Washington County
MARYLAND

Comprehensive Plan 2040
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Chapter 7

Transportation Element

TRANSPORTATION Element

Introduction

Transportation networks are among the primary elements which determine a community's character. Transportation planning serves as a primary catalyst for determining the location, pace, and timing of development activities in a given location because transportation facilities provide direct access to land and serve as the gateway to many other infrastructural improvements that support economic growth. Accordingly, it is imperative that thoughtful consideration be given to the end goals of transportation investments in the planning, design, and implementation of an overall transportation network in order to achieve a system which serves all users throughout Washington County.

Above all, transportation investments should serve the needs of people and communities. Due to the importance of the automobile in daily travel in the United States, this larger objective can sometimes get lost in the focus to pursue strategies to alleviate the negative effects of congestion on our busy roadways. This focus on motorized transportation modes can sometimes lead to transportation planning which places a greater emphasis on mobility than accessibility.

Transportation planning in Maryland, however, increasingly recognizes that the most effective model for creating a functional transportation system is one which offers choices to its users through the provision of an interconnected multi-modal network. Such a network balances the needs of different user groups and creates transportation facilities which account for the local context of the area that the investment is attempting to serve. The end goal of this multi-modal network is to realize a sustainable pattern of land use that creates opportunities for growth in accordance with a community or region's desired long-term vision.

To achieve this desired vision, transportation planning must be integrated with many other elements of long-range planning. In the context of the Comprehensive Plan, this includes consideration for transportation plans within other key elements such as the land use plan, economic development strategies, housing provisions, community facility siting and in the conservation of resource lands.

The Transportation Element strives to serve the goals and objectives of the plan by identifying the strengths and opportunities for improvement in Washington County's current multi-modal transportation system so that future needs can be projected and met in a timely manner. Existing plans produced by State and local transportation planning entities heavily inform the priorities identified in this chapter. The policies and recommendations contained in the Transportation Element reinforce the County's commitment to these priorities so that funding sources can be identified to achieve their completion in capital planning.

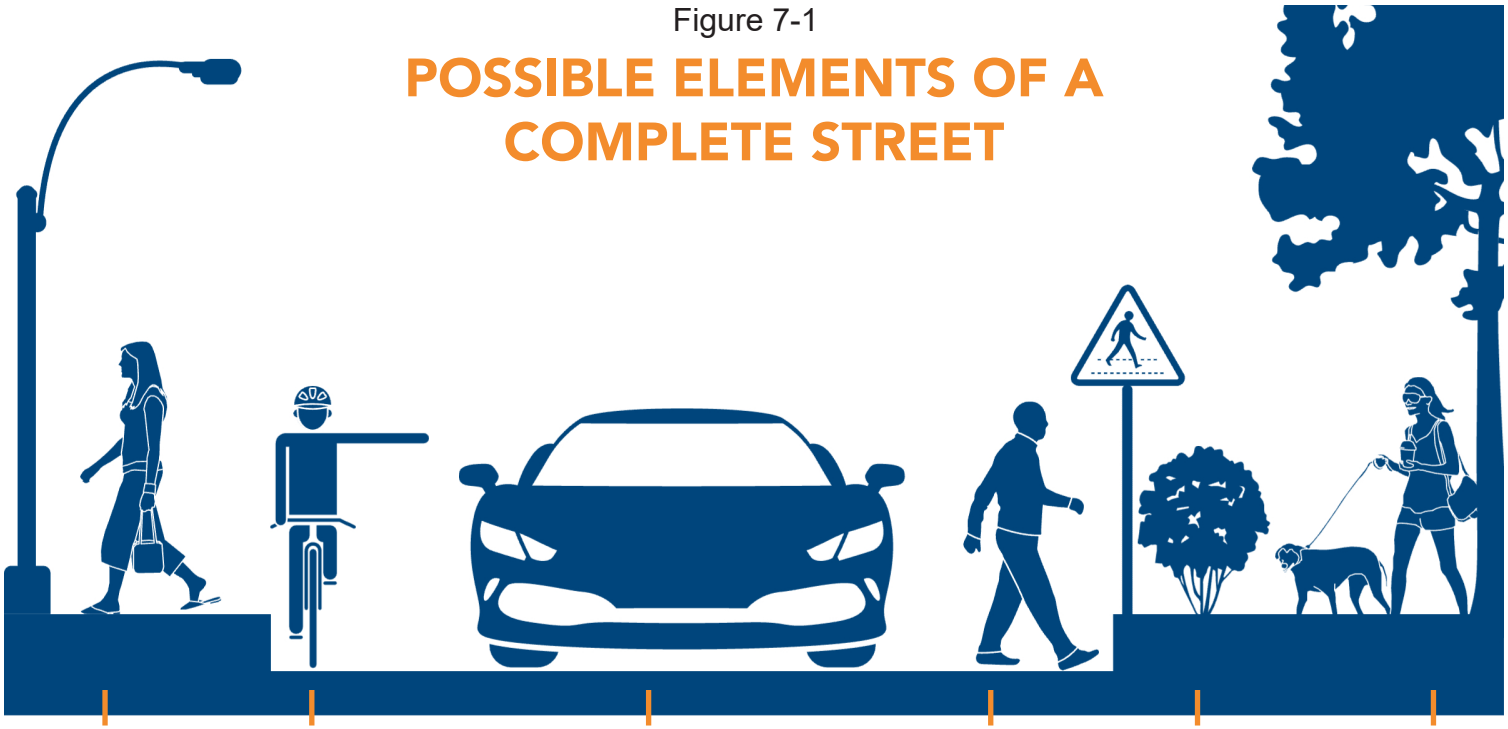
Complete Streets

One of the most significant movements nationwide in transportation policy and design, during the last 20 years to achieve equitable transportation networks, is the Complete Streets approach. Complete Streets is a comprehensive, integrated transportation policy that requires roads and adjacent rights-of-way to be planned, designed, operated and maintained in a manner that facilitates safe and convenient travel for users of all ages and abilities, regardless of their mode of transportation. The potential benefits of Complete Streets are myriad including improved safety for all users; expanded transportation choices; providing better bike, pedestrian, and transit connections to activity centers where people access essential facilities and services; promoting healthy lifestyles and recreational opportunities; and creating more livable communities.

