# 









## ACKNOWLEDGMENTS

The Dayton Community Mobility Plan is the result of the contributions and support provided by the City of Dayton and the Tennessee Department of Transportation. We would like to express our sincere gratitude to the following:

**The City of Dayton:** City staff and advisory committee members provided valuable guidance, resources, and support throughout the mobility planning process. Their dedication to creating a safer and more accessible community for its diverse residents has been instrumental for the success of this project.

**Tennessee Department of Transportation:** We extend our appreciation to the Tennessee Department of Transportation for their collaboration and partnership throughout the development of the Community Mobility Plan. Their technical expertise and assistance have been invaluable in bringing this vision to fruition.

**Residents:** We would like to thank the Dayton community for their input and feedback during the planning process. Your insights and perspectives have helped to shape the Plan and ensure that it reflects the needs and aspirations of the community.

Together, these groups have played an essential role in the creation of the Dayton Community Mobility Plan.

#### City of Dayton:

Hurley Marsh, Mayor

Michelle Horton, City Recorder

#### Rhea County Economic Development Corporation:

John Bamber, Executive Director

#### **Tennessee Department of Transportation:**

Kevin Layne, Long Range Planning Division, Region 2

#### Gresham Smith:

Sandy Layne-Sclafani, P.E., CPESC

Greg Kern, AICP

Amanda Sapala, AICP

Andrew Williams, AICP, ENV SP





# CONTENTS

Introduction	.1
Executive Summary	1
Existing Conditions	. 3
Evaluation of Existing Conditions Land Use & Environmental Resources Traffic Analysis Transportation Patterns Bicycle & Pedestrian Analysis	3 7 12 14 20
Public Engagement	81
February 28 <sup>th</sup> Community Engagement Event Analysis & Key Take-Aways	31 33
Bike & Sidewalk Network	35
Implementation Recommendations	13
Policies	43 44
Appendix A - Survey Output Report for the City of Dayton Community Mobility Plan	53
Appendix B - Existing Conditions Maps	58
Appendix C - Proposed Network Tables & Maps	33
Appendix D - Grant Funding Opportunities	<b>39</b>
Appendix E - February 28 <sup>th</sup> Community Engagement Event Materials	94



## INTRODUCTION

#### **Executive Summary**

The Dayton Community Mobility Plan (Plan) aims to improve the safety, accessibility, and connectivity of the city's sidewalk and bike networks. The Plan provides an overview of the efforts taken to create a comprehensive approach for a more pedestrian and bike-friendly environment.

The Community Mobility Plan proposes the creation of a new on-street bike network and expansion of the existing sidewalk network to fill in critical gaps creating a complete network of bike and sidewalk facilities throughout the city. These new networks will connect important destinations in the community, such as the Delaware Ave. Ball Fields and walking track, Swinging Bridge Park, Walnut Street Pickleball Courts, Byran College, and many local businesses. The completion of this network will provide residents and visitors with safe and convenient options for walking, cycling, and other active transportation modes.

To ensure the success of this Plan, a range of stakeholders, including community leaders, city officials, and residents, have worked together to contribute ideas and suggestions for the network improvements. The planning process has also emphasized the importance of community engagement, including public input and participation, to ensure that the project meets the needs and desires of the community.

Overall, the Community Mobility Plan for Dayton, Tennessee, offers a comprehensive and strategic approach to creating a more walkable and bikeable city for all residents and visitors.



#### **Community Mobility Plan Overview**

The Tennessee Department of Transportation (TDOT) established the Community Transportation Planning Grant (CTPG) program to assist Tennessee's small and rural communities in developing transportation plans to address transportation, land use, and growth management issues. The program is designed to better integrate multimodal transportation systems with local land use objectives and achieve statewide transportation goals.

The CTPG program aims to develop robust networks of non-motorized travel for small and rural communities. TDOT outlined the benefits of active-transportation, such as:

- Improved health and well-being,
- Reduced costs for transportation and related expenses,
- Reduced crashes and improved safety,
- Increased convenience,
- Reduced energy consumption,
- Improved local economy,
- Improved access to education and employment, and
- Increased home values.

The City of Dayton was awarded one of the 30 grants from the CTPG program's 2021-2022 grant cycle. As a result, the Community Mobility Plan for the City of Dayton was created to address the existing conditions and propose a new bike and sidewalk network that fills critical gaps in the existing network and that the existing network be improved to meet Americans with Disabilities Act (ADA) compliance. This report documents the findings and recommendations of the Community Mobility Plan.

## EXISTING CONDITIONS

The following section provides a summary of existing transportation conditions in the City of Dayton, TN. This includes an overview of the community, a summary of City demographics, and the City's land use and environmental resources. Also included is an evaluation of the existing roadway network, transportation patterns, and existing bicycle/pedestrian facilities. These evaluations provide context and guidance for this plan's bike and sidewalk network recommendations.

#### **Evaluation of Existing Conditions** Community Overview

Historic Dayton, TN was founded in 1820, originally named Smith's Crossroads and renamed in 1877 after Dayton, OH. Incorporated in 1903, Dayton is the county seat of Rhea County in southeast Tennessee and is located 40 miles north of Chattanooga and 80 miles south of Knoxville. The city gained national recognition in 1925 when the Rhea County Courthouse heard the case of the famous Scopes Trial, where the issue of whether evolution should be taught in school was ultimately supported. The courthouse now houses a museum and was designated a National Historic Landmark in 1976.

Celebrating its natural resources and ecological heritage, Dayton is home to the annual Tennessee Strawberry Festival (first held in 1947), celebrated in May each year. Earning the nickname #BASSTownUSA, Dayton is also recognized across the country as the nation's top location for freshwater largemouth bass fishing on Lake Chickamauga, a reservoir of the Tennessee River. In fact, Lake Chickamauga was named by *Bassmasters Magazine* as the 7<sup>th</sup> best bass fishing lake in the U.S. in its 2014 listing. Fish Dayton is a dedicated economic development organization supporting sport fishing and tourism, and it supports formal tournaments for game fishermen to find success in Dayton's waters, nicknamed "The Land of the Giants." To date, the organization has hosted some of the largest bass fishing tournaments, bringing an estimated 10,000+ visitors to the city each year, including:

- 1. 2013 Walmart FLW Tour in June of 2013,
- 2. Bassmaster's first ever BASSFest in June of 2014,
- 3. 2015 Walmart FLW Tour in June of 2015, and
- 4. 2017 Bassmaster HS Largest Tourney in the history of B.A.S.S.

#### Demographics

Unless otherwise specified, demographic information for Dayton, TN is referenced from 2020 American Community Survey 5-year estimates (ACS) provided by the U.S. Census Bureau. Additionally, maps and figures provided have been included in the appendix at a larger scale for legibility.

#### **Population Trends**

According to the 2020 ACS, the City of Dayton has an estimated population of 7,065, with an estimated 2,318 households. The 2019-2022 Southeast Rural Planning Organization (RPO)'s Regional Transportation Plan noted a total population for Rhea County of 32,719 with a projected increase to 38,013 by 2050 (according to 2018-2070 University of Tennessee at Knoxville (UTK) Boyd Center for Business and Economics Research Population Projections).

#### Age

The median age in Dayton is estimated to be 31, in comparison to a statewide median age of 39.2. 74.1% of the City's population is estimated to be 18 years and over.

Race/Ethnicity	City of Dayton	State of Tennessee	
American Indian & Alaska Native, alone	46	28,044	
Asian, alone	95	135,615	
Black or African American, alone	310	1,092,948	
Hispanic or Latino	615	479,187	
Native Hawaiian & Pacific Islander	2	4,115	
White alone, not Hispanic or Latino	5,699	4,900,246	
Some other race	381	246,282	
Two or more races	447	412,898	

Figure 1: City of Dayton, 2020 Population Census Data

#### **Educational Attainment**

17.2% of the City's population is estimated to hold a bachelor's degree or higher, compared to 30.5% statewide.

#### **Income & Poverty Status**

The overall median household income in Dayton is \$35,436 (\$64,940 for married-couple families, \$46,742 for families, and \$21,471 for nonfamily households). The state of Tennessee median income is \$59,695. The City's poverty<sup>1</sup> rate is 26.3% (state of Tennessee: 13.6%).

#### **Employment & Disability**

The City of Dayton has an employment<sup>2</sup> rate of 49.6% (state of Tennessee: 57.7%), and 20.8% of the City's population is disabled (state of Tennessee: 14.9%). Rhea County was noted as having the highest unemployment rate in the Southeast RPO according to the RPO's 2019-2022 Rural Regional Transportation Plan.

#### **Race & Ethnicity**

According to the 2020 Decennial Census, the racial and ethnic composition of the City of Dayton is predominately white. Noted in the Southeast RPO's 2019-2022 Rural Regional Transportation Plan, "the share of Caucasian White alone population in Tennessee is 70.9% compared to a higher percentage of 89.8% in the Southeast RPO." A table of population by race and ethnicity is provided in **Figure 1: City of Dayton, 2020 Population Census Data**.

#### Summary

Overall, Dayton is a smaller city with a younger population and lower income than average for the state of Tennessee. With higher poverty rates and lower educational attainment, city residents may have less access to a reliable source of vehicle transportation. Providing multimodal alternatives can help city residents access its higher education institutions and job training centers to acquire additional skills and certifications.

<sup>&</sup>lt;sup>1</sup> Per the US. Census Bureau: "Following the Office of Management and Budget's (OMB) Statistical Policy Directive 14, the Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty. The official poverty thresholds do not vary geographically, but they are updated for inflation using the Consumer Price Index (CPI-U). The official poverty definition uses money income before taxes and does not include capital gains or noncash benefits (such as public housing, Medicaid, and food stamps)."

<sup>&</sup>lt;sup>2</sup> Unemployment is defined by the U.S. Census Bureau as "any civilian 16 years and over who is either: not at a place of employment; actively looking for employment; and/or persons able to accept a job due to currently being employed."

#### **Activity Centers & Trip Generators**

Major activity centers include employers such as La-Z-Boy Incorporated, schools such as Bryan College, and commercial establishments in the central business district surrounding Main and Market Streets and along US 27. Activity centers represent key destinations that generate traffic and are thus referred to as "trip generators or attractors." They help influence local transportation patterns and help improve understanding of the community's transportation network and the types of trips it serves. A summary of destinations within City limits is included in **Figure 2: City of Dayton, List of Active Trip Generators** and in **Figure 3: City of Dayton, Active Trip Generators Map**.

#### • Schools

- PreK-12
- Calvary Elementary School
- Dayton City School
- Rhea County Academy
- Higher Ed
  - Bryan College
  - Chattanooga State Community College, Dayton satellite site
  - Omega Graduate School
- Major Employers
- La-Z-Boy Incorporated
- Nokian Tyres
- Robinson Manufacturing Company
- Suburban Manufacturing Company
- Tennessee Valley Authority
- Tourism
  - Rhea County Courthouse
  - Lake Chickamauga
  - Tennessee Strawberry Festival

#### • Commercial

- Food City
- Lowe's
- Tractor Supply
- Wal-Mart
- Parks
  - Centennial Park
  - Cherry Street Ballfields
  - Delaware Ave. Sports Complex
  - Fourth Ave. Football Field
  - Pendergrass Park
  - Point Park
  - Rhea County Community Center
  - Swinging Bridge Park
  - Walnut St. Pickleball Courts
  - Washington St. Pickleball Courts
- Hospitals
  - Rhea Medical Center

Figure 2: City of Dayton, List of Active Trip Generators



Figure 3: City of Dayton, Active Trip Generators Map

#### Land Use & Environmental Resources

#### Zoning & Land Use

While surrounding Rhea County is predominantly agricultural, the primary land use in the City of Dayton is residential, with other notable uses including commercial (mostly clustered north/south on US 27) and industrial (mostly in the north/ northwest quadrant of the city). Information regarding the Land Use and Zoning classifications in Dayton can be found in **Figure 4: City of Dayton Existing Zoning Map** and **Figure 5: City of Dayton Land Use Map**.



