emerson Avenue, Brookside Drive, Marathon Avenue	N Gettysburg Avenue	Richmond Avenue	Create an east/west connection through neighborhood streets in northwest Dayton that connects to Salem Avenue and Gettysburg Avenue	37	
33	LTS 4	Separated Bike Lane or Shared Use Paths	Cornell Drive, Salem Avenue, Delaware Avenue, N Main Street, Ridge Avenue	N Gettysburg Avenue	Deweese Parkway	Create an east/west connection through northwest Dayton that connects to multiple destinations and major roads such as Gettysburg Avenue, Salem Avenue, Main Street, and Riverside Drive	9	
34	LTS 1	Bicycle Boulevard	Alcott Drive, Athens Avenue, Moraine Avenue, Princeton Drive, Harvard Boulevard	W Riverview Avenue	Richmond Avenue	Create an east/west connection through neighborhood streets in northwest Dayton that connects multiple existing facilities and destinations	71	
35	LTS 3	Separated Bike Lane	Lexington Avenue, Philadelphia Drive, Wawona Road, W Grand Avenue, Great Miami Boulevard	Tennyson Avenue	Riverside Drive	Create an east/west connection through neighborhood streets in northwest Dayton that connects to multiple facilities and major streets such as Salem Avenue, Main Street, and Riverside Drive	21	
36	LTS 1	Bicycle Boulevard	Becker Drive, Tyson Avenue, Oakridge Drive	Residence Park	N James H McGee Boulevard	Create an east/west connection through neighborhood streets in west Dayton that connects to the Wolf Creek Trail and multiple parks	74	Yes; Connection to Westwood Elementary School and the International School at Residence Park
37	LTS 3	Separated Bike Lane	McCall Street	S Gettysburg Avenue	Germantown Street	Create an east/west connection that connects to multiple destinations	63	
38	LTS 3	Separated Bike Lane	W Stewart Street, Randolph Street	S Edwin C Moses Boulevard	McCall Street	Create a connection through southwest Dayton to existing facilities and destinations	13	
39	LTS 3	Separated Bike Lane	Nicholas Road	S Gettysburg Avenue	W River Road	Create a connection though southwest Dayton to future programmed path	44	
40	N/A	Shared Use Paths	Guthrie Road, W River Road	Nicholas Road	S Gettysburg Avenue	Create a connection through southwest Dayton to Possum Creek MetroPark and to future programmed path	65	
41	LTS 1	Bicycle Boulevard	Frytown Road	Possum Creek MetroPark	S Gettysburg Avenue	Create a connection through southwest Dayton to Possum Creek MetroPark	82	
42	LTS 3	Separated Bike Lane	Miami Chapel Road, Cincinnati Street, Harriet Street	Danner Avenue	S Edwin C Moses Boulevard	Create a connection to existing facilities and destinations such as Welcome Stadium and the Dayton Bike Park	60	Yes; Connection to Louise Troy Elementary School
43	LTS 3	Separated Bike Lane	W Riverview Avenue, W Monument Avenue	Salem Avenue	Lawrence Street	Create a connection to existing facilities that connects to downtown from north Dayton	6	

Project ID	Level of Traffic Stress (LTS)	Туре	Street Name	Start	End	Description	Prioritization Ranking	Candidate for SRTS
44	LTS 3	Separated Bike Lane	Wayne Avenue	E 3rd Street	E 4th Street	Create a north/south connection that connects to existing facilities and destinations	32	
45	LTS 3	Separated Bike Lane	E/W 4th Street	S Wilkinson Street	S St Clair Street	Create an east/west connection through downtown that connects to existing facilities and destinations	31	
46	LTS 1	Bicycle Boulevard	Buckeye Street	S Main Street	Wayne Avenue	Create a connection through the Midtown and South Park neighborhoods that connects to existing facilities and destinations	73	
47	LTS 3	Separated Bike Lane	Lincoln Street	S Patterson Boulevard	Buckeye Street	Create a connection through the Midtown and South Park neighborhoods that connects to existing facilities and destinations	58	
48	LTS 1	Bicycle Boulevard	Burns Avenue	Warren Street	Buckeye Street	Create a connection through the Midtown and South Park neighborhoods that connects to existing facilities and destinations	76	
49	LTS 3	Separated Bike Lane	E Monument Avenue	N Jefferson Street	N Keowee Street	Create a connection through downtown that connects to existing facilities and destinations	11	
50	LTS 1	Bicycle Boulevard	Pursell Avenue, Cleveland Avenue, Meriline Avenue, Arcadia Boulevard	Wyoming Street	Russet Avenue	Create a connection through southeast Dayton that connects to existing facilities and destinations	61	Yes; Connection to Cleveland Elementary School
51	LTS 3	Separated Bike Lane	Watervliet Avenue	Wayne Avenue	S Smithville Road	Create a connection to multiple destinations through southeast Dayton	48	Yes; Connection to Belmont Middle School/HS
52	LTS 3	Separated Bike Lane	Wayne Avenue	E Stewart Street	Watervliet Avenue	Create a connection to multiple destinations through southeast Dayton	27	Yes; Connection to Belmont Middle School/HS
53	LTS 1	Bicycle Boulevard	E Stewart Street	Brown Street	Wayne Avenue	Create a connection through southeast Dayton that connects to destinations and facilities, such as the trail and University of Dayton	77	
54	LTS 3	Separated Bike Lane	E 5th Street, Burkhardt Avenue	Hamilton Avenue	Woodman Drive	Create an east/west connection through east Dayton that connects to multiple existing facilities and destinations	22	
55	LTS 1	Bicycle Boulevard	Springfield Street	Linden Avenue	N Findlay Street	Create an east/west connection through east Dayton that connects to existing facilities and destinations	67	
56	LTS 3	Separated Bike Lane	E 1st Street	N Findlay Street	Springfield Street	Create an east/west connection through east Dayton that connects to existing facilities and destinations	56	
57	LTS 3	Separated Bike Lane	Leo Street	N Keowee Street	Stanley Avenue	Create an east/west connection through northeast Dayton that connects to multiple existing facilities and destinations	28	Yes; Connection to Kiser Elementary School
58	LTS 3	Separated Bike Lane	Stanley Avenue	N Keowee Street	Kuntz Road	Create an east/west connection through northeast Dayton that connects to existing facilities	59	
59	LTS 3	Separated Bike Lane	Homewood Avenue, Forest Avenue, W Helena Street	Richmond Avenue	Riverside Drive	Create a connection through north Dayton that connects to existing facilities and destinations	29	