The Complete Streets concept does not stipulate specific street standards, but instead encourages a context-sensitive design approach, fitting roadway design within the character of the neighborhood or community, recognizing that all streets are different and user needs should be balanced. Accordingly, the infrastructural elements comprising a Complete Street in a rural area, for example, will likely differ markedly from a Complete Street in a highly urban area. A Complete Street may include some or all of the following elements: sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more. The following figure provides a sample depiction of a Complete Street:

Figure 7-1

POSSIBLE ELEMENTS OF A COMPLETE STREET



Active Sidewalks
Sidewalks should be smooth, wide, feel safe and have appropriate transitions to the street, making them easy to walk on or use a wheelchair on.

Dedicated Bike Lanes
Simple pavement markings creating a dedicated bike lane make both motorist and bicycle movement more predictable, and therefore safer for both. They increase the likelihood of casual riders using bicycles for transportation.

Active Roadway
One lane car traffic going in each direction with a two-way-left-turn-lane (TWLTL) in the center would reduce the amount of car crashes by providing turning vehicles a refuge from through traffic, while keeping through traffic moving efficiently.

Safe Crosswalks
Clearly marked crosswalks allow pedestrians and wheelchair users to cross streets safely, while making sure cars know where to expect them.

Planting Strip
Street landscaping may slow traffic, improve the aesthetics of the roadway, provide shade and create a buffer between cars and people, making a more inviting environment for pedestrians.

Green Spaces
Parks and public green spaces create a destination encouraging community interaction and providing rest from the surrounding environment.

Once adopted by local bodies, a Complete Streets policy requires applicable transportation planning entities to routinely consider and incorporate complete streets criteria for all travel modes into all transportation projects, both new and retrofitted, so that the entire transportation system better meets all user needs. It should be clearly understood however, that an adopted Complete Streets Policy does not require that all travel modes be accommodated in every roadway project, only that additional travel modes besides conventional motorized means should be routinely considered during project planning and design. As noted above, the locational context and desired function of each new transportation facility play a major role in what travel modes may or may not be appropriate within the space of the available right of way. The Hagerstown/Eastern Panhandle Metropolitan Planning Organization adopted a Complete Streets Policy in 2018 and has incorporated Complete Streets principles into its Long-Range Transportation Plan.

Major Transportation Planning Organizations, Plans and Regulatory Tools

The following organizations and plans are integrally involved in setting priorities for transportation investments in Washington County:

Hagerstown/Eastern Panhandle Metropolitan Planning Organization (HEPMPO)

HEPMPO is the federally designated Metropolitan Planning Organization (MPO) for the Hagerstown, MD–WV–PA urbanized area. This area includes Washington County, Maryland, Berkeley and Jefferson Counties, West Virginia and a small portion of Franklin County, Pennsylvania. The MPO is responsible for developing the regional Long-Range Transportation Plan (LRTP), which is the guiding document for future multi-modal transportation needs over a 25-year planning period, and the Transportation Improvement Program (TIP), a four-year program of short-range projects. The development of these plans is a prerequisite for Federal funding assistance for implementing transportation projects in a metropolitan planning area. LRTPs are updated every four to five years with Direction 2050 serving as the current LRTP. The MPO also produces or commissions a range of other plans and studies that address specific topics or issues related to the provision of multi-modal transportation.

DIRECTION 2050
LONG RANGE TRANSPORTATION PLAN

HEPMPO Hagerstown/Eastern Panhandle Metropolitan Planning Organization

Washington County Capital Improvement Plan (CIP)

The County's Capital Improvement Plan (CIP) is the means by which future infrastructure needs for all County Departments are forecasted and prioritized. The program enables such improvements to occur in a timely and cost-effective fashion. Projects are prioritized based on established criteria that includes County plans and policies. The Plan is flexible and covers 10 years with the first year being the Capital Improvement Budget. Funds for each project are allocated from Federal, State, and local sources by the Board of County Commissioners.

Washington County Road Project/Repair

Adequate Public Facilities Ordinance

The primary regulatory tool employed by the County to ensure that new development is served by a suitable road network is its Adequate Public Facilities Ordinance (APFO). Adequacy standards for new public roads are contained in the Washington County Engineering Department's Specifications or in design and construction specifications adopted by the State Highway Administration (SHA). The type of new road, if required, is based upon projected traffic volume as determined by the County Engineer or SHA, often stemming from a required traffic impact study provided by the developer. Standards for adequacy of existing public roads impacted by new development are contained in the Washington County Engineering Department's publication entitled "A Policy to Determine Adequacy of Existing Highways." If needed, roads are planned for improvement by various public and private entities as part of the development review process. If roads cannot be made adequate for the proposed development, the application may be denied.

Maryland Department of Transportation Plans

The Maryland Transportation Plan (MTP), produced by the Maryland Department of Transportation (MDOT), creates a 20-year multi-modal vision which identifies the State's most critical transportation needs and challenges, provides a framework for Statewide goals and objectives, and identifies strategies to help MDOT meet the goals. MDOT updates the MTP and the Maryland Bicycle & Pedestrian Master Plan concurrently every five years.

Progress toward achieving the MTP's goals and objectives is evaluated and reported in an Annual Attainment Report.