Figure 4: City of Dayton, Existing Zoning Map



Figure 5: City of Dayton, Land Use Map

#### **Environmental Resources**

The City of Dayton and its immediate surroundings are largely comprised of deciduous forest, pasture/hay, and evergreen forest. The land within the city boundaries is categorized mostly as developed low and medium densities, with some small pockets of high intensity development. These classifications are largely based on the amount of impervious surface and are not necessarily a reflection of the intensity of development and infrastructure.

Lake Chickamauga is a significant environmental and economic attribute for the city. As a resource, Lake Chickamauga supports a robust ecological tourism economy which brings visitors to Dayton and supports the use of alternative modes of transportation during fishing tournaments and local recreation opportunities. As such, there is merit to providing better bicycle/pedestrian access between the town center and its surrounding waters.

Additional detail can be found in Figure 6: City of Dayton, Land Cover Map and Figure 7: City of Dayton Flood Hazard Map.





Figure 6: City of Dayton, Land Cover Map



Figure 7: City of Dayton, Flood Hazard Map

#### Traffic Analysis Existing Roadway Network

Much of the existing roadway network is typical for small communities in Tennessee. US 27 and the southern portion of State Route (SR) 60/Hiwassee Hwy. heading north/south in Dayton are both classified as principal arterials. These roadways are both part of the national highway system and carry higher passenger and freight volumes than other local roadways. SR 30/ Dayton Mountain Hwy. west of US 27 and SR 30/Old Washington Hwy. east of US 27 are classified as minor arterial roadways, and they carry the highest vehicle volumes traveling east/west through the city of Dayton. It was consistently observed that commercial driveways featured wide turning radii and large wide entrances, particularly along roadways with higher traffic volumes. By reducing driveway frequency, turning radii, and vehicle speeds when turning, conflict points between vehicles and bicyclists and pedestrians are reduced. Wider turning radii allow for turns to be made at higher rates of speed and leaves pedestrians and bicyclists more vulnerable to turning vehicles, for a longer duration as there are larger stretches of pavement to cross. See **Figures 8 and 9** for examples of business entrances widths and turning radii and **Figure 10: TDOT Functional Classification Map** for more detail on roadway classifications.



Figure 8: City of Dayton, Entrance to Food Lion - 115ft wide



Figure 9: City of Dayton, bike rider crosses multiple business entrances along US 27



Figure 10: TDOT Functional Classification Map, Dayton detail



#### **Transportation Patterns**

#### Annual Average Daily Traffic (AADT)

The Southeast RPO's 2019-2022 Rural Regional Transportation Plan (Transportation Plan) noted that most roads in Dayton saw a modest increase in annual average daily traffic (AADT) (0.3-35.2% change). Broadway St. (labeled with station 91) and 16<sup>th</sup> Ave. (labeled with station 89) saw a 35.3-102.1% increase in AADT. A graphic from the Plan is included on the following page in **Figure 11: Dayton Annual Average Daily Traffic Volumes Map**.

Much of the traffic entering Dayton is traveling through the city and staying primarily on the main corridors and arterials running through the city. US 27, which runs north/south through Dayton, carries 21,072 vehicles per day. This volume increases where SR 30/Old Washington Hwy. intersects the corridor. Given that US 27 accommodates 23,414 daily through-trips, there are significantly fewer passing through the downtown core. Market St. accommodates 4,718 daily through-trips to reach their destinations. This presents opportunities for travel alternatives in the core downtown area. Separated or protected bike facilities along routes with higher levels of vehicle traffic may also promote alternative modes of transportation to residential areas not within the city core. As a relevant note, Federal Highway Administration (FHWA) guidelines for bikeway facility selection when referring to AADT do recommend physically separated bike lanes for roadways with AADTs over 7,000-8,000 and visually separated bike lanes for AADTs between 3,000-7,000 when posted speeds are in excess of 30 miles per hour (mph).

#### Volume/Capacity (V/C) Ratios

The Plan also referenced TDOT's Statewide Travel Demand Model to assess volume-to-capacity (V/C) ratios for Rhea County and the City of Dayton. FHWA defines capacity as "the maximum rate at which vehicles can pass through a given point in an hour under prevailing roadway conditions." The Transportation Plan described roadway conditions including such attributes as number and width of lanes, grades, land use, and signalized conditions (intersections). The Plan further explains that V/C ratios are performance measures defined as the proportion of a facility's capacity for being utilized by current or projected traffic volumes. They are measured by comparing roadway demand (daily volumes) with roadway supply (carrying capacity). The Plan's V/C analysis used AADTs from 2019 in addition to those forecast for 2040, noting that the 2040 forecast considers programmed projects by TDOT, as well as demographic and land use projections.

The Transportation Plan additionally observed that the City of Dayton had several sections on SR 378/Market St. in the downtown area with a V/C ratio between 0.4 and 0.6, and Walnut Grove Rd. had a section near the intersection with SR 378/Market St. that had a V/C ratio between 0.6 and 0.8. According to 2040 projections, the Transportation Plan noted that Walnut Grove Rd., US 27, SR 378/Market St., and SR 30/Old Washington Hwy. are expected to have V/C ratios between 0.4. and 0.8. This would recommend future monitoring of these roadway sections with a V/C ratio in excess of 0.8 for potential congestion issues.



Figure 11: Dayton Average Annual Daily Traffic Volumes Map

#### Freight

Further noted by the Plan, US 27 is the main truck route in Rhea County, and the highest truck volumes are observed on a segment from Dayton to Spring City. US 27 has among the highest truck volumes in the Southeast RPO.

#### **Commute Patterns**

Daily commute inflows and outflows were also summarized in the Plan at the county-level. Notably, most Rhea County commuters travel within the County. Commuters leaving the County most frequently travel to Hamilton County (adjacent to the south) and Bradley County (to the southeast, not adjacent). More commuters travel to Rhea County than those leaving. Commuters traveling to Rhea County typically arrive from Bledsoe County (adjacent to the west), McMinn County (to the east, not adjacent), Bradley County (to the southeast, not adjacent), and Meigs County (adjacent to the east). Commuters traveling to Rhea County typically working in manufacturing or agricultural industries. See **Figure 12: Inflow/Outflow Commute Patterns, Dayton** for additional detail.

Inflow/Outflow Counts of All Jobs for Selection Area in 2019

All Workers



Figure 12: Inflow/Outflow Commute Patterns, Dayton

#### **Planned and Programmed Transportation Improvements**

In the Southeast RPO's 2019-2022 Rural Regional Transportation Plan, one project was identified as a need in the City of Dayton:

Category	Title	Description	Address
Safety	Yellow Flashing	Intersection flashing yellow light	2027-2199 Manufacturers Rd. Dayton,
	Light Needed	needed	TN 37321

Figure 13: Rural Regional Transportation Plan, Planned Improvements

Additionally, the Southeast RPO's Long Range Planning tool identifies the following two projects in the City of Dayton:

Project	County	Route	Description	Project Type	Next Phase	2020 Ranking
109410.03	Rhea	SR 30	(Old Washington Hwy.) From near SR 29 (US 27) to west of New Union Rd. / White Oak Rd.	Widen from 2 lanes to 3 lanes	Right-of-Way	5 (project has been committed and advanced to FY25 for ROW acquisition)
109410.04	Rhea	SR 30	(Old Washington Hwy.) From near Sky Dr. to west of the Tennessee River Bridge	Widen from 2 lanes to 3 lanes	Right-of-Way	7

Figure 14: Southeast RPO Long Range Planning, Planned Improvements

Further, TDOT's iTRIP (Interactive Tennessee Road Program) tool identifies the following two projects in Region 2 that are in the City of Dayton:

Route	PIN	Project Length	Program Type	Termini	Scope of Work	Project Numbers
SR 30	132603.00	0.18	Local Programs	From East of Lakeshore Dr. to West of SR 29	Construction of sidewalks on SR 30. Project also includes ADA compliance, pedestrian signals, striping and bike lanes.	72S030-S0-002, 72S030-S1-002, 72S030-S2-002, 72S030-S3-002
SR 30	109410.03	3.28	Legislative	(Old Washington Hwy.) From Near SR 29 (US 27) to West of New Union Rd. / White Oak Rd. (IA)	Widen from 2 Lanes to 3 lanes.	72005-1220-14, 72005-2220-14, 72005-3220-14

Figure 15: TDOT iTRIP, Planned Improvements

#### **Planned Development**

Planned new development that may influence travel patterns and desired destinations for active trips include the following:

- A new pedestrian bridge, crossing Richland Creek, connecting the Dayton Boat Dock with Point Park,
- As indicated in the previous figures a new roadway project is programmed on SR 30/Old Washington Hwy. from US 27 to the Tennessee River Bridge (this project will be completed in two phases),
- The BlueCross BlueShield of Tennessee Foundation awarded the City of Dayton a grant through its Healthy Places program for a new playground near Tennessee Valley Authority (TVA) property on US 27,
- The City has plans to expand the facilities at Swinging Bridge Park off Washington St. with a playground and additional pickleball courts, and
- The City also has a traffic study to modify four signalized intersections downtown to four-way stops.

Additionally, in partnership with the Southeast Development District and Rhea Economic Tourism Council, the City of Dayton will use \$1 million awarded by TDOT's Multimodal Access Grant program for the design and construction of a multimodal access path to connect SR 30/Old Washington Hwy. and Bryan College with downtown Dayton.

#### Automotive/Vehicular Safety Outcomes and Crash History

Since 2010 there have been 7,781 total crashes in Rhea County as reported by the Dayton Police and Rhea County Sheriff's Departments. Of these crashes, there have been 1,440 crashes with an injury and 18 total fatalities, which includes two non-vehicular fatalities. A sharp rise in crashes occurred in 2017, and crashes have remained at that level since. Rhea County ranks 53<sup>rd</sup> out of 95 Tennessee counties for its overall crash rate, according to TDOT rankings. Neighboring counties Bledsoe and Meigs rank much better in overall crash rating, 94<sup>th</sup> and 87<sup>th</sup> of 95 respectively. Rhea County has a slightly better ranking than Cumberland and Roane counties which score 47<sup>th</sup> and 33<sup>rd</sup>, respectively, and significantly better than Hamilton County which has the 4<sup>th</sup> highest crash ranking in Tennessee. While Rhea County lands close to the middle of the rankings for overall crash ratings,

the county scores better in fatal, injury, motorcycle, alcohol impaired, and speeding crash ranks, with better scores than 77% of other Tennessee counties. A significant number of crashes have occurred on US 27, noting that a large portion of the significant or fatal crashes have occurred on this corridor. Safety-oriented improvements are recommended for this corridor to reduce adverse outcomes and reduce crash rates.

Other roads demonstrating notable crash histories include SR 378/Market St., SR 30/Dayton Mountain Hwy., SR 30/Old Washington Hwy., and SR 60/Hiwassee Hwy. Based on these safety trends, these roads could benefit from the addition of separated or protected bicycle facilities to improve bike safety. A map of crashes reported in Dayton since 2018 can be found in **Figure 16: Dayton Vehicle Crashes Reported** (since 2018)<sup>3</sup>.

<sup>3</sup> The crash data and rankings in this section are found in the <u>Tennessee Traffic Crash Data</u>: County Rankings and Statistics by Emphasis Are from 2018-2022 and provided by TDOT. A crash Analysis was not conducted for this plan.



Figure 16: Dayton Vehicle Crashes Reported (since 2018)

#### **Bicycle & Pedestrian Analysis**

#### **Existing Bicycle & Pedestrian Facilities**

Currently, there is little biking infrastructure in Dayton. Discussed below are opportunities observed on SR 378/Market St., opportunities within the central business district, and opportunities to expand upon the City's existing sidewalk network.

#### SR 378/Main St.

There is a segment of SR 378/Market St. from south of Iowa Ave. to north of Arnold Cir. that has a paved shoulder of varying width and function, which may lend itself to supporting bike travel. This paved shoulder at some points in the corridor widens to 5 foot (ft) or more, and it is used as a bike lane in some areas and parking in others (in some cases with vehicles encroaching on the existing sidewalk where there is not sufficient width in the paved shoulder to fully accommodate parking). Digital observations of the corridor using Google Streetview noted two people riding bikes through the corridor. No signs were observed, however, to designate the paved shoulder as part of a larger bike network or to designate this space for bike riders. The opportunity may exist to provide visually separated or physically separated bike facilities within the existing ROW.