Project ID	Level of Traffic Stress (LTS)	Туре	Street Name	Start	End	Description	Prioritization Ranking	Candidate for SRTS
60	N/A	Shared Use Paths	Negley Place	N Paul Laurence Dunbar Street	N Edwin C Moses Boulevard	Create a connection through west Dayton that connects to existing facilities and destinations	45	
61	LTS 3	Separated Bike Lane	Free Pike, Siebenthaler Avenue	Glen Helen Road	N Dixie Drive	Create an east/west connection through northwest Dayton that connects to existing facilities and destinations	38	Yes; Connection to Belle Haven Elementary School
62	LTS 3	Separated Bike Lane	W Washington Street	Germantown Street	Veterans Parkway	Create a connection from west Dayton to downtown and the Midtown neighborhood that connects to existing facilities and destinations	23	Yes; Connection to David H Ponitz Career Tech Center
63	LTS 3	Separated Bike Lane	E River Road	Carillon Boulevard	Dryden Road	Create an alternative flood route to trail	62	
64	LTS 3	Separated Bike Lane	Brown Street	E Caldwell Street	Southern city boundary (south of Irving Avenue/Springhouse Road)	Create a connection through the South Park neighborhood that connects to existing facilities and destinations	55	
65	LTS 3	Separated Bike Lane	Springhouse Road, Irving Avenue	Trail	Dayton-Kettering Connector Trail	Create a connection through south Dayton that connects to existing facilities and destinations	43	
66	N/A	Shared Use Paths	Along Wolf Creek	Rosedale Drive/ Wolf Creek Trail	N Paul Laurence Dunbar Street	Create access to existing facilities, on the northern side of the river, in west Dayton	53	
67	N/A	Shared Use Paths	Former Rail Line	N James H McGee Boulevard	W 3rd Street and Abbey Avenue	Create a connection, through west Dayton, near the former rail line, that connects to existing facilities and destinations	51	Yes; Connection to Westwood Elementary School and Thurgood Marshall High School
68	LTS 3	Separated Bike Lane	Superior Avenue	Rosedale Drive	Salem Ave	Create a connection, through northwest Dayton neighborhoods, that connects to the Gem City Market	36	
69	LTS 3	Separated Bike Lane	E Fairview Avenue, W Fairview Avenue, Benson Drive	W Hillcrest Avenue	Riverside Drive	Create a connection to multiple destinations including Fairview Park, Fairview PreK-6, Edwin Joel Brown Middle School, the Dayton Metro Library - Northwest Branch, and future bike paths along Riverside Drive	46	Yes; Connection to Edwin Joel Brown Elementary School and Fairview Elementary School
70	LTS 1	Bicycle Boulevard	McClure Street, Fillmore Street	E 5th Street	Wyoming Street	Create a connection between St. Anne's Hill and Twin Towers	50	Yes; Connection to Ruskin Elementary School
71	LTS 4	Separated Bike Lane or Shared Use Paths	Lakeview Avenue, Lakeside Drive, Home Avenue	Germantown Street	McCall St	Create a neighborhood connection and alternate path for Germantown Street to Lakeview Park	35	
72	LTS 3	Separated Bike Lane	S Broadway Street, Dona Avenue	Nicholas Road	Home Avenue	Create a connection through west Dayton that connects multiple neighborhood destinations, existing bike lanes, and proposed bike lanes	10	
73	LTS 1	Bicycle Boulevard	James H McGee Boulevard	Rosedale Drive	McCall Street	Create a connection south from existing Wolf Creek Trail	64	

Project ID	Level of Traffic Stress (LTS)	Туре	Street Name	Start	End	Description	Prioritization Ranking	Candidate for SRTS
74	LTS 1	Bicycle Boulevard	Home Avenue, Adelite Avenue, Frontage Street	S James H McGee Boulevard	S Ardmore Avenue/McCall Street	Create a neighborhood connection to existing bike lanes	69	
74	LTS 1	Bicycle Boulevard	Adelite Avenue	Home Avenue	McCall Street	Create a neighborhood connection to existing bike lanes	69	
75	LTS 3	Separated Bike Lane	Danner Avenue	Germantown Street	Guthrie Road	Create a north/south neighborhood connection	47	Yes; Connection to Louise Troy Elementary School
76	LTS 1	Bicycle Boulevard	Miami Chapel Road, Trieschman Avenue	Danner Avenue	Gillespie Park	Create a neighborhood connection that connects multiple schools and Gillespie Park	78	Yes; Connection to Louise Troy Elementary School
77	LTS 1	Bicycle Boulevard	Fillmore Street	Xenia Avenue	Wyoming Street	Create a neighborhood connection	66	Yes; Connection to Ruskin Elementary School
78	LTS 3	Separated Bike Lane	Woodbine Avenue	Watervliet Avenue	Iron Horse Trail	Create a neighborhood connection and connect to Belmont Park	41	
79	LTS 1	Bicycle Boulevard	Lynhurst Avenue	Belmont Park	Watervliet Avenue	Create a neighborhood connection and connect to Belmont Park	80	
80	LTS 1	Bicycle Boulevard	Nordale Avenue	Wilmington Avenue	S Smithville Road	Create a neighborhood connection and connect to Nordale Park	81	
81	LTS 3	Separated Bike Lane	Patterson Road	Kling Drive	Eastern city boundary (east of Watervliet Avenue)	Create a neighborhood connection	40	
82	LTS 3	Separated Bike Lane	E 1st Street	N Keowee Street	N Findlay Street	Connect to programmed bike lanes and into downtown	57	
83	LTS 3	On Street	N Wilkinson Street	W Monument Avenue	W 5th Street	Connect to funded and existing bike lanes		
84	LTS 3	Path	Trail (partially alongside McCall Street)	S Gettysburg Avenue	Shared Use Path (Frontage Street)	Connect to proposed and existing facilities		
85	N/A	Path	Trail	Zion Avenue	Clement Avenue/Paul Laurence Dunbar High School	Create connections to schools and existing bike facilities		Yes; Connection to Paul Laurence Dunbar High School and Louise Troy
86	N/A	Path	Trail (alongside Fishburg Rd)	Great Miami River Trail	Eastern city boundary	Create a connection to the Great Miami River Trail		
87	N/A	Path	Trail (alongside Harshman Road)	Mad River Trail	Northern city boundary (south of OH-4)	Create a connection to the Mad River Trail		
88	N/A	Path	Trail (along rail)	Great Miami River Trail	Mad River Trail	Create a connection from the Great Miami River Trail to the Mad River Trail		

Table 5: Sidewalk Project Recommendation

Project ID	Street Name	Start	End	Description	Prioritization Ranking	Са
Α	Lindale Avenue	Woodhaven Avenue	Embury Park Road	Connect neighborhood residents to park	18	
В	Linden Avenue	Hearthstone Drive	Iron Horse Trail	Close sidewalk gap to Iron Horse Trail and add sidewalk to north side because there are transit stops with now sidewalk	12	
С	Oakridge Drive	Almond Avenue	Elmhurst Road	Close sidewalk gap on south side of street near International School	16	Ye Re M
D	Emhurst Road	Kammer Avenue	Oakridge Drive	Close sidewalk gap on east side of street near International School	15	Ye Re M
Е	E Siebenthaler Avenue	Deweese Parkway	Hilmont Avenue	Connect neighborhood to parks	2	
F	E 4th Street	Wyandot Street	Wayne Avenue	Close sidewalk gap	6	
G	Nicholas Road	McArthur Avenue	East of Danner Avenue where the sidewalk begins	Close sidewalk gap	10	Ye
Н	Nicholas Road	Albritton Avenue	East of Danner Avenue where the sidewalk begins	Close sidewalk gap	13	Ye
I	S Edwin C Moses Boulevard	S Broadway Street	Trail	Close sidewalk gap	1	
J	S Edwin C Moses Boulevard	East of Cincinnati Street	Arena Park Drive	Close sidewalk gap	4	
К	E 5th Street	Hamilton Avenue	Huffman Avenue	Close sidewalk gap	9	
L	Richley Avenue	Danner Avenue	Paul Laurence Dunbar High School	Close sidewalk gap	17	Ye Tı Hi
М	E Monument Avenue	Keowee Street	N Findlay Street	Close sidewalk gap	7	
Ν	W Siebenthaler Avenue	Klepinger Road	Philadelphia Drive	Close sidewalk gap	11	
0	Ridge Avenue	Deweese Parkway	N Dixie Drive	Close sidewalk gaps and connect neighborhoods to surrounding parks	8	
Р	Old Troy Pike	Kelly Avenue	City of Dayton Corp Line	Close sidewalk gap	3	
Q	Brandt Street	Bickmore Avenue	City of Dayton Corp Line	Close sidewalk gap	5	
R	Valley Street	St Aldalbert Avenue	City of Dayton Corp Line	Close sidewalk gap	14	

andidate for SRTS

es; Connection to the International School at esidence Park and existing sidewalks near Thurgood Iarshall High School es; Connection to the International School at