The MTP informs Maryland's six-year Consolidated Transportation Program (CTP), which programs funding for individual transportation investments based upon input from State and local authorities as well as the general public. The CTP is heavily informed by projects identified in the Highway Needs Inventory. This Inventory identifies highway improvements to serve existing and projected population and economic activity in the State as well as address safety and structural problems that warrant major construction or reconstruction. Priority Letters from local jurisdictions are submitted to the State annually to establish an internal ranking of multi-modal projects for funding consideration.

The CTP is further refined in the Maryland Statewide Transportation Improvement Program (STIP), a four-year, fiscally constrained, and prioritized set of transportation projects, compiled from Statewide, local, and regional plans. The STIP contains Federally funded projects plus regionally significant State and local projects. This program is a requirement to receive Federal funds for transportation.

MDOT is the parent organization for many sub-departments involved in the provision of transportation Statewide including the Maryland Aviation Administration, Maryland Port Administration, Maryland Transit Administration, Maryland Transportation Authority, Motor Vehicle Administration and State Highway Administration (SHA). It also analyzes alternatives to manage waste including waste reduction, recycling, and energy recovery alternatives. The Plan is updated every three years.

Current County Transportation Snapshot

To project future transportation needs for the County, it's important to have a snapshot of how and where County residents travel presently. To accomplish this, overall travel metrics such as travel mode shares and commuting patterns are taken from data collected by the U.S. Census Bureau or contained within the HEPMPO's LRTP. This portrait will be further refined in later sections of this element which analyze existing and future travel needs according to the mode of transportation.

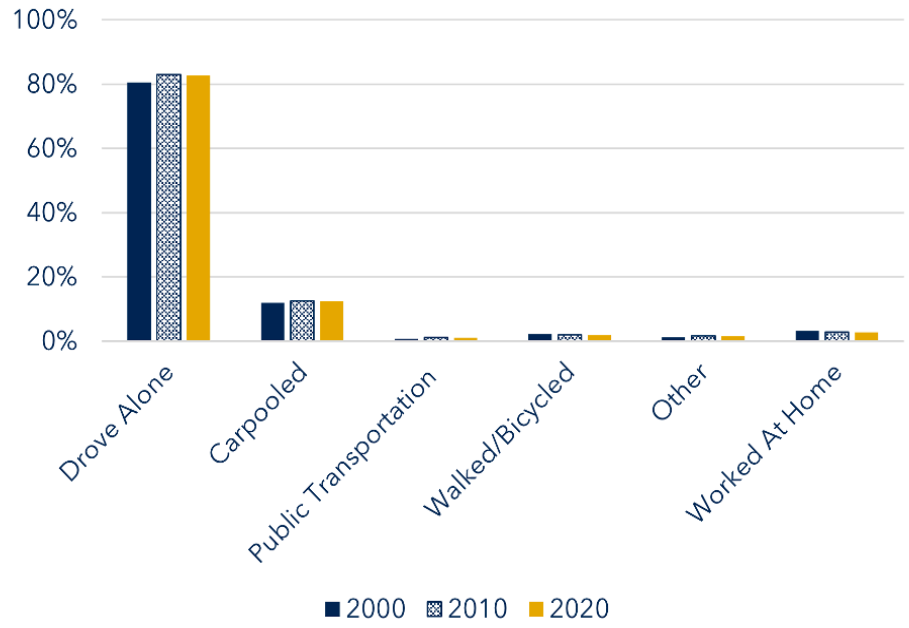
Commuting Statistics

Travel mode is the means of transportation utilized by individuals to carry out their daily activities, such as by motor vehicle, transit, walking or bicycling. The U.S. Census Bureau collects data on transportation through the lens of various commuting related measures, including means of transportation, vehicle availability and travel time to work. These measures are described below.

Means of Transportation to Work

Chart 7-1, below, displays statistical data for this measure in Washington County between 2000 and 2020. The preferred mode of transportation has changed little in Washington County in the last 20 years. Slightly more than 80% of County residents drove a car, truck or van alone to work throughout the period surveyed. Approximately 12% of commuters carpooled. One to two percent of residents took other means of transportation including public transportation, walking, bicycling, taxi or other methods of travel. Approximately 3% of respondents reported working from home throughout the period, which may change going forward as a result of the shift to remote work for some jobs due to the COVID-19 Pandemic.

Chart 7-1: Means of Transportation to Work for Workers Aged 16 Years and Over (2000-2020)



Source: U.S. Census Bureau 2000 SF3 (P030), 2010 & 2020 5-Year ACS

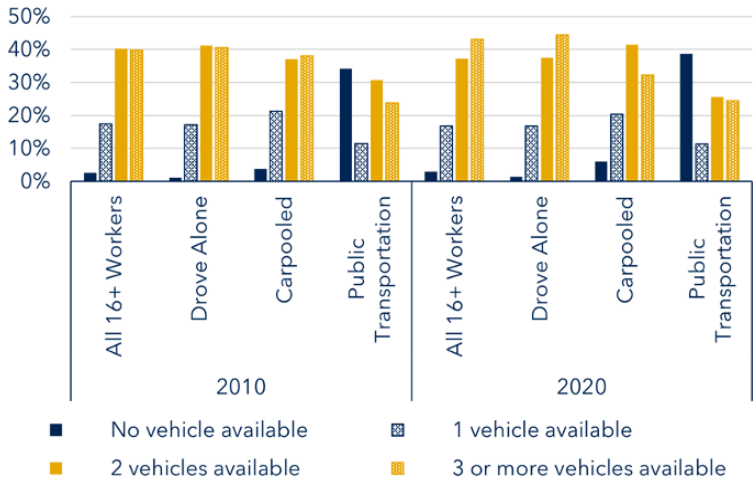
Vehicle Availability

Vehicle availability data collected by the U.S. Census Bureau offers another measure of a populace's mobility. Vehicle ownership, particularly in rural counties where the lower population densities make the feasibility of achieving a comprehensive public transportation network more difficult, is critical for residents to access essential goods, services and employment. Chart 7-2, below, shows the number of vehicles available to workers over the age of 16, by selected means of transportation, between the years 2010 and 2020.