From south of Iowa Ave. to California Ave., the paved shoulder varies in width (see Figure 17 & Figure 18).



Figure 17: Market St., intersection with Illinois Ave. Image taken facing NE. Two southbound cyclists riding on Market St. along paved shoulder.

#### Google Maps 920 Tennessee State Rte 378



Figure 18: Market St., between Colorado Ave. and Delaware Ave., across from Robinson Manufacturing. Image taken facing southwest. <5 ft paved shoulder being used as parking, with sidewalk vehicle encroachment.

From California Ave. (across from the Dayton Youth Baseball Complex) to Main St., the paved shoulder widens to accommodate on-street parking, though it is not officially designated (**Figure 19**).



Image capture: Apr 2018 @ 2022 Google

Figure 19: Market St., between Hickory St. and California Ave., across from the Dayton Youth Baseball Complex. Image taken facing southwest. Approx. 8 ft paved shoulder being used for parking.

From Main St. to 3<sup>rd</sup> Ave. in the heart of the central business district, the paved shoulder is designated on-street parking only and currently unavailable for bike travel (**Figure 20**).



Figure 20: Market St., intersection with Main St. Image taken facing north/northwest. On-street parking in historic downtown.

North of 3<sup>rd</sup> Ave., formal on-street parking striping is discontinued, and the paved shoulder again varies in width from 3 - 8 ft along the corridor until reaching Arnold Circle Rd., where the shoulder terminates (**Figure 21**).



Figure 21: Market St., intersection with Arnold Cir. Image taken facing SE. Paved shoulder.

#### **Central Business District**

Most roads within the central business district, in the quadrant bounded by 4<sup>th</sup> Ave. to the north, Walnut St. to the east, Alabama Ave. to the south, and Railroad St. to the west, appear to have sufficient width to accommodate a visually separated or physically separated bike facility. Some constraints include narrow right-of-way or the presence of on-street vehicle parking in the present condition. Due to the cluster of trip generators in this district, the addition of bike facilities could promote safety for bike riders, encourage increased ridership, and support economic growth and development for downtown businesses.

#### Existing Sidewalk Network Opportunities

Outside of the City's central business district, sidewalks are notably limited. Sidewalks are present along some roadway segments, but most areas in Dayton do not have a complete sidewalk network and many sidewalks need repair. Much of the central business district and historic downtown areas have sidewalk facilities, but nearly all residential streets do not. Existing gaps in this network should be addressed to improve connectivity and safety for all road users. See **Figure 22: City of Dayton, Existing Sidewalk Network Map** for more detail.

#### **Planned Bike Routes**

As part of an update to the 2005 Tennessee Long-Range Transportation Plan, Bicycle and Pedestrian Element document, the State has also released a proposal for statewide bike route designations. One of these routes, the Chattanooga Connector, is proposed to run along the US 27 corridor from Chattanooga through Dayton to just south of Rockwood, TN. See **Figure 23 : City of Dayton, Existing Bike Facility Map** for more detail. Of additional note, there have been two different statewide efforts in recent years to address biking and bike safety in the State. In 2011 the State prepared a Statewide Bicycle Plan Update and in 2016 TDOT prepared a State Bicycle Route System Update. These efforts identified, amongst many other projects, that US 27 through Rhea County was the most suitable route for bike travel. The Southeast RPO Rural Regional Transportation Plan identifies the need to expand sidewalk and bike facilities through the RPO and improve roadway facilities to accommodate all road users.

#### Bike Level of Service (BLOS)/Level of Traffic Stress & Demand

Bike Level of Service (BLOS) is defined as "a roadway scoring methodology for evaluating on-road comfort of bicyclists based on geometric and traffic conditions" and uses traffic flow rates, effective width of a road segment, and the effective speed factor. A BLOS score of 0 is the most suitable and a score of 5 is least suitable for bike users. These scores may also be converted to a Level of Traffic Stress Analysis with a grade of A-F, with A being the best and F being the worst. The BLOS assessment is based on the available rightof-way and posted speeds of the roadway. BLOS can be improved through roadway improvements and the provision of dedicated bike facilities.

SR 378/Market St. and 3<sup>rd</sup> Ave. in the city's center score more favorably for bicyclist comfort, along with SR 60/Hiwassee Hwy. US 27 scores moderately low for bicyclist comfort, depending on the roadway segment. SR 30/Dayton Mountain Hwy. and SR 30/Old Washington Hwy. score the lowest for Dayton with regard to bicyclist comfort in their existing state. See **Figure 24: Bike Level of Service Map** for more detail.



Figure 22 City of Dayton, Existing Sidewalk Network Map



Figure 23: City of Dayton, Bike Facility Map



Figure 24: City of Dayton, Bike Level of Service Map

#### **Bicycle and Pedestrian Demand**

In addition to noted observations and available data from TDOT, Strava ridership data, was also used to evaluate bicycle and pedestrian activity in Dayton (See Figure 25). While limited in its sociodemographic representation, Strava can illustrate a cross-section of community-demonstrated bike usage and represented demand. Strava data is collected by users who opt-in to the program, sign up for a Strava account, and share geolocated travel data for trips they take by foot or on bike (and where applicable by swim or ski). Data is transmitted to Strava via wearable fitness devices (Apple Watch, Garmin, etc.), or trips are self-reported on Strava's mobile app or web-based platform. Users can choose to publicize their data or retain their privacy. Strava aggregates publicly visible activities recorded on its platform into a heatmap visualizing trips taken over the last twelve-month period, updating the heat map on a monthly basis. This heat map provides a useful basis for beginning to understand how some people choose to get around an area by foot or bike.

Strava users in Dayton are observed to be most frequently using the circulating roads around Bryan College (Mercer Dr., College St., and Bryan Dr.), Black Oak Ridge Rd., and Old Graysville Rd. (inside and outside city limits). Heavily utilized also are Market St., Illinois Ave. Delaware Ave. (by the County elementary school and the park), Dayco Dr. and a segment of US 27 between Black Oak Ridge Rd. and Dayco Dr. Bike ridership by Strava users is also clustered in the central business district.

#### Bicycle & Pedestrian Safety Outcomes and Crash History

There have been 25 pedestrian and 11 bicyclist crashes in Rhea County since 2010. The rate of incidents is lower than in other Tennessee counties but still poses a safety risk to visitors and residents as the area grows. Much of the City of Dayton is also without sidewalks or bike facilities, especially in the residential portions of the city. With expectations of job growth and residential development, along with an increase in ecotourism, the provision of additional bicycle and pedestrian infrastructure can support improved access to those jobs and areas of growth, as well as improve safety outcomes in the area. Without adequate infrastructure to support alternative travel modes, more employees will continue to rely on vehicles to get to and from employment and recreation centers, increasing the potential for additional adverse outcomes especially for vulnerable road users. A map of bike and pedestrian crashes can be found on the following page in Figure 26: City of Dayton Bike and Pedestrian Crash Map\* (\*Note: The map is zoomed in to show locations of previous crashes. Map extents not included did not have reported bike or pedestrian crashes over the approximately three-year period reviewed.)

4

The Strava ridership heat map can be found by following this link - more easily legible within a web browser.



Figure 25: City of Dayton Strava Walking and Biking Data Visualization



Figure 26: City of Dayton Bike and Pedestrian Crash Map

The recommended bike and sidewalk networks in this Plan will support safe routes to school and enhance economic development by providing a safe and reliable multimodal network within the city for residents and visitors.

STA-

11111

.

Z

**AAA** 

## PUBLIC ENGAGEMENT

#### February 28th Community Engagement Event

At the heart of the City of Dayton Community Mobility Plan are the voices of the community it serves. Public involvement is critical for the success of the Plan, as a diverse representation of community voices and perspectives ensure that the bike and sidewalk networks are safe and comfortable, enable access to where people want and need to go, and support the continued economic growth of the city. Because of this, community engagement was

on-going through the life of the project, with two stakeholder meetings, one with the Project Advisory Committee and a defined phase of public engagement and outreach (see **Figure 27: February 28<sup>th</sup> Engagement Social Media Advertisement**). Contact information for the planning team was made available to the public so that the community could provide their input at any time. Notices for the meeting and the online survey were distributed on the City's Facebook page. The online survey was open and available for response for two weeks.

#### Overview

The City of Dayton hosted an open house public meeting on Tuesday, February 28, 2023 from 5:00-7:00 pm at City Hall on Main St. The meeting was advertised on the City's Facebook page, in the local newspaper, and via word-ofmouth by local project champions and engaged citizens and shared by residents to other local City-interest Facebook pages.



Figure 27: February 28th Engagement Social Media Advertisement



#### Methodology

The public meeting was styled as an informal open house, where folks were greeted by a member of the project team as they signed in, invited to review the engagement materials on large boards around the perimeter of the room, and then provide their feedback by either drawing in requests or recommendations on table roll plots of the proposed bike and sidewalk routes or by leaving comments on a comment card. Handouts were also provided as a take-away for attendees. The info sheet handout provided answered to "Why," "Where," "What," "How," and "When" frequently asked questions, and it provided direct contact information for the project planner. The info sheet on the front had smaller versions of the bike and sidewalk networks, and on the back it had the bike facility type information provided on one of the engagement boards described below. A copy of all engagement materials are included in Appendix E.

#### **Board 1: Existing Conditions**

The first board provided maps illustrating summary information from the existing conditions portion of the project. The maps included Existing Sidewalks, Traffic Volumes, Bike & Pedestrian Crashes, Active Trip Generators, Traffic Crashes, and Bike Level of Stress.

#### **Board 2: Bike Facility Types**

A second board provided photo examples showing different applications of the facility types: Bike Boulevards, Visually Separated Bike Lanes, Shared Use Paths, Enhanced Crossings, and Signalized Pedestrian Crossings. The facility types were color-coded to match the linework on the network map for ease of interpretation.

## Boards 3-5: Proposed Bike & Sidewalk Networks

Multiple boards were provided illustrating the proposed bike and sidewalk networks for attendees to view large and up close. Project team members joined attendees at the boards to discuss and to answer questions.

## Comment Station: Proposed Bike & Sidewalk Networks

The proposed bike and sidewalk networks were printed on large roll plot sheets and laid on tables with sticky notes, markers, and highlighters for attendees to draw their requests and write-in suggested amendments to the bike and sidewalk networks.


### **Video Presentation**

A video of the PowerPoint slides presented to the Project Advisory Committee (PAC) was running on loop on a TV in the room for folks who were interested in learning more detail about the project process and the findings from the existing conditions analysis, along with the emphasis areas for developing the bike and sidewalk networks.

## Analysis & Key Take-Aways

All attendees of the event were supportive of the City's efforts to expand its existing sidewalk network and provide safe routes for people to bike around town. Comments centered mostly around connectivity in the downtown area, the need for sidewalks for the walking community and the provision of facilities for underserved and economically depressed neighborhoods.

Regarding the bike network, participants recommended an alternative bike boulevard route on 7<sup>th</sup> Ave. and Oak St. to replace the proposed bike boulevard on Railroad St. from SR 30/Dayton Mountain Hwy. to 16<sup>th</sup> Ave. Participants also recommended that the project team review the feasibility of elevating the proposed bike boulevard on Broadway St. to a visually separated bike lane.

Regarding the sidewalk network, participants noted that the existing sidewalk network on Delaware Ave. is currently in disrepair and features steep drop-offs. Further, the proposed greenway crossings at Market St. were recommended for addition on the network map.

## **Online Survey**

The City of Dayton posted a web-based survey on its Facebook page from February 23 through March 10, 2023. 61 responses were collected. Most responders identified as female, (72.1%), white (88.5%), and between the ages of 45-64 (42.6%), with respondents ages 25-34 (21.3%) and 35-44 (24.6%) following behind.

The first three questions asked whether respondents would support a protected bike lane on Dayton Mountain Hwy. (82% yes), visually separated bike lanes downtown on Railroad Ave., Walnut St., 3rd Ave., and Market St. (80.3% yes), and a visually separated bike lane with shared use path on Delaware Ave. serving Rhea County Elementary (88.5% yes). The survey then inquired if respondents thought the proposed bike network would make it easier for Bryan College students,

faculty, and staff to access downtown (75.4% yes).