Residence Park and existing sidewalks near Thurgood Marshall High School

es; Connection to Paul Laurence Dunbar High School

es; Connection to Paul Laurence Dunbar High School

es; Connection to existing sidewalks near Louise roy Elementary School and Paul Laurence Dunbar igh School

ACTIVE TRANSPORTATION NETWORK RATIONALE

The primary goals of this plan are to increase the safety and convenience of walking and bicycling and to ensure the equitable implementation of future investments. To that end, recommendations include a variety of route options; those which add choice in areas with some infrastructure available already and others which intentionally add new connections for neighborhoods without current, easy access to desired destinations, such as our regional trail network, groceries, parks, and schools. The plan recommends facility types that will accommodate the majority of community members, focusing on designs that provide the highest level of safety and access so that all users might feel comfortable bicycling or walking. The recommendations outlined in Figure 17, Table 4, and Table 5**Error! Reference source not found.** add 10 miles of sidewalks, 124 miles of on-street bikeways, 12 miles of shared use paths, and 252 intersection or crossing improvements. The following section goes into more detail on how and why facilities in the network were selected.

Pedestrian Facilities

Pedestrian infrastructure is primarily provided in the form of sidewalks and improved crossings, including both at intersections and midblock. The presence of sidewalks along a roadway corresponds to a 65 to 89 percent reduction in walking along road pedestrian crashes.¹⁰ Pedestrians are also among the most vulnerable road users and 72 percent of pedestrian fatalities occur at non-intersection locations.¹¹ Sidewalk recommendations were made based on a sidewalk gap analysis, pedestrian activity analysis, and conversations with the community. Additional treatments implemented along roadways and enhanced crossing facilities would improve the user's experience, encourage more walking, and decrease the number of crashes that occur. Crossing enhancements will be decided after further analysis. However, possible types of improvements could include high-visibility crosswalks, signage, curb extensions, pedestrian refuge islands, rectangular rapid-flashing beacons (RRFB), and/or pedestrian hybrid beacons (PHB).

Bicycle Facilities

Local infrastructure and routes will help riders of varying abilities access their daily destinations such as schools, grocery stores, parks, and work. There are several important factors to consider during bicycle facility selection, such as design users (which types of bicyclists, "users," feel comfortable using a given facility, "design") and roadway conditions. This section describes the different types of bicyclists: highly confident, somewhat confident, and interested but concerned - who make up the majority of the population. It also introduces the Federal Highway Administration (FHWA) bicycle facility selection matrix that identifies what type of facility is appropriate for the majority of bicyclists based on speed, volume, and context.

Bicycle recommendations were made based on the analyses that were performed. These analyses included a needs and demand analysis, equity analysis, Streetlight analysis to understand where bicycle activity was located, and a gaps and barriers analysis. Additionally, public engagement and conversations with the community were taken into account when making recommendations.

¹⁰ FHWA (2017). Desktop Reference for Crash Reduction Factors, FHWA-SA-08-011, Table 11. Referenced in https://safety.fhwa.dot.gov/provencountermeasures/walkways/

¹¹ FHWA (2018). Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations, Page 1.

 $https://safety.fhwa.dot.gov/ped_bike/step/docs/STEP_Guide_for_Improving_Ped_Safety_at_Unsig_Loc_3-2018_07_17-508 compliant.pdf$

Design Users

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

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.
- » Tend to bicycle for recreation but not transportation.
- » Generally, the recommended design user profile to maximize the potential for bicycling.

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, such as urban, suburban, rural town or rural roadways (see Figure 23, Figure 24, and Figure 25.). People who bicycle are influenced by their relative comfort operating with or near motor vehicle traffic. To accommodate the majority of the population, the "Interested but Concerned" rider should be the primary user type that facilities are designed for. In some contexts, such as rural roadways where fewer people bicycling may be expected, the Somewhat Confident or Highly Confident rider is the most relevant design user.



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 for utilitarian purposes, such as commuting or running errands, is a potential destination for bicycling. National best practices for planning connected low-stress bicycle networks are not based on simply avoiding motor vehicle traffic. Rather, they recommend lowering stress along higher traffic corridors so that bicycling can be a viable transportation option for the majority of the population. City of Dayton planners and engineers will apply this national best practice when designing new facilities.

Before projects can be implemented, the type of on-street bicycle facility will need to be defined. The <u>Federal Highway Administration (FHWA)'s Bikeway Selection Guide</u>'s facility selection matrices (Figure 24 and Figure 25) will 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 details on facility selection.



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.

Figure 24: FHWA Bikeway Facility Matrix: Preferred Bikeway Type for Urban, Urban Core, Suburban and Rural Town Contexts (Design User: Interested but Concerned)



Notes

- Chart assumes operating speeds are similar to posted speeds. If they differ, use operating speed rather than posted speed.
- 2 If the percentage of heavy vehicles is greater than 10%, consider providing a wider shoulder or a separated pathway.

Figure 25: Preferred Bikeway for Highly Confident Bicyclists in Rural Contexts (Modified FHWA Bikeway Facility Matrix)

¹² AASHTO (2021). Guide to Bicycle Facilities, 4th Edition, 2.2. Why Planning for Bicycling is Important.

Facility Toolkit

This toolkit was created as part of ODOT's Active Transportation Plan Development Guide, created in 2021. The City of Dayton is adopting these national standards as a guide for developing future facilities.

There are numerous facility types which accommodate people of varying abilities and in different environments. Research shows that the provision of low-stress, connected bicycle networks improves bicyclist safety and encourages bicycling for a broader range of user types.¹² Pedestrian infrastructure is primarily provided in the form of sidewalks. The following pages include descriptions of pedestrian and bicycle facilities and links to further references.

Sidewalks

Sidewalks are intended to be used by people walking. 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. For further guidance on pedestrian design, refer to <u>ODOT's Multimodal Design</u> <u>Guide, Chapter 4 -Pedestrian Facilities.</u>

Crossing Improvements

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 highvisibility crosswalks, to signs, lights, and signals. Painted crosswalks delineate the safest pathway for pedestrians, and rectangular rapid flashing beacons (RRFBs) enhance user safety and convenience at crossing points when full signalization is not warranted. For further guidance on pedestrian design, refer to ODOT's Multimodal Design Guide (MDG) Chapter 4 -Pedestrian Facilities, MDG Chapter 8 – Signals, Beacons, and Signs, and

FHWA's Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations.

Bicycle Facilities

As part of the existing conditions assessment, the project team conducted a Level of Traffic Stress (LTS) analysis, which uses broadly available road characteristics to classify the experience of riding a bicycle on different streets. The LTS analysis grouped roads into one of four categories:

» LTS 1 – A low stress facility suitable for all ages and abilities. These facilities have strong separation from motor vehicle traffic or are well-established on low speed, low volume roads.