The chart seems at first to largely reinforce the conclusions drawn above about the County's preferred modes of travel, when looking at the means of transportation for all workers aged 16 years or greater. In 2010 and 2020, the majority of respondents had two or three vehicles available for commuting to work. Less than 5% of these workers reported having no vehicle available for commuting to work. Among workers who reported commuting by public transportation, however, vehicles are significantly less available. Thirty-four percent of workers aged 16 years or greater who commute to work by public transportation did not have a vehicle available for this purpose in 2010.

This figure was 39% by 2020. This trend should continue to be monitored as lifestyle preferences change and overall living costs, including those associated with transportation, continue to increase.

Chart 7-2 Means of Transportation to Work by Vehicles Available (2010-2020)



Source: U.S. Census Bureau 2010 & 2020 5-Year ACS

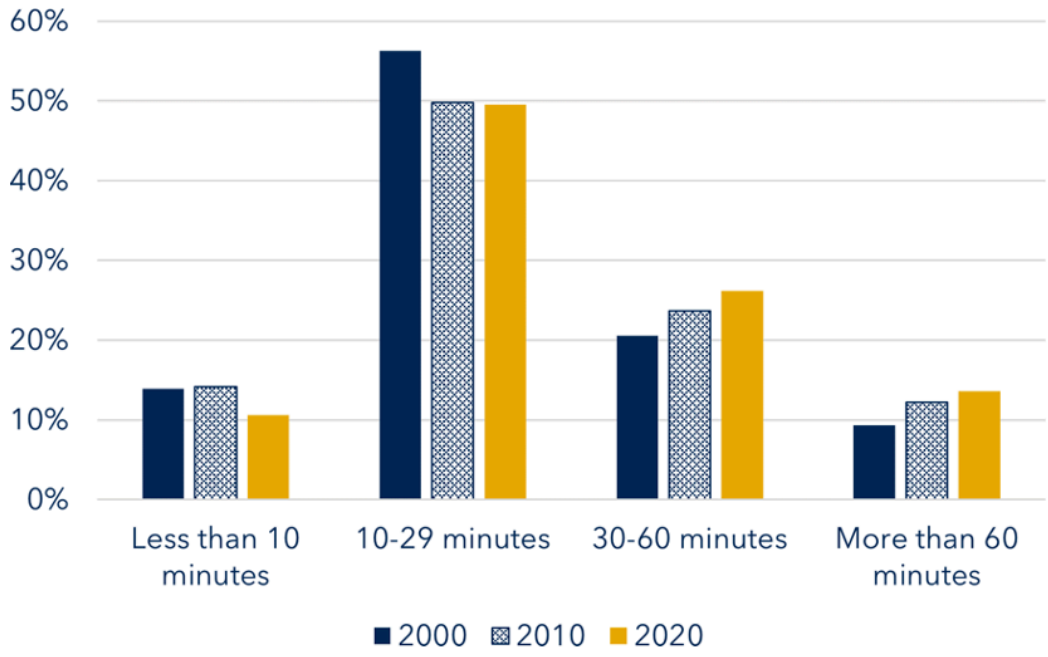
Travel Time to Work

Chart 7-3, on the next page displays the travel time to work for those workers (who did not work at home) aged 16 years and over in Washington County between 2000 and 2020. What stands out most about this chart is that a greater percentage of workers aged 16 years and over are spending more time commuting now than they did 20 years ago. In 2000, 56.3% of these workers commuted between 10-29 minutes. By 2020, only 49.5% of workers completed their commute in less than 30 minutes.

There is a corresponding increase in longer commute times in 2010 and 2020, according to Chart 7-3. The percentage of those commuting between 30-60 minutes, or more than 60 minutes, have both increased during this period. The percentage of workers commuting less than 10 minutes, by contrast, fell by just under 4% by 2020.

Altogether, these trends suggest that a significant number of Washington County residents are commuting to employment destinations outside of the County's borders. Further, an increasing share of workers are traveling for long enough that they may be employed at regional centers in the Beltway Corridor, or across State lines. These preliminary conclusions will be examined further in the section that follows which looks at commuting patterns.

Chart 7-3: Travel Time to Work



Source: U.S. Census Bureau SF3 (P031), 2010 & 2020 5-Year ACS

Commuter Destination and Origins

Commuting flows, which describe trip origins and trip destinations for Washington County workers (aged 16 years and over) as they carry out employment related travel, can be understood using information pulled from the U.S. Census Bureau's on the Map 2020 dataset. This information is captured on the next page on Map 7-1.