Respondents thought the proposed bike and sidewalk networks would make it easier (91.8%) and safer (90.2%) for people to bike and walk in Dayton, and 66.9% thought the proposed bike and sidewalk networks would promote economic growth and tourism for the City of Dayton.

Additionally, 81.8% of respondents noted that they would support city policies that would help Dayton become more bike-friendly and walking-friendly. Further, 80.4% of respondents noted that they would support the use of government funds, like the City of Dayton budget, to invest in bike or sidewalk projects.

Overall, while most (90.1%) respondents did not currently identify as regular bike riders (45.9% never/ not bike rider; 26.2% once a month or less, 18% a few days a month), 59% of respondents said that they would ride a bike more than they do now if there were more or better bike lanes available. Most (75.4%) respondents identified as regular walkers (39.3% almost every day, 36.1% a few days a week), and even still 86.9% of respondents said that they would walk more if there were more or better sidewalks.

The results of this survey overall supported the proposed draft bike and sidewalk networks. Additional comments provided by respondents were considered by the project team as the bike and sidewalk final network was developed, along with other comments received during the open house event. A full copy of the survey output can be found in **Appendix A**.



## BIKE & SIDEWALK NETWORK

The Dayton Community Mobility Plan intends to accomplish the goals Dayton has "to promote healthy living, increase safety for bicyclists, pedestrians, and those who utilize assistance devices, while encouraging connectivity through expanding on multimodal opportunities in the community for residents and visitors."

## **Bicycle and Pedestrian Network Recommendations**

The Dayton Community Mobility Plan will guide recommendations for future transportation projects, establish focus points for future grant opportunities, and guide development of a city-wide Master Plan and Bicycle & Pedestrian Plan, integrate into the City's ADA Transition Plan, and inform future street classification updates.

#### **Bike Network**

The project team proposes a bike network that prioritizes the following elements:

- Low Stress Routes (considering safety & comfort)
- Access to Community Destinations
- Direct, Logical Routes
- Extended & Enhanced Regional Connections

The bike network also emphasizes three key areas of town: (1) the downtown street network, (2) SR 30, and (3) US 27/ SR 29. See Figure 28: Dayton Bike Network Map.

## Summary of Bike Network Recommendations

#### Downtown Street Network

In the downtown core, posted speeds and volumes, along with surrounding land uses, are favorable to a shared street space for bikes and cars. Visually separated bike facilities are located on a few key connectors (3<sup>rd</sup> Ave., Market St. (south of 3<sup>rd</sup> Ave.), Railroad St., and Walnut St.), and they are threaded together by bike boulevard elements installed on other downtown corridors (Alabama St., 1<sup>st</sup> Ave., 2<sup>nd</sup> Ave., and 4<sup>th</sup> Ave.). The bike network extends with a bike boulevard treatment on 2<sup>nd</sup> Ave. to the west to reach SR 30/Dayton Mountain Hwy. It also adds a bike boulevard treatment east of US 27 on Chickamauga Dr. to promote safety and provide a multimodal connection to Point Park.

#### <u>SR 30</u>

SR 30/Dayton Mountain Hwy. and SR 30/Old Washington Hwy. are proposed to include physically separated bike lanes from Delaware Ave. to Market St. and again from US 27 to Richland St. A bike lane is provided on 3<sup>rd</sup> Ave. along with intersection enhancements at US 27 to complete the connection.

#### US 27/SR 29

Local and regional bike travelers are discouraged from using US 27 given traffic volumes, posted speeds, and freight traffic. Regional bike travelers are encouraged to exit US 27 at the Laurel Dr. or 16<sup>th</sup> Ave. intersections. A direct northsouth alternative bike connection through Dayton is provided using Laurel Dr., Market St., 13<sup>th</sup> Ave., and Oak St. This can be achieved not only though the provision of bike facilities, but also clear signage and branding as a designated bike route.

Additionally, intersection enhancements at US 27 and 3<sup>rd</sup> Ave. are recommended to complement the multimodal bridge project on SR 30/Old Washington Hwy, and to provide multimodal access for students at Bryan College to downtown Dayton.

#### Broadway St.

To offer residents a multimodal option for accessing major employers in the city, a bike boulevard and an enhanced crossing at SR 30/Dayton Mountain Hwy. are also located on Broadway St.

#### **Rhea County Elementary School**

An additional visually separated bike lane and separated shared use path are proposed on Delaware Ave. to provide a safe route to school for local students. As only a portion of Delaware Ave. is within Dayton city limits, a partnership with Rhea County would be required to complete the connection.

Likewise, a visually separated bike lane on Florida Ave. and bike boulevard on Cherry St. has been included to provide

access to Dayton City School. The same is true for the bike boulevard on California Ave. to provide access to Rhea County Academy.

#### Old Graysville Rd.

Based on usership observations estimated from Strava self-reported recordings, a bike boulevard treatment is also located on Old Graysville Rd. to provide regional connectivity between Dayton and Graysville. This also provides a secondary alternative route to northbound/southbound regional bike travelers, as opposed to traveling on less favorable US 27. This would also require partnership with Rhea County.

### **Pedestrian Sidewalk Network**

The sidewalk network prioritizes the following guiding principals:

- 1. Connects Existing Gaps,
- 2. Provides Access to Community Destinations, and
- 3. Safe & Accessible for All Ages & Abilities.

In addition to the new sidewalk connections, the Community Mobility Plan also recommends that the City perform necessary maintenance where and when sidewalk is in need of repair or where the existing sidewalk is not ADA-compliant. Sidewalk enhancement or addition projects should also include a review for pedestrian-oriented lighting, and include in the plans as needed.

The sidewalk network also emphasizes two key areas of town: (1) the downtown street network, and (2) SR 30.

### Pedestrian Improvements – Recommendations for Design

TDOT and local government new alignment, reconstruction, and resurfacing projects, that are fully or partially funded with state or federal projects, or projects within TDOT's transportation network or right-of-way are required to adhere to TDOT's Multimodal Design Guidelines. These stadards would apply to pedestrian improvements such as: sidewalks, shared-use paths, curb ramps, and walkways as well as other roadway features such as crosswalks, curb ramps, pedestrian signals, and pushbuttons. Pedestrian facilities can either be immediately adjacent to streets and highways or separated from them by a buffer. This plan recommends 6ft sidewalk widths with a preferred 5ft buffer for pedestrian facilities adjacent to roadways 35mph or below, and a preferred 8ft buffer for pedestrian facilities adjacent to roadways posted 35-40 mph (a minimum of 4.5ft is required). Additionally, all new construction or alteration of pedestrian facilities must meet or exceed ADA guidelines and be designed and constructed to be accessible and usable by persons with disabilities. ADA improvements are also triggered when the pedestrian signal operations, and pedestrian software (the internal logic of the controller), or ITS software affecting pedestrian signal operations are altered. Signal timing adjustments can also trigger ADA if the modification affects pedestrian intervals, signal phases, cycle length, or sequence to include longer walk times, longer clearance times, or to program parameters to extend the walk indication when coordinated signalization is used.

Best practices for pedestrian safety also include the use of high emphasis crosswalks, rectangular rapid flashing beacons or pedestrian hybrid beacons/high-intensity activated crosswalks, the addition of pedestrian-oriented lighting (particularly at crossing locations and intersections), the addition of curb extensions where there is on-street parking, and the reduction of turning radii to calm motor vehicle traffic, additional space for pedestrians, and to support street sweeping operations. Signal timing for walk phases should consider crossing times for aging and disabled populations. Additional consideration should be given to furnishings and amenities such as, street furniture, newspaper racks, bike parking racks, or trash bins and that these objects not impede travel along a sidewalk. Additionally, meandering or non-linear sidewalks are discouraged as they lengthen travel times and can be difficult to navigate for disabled or visually-impaired pedestrians. Reference guidance from institutions such as NACTO and these best practices for pedestrian planning and design to supplement TDOT's Multimodal Project Scoping Manual and Multimodal Design Standards (Chapter 3).

#### Summary of Recommendations

#### Downtown Street Network

In the downtown core, the network completes sidewalk gaps on Alabama Ave., Washington St., Walnut St., 2<sup>nd</sup> Ave, and 4<sup>th</sup> Ave. The Community Mobility Plan also recommends ADA improvements to damaged or non-compliant existing sidewalks.

#### <u>SR 30</u>

A sidewalk is proposed on SR 30/Dayton Mountain Hwy. from Delaware Ave. to the existing sidewalk on SR 30/Dayton Mountain Hwy. to provide a safe route to school for students at Rhea County Elementary.



Figure 28: Dayton Bike Network Map

#### Additional Network Connectivity

The sidewalk network includes recommendations for completing sidewalk connections south of the downtown core, with Market St. serving as the central spine. Sidewalks are proposed on Illinois Ave., California Ave., Colorado Ave., Cherry St., Florida Ave., and south on Laurel Dr. to provide pedestrian access to Dayton City School, Rhea County Academy, the Dayton Youth Baseball Complex, and local businesses.

North of the downtown core, sidewalks are proposed on Broadway St. and Oak St./7<sup>th</sup> Ave. to connect neighborhoods to downtown and residents to employment centers. Sidewalks are additionally proposed through the neighborhoods north of downtown on Market St., 13<sup>th</sup> Ave., and Oak St. to provide connection for residents to the shopping plaza on 16<sup>th</sup> Ave. to the north and the central business district to the south.

Finally, sidewalks are proposed on Richland St. and Chickamauga Dr. to provide faculty and students at Bryan College with walking access to Point Park and Dayton's downtown.

See **Figures 29 - 34** for tables summarizing the locations of the bike and sidewalk network segments by facility type and crossing enhancements by type and **Figure 35: Dayton Sidewalk Network Map**.

Bike Boulevard		
Location	Starting Termini	Ending Termini
Old Graysville Rd	Riddle Rd.	Illinois Ave.
Laurel Dr.	US 27	Market St.
Market St.	Laurel Dr.	13 <sup>th</sup> Ave.
Illinois Ave.	Old Graysville Rd.	Market St.
California Ave.	Illinois Ave.	Delaware Ave.
Cherry St.	Florida Ave.	Colorado Ave.
Colorado Ave.	Cherry St.	Market St.
Alabama Ave.	Railroad St.	Walnut St.
1 <sup>st</sup> Ave.	Railroad St.	Eastern terminus/road end
2 <sup>nd</sup> Ave.	SR 30/Dayton Mountain Hwy.	Walnut St.
3 <sup>rd</sup> Ave.	Railroad St.	Market St.
4 <sup>th</sup> Ave.	Railroad St.	Walnut St.
Chickamauga Dr.	SR 30/Old Washington Hwy.	SE limits of Point Park (at
		picnic shelters)
Railroad Ave.	SR 30/Dayton Mountain Hwy.	7 <sup>th</sup> Ave.
7 <sup>th</sup> Ave.	Railroad Ave.	Oak St.
Oak St.	7 <sup>th</sup> Ave.	16 <sup>th</sup> Ave.
Broadway St.	SR 30/Dayton Mountain Hwy.	Walnut Grove Rd.
Richland St.	College St.	Landes Way
Landes Way	Richland St.	Mercer Dr.
Mercer Dr.	Landes Way	Bryan Dr.
Mercer Dr.	Western terminus/parking lot	Landes Way
Bryan Dr.	Mercer Dr. (west/Rudd Auditorium/parking lot)	Mercer Dr. (east/fork)

Figure 29: Bike Boulevard Network Table

Visually Separated		
Starting Termini	Ending Termini	
approx. 400 ft W of US 27	US 27	
approx. 520 ft W of Market St.	Market St.	
Market St.	US 27	
Market Ot	Delaware Ave. Sports	
	Complex southern entrance	
Southern terminus	4 <sup>th</sup> Ave.	
Church St.	Walnut St.	
Main St.	4 <sup>th</sup> Ave.	
Railroad St.	Walnut St.	
Oak St.	US 27	
SR 30/Old Washington Hwy.	College St.	
	Starting Termini         approx. 400 ft W of US 27         approx. 520 ft W of Market St.         Market St.         Market St.         Southern terminus         Church St.         Main St.         Railroad St.         Oak St.         SR 30/Old Washington Hwy.	