- » LTS 2 A facility suitable for people who are "interested but concerned" about riding a bicycle, which includes most adults and families. These facilities are separated from moderate speed and multilane roads or are shared lanes on lower speed, lower volume roads.
- » LTS 3 A facility suitable for people who are "enthused and confident" about riding a bicycle. These facilities are shared lanes on moderate speed or separated from multilane, medium to high volume, and higher speed roads.
- » LTS 4 A high stress facility is uncomfortable for most adults. These facilities are mixed flow on moderate speed or higher volume roads or in close proximity to high speed, high volume, or multilane roads.

Table 6, defines the appropriate bicycle facility or facilities based on the roadway's LTS score. For further guidance on bicycle infrastructure design, refer the following ODOT Multimodal Design Guide chapters:

» <u>Chapter 5 – Shared Use Paths</u>

- » <u>Chapter 6 On-Road Bicycle Facilities</u>
- » <u>Chapter 7 Motor Vehicle Facilities Supporting Multimodal Accommodation</u>
- » <u>Chapter 9 Multimodal Accommodations at Interchanges & Alternative Intersections</u>

Table 6: Bicycle Facilities by Level of Traffic Stress

Level of Traffic Stress (LTS)	Type of Facility	Description
LTS 1	Bicycle Boulevard	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, traffic calming, and intersection treatments need to be incorporated into bicycle boulevards to increase user comfort and prioritize bicycle travel.
LTS 2	Paved Shoulder	Providing additional pavement width outside of the travel lanes can reduce crashes, aid maintenance, and provide space for bicyclists. Additional benefits include reducing pavement edge deterioration, accommodating oversize and maintenance vehicles, and providing emergency refuge for public safety vehicles and disabled vehicles. Paved shoulders should be accompanied by signage.
LTS 2	Bike Lane / Buffered Bike Lane	Bike lanes and buffered bike lanes are 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.
LTS 3 and LTS 4	Separated Bike Lane	A separated bike lane is a one- or two-way facility 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 increased safety and comfort.
LTS 4	Shared Use Paths	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 and can be located along roadways or completely separated from the road network, sometimes along rivers or old railroad corridors.

PROGRAMS AND POLICIES

The City of Dayton recognizes the importance of establishing safe and convenient active transportation infrastructure in improving walking and bicycling conditions. In addition, there is a recognition that without programs and policies in place that support active transportation the full benefits of the implemented infrastructure projects will not be realized. The programs and policies identified within this chapter, if implemented, will increase pedestrians' and bicyclists' safety by establishing a culture of walking and bicycling and creating a friendly regulatory and political environment for active transportation.

Many of the programs and policies identified can be implemented relatively quickly and inexpensively. We will work to scale programs to a wide audience when possible, such as elementary school students, transit riders, or business owners. Others will be targeted to specific groups such as speeding motorists in school zones. The city will work with our local and regional Active Transportation partners to coordinate policy development in parallel with the creation and activation of individual programs to ensure lasting change.
See Table 7 for a list of proposed programs and policies. These proposed programs and policies respond to the Dayton Active Transportation Plan's goals and aim to accomplish the following:

- » **Foster culture change:** Shift community members mindset so that walking and bicycling is normal and expected.
- » **Maintain momentum:** Help maintain momentum and excitement around active transportation while infrastructure projects are in development.
- » **Build support:** Encourage new people to try active transportation and help community partners recognize the value of increased active transportation options.
- » **Support efficient operations and maintenance:** Help institutionalize best practices in active transportation operations and maintenance.

The timeframes outlined in Table 7 are defined as follows:

- » **Short-term:** One to two years
- » Medium-term: Two to five years
- » Long-term: Five years or more

The status of programs and policies should be assessed and updated each time the Plan is updated. Status is defined as:

- » New: A program or policy that is proposed in this Plan.
- » **Ongoing:** An existing program or policy that will be continued.
- » **On-hold:** A program or policy that has been stalled or deferred.

Completed: A program or policy that is concluded and will not continue or the objective was met.

Table 7: Program and Policy Recommendations

Program/ Policy	Description	Responsible Party	Potential Partners	Time- frame	Status
Goal: Education	and Outreach				
Trainings & Curricula	Train teachers on safe walking and bicycling practices and road rules so that they can educate students on safe walking and bicycling practices. Training for students and youth could be part of classroom curriculum, physical education courses or through the Safe Routes to School (SRTS) program.	City of Dayton	City of Dayton; Dayton Public Schools; Bike Miami Valley; Dayton Children's Hospital	Medium- term	New and Ongoing
Bicycle and Pedestrian Safety Training, Policies, and Conversations with Police Department	A series of trainings and community conversations with the City of Dayton Police Department to learn about bicycle and pedestrian safety, policies, and laws and how to positively interact with the bicycle and pedestrian community. A related Police Reform Working Group initiative that can be incorporated into these trainings, is <u>Training</u> <u>Recommendation 21</u> focused on making data collection from bias-free policing policy publicly available including data on race and gender on all traffic stops (driver only) and traffic crashes (driver only).	City of Dayton; Police Department	Bike Miami Valley; Welcome Dayton; immigrant support organizations	Long- term	New

Program/ Policy	Description	Responsible Party	Potential Partners	Time- frame	Status
Community Ambassadors	Establishing a community ambassador program where community members can lead initiatives that promote active transportation and educate Dayton community members about traffic safety. The ambassador can help develop recommendations to develop safe, viable, and accessible transportation options as well as be a spokesperson for key updates regarding active transportation projects in Dayton. This could be training a volunteer from each Neighborhood Association. One example of an initiative that community ambassadors can lead, is bicycle registration. Bicycle registration programs are typically managed at the local level through municipal police departments, though there are non-profit bicycle registration programs across- jurisdictional boundaries. Registration programs record information about the bicycle and the bicycle owner, stored in an online database that increases the rate in which stolen bicycles are returned to their owners without requiring much effort and funding by the police Department. The Dayton Police Department can pull statistics on bicycle theft to understand if a bicycle registration programs and engagement with the Police Department to ensure they are up to date on the active transportation education and traffic safety.	City of Dayton; Neighborhood Associations	BIPOC, elderly, racial equity groups, disability advocacy groups, immigrant support organizations, Welcome Dayton	Short- term	New
Bicycle Friendly Businesses	Bicycle friendly businesses encourage people to ride a bicycle by providing incentives to customers who arrive by bicycle. Incentives include providing bicycle parking (sometimes on-street bicycle corrals or custom designed bicycle racks), a repair station, or hosting bicycle events at their business. Businesses participating in bicycle friendly businesses often display a sign provided by the program that states they are a bicycle friendly business. These programs are often managed by local bicycle advocacy organizations, like Bike Miami Valley's, municipal planning or transportation departments, or local chambers of commerce.	Bike Miami Valley	Local businesses and business associations; Bike Dayton Chapter	Short- term	New