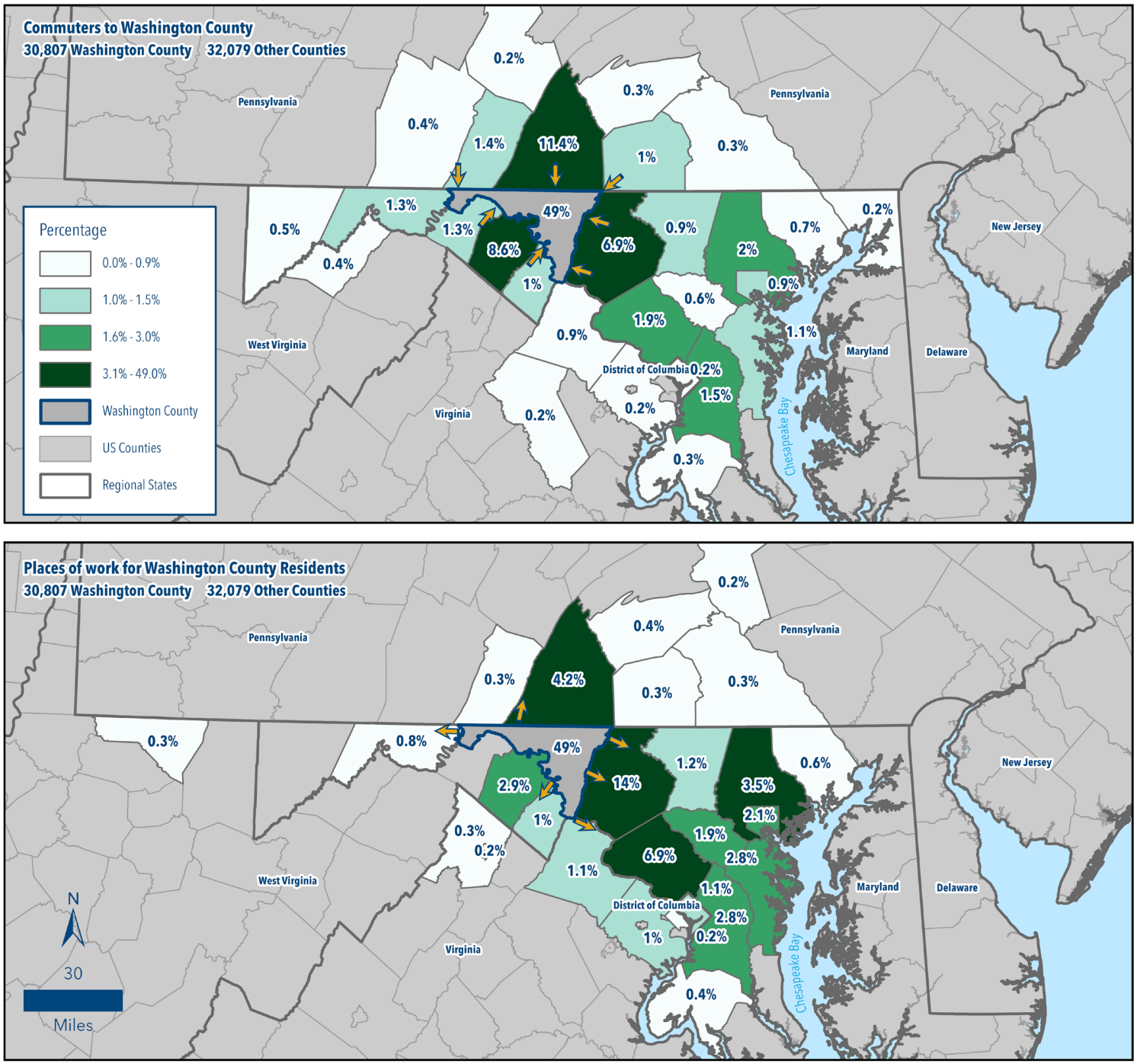
The Map first displays where Washington County workers reside, revealing that:

- 49% of all County workers also live in Washington County
- Franklin County, PA and Berkeley County, WV make up the most common points of residence for Washington County workers who do not live in our County

The lower portion of Map 7-1 then illuminates where Washington County workers journey for employment:

- 49% of all County workers work within Washington County
- Frederick County, MD is the most prevalent place of employment for those working outside of Washington County
- Washington County is within a reasonable driving distance of major regional employment centers found in the Beltway Region, such as Montgomery County, MD, which is the 2nd most common place of employment for our workers