Figure 30: Visually Separated Network Table

Physically Separated			
Location	Starting Termini	Ending Termini	
SR 30/Dayton Mountain Hwy.	Delaware Ave.	Market St.	
3 <sup>rd</sup> Ave.	Walnut St.	US 27	
SR 30/Old Washington Hwy.	US 27	Richland St.	

Figure 31: Physically Separated Network Table

Shared Use Path		
Location Starting Termini Ending Termini		
SR 30/Dayton Mountain Hwy.	Delaware Ave.	Market St.

Figure 32: Shared Use Path Network Table

Crossing Enhancement		
Cross Street	Cross Street	
Lourol Dr		High-Emphasis Crosswalks,
	05 21	ADA improvements
	Markat St	High-Emphasis Crosswalks,
		ADA improvements
	Market St.	High-Emphasis Crosswalks,
lilinois Ave.		ADA improvements
	US 27	High-Emphasis Crosswalks,
FIONDA AVE.		ADA improvements
Market St	Colorado Ave.	High-Emphasis Crosswalks,
Market St.		ADA improvements
Market St	Proposed Greenway (approx. Hickory St.)	High-Emphasis Crosswalks,
Market St.		ADA improvements
Market St.		High-Emphasis Crosswalks,
	Proposed Greenway (approx. Washington St.)	ADA improvements

	Delaware Ave. Sports Complex southern	*Proposed Signalized
Delaware Ave.*	entrance*	Crossing
CD 20/Deuten Meuntein Llung		High-Emphasis Crosswalks,
SR 30/Dayton Mountain Hwy.	Broadway St.	ADA improvements
CD 20/Deuten Meuntein Llung	Market St.	High-Emphasis Crosswalks,
SR 30/Dayton Mountain Hwy.		ADA improvements
Market St.	Access Rd.	High-Emphasis Crosswalks,
		ADA improvements
Market St	11 <sup>th</sup> Ave.	High-Emphasis Crosswalks,
Market St.		ADA improvements
Delaware Ave.		High-Emphasis Crosswalks,
	SK 30/Dayton Mountain HWy.	ADA improvements

Figure 33: Crossing Enhancements Table

Sidewalks		
Location	Starting Termini	Ending Termini
Laurel Dr.	US 27	Market St.
Market St.	Laurel Dr.	Indiana Dr.
Illinois Ave.	California Ave.	Market St.
California Ave.	Illinois Ave.	Delaware Ave.
Delaware Ave.	California Ave.	Market St.
Florida Ave.	Market St.	US 28
Cherry St.	Florida Ave.	Colorado Ave.
Colorado Ave.	Market St.	Cherry St.
Alabama Ave.	Market St.	Washington St.
Washington St.	Alabama Ave.	Main St.
Walnut St.	Main St.	4 <sup>th</sup> Ave.
2 <sup>nd</sup> Ave.	SR 30/Dayton Mountain Hwy.	Market St.
SR 30/Dayton Mountain Hwy.	Delaware Ave.	east of Cemetery Rd.
4 <sup>th</sup> Ave. (north)	east of Market St.	Church St.
Railroad St.	SR 30/Dayton Mountain Hwy.	Walnut Grove Rd.
7 <sup>th</sup> Ave.	Railroad St.	Oak St.
Oak St.	7 <sup>th</sup> Ave.	16 <sup>th</sup> Ave.
16 <sup>th</sup> Ave.	Oak St.	US 27
Richland St.	SR 30/Old Washington Hwy.	Landes Way
Chickamauga Dr.	SR 30/Old Washington Hwy.	SE limits of Point Park (at picnic shelters)

Figure 34: Sidewalk Network Table



Figure 35: Dayton Sidewalk Network Map

## IMPLEMENTATION RECOMMENDATIONS

## Policies

This Plan recommends that as the City of Dayton finalize and adopts a Bicycle & Pedestrian element in the future city comprehensive and master plan documents. To create a multimodal-friendly landscape, a suite of policies, actions, and design standards are needed, as no single action is capable of achieving this on its own. It is important that the Plan, in each of its elements (from land use to parking), also consider the needs of a human-scale transportation network that safely serves its most vulnerable road users.

Below are recommended policy components for inclusion. As these policy concepts are further developed, they should include both a clear statement of purpose and vision along with a way to measure progress toward desired outcomes.

- 1. Adopt a Complete Streets Policy: This is an overarching directive that is meant to ensure that each facet of the City designs, operates, and maintains the entire right-of-way to enable safe access for all users. A Complete Streets policy provides direction for a comprehensive transportation network, context sensitive planning for land use and transportation facility development, accountable clear and expectations for each jurisdiction that oversees elements of Complete Streets development and maintenance, and performance measures with steps for implementation. Resources for this development include those found at the National Complete Streets Coalition and NACTO.
- Establish Bicycle & Pedestrian Friendly Design 2. Standards: These should include elements such as, but not limited to the following: (a) the use of green paint when designating visually separated, onstreet bike facilities, (b) the provision of pedestrianoriented lighting at intersections, and (c) the use of special emphasis crosswalk at all pedestrian crossings. Design standards should endeavor to create a multimodal network that is safe, comfortable, and accessible for all ages and abilities, referencing guidance from organizations such as 8 80 Cities. 8 80 Cities, an organization that promotes active mobility and accessibility for all ages, offers training programs and tools kits to equip cities with context specific design solutions to improve multimodal safety.
- 3. Support Bike-Friendly Safety Education for Motorists and Bike Riders: Elements of safety are not limited to engineering and design alone. Education is measurably influential in its own dimension to have a positive influence for bike rider and pedestrian safety outcomes. This Plan recommends that the City seek out and implement programs to better educate drivers on the legal and safe way to share the road with all modes of transportation. Likewise, education programs offered at schools for young bike riders and community centers for riders of all ages can help better educate bike riders on how to increase their awareness, understand their rights and limits on the road, and develop safety-oriented bike riding habits.

4. Involve Law Enforcement in Creating a Safe Multimodal Environment: This Plan recommends that the City work with its law enforcement agency and partner agencies to further establish a process by which existing multimodal traffic laws are enforced. Examples include examining if there are programs to enforce motorists yielding at crosswalks and the penalties exacted on those who operate motor vehicles in a reckless manner that endangers the safety of vulnerable road users. Other recommendations include increased training for law enforcement on bicycle and pedestrian topics and the introduction or expansion of bicycle-based patrols to visually legitimize biking for the community by example.

## Implementation

The recommended bike and sidewalk networks for the City of Dayton include 0.5 mile (mi) of shared use path, 1.05 mi of physically separated bike lanes, 2.81 mi of visually separated bike lanes, 11.76 mi of bike boulevards, and 8.39 mi of sidewalk in total. **Figures 36 - 41** include a summary of opinions of probable construction cost (OPCC) for each of the recommended projects included in the bike and sidewalk networks. These are organized by the facility type, with a final table summarizing the total network cost for the bike and sidewalk networks. Please note that these estimates have been calculated at the planning-level only using a standard cost-per-mile for each facility type. They also do not reflect the cost of design, right-of-way acquisition if applicable, utility relocation, permitting, or any other related costs beyond that of construction. For the purposes of this exercise, a cost of \$300,000/mi was used for shared use paths; \$200,000/mi was used for physically separated bike lanes; \$150,000/mi was used for visually separated bike lanes; \$110,000/mi was used for bike boulevards; and \$105/square yard (sq yd) was used for sidewalks.

The Plan reflects an aspirational future for the City of Dayton. Its implementation will require thoughtful budgetary planning, targeted expenditures to support bike and pedestrian safety, and coordination and collaboration with partner agencies to leverage available external funding sources to bring the Plan to life.

Name	Length (mi)	OPCC
3 <sup>rd</sup> Ave.	0.14	\$15,000
Alabama Ave.	0.16	\$17,000
4 <sup>th</sup> Ave.	0.35	\$39,000
Alabama Ave.	0.15	\$16,000
W. California Ave.	0.27	\$30,000
Illinois Ave. / Old Graysville Rd.	1.84	\$203,000
Cherry St.	0.34	\$38,000
2 <sup>nd</sup> Ave.	0.48	\$52,000
2 <sup>nd</sup> Ave.	0.35	\$39,000
1 <sup>st</sup> Ave.	0.44	\$48,000
Richland St.	1.71	\$188,000
Market St.	1.65	\$181,000
Railroad St.	1.10	\$121,000
Broadway St.	2.03	\$224,000
Laurel Dr.	0.74	\$82,000

Name	Length (mi)	OPCC
Delaware Ave.	0.54	\$161,000

Figure 37: Bike Network Summary - Shared Use Path

Name	Length (mi)	OPCC
Railroad St.	0.54	\$81,000
Florida Ave.	0.19	\$29,000
Delaware Ave.	0.58	\$87,000
Walnut St.	0.33	\$49,000
3 <sup>rd</sup> Ave.	0.21	\$32,000
Richland St.	0.06	\$9,000
16 <sup>th</sup> Ave.	0.41	\$62,000
Laurel Dr. S.	0.10	\$15,000
Laurel Dr. N.	0.15	\$22,000
Market St.	0.23	\$34,000

Figure 38: Bike Network Summary - Visually Separated

Name	Length (mi)	OPCC
Dayton Mountain Hwy.	1.05	\$210,000
,		

Figure 39: Bike Network Summary - Physically Separated

Name	Length (mi)	OPCC
2 <sup>nd</sup> Ave.	0.67	\$204,000
4 <sup>th</sup> Ave.	0.05	\$14,000
Chickamauga Dr.	0.21	\$63,000
Alabama Ave.	0.29	\$89,000
Market St./Laurel Dr.	1.37	\$421,000
Illinois Ave.	0.21	\$64,000
Market St.	0.05	\$17,000
Florida Ave.	0.17	\$51,000
Cherry St.	0.35	\$107,000
Market St. / Oak St.	1.41	\$431,000
Richland St.	0.55	\$169,000
Broadway St.	2.01	\$616,000
Walnut St.	0.32	\$98,000
Dayton Mountain Hwy.	0.52	\$160,000
Delaware Ave.	0.22	\$66,000

Figure 40: Sidewalk Network Summary

Facility Type	Length (mi)	OPCC
Sidewalk Network	8.39	\$2,570,000
Bicycle Boulevard	11.76	\$1,293,000
Visually Separated	2.81	\$420,000
Physically Separated	1.05	\$210,000
Shared Use	0.54	\$161,000
Total Combined Bike/		¢4 654 000
Sidewalk Network		<del>\$4,65</del> 4,000

Figure 41: Total Bike and Sidewalk Network Summaries

#### **RECOMMENDED PHASING**

#### Short-Term Bike Network Projects

Based on the goals and vision established for this initiative, this Plan recommends that the City of Dayton concentrate its immediate efforts on providing safe routes through the downtown street network, along SR 30, and through-city north/south connectivity (considering US 27/SR 29 or other alternatives).

These routes include the following, organized by facility type:

- Physically Separated
- SR 30/Dayton Mountain Hwy.
- Visually Separated
  - Railroad Ave.
  - Market St.
  - Walnut St.
- o 16th Ave.
- Laurel Dr.
- Bike Boulevard
  - Laurel Dr.
  - Market St.
  - Washington St.
- Alabama Ave.
- o 1st Ave.
- 2nd Ave.
- 4th Ave.
- Railroad Ave.
- o 7th Ave.
- Oak St.

This Plan recommends that the corresponding sidewalk improvements along these recommended bike routes also be advanced for short-term implementation.

#### **Mid-Term Projects**

To support enhanced connectivity and safety, and based on feedback received from the City and from the public emphasizing a need for safer route to school, the following routes are recommended for mid-term phasing:

- Shared Use Path
- Delaware Ave.
- Visually Separated
- Delaware Ave.
- Richland St.
- Bike Boulevard
  - Cherry St.
  - Colorado Ave.
  - Richland St.
  - Landes Way

This Plan recommends that the corresponding sidewalk improvements along these recommended bike routes also be advanced for mid-term implementation.

#### Long-Term Projects

The remaining projects are recommended for longterm phasing as they provide intra-network and intra-city connectivity.