Program/ Policy	Description	Responsible Party	Potential Partners	Time- frame	Status
Dayton Bike Route Map and Educational Resources	Create an updated bicycle route map for the City of Dayton. The goal for the City's bicycle map is to host an interactive version on the web versus printing annual updates with destinations, city parks, MetroParks, Miami Valley Trail connections (regional map), accommodations, libraries, and schools identified. This could also include educating people on how to report maintenance issues for active transportation facilities through the Dayton Delivers App.	City of Dayton	Bicycles for All; Bike Miami Valley	Short- term	New and Ongoing
Walking and Bicycling Events	Host organized events focused on using active transportation. This could include events, such as themed walking tours to encourage walking in different parts of the city, how we roll rides, and bike month events. Events could highlight city history, focus on health (like past "Walk with a Doc" programs), and/or be aimed at a specific age or socio-demographic.	City of Dayton; Neighborhood Associations; Dayton Public Schools; Greater Dayton Boys & Girls Club	Downtown employees and businesses; Downtown Dayton Partnership; Community Ambassadors	Short- term	Ongoing
League of American Bicyclists: Bicycle Friendly Community Program Goal: Health a	The League of American Bicyclists' (LAB) is a national cycling advocacy organization and helps provide guidelines for communities to improve cycling conditions. The City of Dayton is currently at Bronze status. The city can review what steps are needed to achieve Silver status and work toward Silver status as the Plan is implemented.	City of Dayton	League of American Bicyclists; Five Rivers MetroParks; Bike Miami Valley	Short- term	Ongoing
Adopt a Vision Zero policy and Vision Zero Action Plan for Dayton	A Vision Zero Policy commits Dayton to working towards zero traffic-related deaths and serious injuries. A Vision Zero Action Plan would clearly outline departmental responsibilities and a decision-making framework for the City of Dayton to prioritize actions that will help the city eliminate traffic-related deaths and serious injuries. Vision Zero can be incorporated in the City's Safe Street and Roads for All Action Plan	City of Dayton		Medium- term	New

Program/ Policy	Description	Responsible Party	Potential Partners	Time- frame	Status
Make it easier for people to choose active transportation modes	Support public education and outreach initiatives aimed at giving Dayton residents the information, skills, and practical experience to take advantage of alternatives to driving a car. Examples include individualized assistance with transit or multi-modal trip planning, learning how to use bus-mounted bicycle racks and getting paired with a bicycle buddy for first-time bicycle commuters. This could include promoting MVRPC's <u>Drive Less, Live More</u> program and <u>Miami Valley Rideshare</u> Program. This program allows residents to map their route, find others to join their bicycle commute, and track their CO2 emissions and money saved for each bicycle trip made. Additional considerations could include making bike share more accessible through public access programs, discounts, and new partnerships.	Miami Valley Regional Planning Commission; Gohio	City of Dayton; Greater Dayton Regional Transit Authority; Bike Miami Valley	Long- term	Ongoing
Automated Speed Camera Enforcement	Speeding is a primary factor in crashes. Speed safety systems have been shown to reduce violations and crashes dramatically at locations where they are deployed. Speed cameras will photograph a motor vehicle's license plate if the driver is speeding and then the vehicle owner or driver is sent a ticket. People of color are disproportionately harmed by traffic violence. Carefully deploying automated traffic enforcement systems to reduce speeding, crash-related injuries, and property damage can also help reduce racial biases. Currently, temporary speed enforcement cameras are used in several school zones in Dayton. Depending on state legislation, the city can consider expanding the use of cameras to other areas of the city. In addition, the city could explore graduated ticketing based on income, so that ticketing does not disproportionately impact people with lower incomes.	Police Department	City of Dayton	Medium- term	New and ongoing
Goal: Alignmen Pursue grant funding sources for pedestrian and bicycle facilities	nt and Collaboration Coordinate funding for pedestrian and bicycle facilities across departments as appropriate. Pursue federal, state, and regional grants and funding.	City of Dayton; Miami Valley Regional Planning Commission		Long- term	Ongoing

Program/ Policy	Description	Responsible Party	Potential Partners	Time- frame	Status
Develop an internal protocol system to address active transportation issues and complaints	Establish a standard protocol where issues, requests, and complaints are properly filtered and sent to the correct department in Dayton to address the request, issue, or concern. Coordinate with regional partners to establish a cross-organization protocol for the regional trail network.	City of Dayton	Miami Valley Regional Planning Commission; Five Rivers MetroParks; Miami Conservancy District	Medium- term	New
Review and update city maintenance practices for walking and bicycling facilities and coordinate with regional agencies	Review and update city maintenance practices for walking and bicycling facilities, such as routine maintenance and snow removal.	City of Dayton	Miami Valley Regional Planning Commission; Five Rivers MetroParks; Miami Conservancy District	Medium- term	New
Bike.Walk.Ride Annual Action Plan and Community Conversations	Establish a charter for the Bike.Walk.Ride committee that defines the committee's goals and annual action items. Propose that they lead the conversation and document progress for each goal (education and outreach, health, and safety, etc.). The committee members should reflect the diversity and lived experiences of Dayton residents.	Bike.Walk.Ride Committee	City of Dayton Commission	Medium- term (annual)	New
Actively participate in the Miami Valley's Regional Active Transportation Committee	Continue to actively support and collaborate with neighboring jurisdictions on the implementation of the Regional Active Transportation Plan.	City of Dayton	Miami Valley Regional Planning Commission; Bike Miami Valley; Rails to Trails; Neighboring jurisdictions	Short- term	Ongoing
Update policies and guidelines	Update existing policies and guidelines to reflect the current best practices for traffic safety, active transportation, such as Bike Parking Guidelines, Rules and Regulations of Electric Transportation Devices, design standards, land use, development review, and 85 th percentile speed-setting, etc.	City of Dayton		Short- term	New

Program/ Policy	Description	Responsible Party	Potential Partners	Time- frame	Status
Expand access to free and low- cost bicycles and gear	Many populations, including older adults, children and teens, people with disabilities, low-income people, people of color, and people experiencing homelessness often lack access to bicycles. Work with bicycle shops and charities to provide refurbished, free, or affordable bicycles, e-bikes, cargo bicycles, and trikes or other adaptive devices. Explore developing a bicycle library where bicycles can be checked out or a bicycle and gear giveaway program for low-income community members, including children, to foster a culture of safe riding practices; include high-quality locks, lights, baskets or panniers, and helmets. Consider subsidizing bike share memberships to increase accessibility.	City of Dayton	Bicycles for All; Local Businesses; Miami Valley Regional Planning Commission; Shelters; Dayton Children's Hospital; private foundations	Short- term	New
Public Participation and Compensation	To better understand and address the active transportation needs of historically marginalized communities, formalize community engagement practices that partner with Black, Indigenous, and people of color (BIPOC) community organizations and compensate community members for their time. Topics to discuss could include traffic safety and data or topics historically marginalized communities would want to discuss with the police department. Consider engaging with civil liberty, racial equity, and economic justice organizations. The city could explore funding options for a Health Equity Coordinator(s) position to oversee these efforts and/or ongoing engagement efforts could be tasked to the Bike.Walk.Ride Committee.	City of Dayton	Community partners with representation from BIPOC, racial equity, environmental justice, and elder affairs organizations	Long- term	New
Scooter Share	Similar to a rideshare, provide residents with scooter share options within the Miami Valley Region and Dayton, Ohio. In collaboration, the city should look to expand the service area to underserved communities and offer discounted membership for low-income residents.	Scooter Share companies	City of Dayton	Medium- term	Ongoing