Map 7-1: Commute Origins and Destinations for County Workers Ages 16+

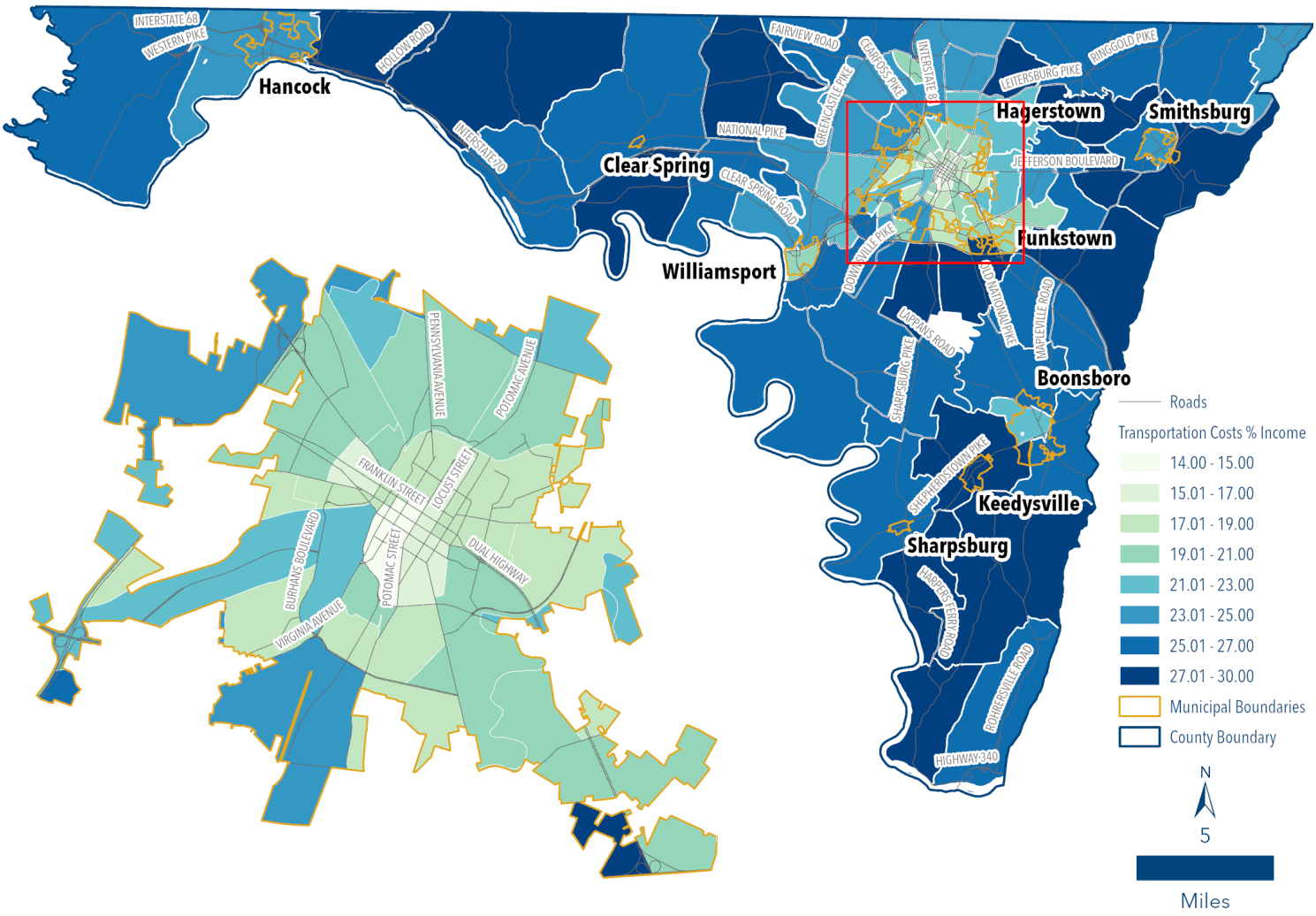


Location Affordability

A number of indexes have been developed which measure the true affordability of a place based upon measures of significant household costs which are assigned to specific categories. In the Housing chapter, for example, this was done through the use of U.S. Census data to determine what percentage of County households spend more than 30% of their annual household income on housing costs. Transportation spending represents another major expenditure that significantly affects the financial flexibility of households to meet their basic needs.

One of these indexes is the Center for Neighborhood Technology's Housing and Transportation (H+T®) Affordability Index. The 2022 model uses a variety of 2019 data measures from various sources that combine interrelated variables such as residential density, household income, auto ownership, auto use, and transit ridership to arrive at a benchmark for location affordability. The Index assigns a benchmark of affordability to no more than 45% of household income being spent on combined housing and transportation costs. The 45% annual household income limit assumes the 30% standard for housing expenses mentioned above plus an additional 15% towards transportation expenses. The model's output is captured on the maps and table below.

Map 7-2: Transportation Costs as Percentage of Annual Household Income



Source: Center for Neighborhood Technology

Map 7-2, above, shows household transportation costs as a percentage of annual income. The map indicates that most households in Washington County spend far more than 15% of their annual income on transportation costs. As one might suspect, transportation spending is less for households within the municipalities of Washington County, where residential density is higher, and more transportation options exist to choose from. Correspondingly, transportation spending is higher in rural areas where the opposite characteristics exist. The average percentage of annual household income spent on transportation in Washington County is 23% according to data computed by the model. Select transportation statistics computed by the model are captured in Table 7-1 on the next page.

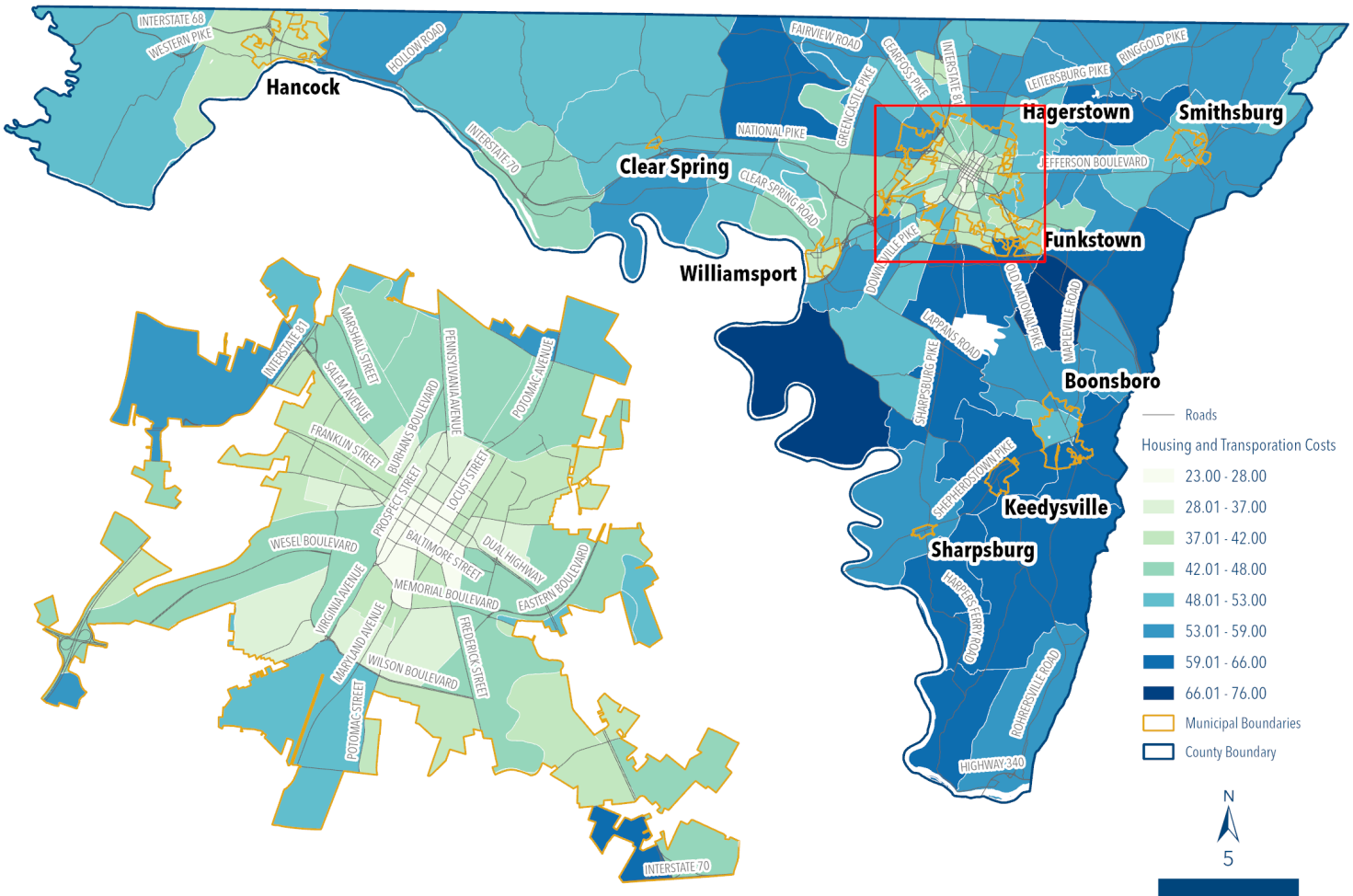
Table 7-1: County Household Transportation Statistics