- Bike Boulevard
  - Old Graysville Rd.
- Illinois Ave.
- California Ave.
- lowa Ave.
- o Broadway St.

This Plan recommends that the corresponding sidewalk improvements along these recommended bike routes also be advanced for long-term implementation.

#### **Funding Opportunities**

A variety of funding sources are available to City to support the implementation of the recommended projects that comprise the City's bike and sidewalk networks. Implementation of the Community Mobility Plan will not come from a single source, but rather a combination of multiple including all or some of the following. The appropriate and eligible funding source is dependent upon the type of project and its location. A narrative summary of these opportunities can be found in **Figure 42: Table of Funding Opportunities**.

#### Public/Private Partnerships

For parks, trails, and other greenway or recreational facilities, a public/private partnership can provide a funding source outside of traditional means for funding city mobility projects. By demonstrating how a multimodal, shared use path, or trail/greenway facility can offer positive economic benefit to private investors, the City may see improved success with securing such partnerships. Emphasis on a project's ability to implement the City's long-term vision, positively respond to public pressure, and/or offer a unique and attractive opportunity can help to bring together private stakeholders to implement a value-add project.

#### **Capital Improvements Program**

Upon adoption of this plan, the City should consider planning at least five years out for future infrastructure enhancements that will help implement this plan's recommended bike and pedestrian networks and improve the safety and efficiency of multimodal travel. In particular, the scoping of roadway maintenance and resurfacing projects in this plan. Coinciding multimodal projects should be included in the scope of these roadway projects.



#### **TDOT-Administered Grants**

TDOT's Local Programs Development Office oversees federal and state funding programs that are available to local governments to improve transportation systems. Grant opportunities available to the City in partnership and cooperation with the State are listed in the pages that follow. More information can be found on the <u>TDOT Local Programs Office website</u> and in the TDOT published manual: <u>Local Government Guidelines For The Management Of Federal And State-Funded</u> <u>Transportation Projects</u>.

#### Additional Grant Opportunities

Additional grants that support the advancement and implementation of multimodal projects are provided by the Tennessee Department of Health and the Tennessee Department of Environment and Conservation.

## Looking Ahead – Local Match to Seek & Secure Grant Funding

Provided with the opinions of probable construction cost are estimates of possible required local match dollars to seek outside funding through grants. The provided opinion of probable cost estimates can be used by the City and its Council to plan for future budget cycles and allocate funds to support the advancement of this plan.

Figure 42: Table of Funding Opportunities

			Information
April May appli	<ul> <li>Application Cycle:</li> <li>May: Notice of Intent to Apply</li> <li>July: Application period for invited cants via eGrants</li> </ul>	<ul> <li>Sidewalks</li> <li>Pedestrian crossing improvements, including high- visibility crosswalks, curb ramps, signs and pavement markings, signalization, and median refuge islands</li> <li>Bicycle facilities (including on- road bike lanes/cycle tracks)</li> <li>Multi-use paths (pedestrian plus bicycle traffic) located within the transportation</li> </ul>	
Winte -funded program created the transportation pedestrians, bicyclists, TDO it users through cture projects that matcl econ is 5% \$1,18 proje maxi	er 2023/2024: Notice of Award T match percentage and amounts were ged for the 2022 grant cycle: The local ih percentage for projects located in omically Distressed and At-Risk counties (with a maximum award amount of 87,500). The local match percentage for ects in all other locations is 10% (with a mum award amount of \$1,125,000).	corridor. All such paths must be a minimum of 10-feet wide. • Transit stop amenities (shelters, benches, sidewalks, curb ramps, lighting) • Complete streets, road diet, or traffic calming measures • Bicycle, pedestrian and transit- related improvements that address requirements of the Americans with Disabilities Act (ADA) • Pedestrian-scale lighting (will not rank highly as a standalone project, but is eligible as a project component) • Other improvements which improve access for multimodal	TN Dept of Transportation - Multimodal Access Grant
Multimodal Access - funded program cl t the transportatior pedestrians, bicycl sit users through sture projects that existing gaps along	2023 April April May intreated ists, ists, TDO chan chan chan state econ is 59 proje maxi maxi	<ul> <li>2023 Application Cycle:</li> <li>April - May: Notice of Intent to Apply May - July: Application period for invited applicants via eGrants</li> <li>Grant Winter 2023/2024: Notice of Award</li> <li>applicants via eGrants</li> <li>Match:</li> <li>TDOT match percentage and amounts were changed for the 2022 grant cycle: The local match percentage for projects located in economically Distressed and At-Risk counties is 5% (with a maximum award amount of \$1,187,500). The local match percentage for projects in all other locations is 10% (with a maximum award amount of \$1,125,000).</li> </ul>	2023 Application Cycle:       ransportation         April - May: Notice of Intent to Apply May - July: Application period for invited may - July: Application period for invited paplicants via eGrants       • Multi-use paths (pedestrian plus bicycle traffic) located within the transportation         Grant May - July: Application period for invited applicants via eGrants       • Multi-use paths (pedestrian plus bicycle traffic) located within the transportation         Grant Istate       • Multi-use paths (pedestrian plus bicycle traffic) located within the transportation         Inter 2023/2024: Notice of Award ereated       • Transit stop amenities (shelters, ists, transit stop amenities (shelters, ists)         Inter 2023/2024: Notice of Award ereated       • Transit stop amenities (shelters, ists)         Inter 2022 grant cycle: The local match percentage for projects located in match percentage for projects located in match percentage for projects in all other locations is 10% (with a maximum award amount of \$1,125,000).       • Complete streets, road diet, or traffic calming measures         \$1,187,500). The local match percentage for projects in all other locations is 10% (with a maximum award amount of \$1,125,000).       • Complete streets, road diet, or traffic alming with ling (will not rank highly as a standalone project, but is eligible         Pedestrian-scale lighting (will not rank highly as a standalone project, but is eligible       • Other improvements which improve access for multimodal users

Grant Program	Source Agency	Description	Requirements	Typical Projects	Links for More Information
			Application: The TAP application cycle is open annually from August 1st through the first Friday in October. TDOT only accepts applications	The most popular are bicycling and walking projects including	<u>TAP Summary -</u> League of American <u>Bicyclists</u>
Transportation Alternatives Program (TAP)	TN Dept. of Transportation	Tennessee has funding for sidewalks, bikeways, trails, Safe Routes to School, and more through the Transportation Alternatives Program (TAP).	through its eGrants system. The submission must still include the necessary budget, detailed maps, photographs, preliminary sketches and support letters. Note: TDOT can provide assistance for applying, with project implementation, including environmental review, planning, design, permits, and project management. <b>Match</b> : 20% Local - Note: The Bipartisan Infrastructure Law gives states flexibility in meeting the 20% match, including using state safety funds for Transportation Alternatives projects that improve safety.	sucewarks, crosswarks, brice lanes, Safe Routes to School projects (both construction and programming), and recreational trails. About 95 percent of dollars go to these types of projects. Other eligible projects are: inventory and removal of outdoor advertising; historic preservation; vegetation management; archaeological activities; turnouts, overlooks and viewing areas; environmental mitigation; and streetscape improvements related to other TAP projects.	TDOT TAP Info Page with eGrants
Local Parks	TN Dept. of	The Local Parks and Recreation Fund (LPRF) provides grants to eligible local government entities for the purchase of lands for parks, natural areas, greenways,	Eligible Applicants: City or County Governments Grant Cycle: Pre-applications required in February.	Land acquisition, indoor and	<u>TN Dept of</u> <u>Environment &amp;</u> <u>Conservation - Local</u> <u>Parks &amp; Recreation</u> <u>Fund (LPRF)</u>
& recreation Fund (LPRF)	Conservation	and recreation facilities. The funds may also be used for trail development and capital projects in parks, natural areas, and greenways.	Applications due in April. <b>Match</b> : 50% Local Max - \$1,000,000	development	<u>TN Dept of</u> <u>Environment &amp;</u> <u>Conservation -</u> <u>Grants Administration</u>

Grant Program	Source Agency	Description	Requirements	Typical Projects	Links for More Information
Healthy Built Environments (HBE)	TN Dept. of Health	Competitive grant cycles are opened for consideration of projects that support the TDH Office of Primary Prevention (OPP)'s goal to "build a culture of health through livable and nurturing places and spaces so that all residents can reach their full potential". Grants fund a "diverse set of initiatives including convening, programming, planning, and construction of built environment projects". Non-competitive grants are awarded to Tennessee counties at the department's discretion to fund new construction, improvement, or planning of facilities and infrastructure that support healthy communities.	<b>Competitive Solicitation</b> : Application rounds announced in their Built Environment + Health Newsletter <b>Non-Competitive Award</b> : (Historically, 2017 - \$10,000 to rural counties; 2019 - \$20,000 to all counties)	Greenways, trails, walking tracks, playgrounds, outdoor fitness stations, and other publicly accessible spaces	TN Dept. of Health HBE Webpage
Recreational Trails Program (RTP)	TN Dept. of Environment & Conservation	The Recreational Trails Program (RTP) is a federal funded, state administered grant program. RTP provides grant funding for land acquisition for trails, trails maintenance and restoration/ rehabilitation, trail construction, and trail head support facilities. All grant projects must be on publicly owned land.	Eligible Applicants: City or County Governments Grant Cycle: Pre-applications required in February. Applications due in April. Applications due in April. 80% State 20% Local Max - \$250,000	Urban hard surface trail development and natural surface trail development (construction and maintenance), restoration of trails damaged by use, development of trailside support facilities, educational and safety trail trainings.	TN Dept of Environment & Conservation - Local Parks & Recreation Fund (LPRF) Environment & Conservation - Grants Administration



## APPENDIX A -Survey Output Report for the City of Dayton Community Mobility Plan

## Survey Output Report for the City of Dayton Community Mobility Plan

Do you support the development of a protected bike lane on Dayton Mountain Hwy? 61 responses



Νο	People in this town cannot stay in their own lane to drive to begin with. The roads, especially Railroad Street are high traffic roads, especially during school timescars barely fit on them and now we want to add all this? While I actually think a bike lane would be nice, it isn't even safe for kids to walk around trying to get to and from school. That should be the priority. People do not watch out for kids, the sidewalks are junk in a lot of places, that garage across from Robinsons has cars piled up all over and it makes it extremely difficult to see to pull out or for kids to cross and BIKES are a priority?? Come on now. Whoever is in charge of planning needs to really take stock in what they are doing and stop worrying about Bryan College and Fishermen and worry about the people that actually have to live here and drive around on these cramped high traffic roads and those kids who have to walk around. Trying to transform into a big city is all well and good if you do it in a way that uses some degree of common sense.
Yes	As long as you don't add a red light.
Yes	A bike lane would allow bikes to travel more freely.
Yes	It's a great idea!
Yes	Safety
Yes	Cyclist safety
No	Not enough use to justify the costs
Yes	It brackets cyclists and drivers from each other, in their own lanes.
Yes	This would be an awesome way for families to be more active for a lost cost!
Yes	It is terrifying to run, walk, or ride hwy 30 when the sidewalk ends.
Yes	I'm a recreational bike rider & Rhea county resident
Yes	Great idea
Yes	This is a wonderful idea.
No	Feel it would be safe
Yes	We need more bike paths
Yes	We need more areas for bikers to feel safe

Yes	Safety is priority for bicyclists to enjoy riding near traffic. The bike lane allows the opportunity for people to exercise better health.
Yes	Very busy road. Better protection there is good.
Yes	Safety
No	If any bike lanes are built, they need to be physically separated from any road, walking track, or sidewalk.
Yes	It seems there is plenty of space and there is definitely a need to get to and from recreation complexes, such as Delaware Ave and Rhea Central Elementary and closer to Pocket Wilderness & the Cumberland Trail.
Yes	Its too dangerous otherwise.
No	Too many accidents already due to mountain terrain.
Yes	This option would be safer.
No	Too dangerous
No	Too busy of a road to have a bike lane. Too many accidents
Yes	Especially crossing the bridge, there is danger of people not paying attention to cyclists
Yes	Anything that can be done to protect bikers on 30 or 27 is a must. I've bikes on this road many times. A dedicated lane would give me some peace of mind.
Yes	Safety

Do you support adding visually separated bike lanes on Railroad St., Walnut St., 3rd. Ave, and Market St.?