Program/ Policy	Description	Responsible Party	Potential Partners	Time- frame	Status
Dayton Bike Share (Link)	Founded in 2015, Link is the Dayton bike sharing system. It is a hub-based system that allows users to access bikes at 37 different locations in Dayton. Users can use the bike share system through an app. Since launching, 18,500 users have taken over 140,000 trips. Dayton Bike Share is operated by Bike Miami Valley. Expand the bike sharing program by establishing more hubs in underserved communities the City of Dayton and Bike Miami Valley, should explore offering discounted membership for low-income residents.	Bike Miami Valley	City of Dayton; Greater Dayton RTA	Long- term	Ongoing
Spread transit awareness	In collaboration with the Greater Dayton RTA, continue to promote transit to help community members learn about different public transit options (SMART, FAST, Paratransit).	Greater Dayton RTA	City of Dayton	Long- term	Ongoing
Increase transit access	Ensure safe and comfortable walking and bicycling connections to all RTA stops and transit centers within the city. Efforts can include identifying, prioritizing, and filling gaps in sidewalks, and ensuring midblock bus stops have a safe crossing. Work with RTA to design better lighting for bus stops and to coordinate funding for shelters and benches at bus stops.	City of Dayton	Greater Dayton RTA	Medium- term	New
Install Bicycle Racks	Businesses, schools, and key destinations can help encourage bicycling by providing bicycle parking. Work with local businesses to sponsor bicycle racks, especially indoor or sheltered bicycle parking.	City of Dayton	Local businesses	Short- term	Ongoing
Demonstration Projects	Familiarize community members with bicycle or pedestrian infrastructure through a demonstration project. This will provide a greater understanding of how the public will react to change. Additionally, demonstration projects allow for the public to give feedback and provide support if they are in favor of the project.	City of Dayton		Medium- term	New

Program/ Policy	Description	Responsible Party	Potential Partners	Time- frame	Status
Open Streets	Work in collaboration with partner organizations to develop a toolkit for a program that opens streets to people walking and bicycling by temporarily closing access to motorists. Open Streets events give communities another perspective of how streets can be used for active modes and encourage people to walk and bicycle.	City of Dayton	Downtown Dayton Partnership; Neighborhood business associations; Dayton Police; pedestrian and cycling advocacy organizations	Medium- term	New and ongoing
Wayfinding Program	Identify key neighborhood destinations and paths and establish wayfinding signage to guide people walking and bicycling. Signs can focus on community nodes such as Downtown Dayton, commercial areas, parks, schools, etc. The wayfinding program would be linked to the Dayton Bike Route Map. Downtown wayfinding signs have been designed for downtown and the City can support Downtown Dayton Partnership in the implementation of those signs.	City of Dayton	Downtown Dayton Partnership; CityWide Development	Medium- term	New and ongoing

PRIORITY PROJECTS



PRIORITY PROJECTS

The infrastructure recommendations in the previous chapter are conceptual routes, meant to show the potential of a comprehensive active transportation system for Dayton. 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. The City will balance best practices regarding accessible design with the on-the-ground constraints for each individual route identified in this plan. This process will include community engagement and vetting of potential options with stakeholders to ensure the best possible solution is found.

Project prioritization uses measurable data to determine which projects are both feasible, given real-world constraints, and align with stakeholders' priorities. 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, Dayton should re-evaluate the priority list to track which projects have been implemented and make adjustments as needed.

PRIORITIZATION METHODOLOGY

As with most municipalities, Dayton, has a limited amount of funding with which to build bicycle and pedestrian infrastructure. Because of this, it's important that the projects providing the most benefit be prioritized over others. The prioritization in this plan is a data-driven process that uses source GIS datasets to score and rank projects based on conditions in their relative locations.

Outlines of variables and associated weights used for each of the facility prioritization (sidewalks, bikeways, and intersections) can be found in Table 8, Table 9, and Table 10. The results of the prioritization are noted in Table 4 and Table 5 and displayed in Figure 26, Figure 27, and Figure 28.

Table 8. Sidewalk Project Prioritization

Category	Weight	Variable	Description
		High Risk Network	Projects receive a point if identified as <u>high risk</u> in the high-risk network.
		Level of Traffic Stress	Project receive more points the higher the level of traffic stress on the street:
Safety	35		 » LTS 4 = 1 pts » LTS 3 = .67 pts » LTS 2 = .34 pts » LTS 1 = 0 pt
Synergy	15	Synergy	Projects receive a point for overlap with ODOT District Work Plan projects or city-identified project. Projects receive a point if it is within 100 ft of one of the planned or funded projects or ODOT workplan projects meeting specific criteria.
Connections	20	Connections to existing infrastructure	Counts the number of connections to existing projects (including projects outside of Dayton City boundary). Any other project within 200 feet of a project counts as a connection.
Equity	30	Needs Analysis	Based on <u>ODOT's Walk.Bike.Ohio efforts</u> . The higher the need, the higher the points. Indicators: Minority Groups, Youth, Older Adults, Poverty, No High School Diploma, Limited English Proficiency, and No Access to a Motor Vehicle
		Demand Analysis	Based on ODOT's Walk.Bike.Ohio efforts. The higher the demand, the higher the points. 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. It is important to note that areas with higher rates of disparity, costs are ranked higher.
		Equity Analysis	Based on the City's Equity Index. The higher the disparity, the higher the points. The four equity index categories are: accessibility, livability, economy, and education.
			 Medium - Low = 2 pts Medium - Low = 2 pts Lower Disparity = 1 pt



Figure 26: Sidewalk Project Prioritization

City of Dayton

Sidewalk Prioritization (August 2023)



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Table 9. Bikeway Project Prioritization

Category	Weight	Variable	Description
		High Risk Network	Projects receive a point if identified as <u>high risk</u> in the high-risk network.
		Level of Traffic Stress	<i>Project receive more points the higher the level of traffic stress on the street:</i>
Safety	30		 » LTS 4 = 1 pts » LTS 3 = .67 pts » LTS 2 = .34 pts » LTS 1 = 0 pt
Synergy	15	Synergy	Projects receive a point for overlap with ODOT District Work Plan projects, Dayton Riverfront Plan, and city- adopted plans.
		Connections to existing infrastructure	Counts the number of connections to existing projects (including projects outside of Dayton City boundary). Any other project within 200 feet of a project counts as a connection.
Connections	20	Non-motorized Activity (Streetlight)	The higher the bicycle or walk activity the more points: » Highest = 1 pts
			 » High = .5 pts » Moderate = .25 pt
Public Engagement	10	Public Engagement	Based on public online survey. The more "votes" a project received the more points.
	25	Needs Analysis	Based on <u>ODOT's Walk.Bike.Ohio efforts</u> . The higher the need, the higher the points. Indicators: Minority Groups, Youth, Older Adults, Poverty, No High School Diploma, Limited English Proficiency, and No Access to a Motor Vehicle
Equity		Demand Analysis	Based on ODOT's Walk.Bike.Ohio efforts. The higher the demand, the higher the points. 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. It is important to note that areas with higher rates of disparity, costs are ranked higher.
		Equity Analysis	Based on the City's Equity Index. The higher the disparity, the higher the points. The four equity index categories are: accessibility, livability, economy, and education.
			 » Higher Disparity = 4 pts » Medium-High = 3 pts » Medium - Low = 2 pts » Lower Disparity = 1 pt



Figure 27: Bikeway Project Prioritization

City of Dayton

Bikeway Prioritization (August 2023)



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Table 10. Intersection Prioritization

Category	Weight	Variable	Description	
Safety	50	High Risk Network	Projects receive a point based on if they are medium or high risk identified in the high-risk network.	
Synergy	10	Synergy	Projects receive a point for overlap with ODOT District Work Plan projects or city-identified project.	
		Needs Analysis	Based on <u>ODOT's Walk.Bike.Ohio efforts</u> . The higher the need, the higher the points. Indicators: Minority Groups, Youth, Older Adults, Poverty, No High School Diploma, Limited English Proficiency, and No Access to a Motor Vehicle.	
Equity	40	Demand Analysis	Based on <u>ODOT's Walk.Bike.Ohio efforts</u> . The higher the demand, the higher the points. 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. It is important to note that areas with higher rates of disparity, costs are ranked higher.	
		Equity Index	Based on the City's Equity Index. The higher the disparity, the higher the points. The four equity index categories are: accessibility, livability, economy, and education.	