Household Transportation Model Outputs	
Autos per Household	1.86
Annual Vehicle Miles Traveled per Household	19,277
Transit Ridership % of Workers	1%
Annual Transportation Cost	$14,225
Annual Auto Ownership Cost	$11,126
Annual VMT Cost	$3,098

Source: Center for Neighborhood Technology

Map 7-3 then combines both annual housing and transportation spending for households into a single image to capture an overall measure of location affordability for Washington County. This map arrives at similar conclusions to the one above in that the overall 45% affordability standard for annual spending on these two costs is exceeded by the majority of County households. Forty-Nine percent is the average spending for County households on combined housing (26%) and transportation costs (23%) annually, according to the model.

Map 7-3: County Location Affordability (Housing + Transportation)



Source: Center for Neighborhood Technology

For sake of comparison, the model computes the following combined housing and transportation costs for the neighboring counties listed below:

Allegany County, MD: 53%
Carroll County, MD: 49%
Frederick County, MD: 38%
Berkeley County, WV: 50%
Jefferson County, WV: 35%
Franklin County, PA: 48%

Overall, the statistics presented in this section depict Washington County as similarly affordable to other Counties in the region, most of which are also predominantly rural and auto-dependent in character. The annual household costs devoted by Washington County households to transportation and housing are, however, fairly high and likely burdensome to many residents.

Multi-Modal Transportation Design Concepts and Standards

The planning, design, construction, operation and maintenance of multi-modal transportation facilities represents a process that involves collaboration between Federal, State, regional and local entities. Standards and design concepts for such facilities are typically established at the Federal or State levels of government and then adapted to fit the local area's travel conditions. Key concepts and standards for multi-modal facilities are included in the Appendix.

Multi-Modal Transportation Network Analysis

Roads

Overview


Interstate I-81 in Williamsport

Being proximate to several major cities, particularly Washington D.C. and Baltimore, MD, Washington County contains several major interconnected transportation routes that serve motorists throughout the region. I-81 and U.S. 11 both run parallel to one another in a north-south direction through the Great Hagerstown Valley in eastern Washington County. I-81 serves as the principal alternative to travel on I-95 and it is increasingly utilized by truck traffic looking to avoid congestion on I-95 while transporting goods throughout the eastern United States. Interstates 68 and 70 and U.S. 40/National Pike serve as the principal east-west transportation routes through the region. They connect Washington County to the Beltway Region in the east, as well as Western Maryland and cities throughout the Allegheny Region in the west. I-81 and I-70 intersect within the County's designated Urban Growth Area, halfway between Hagerstown and Williamsport, spurring travel and economic activity throughout the region. State routes radiate from the center of the County towards the smaller towns and rural villages, providing numerous connections to neighboring jurisdictions.

Existing Conditions

The following section discusses the existing conditions of roadways in Washington County according to trends in travel, land use and safety. These measures incorporate data from the MPO's most recent LRTP's (Direction 2045 and Direction 2050) as well as Maryland's current statewide transportation plan (2040).