61 responses



No	Will seem invasive to residents in the area.
Yes	This sounds great, but these streets are already narrow, what are your plans to widen RR and Market to fit a bike lane?
Yes	Easy to get around town
Yes	Safety
Yes	Heavier traffic in downtown blocks
No	Not near enough roadway to provide safe passage for both vehicles and bicycles
No opinion	Traffic isn't heavy in these areas so kind of seems like a waste of money. Although people with young kids may like that options
No	Visual doesn't widen the street enough for cyclists and drivers. Look @ Chattanooga!
Yes	There needs to be more protected mileage for bikers, walkers, and runners in the city.
No	the parking on market st. is of more value to the downtown merchants
Yes	This would be wonderful for our community.
Yes	We need more areas to ride
Yes	The more option that bicyclists have, the better.
No	Any bike lanes need to be physically separated from sidewalks, roads, and walking tracks.
Yes	A connected community creates a better quality of life which creates economic impact when they are more desirable to live in. Creating safer places to exercise also helps with a communities health & wellness goals too.
Yes	Anything that enhances safety
Yes	Slow moving traffic, seems safe with lane.
Yes	Simply, heres your sign. Roads should hava guidlines as to the uses of the area.
No	Not safe

Do you support adding a visually separated bike lane and shared use path on Delaware Ave. to create a safe route to school for Rhea County Elementary? <sup>61</sup> responses



Yes	The kids who have to cross Delaware or walk along Delaware are in danger! This is much needed!
Yes	Great idea, but this is a narrow street!
Yes	Would be great for parents and kids
Yes	Safety
Yes	Child safety
No	Costs will outweigh the usage in this proposed area
Yes	Delaware ave is a hazard for anyone trying to walk or run or bike down it. It needs a sidewalk on both sides all the way down that street. Cars fly down that road
Yes	Anything to promote safety in school areas.
Yes	There is little to no shoulder on Delaware that serves 2 schools and lots of children.
Yes	It improves access to delaware for longer workouts
Yes	There needs to be a light at Delaware and market too. Too many accidents are happening due to the cars blocking the visability at Steve's mobile. Also there needs to be a sign sized crossing at California and Delaware for RCA.
Yes	This would be wonderful for our community.
No	Way too much yraffic and buses
Yes	This will also benefit RCA where my child will go to school
Yes	For those who choose to bike to school or other destinations, this route provides a safe avenue to adventure on.
No	Any bike lanes need to be physically separated from sidewalks, roads, and walking tracks.
Yes	Yes. Delaware Ave needs improvement to support the Recreation Complex as well as Rhea Central school. A well designed bike lane here could also make a loop to Dayton Mtn Hwy and back into town and other proposed bike routes. This could complete a nice loop as well as improve safety.
Yes	Ease of use to bikers & people enjoying the park
No	Tight area, don't need kids on bikes in school traffic.
Yes	Safty for kids and adults should be and always a priority.
Yes	This is a safe option.
Yes	I want my daughter to be able to take her bike to school!
Yes	The Delaware Drag Strip definitely needs something to help protect bikers and walkers looking for options to connect to downtown.

Do you think the proposed bike network makes it easier for Bryan College students, faculty, and staff to access downtown?

61 responses



Yes	Again, great idea but how does anyone cross Hwy 27?
Yes	Good for exercise and if you don't have a car
Yes	Access and safety
Yes	Separate lane
No	Costs just don't justify the usage.
No	BC students run wherever they want too, but they aren't a huge part of our town. They usually stay on top of the hill
Yes	It'll promote more downtown revenue.
Yes	If you can cross hwy 27 with a traffic light to a protected pedestrian lane, then yes.
Yes	it would eliminate crossings of hwy. 27
No	A cross walk with crossing light at 27/30 would be more beneficial for this
Yes	This would be wonderful for our community.
Yes	Make it safer
Yes	Yes, many student utilize biking efforts.
No	Any bike lanes need to be physically separated from sidewalks, roads, and walking tracks. Plus, will enough students actually use it?
Yes	With almost 1,000 student on campus Bryan's students, faculty, staff and visitors would use a well designed bike path down to the economic center of Dayton, which happens to our on the opposite side of a dangerous 4 lane highway. A well designed bike plan would support safe crossings of Hwy 27 to include under passes UNDER Hwy 27 & Hwy 30 bridges as well as consider a multimodal overpass bridges over Hwy 27 to compete the loop for bike route and better community connectivity. Yes, I support!
No opinion	Not sure, crossing the bypass needs careful planning
Yes	Combination of a well established college with our downtown area can only aid in promoting businesses in the downtown area. Plus ways not to have to cross the highway.
No	Most won't want the hike/ride back up the hill.

Do you believe the proposed bike and sidewalk networks would make it easier for people biking and walking to get to where they want to go? 61 responses



Do you believe the proposed bike and sidewalk networks would improve safety for people biking and walking?

61 responses



Do you believe the proposed bike and sidewalk networks would promote economic growth and tourism for the City of Dayton?

61 responses



How strongly would you support city policies that would help Dayton become more bike-friendly and walking-friendly?

61 responses



How strongly would you support the use of government funds, like the City of Dayton's budget, to invest in bike or sidewalk projects? 61 responses



#### How often do you ride a bike right now? 61 responses



Would you ride more than you do now if there were more or better bike lanes or bike paths? 61 responses



#### Other Comments:

My kids love to ride their bikes, but I would never let them ride anywhere near a road in this town. People fly down these roads, especially Old Graysville, Idaho, Illinois, Deleware etc and painting some lines on the road is not going to keep people safe when people cannot drive like they have a brain cell. Absolutely not. I would love to not have to haul their bikes somewhere else for them to ride, but I am also not going to trust paint lines to protect them from morons that should not be behind the wheel. I would get a bike!

I'm a 70 yr old biker, and simply haven't ridden a bicycle in several years. But being new to Dayton... Projects like this could entice me to.

I'm too old but I like the idea

I already bike a lot, but my friends would be more inclined to join me.

#### How often do you go for a walk? 61 responses



## Would you walk more if there were more or better sidewalks? <sup>61</sup> responses



How do you describe your gender identity? 61 responses



What racial and ethnic group(s) do you identify with? Select all that apply. 61 responses



## Would you describe your household as:

61 responses



## Which of the following describes you? Select all that apply.





If you are a resident in the City of Dayton, how long have you lived here? 46 responses



<b>Dayton Community Mobility Plan - Comment Card</b>
Name: Faith Jourg Phone Number: 423-802-8508
Address: <u>194 Young Drive</u> City: <u>Dayton</u> State: <u>TN</u> Zip: <u>3732</u> ( Email: <u>Fnjyounge gmail.com</u>
Please leave your thoughts and comments below: 1st step - Review current sidewalks - hardscape & landscaping
Image: New Student       5.       Runner         2.       Student       6.       Bicyclist         3.       Business Owner       7.       Do not own cat         4.       Employee       8.       Other: Walker
Dayton Community Mobility Plan - Comment Card
Name: <u>Cathy Barger</u> Phone Number: <u>775 9473</u>
Address:
City: State: Zip:
Email: <u>cathybarger @ hotmail.con</u>
Please leave your thoughts and comments below: <u>Traffic is a big reason I do not ride more</u> . Bike boulevards Generate me. Side walks are not wide enough to be safe.
for billing Som areas and if sidewalk
Love 6A. in de shared use and visibly separated. Which best describes you? A. Resident 5. Runner 2. Student 62 Bicyclist
3. Business Owner       7. Do not own car         4. Employee       8. Other: Walker

E SIGN-IN SHEET	TE Tuesday, February 28, 2023	<b>AE</b> 5:00 – 7:00 PM	Optional) Phone (Optional)	it Celedenodyang 423.775-8400	Andderforth 423-775-1818	-Orhenedican 2/23 618 Selel	1000090 quail con 423.775-3998	ton 2 thereas. 019 423-413-8735	1 barger Chatmailicum 177 9473		vin a daytontn. net 423-664-0725	in land prugin	dime edaytanting 433 775-1818	Ahan Ochytonta, net 423280-3/4	1211. Sunfficial Damiel (423) 667-684	
N OPEN HOUS	DAT		Zip Code Email (	37321 buves	12222	3732 ( John	37321 Fin	37321 Chor	37321 Cath	37321	37321 +001	Ken	37321 bran	37321 bgR	37321 Show	
TENNESSEE	Community Mobility Plan	City Hall   399 1st Ave.		tivest	Hotor	Indie	M. Goeney	Holdmy O	Barger	Rande Pok	Colvin	Lagar	M Spadden	SRAGNNR )	~ Swajjnd	>
	PROJECT	LOCATION	Name	Brittany	Michello	() hor ()	Darth	Cintry	Cathy -	Here	IAmmu	Klvin	Brandi	1 411.	Sherra	

# **APPENDIX B -Existing Conditions Maps**


Figure B1: City of Dayton, Active Trip Generators Map



Figure B2: City of Dayton Zoning Map



Figure B3: City of Dayton, Land Use Map



Figure B4: City of Dayton, Land Cover Map



Figure B5: City of Dayton, Flood Hazard Map



Figure B6: TDOT Functional Classification Map, Dayton detail



Figure B7: Dayton Average Annual Daily Traffic Volumes Map







Figure B8: Inflow/Outflow Commute Patterns, Dayton



Figure B9: Dayton Vehicle Crashes Reported (since 2018)



Figure B10: City of Dayton, Existing Sidewalk Network Map



Figure B11: City of Dayton, Bike Facility Map



Figure B12: City of Dayton, Bike Level of Service Map



Figure B13: City of Dayton Strava Walking and Biking Data Visualization



Figure B14: City of Dayton Bike and Pedestrian Crash Map

### APPENDIX C -Proposed Network Tables & Maps



Figure C1: Proposed Bike Network Map



Figure C2: Dayton Sidewalk Network Map

Bike Boulevard		
Location	Starting Termini	Ending Termini
Old Graysville Rd	Riddle Rd.	Illinois Ave.
Laurel Dr.	US 27	Market St.
Market St.	Laurel Dr.	13 <sup>th</sup> Ave.
Illinois Ave.	Old Graysville Rd.	Market St.
California Ave.	Illinois Ave.	Delaware Ave.
Cherry St.	Florida Ave.	Colorado Ave.
Colorado Ave.	Cherry St.	Market St.
Alabama Ave.	Railroad St.	Walnut St.
1 <sup>st</sup> Ave.	Railroad St.	Eastern terminus/road end
2 <sup>nd</sup> Ave.	SR 30/Dayton Mountain Hwy.	Walnut St.
3 <sup>rd</sup> Ave.	Railroad St.	Market St.
4 <sup>th</sup> Ave.	Railroad St.	Walnut St.
Chickamauga Dr.	SR 30/Old Washington Hwy.	SE limits of Point Park (at
		picnic shelters)
Railroad Ave.	SR 30/Dayton Mountain Hwy.	7 <sup>th</sup> Ave.
7 <sup>th</sup> Ave.	Railroad Ave.	Oak St.
Oak St.	7 <sup>th</sup> Ave.	16 <sup>th</sup> Ave.
Broadway St.	SR 30/Dayton Mountain Hwy.	Walnut Grove Rd.
Richland St.	College St.	Landes Way
Landes Way	Richland St.	Mercer Dr.
Mercer Dr.	Landes Way	Bryan Dr.
Mercer Dr.	Western terminus/parking lot	Landes Way
Bryan Dr.	Mercer Dr. (west/Rudd Auditorium/parking lot)	Mercer Dr. (east/fork)

Figure C3: Bike Boulevard Network Table

Visually Separated		
Location	Starting Termini	Ending Termini
Laurel Dr.	approx. 400 ft W of US 27	US 27
Laurel Dr.	approx. 520 ft W of Market St.	Market St.
Florida Ave.	Market St.	US 27
Delewere Ave	Market St	Delaware Ave. Sports
Delaware Ave.	Market St.	Complex southern entrance
Railroad St.	Southern terminus	4 <sup>th</sup> Ave.
Washington St.	Church St.	Walnut St.
Walnut St.	Main St.	4 <sup>th</sup> Ave.
3 <sup>rd</sup> Ave.	Railroad St.	Walnut St.
16 <sup>th</sup> Ave.	Oak St.	US 27
Richland St.	SR 30/Old Washington Hwy.	College St.