Figure 28: Intersection Project Prioritization

City of Dayton

Intersection Prioritization (August 2023)



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HIGHLIGHTED PRIORITY PROJECTS

Project 12 (W 3rd Street from western city boundary to Williams Street)

This project would be a major east/west route that connects existing facilities in the Wright Dunbar Business District and multiple destinations along 3rd Street, including the Westown Shopping Center, Dayton VA Medical Center, Dayton Metro Library West Branch, and the Greater Dayton Recreation Center. Based on the Level of Traffic Stress of 4, the facility should be a separated facility. A visualization of what the facility could look like is shown in Figure 29.



Figure 29: Visualization for Project 12

Project 12 will connect two, two-way cycle tracks; one on the south side of the street in the Wright Dunbar Business District and the second, a funded but not yet constructed track on the north side of the street in front of the Westown Shopping Center. Final design of the project is yet to be determined but may include a transition from the two-way cycle track on the south side of the street to the two-way cycle track on the north side of the street or a two-way cycle track on the south side of the street to one-way buffered bike lanes. An example of a two-way cycle track transition to a two-way sidepath located in Xenia, OH from N Detroit Street to the Little Miami Scenic Trail is shown in Figure 30.



Figure 30: Transition from two-way cycle track to sidepath in Xenia, OH (Source: Google Maps)





Figure 31: Transition from two-way cycle track to buffered bike lanes in Bentonville, AR.

Project 38 (W Stewart Street and Randolph Street from S Edwin C Moses Boulevard to McCall Street) This project would be an east/west bikeway that connects existing bike lanes that run from Germantown Pike to Danner Avenue to the Stewart Street Bikeway that begins at the Stewart Street bridge and runs east to Brown Street. Multiple destinations are located along this path including the Boys and Girls Club of Dayton, Gillespie Park, Five Rivers Health Centers, Dayton Bike Yard, and the University of Dayton. Based on the Level of Traffic Stress of 3, the facility should be a separated facility. A visualization of what the facility could look like is shown in Figure 32.



Figure 32: Visualization Project 38

Project 49 (E Monument Avenue from N Jefferson Street to N Keowee Street)

This project would create a route that connects existing facilities and destinations along the riverfront and downtown such as Day Air Ballpark and RiverScape MetroPark. Intersection improvements could include shifting the traffic signal to a three-way stop and installing a raised intersection. Improvements along E Monument Avenue could include converting the street from one-way to two-way traffic, maintaining on-street parking on the north side of the street, and a shared bike lane. There should also be consideration for lowering the posted speed from 35 mph to 25 mph since there is a proposed shared bike lane and traffic calming features being added to the street. This could be done by creating a Downtown Business District. A visualization of what the facility could look like is shown in Figure 33.



Figure 33: Visualization of Project 49

IMPLEMENTATION



IMPLEMENTATION

ROLES AND RESPONSIBILITIES

The creation of this plan and final recommendations intentionally focused on collaboration and community input; implementation will follow the same standard. The City of Dayton has a Bike.Walk.Ride committee with members from a diverse group of community health and recreation organizations, bike advocacy groups, planning and park agencies, and community representatives. This committee will be a key partner in guiding and tracking implementation of Dayton's 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 physical network as well as partners in designing, developing, and implementing community programs. See Table 11 for a list of responsibilities.

Table 11: Implementation Responsibilities

Agency	Responsibility	Description
	Support community and advocacy efforts	Convene Bike.Walk.Ride committee to establish a new structure, invigorate and expand membership, and adopt an annual work plan.
	to improve active	Attend neighborhood meetings to raise awareness of active
	transportation within	transportation activities and programs and share the final
Planning	the City	recommendations from the plan.
Division	Drive AT plan	Adopt and publish the Active Transportation Plan; posting a final update
	adoption and	to bikewalk.info/Dayton and establishing a new landing page for active
	implementation	transportation activities, programs, and reports.
		progress report.
	City owned facilities	Establish an annual review of street paving plan in comparison with the
		active transportation network to identify appropriate on-street facilities
		to complete.
		Evaluate and submit annual applications for new bicycle and pedestrian
		facilities (TA/CMAQ/STP/etc).
Public Works		Convene trail partners to establish, adopt, and/or update universal
Department		maintenance policy and practices for regional off-street trail network
		Undate maintenance policy for bicycle and pedestrian facilities
		Design and implement on annual architection of existing himsels and
		Design and implement an annual evaluation of existing dicycle and
		Design and build new active transportation facilities within City bounds
Montgomory	Country owned	Incompare biguing and walling facilities in county transportation
County	facilities	nroiects
Neighboring	City or township	Collaborate with City of Dayton when building or improving active
jurisdictions	owned facilities	transportation facilities to ensure a continuous system for users.
	State owned facilities	Incorporate bicycling and walking facilities into state and U.S. highways.
ODOT	outside of	Support the implementation of local projects through technical
	municipalities	resources and funding.
Miami	Levees and trails	Plan, design, implement, and maintain trails and trail networks.
Conservancy	under their	
District	jurisdiction.	
C ' D '	Trails and parks under	Plan, design, implement, and maintain trails and trail networks.
Five Rivers	their jurisdiction	Provide active transportation programming to Dayton residents at
Meti Orui KS		MetroPark locations including kayaking lessons, cycling facilities, and hiking
Greater	Transit facilities	Transit agencies provide seating, hicycle parking, hicycle racks on huses
Davton	i i anoit i aciitico	and other active transportation amenities to encourage first and last
Regional		mile connections.
Transit		Leverage investments for transit improvements to increase accessibility
Authority		of existing transit stops and add amenities where appropriate.

FUNDING STRATEGIES

Active transportation projects comprise a fraction of overall transportation network construction and maintenance. While pedestrian and bicycle 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 12 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 the Ohio Department of Health (ODH) have developed an <u>Active Transportation Funding Matrix</u>. Communities may use this tool to search for additional potential funding sources to support infrastructure and non-infrastructure projects that advance walking and bicycling. As part of the statewide Walk.Bike.Ohio Plan, ODOT published a <u>Funding Overview Report</u> that provides more details on types of funding available, schedules, and eligibility requirements. For information on funding for public transit, visit the <u>ODOT Office of Transit's website</u>.

Table 12: Primary Active Transportation Funds in Ohio

Funding Source	Distributed by	Eligible Project Examples	Eligible Project Sponsor
<u>Transportation</u> <u>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</u> <u>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</u> <u>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</u> <u>Space Conservation</u> <u>Program</u>	Ohio Public Works Commission (OPWC)	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
Small City Program	ODOT	Pavement Rehabilitation Roundabouts Signals Road diets	54 eligible small cities with populations of 5,000 to 24,999 that are not located within a Metropolitan Planning Organization's boundaries.

MAINTENANCE STRATEGIES

Concerns regarding maintenance of existing facilities across the city was one of the most common comments heard from residents and stakeholders. The city understands that 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 their accessibility, safety, and functionality. The strategies identified in this chapter are based on national best practices and were provided by ODOT's Active Transportation Plan Development Guide and will be used to guide policy and maintenance practice updates.

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 13). Creating a winter maintenance approach is important to encourage year-round travel by walking and bicycling. 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 <u>Toole Design's Winter Maintenance Resource Guide</u>.