Figure C4: Visually Separated Network Table

Physically Separated		
Location	Starting Termini	Ending Termini
SR 30/Dayton Mountain Hwy.	Delaware Ave.	Market St.
3 <sup>rd</sup> Ave.	Walnut St.	US 27
SR 30/Old Washington Hwy.	US 27	Richland St.

Figure C5: Physically Separated Network Table

Shared Use Path		
Location	Starting Termini	Ending Termini
SR 30/Dayton Mountain Hwy.	Delaware Ave.	Market St.

Figure C6: Shared Use Path Network Table

Crossing Enhancement		
Cross Street	Cross Street	
Lours Dr	110.07	High-Emphasis Crosswalks,
Laurei Dr.	05 27	ADA improvements
Lourol Dr	Market St	High-Emphasis Crosswalks,
Laurei DI.		ADA improvements
	Markat St	High-Emphasis Crosswalks,
IIIIIIOIS Ave.		ADA improvements
Elorido Avo		High-Emphasis Crosswalks,
FIOTIDA AVE.	03 27	ADA improvements
Markat St	Colorado Avo	High-Emphasis Crosswalks,
Market St.	Colorado Ave.	ADA improvements
Markat St	Dranagad Craanway (annray, Hickory St.)	High-Emphasis Crosswalks,
Market St.	Proposed Greenway (approx. Hickory St.)	ADA improvements
Markat St	Drepeed Creenway (enprov. Weekington St.)	High-Emphasis Crosswalks,
Market St.	Proposed Greenway (approx. Washington St.)	ADA improvements
Deleviero Ave *	Delaware Ave. Sports Complex southern	*Proposed Signalized
Delaware Ave.	entrance*	Crossing
SP 20/Douton Mountain Huw	Producy St	High-Emphasis Crosswalks,
SK 50/Dayton Mountain Hwy.	bloadway St.	ADA improvements
SR 20/Douton Mountain Hung	Market St	High-Emphasis Crosswalks,
SK 50/Dayton Mountain Hwy.		ADA improvements
Market St	Assess Dd	High-Emphasis Crosswalks,
	Access Ru.	ADA improvements
Market St	14th Ave	High-Emphasis Crosswalks,
Market St.		ADA improvements
Delewere Ave	SP 20/Devten Mountain Hung	High-Emphasis Crosswalks,
Delawale Ave.		ADA improvements

Figure C7: Crossing Enhancements Table

Sidewalks		
Location	Starting Termini	Ending Termini
Laurel Dr.	US 27	Market St.
Market St.	Laurel Dr.	Indiana Dr.
Illinois Ave.	California Ave.	Market St.
California Ave.	Illinois Ave.	Delaware Ave.
Delaware Ave.	California Ave.	Market St.
Florida Ave.	Market St.	US 28
Cherry St.	Florida Ave.	Colorado Ave.
Colorado Ave.	Market St.	Cherry St.
Alabama Ave.	Market St.	Washington St.
Washington St.	Alabama Ave.	Main St.
Walnut St.	Main St.	4 <sup>th</sup> Ave.
2 <sup>nd</sup> Ave.	SR 30/Dayton Mountain Hwy.	Market St.
SR 30/Dayton Mountain Hwy.	Delaware Ave.	east of Cemetery Rd.
4 <sup>th</sup> Ave. (north)	east of Market St.	Church St.
Railroad St.	SR 30/Dayton Mountain Hwy.	Walnut Grove Rd.
7 <sup>th</sup> Ave.	Railroad St.	Oak St.
Oak St.	7 <sup>th</sup> Ave.	16 <sup>th</sup> Ave.
16 <sup>th</sup> Ave.	Oak St.	US 27
Richland St.	SR 30/Old Washington Hwy.	Landes Way
Chickamauga Dr.	SR 30/Old Washington Hwy.	SE limits of Point Park (at picnic shelters)

Figure C8: Sidewalk Network Table

### APPENDIX D -Grant Funding Opportunities

Figure D1: Table of Funding Opportunities

Grant Program	Source Agency	Description	Requirements	Typical Projects	Links for More Information
		TDOT's Multimodal Access Grant	<b>2023 Application Cycle</b> : April - May: Notice of Intent to Apply May - July: Application period for invited applicants via eGrants	<ul> <li>Sidewalks</li> <li>Pedestrian crossing improvements, including high- visibility crosswalks, curb ramps, signs and pavement markings, signalization, and median refuge islands</li> <li>Bicycle facilities (including on- road bike lanes/cycle tracks)</li> <li>Multi-use paths (pedestrian plus bicycle traffic) located within the transportation</li> </ul>	
Multimodal Access Grant (MMAG) (MMAG)	TN Dept. of Transportation	to support the transportation to support the transportation needs of pedestrians, bicyclists, and transit users through infrastructure projects that address existing gaps along state routes.	Winter 2023/2024: Notice of Award <b>Match</b> : TDOT match percentage and amounts were changed for the 2022 grant cycle: The local match percentage for projects located in economically Distressed and At-Risk counties is 5% (with a maximum award amount of \$1,187,500). The local match percentage for projects in all other locations is 10% (with a maximum award amount of \$1,125,000).	corridor. All such paths must be a minimum of 10-feet wide. • Transit stop amenities (shelters, benches, sidewalks, curb ramps, lighting) • Complete streets, road diet, or traffic calming measures • Bicycle, pedestrian and transit- related improvements that address requirements of the Americans with Disabilities Act (ADA) • Pedestrian-scale lighting (will not rank highly as a standalone project, but is eligible as a project component) • Other improvements which improve access for multimodal	TN Dept of Transportation - Multimodal Access Grant
				users	

Grant Program	Source Agency	Description	Requirements	Typical Projects	Links for More Information
			Application: The TAP application cycle is open annually from August 1st through the first Friday in October. TDOT only accepts applications	The most popular are bicycling and walking projects including	<u>TAP Summary -</u> League of American <u>Bicyclists</u>
Transportation Alternatives Program (TAP)	TN Dept. of Transportation	Tennessee has funding for sidewalks, bikeways, trails, Safe Routes to School, and more through the Transportation Alternatives Program (TAP).	through its eGrants system. The submission must still include the necessary budget, detailed maps, photographs, preliminary sketches and support letters. Note: TDOT can provide assistance for applying, with project implementation, including environmental review, planning, design, permits, and project management. <b>Match</b> : 20% Local - Note: The Bipartisan Infrastructure Law gives states flexibility in meeting the 20% match, including using state safety funds for Transportation Alternatives projects that improve safety.	sucewarks, crosswarks, brice lanes, Safe Routes to School projects (both construction and programming), and recreational trails. About 95 percent of dollars go to these types of projects. Other eligible projects are: inventory and removal of outdoor advertising; historic preservation; vegetation management; archaeological activities; turnouts, overlooks and viewing areas; environmental mitigation; and streetscape improvements related to other TAP projects.	TDOT TAP Info Page with eGrants
Local Parks	TN Dept. of	The Local Parks and Recreation Fund (LPRF) provides grants to eligible local government entities for the purchase of lands for parks, natural areas, greenways,	Eligible Applicants: City or County Governments Grant Cycle: Pre-applications required in February.	Land acquisition, indoor and	<u>TN Dept of</u> <u>Environment &amp;</u> <u>Conservation - Local</u> <u>Parks &amp; Recreation</u> <u>Fund (LPRF)</u>
& recreation Fund (LPRF)	Conservation	and recreation facilities. The funds may also be used for trail development and capital projects in parks, natural areas, and greenways.	Applications due in April. <b>Match</b> : 50% Local Max - \$1,000,000	development	<u>TN Dept of</u> <u>Environment &amp;</u> <u>Conservation -</u> <u>Grants Administration</u>

Grant Program	Source Agency	Description	Requirements	Typical Projects	Links for More Information
Healthy Built Environments (HBE)	TN Dept. of Health	Competitive grant cycles are opened for consideration of projects that support the TDH Office of Primary Prevention (OPP)'s goal to "build a culture of health through livable and nurturing places and spaces so that all residents can reach their full potential". Grants fund a "diverse set of initiatives including convening, programming, planning, and construction of built environment projects". Non-competitive grants are awarded to Tennessee counties at the department's discretion to fund new construction, improvement, or planning of facilities and infrastructure that support healthy communities.	<b>Competitive Solicitation</b> : Application rounds announced in their Built Environment + Health Newsletter Environment + Health Newsletter (Historically, 2017 - \$10,000 to rural counties; 2019 - \$20,000 to all counties)	Greenways, trails, walking tracks, playgrounds, outdoor fitness stations, and other publicly accessible spaces	TN Dept. of Health HBE Webpage
Recreational Trails Program (RTP)	TN Dept. of Environment & Conservation	The Recreational Trails Program (RTP) is a federal funded, state administered grant program. RTP provides grant funding for land acquisition for trails, trails maintenance and restoration/ rehabilitation, trail construction, and trail head support facilities. All grant projects must be on publicly owned land.	Eligible Applicants: City or County Governments Grant Cycle: Pre-applications required in February. Applications due in April. Applications due in April. 80% State 20% Local Max - \$250,000	Urban hard surface trail development and natural surface trail development (construction and maintenance), restoration of trails damaged by use, development of trailside support facilities, educational and safety trail trainings.	TN Dept of Environment & Conservation - Local Parks & Recreation Fund (LPRF) Environment & Conservation - Grants Administration

### APPENDIX E -February 28<sup>th</sup> Community Engagement Event Materials

### Dayton Community Mobility Plan Info Sheet

### Why?

The purpose of this project is to promote healthy living, increasing safety for bicyclists, pdestrians, and those who use mobility assistance devices, and to encourage connectivity by expanding on multimodal opportunities in the community for residents and visitors.

### Where?

This project will provide recommendations for a bicycle and sidewalk network within the city limits of Dayton.

### What?

This project includes a study of the existing conditions and the development of a recommended bicycle and sidewalk network with proposed projects to see those networks come to life. Public involvement is integrated throughout the planning process with stakeholder meetings and a community workshop.

### How?

The project process is designed to develop a Community Mobility Plan that is uniquely Dayton – one fits our city and our community. This plan will recommend a safe and connected bicycle and sidewalk network that serves the different types of people who choose to, want to, and need to walk or bike to get where they are going.

### When?

The planning process began in October 2022 and is expected to be complete in April 2023.



Have questions? Email Project Planner Amanda Sapala, AICP at <u>amanda.sapala@greshamsmith.com</u> or call 813.769.8985



TY OF DAYTON







### **Bike + Ped. Facility Types**



# **Draft Bicycle and Pedestrian Networks**

### **Draft Bike Network**





# **Community Mobility Plan** City of Dayton

**OPEN HOUSE** 

February 28, 2022





Tennessee

## Today's Agenda

### Introduction

**Existing Conditions Results** 

Network Development Methodology

Draft Bicycle/Pedestrian Network

**Project Schedule** 





# How will this plan be used?

Guide recommendations for future transportation projects

lifies Establish focus points for future grant oppor  Guide development of a Master Plan, Bicycle & Pedestrian Plan, be integrated into the ADA Transition plan, & inform street classification updates






























# Key Elements for Defining the Bicycle & Pedestrian Networks

- 1. Low Stress Routes (considering safety & comfort)
- **2. Access to Destinations**
- 3. Provide Direct, Logical Routes
- 4. Extend & Enhance Regional Connections
- 5. Focus on Key Areas





- 1. Low Stress Routes (considering safety & comfort)
- 2. Access to Destinations
- **3. Provide Direct, Logical Routes**
- 4. Extend & Enhance Regional Connections
- 5. Focus on Key Areas

### Key Focus Areas

- Downtown Street Network
  - SR 30 US 27/SR 29



## **Potential Bicycle Facility Types**





### **Bike Boulevards**



gnisheM bns gningi2 gnisheM seed bounds



Intersection Priority -



Signing & Pavement Markings





⎖











#### Physically Separated











One-Way Protectes Cycle Tracks

















Intersections Median Refuge Islan



