Frequency	Facility Type	Maintenance Activity	
		Tree/brush clearing and mowing	
		Replace/repair trail support amenities (parking	
		lots, benches, restrooms, etc.)	
	Shared Use Paths	Map/signage updates	
		Trash removal/litter clean-up	
As Needed		Repair flood damage: silt clean-up, culvert clean-	
AJ Meeded		out, etc.	
		Patching/minor regrading	
	Shared Use Paths/ Separated Bike	Sweeping	
	Lanes / Paved Shoulders/ Bike lanes		
	Bicycle Boulevards	Sign replacement	
	Sidewalks	Concrete panel replacement	
Seasonal	All	Snow and Ice control	
	Shared Use Paths	Planting/pruning/beautification	
		Culvert/drainage cleaning and repair	
		Installation/removal of seasonal signage	
Yearly		Evaluate support services to determine need for	
	Shared Use Paths/ Sidewalks	repair/replacement	
		Perform walk audits to assess ADA compliance of	
		facilities	
	Separated Bike Lanes / Paved	Surface evaluation to determine need for	
	Shoulders/ Bike lanes	patching/regrading/re-striping of bicycle facilities	
5-year		Repaint or repair trash receptacles, benches, signs,	
	Shared Use Paths	and other trail amenities, if necessary	
		Sealcoat asphalt shared use paths	

Table 13: Maintenance Activity Frequency

Frequency	Facility Type	Maintenance Activity
10-year	Shared Use Paths	Resurface/regrade/re-stripe shared use paths
20-year	Shared Use Paths/ Sidewalks	Assess and replace/reconstruct shared use paths/ sidewalks

PLAN FOR MAINTENANCE

Creating a strong maintenance program begins in the design phase. The agency that will eventually own the completed project should collaborate with partners to determine the infrastructure placement, final design, and life cycle maintenance cost. 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.

COORDINATION & RESPONSIBILITY BETWEEN AGENCIES

Many jurisdictions struggle with confusion around which entity – city, village, township, county, or state – is responsible for the maintenance of trails and other active transportation facilities. Frequently there is no documentation showing who is responsible for maintenance of existing facilities, which can prolong unsafe conditions for trail users. Coordination between the government agencies is key for effective maintenance programs. Intergovernmental agreements (IGAs) are used to codify the roles and responsibilities of each agency regarding ongoing maintenance. For example, a local government may agree to conduct plowing, mowing, and other maintenance activities on trails in its jurisdiction that were built by another agency. Clarifying who is responsible for maintenance costs and operations ensures that maintenance problems are resolved in a timely manner.

MAINTENANCE ACTIVITIES

Different facility types require different types of strategies to be maintained. Table 14 breaks down maintenance activities and strategies for each by facility type.

Facility Type	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.	
	Sweening	Implement a routine sweeping schedule to clear shared-use paths of debris.	
	Sweeping	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.	

Table 14: Maintenance Strategy Recommendations

Facility Type	Maintenance Activity	Strategy		
		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		
		Conduct walk and hike audits to assess		
		accessibility of new, proposed, and existing		
	ADA Requirements	shared-use paths.		
		Ensure that ADA compliance is incorporated		
		into the design process for new facilities.		
		Explore approaches to routinely inspect		
		pavement markings for bicycle infrastructure		
		and replace as needed.		
	Pavement Markings	tape on priority bikeways (identified in this		
	i avenient Markings	Plan) adjacent to high-volume motor vehicle		
		routes (preformed thermoplastic or polymer		
Paved Shoulders/ Bike Lanes		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		
		actification of the second sec		
		place.		
	<u> </u>	Implement a routine sweeping schedule to clear		
	Sweeping	high-volume routes of debris.		
Bicycle Boulevards	Sign Replacement	Repair or replace damaged or missing signs as		
		soon as possible.		
		Conduct routine inspections of high-volume		
		sidewalks and apply temporary measures to		
	Pavement Preservation and	maintain functionancy (paterning, grinning, mudiacking).		
		Consider using public agency staff or hiring		
	Repair	contractors for sidewalk repairs, rather than		
Sidewalks		placing responsibility on property owner		
		(property owner can still be financially		
		responsible).		
		Educate the public about sidewalk snow		
		Require sidewalk snow clearance to a width of		
		five feet on all sidewalks.		
	Snow and Ice Control	Establish required timeframes for snow		
		removal.		
		Implement snow and ice clearing assistance		
		programs for select populations.		

ON-GOING MONITORING AND EVALUATION

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, Dayton must be able to measure whether these investments are paying active transportation dividends (i.e. more people walking and bicycling). Dayton should review the goals and action items of this plan and revise to reflect on-going progress in future years. An affirmative answer reinforces this Plan's legitimacy and provides evidence that future investments will also yield positive results. The performance measures in Table 15 will chart progress towards making walking and bicycling safe, connected, and comfortable. Dayton 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.

Goal: Education and OutreachNumber of active transportation events (i.e. Bike Month events, Walk to School/Work and Bike to School/Work events) and attendeesAnnualNumber of Bike.Walk.Ride goals being metAnnualGoal: Health and SafetyGoal: Health and SafetyNumber of pedestrian and bicycle injuries by zip codeAnnualNumber of helmets distributedAnnual		
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Number of helmets distributed Annua	ally Dayton Children's Hospital	ODOT GCAT
	ally Dayton Children's Hospital	
Number of pedestrian and bicycle crashes Annuc	ally City of Dayton Police Department	ODOT GCAT
Number of intersections improved Annua	ally City of Dayton Planning, City of Dayton Public Works	
Number of complaints about active transportation Annual facility maintenance (sidewalks, bike lanes, etc.) Annual	ally City of Dayton Planning, City of Dayton Public Works, MVRPC, Five Rivers MetroParks, Miami	Dayton Delivers

Table 15: Performance Measures

Performance Measure	Timeline (how often is data collected/up dated)	Responsibility (who will collect the data)	Source of Data (where applicable)
Number of trainings/workshops to educate city employees about active transportation to create a larger and cohesive network of allyship and supporters	Annually	City of Dayton Planning, City of Dayton Public Works, City of Dayton Police Department	
Increased usage of active transportation facilities	Bi-annually	City of Dayton Planning, MVRPC	
Goal: Equity and Access			
Geographic Distribution of:	Annually	City of Dayton Planning, City of Dayton Public Works	Link Census Data
Number of age and disability friendly bike share options (adaptive bikes, etc.)	Bi-annually	City of Dayton Planning	
Goal: Infrastructure and Services	•		
Miles of separated on-street bikeways built	Annually	City of Dayton Planning, City of Dayton Public Works	
Miles of sidewalks built	Annually	City of Dayton Planning, City of Dayton Public Works	
Miles of on-street bike lanes built	Annually	City of Dayton Planning, City of Dayton Public Works	
Miles of trails built	Annually	City of Dayton Public Works, Five River MetroParks, Miami Conservancy District	
Number of projects implemented within ¼ mile of schools, health care services, grocery stores, retail and service stores, banks, parks, or recreational facilities	Annually	City of Dayton Planning	
Active transportation mode share (Percent of people commuting by walk, bicycle , or transit)	Bi-annually	City of Dayton Planning, MVRPC	Census Data

Performance Measure	Timeline (how often is data collected/up dated)	Responsibility (who will collect the data)	Source of Data (where applicable)
Number of maintenance activities competed	Annually	City of Dayton Planning, City of Dayton Public Works	Dayton Delivers

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 all been field-verified. Further analysis and engineering design are necessary prior to implementing any of the recommendations contained herein.

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APPENDICES

State of Walking and Biking Report

Safe Routes to Schools Maps

Recommendations

Sidewalks

Bikeways

Intersections

Recommendations (Raw Data)

Sidewalks

Bikeways

Intersections