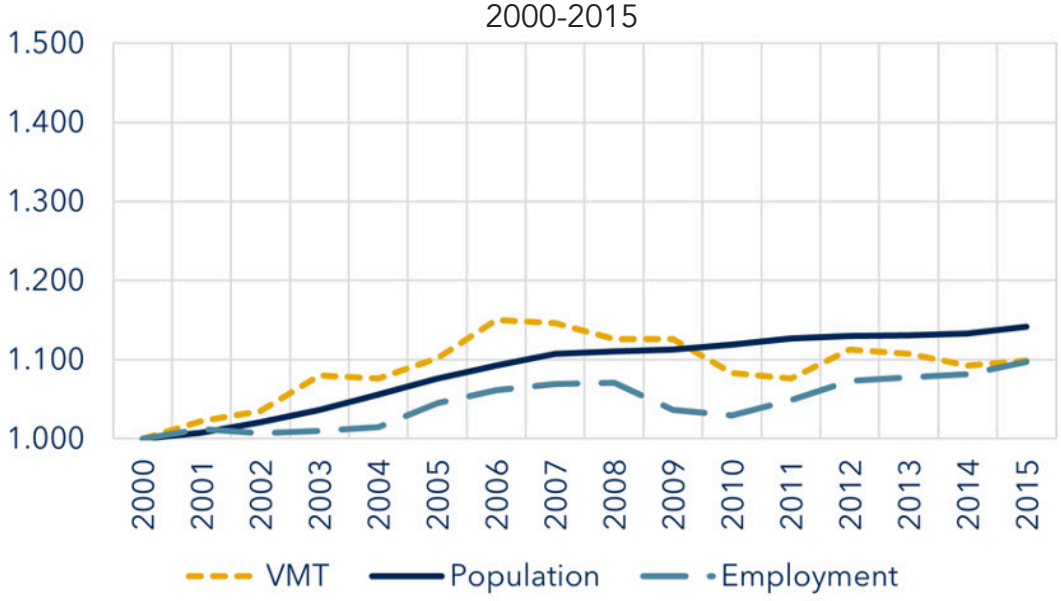
➢ Vehicle Miles Traveled v. Population and Employment Growth

The above referenced Plans provide insight on trends in vehicle miles traveled (VMT) in relation to population and/or employment growth. These indicators are typically correlated with each other and provide insight on travel choices Statewide, including Washington County. Chart 7-4, below, shows trends among these three measures in Washington County from 2000-2015.

Between 2000 and 2015, the 2045 LRTP describes a 10% growth rate in annual VMT during the 15-year period in Washington County. About 40% of that growth occurred on I-81 and I-70. Berkeley County, by comparison, saw an annual VMT increase by 30% during the same period. The traditionally strong links between VMT, population and employment growth were less pronounced during this same 15-year period. During the height of the recession between 2007 and 2010, both VMT and employment experienced significant declines, while population continued a steady upward trajectory in Washington County.

The 2050 LRTP does not correlate VMT with population and economic growth, examining only trends in the latter two measures in regard to future travel demand and congestion. That Plan does note a resumption in population and economic growth in Washington County since 2015, which is projected to continue to 2050, as reinforced elsewhere in this Comprehensive Plan update. Continued monitoring of these three interrelated trends in response to changes in travel habits, lifestyle preferences and commuting patterns in the aftermath of the COVID-19 Pandemic will be necessary during the study period of this Plan.

Chart 7-4: Washington County Vehicle Miles Traveled, Population and Employment Growth 2000-2015



Source: HEPMPO Direction 2045 Long Range Transportation Plan

➢ Traffic Volume

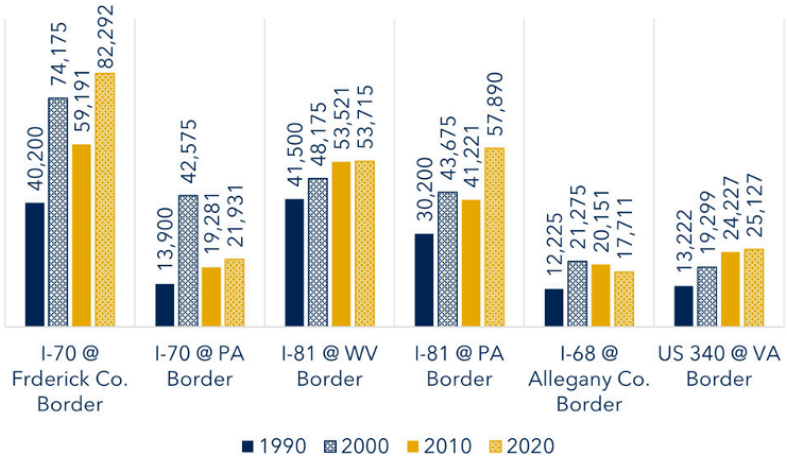
SHA provides data on Average Annual Daily Traffic Volumes (AADT) which are counted at major intersections, entrances/exits, and other key routes that have been mostly consistent in their location throughout this study period.

As seen in Chart 7-5, below, notable changes have occurred at several of the survey points during the study period. For example, significant fluctuations in AADT counts occurred on I-70 at the Frederick County border between 2000 and 2010, on I-70 at the Pennsylvania border in 2000, and on I-81 at the Pennsylvania border between 2010 and 2020.

It's important to distinguish between trends and spikes in AADT counts at these locations. For example, at the Frederick County border of I-70 and the Pennsylvania border of I-81, there are clear prevailing trends toward a steady, if temporarily interrupted, increase in AADT. The Pennsylvania border of I-70, in contrast, shows a one-time spike in AADT in 2000, before returning to historic count levels in the next decade. Traffic counts at specific locations can vary significantly due to numerous factors, including economic trends, major road construction projects, changes in employment and industry that influence commuting patterns and many other variables. Further, it should also be noted that these counts are for the major entrances/exits of the County where counts may fluctuate more significantly than at different count locations surveyed along the same roadway.

Chart 7-5 also helps to provide a general indication of traffic that is captured by or flows through Washington County. Most interstate traffic tends to enter Washington County from the east (on I-70) or the south (on I-81). Counts on these same interstate highways are much lower once they reach the Pennsylvania border, indicating that some traffic then either remains in Washington County or diverts onto other travel routes leading from these arterial roads to points inside or outside the County. Of the traffic that stays in Washington County, the 2050 LRTP indicates that the top vehicle trip connections are almost entirely found within the County's designated Urban Growth Area surrounding the City of Hagerstown. Trips leaving the region are most frequently heading to Frederick County, MD or Franklin County, PA, according to the LRTP.

Chart 7-5 AADT Count at Major County Entrances/Exits



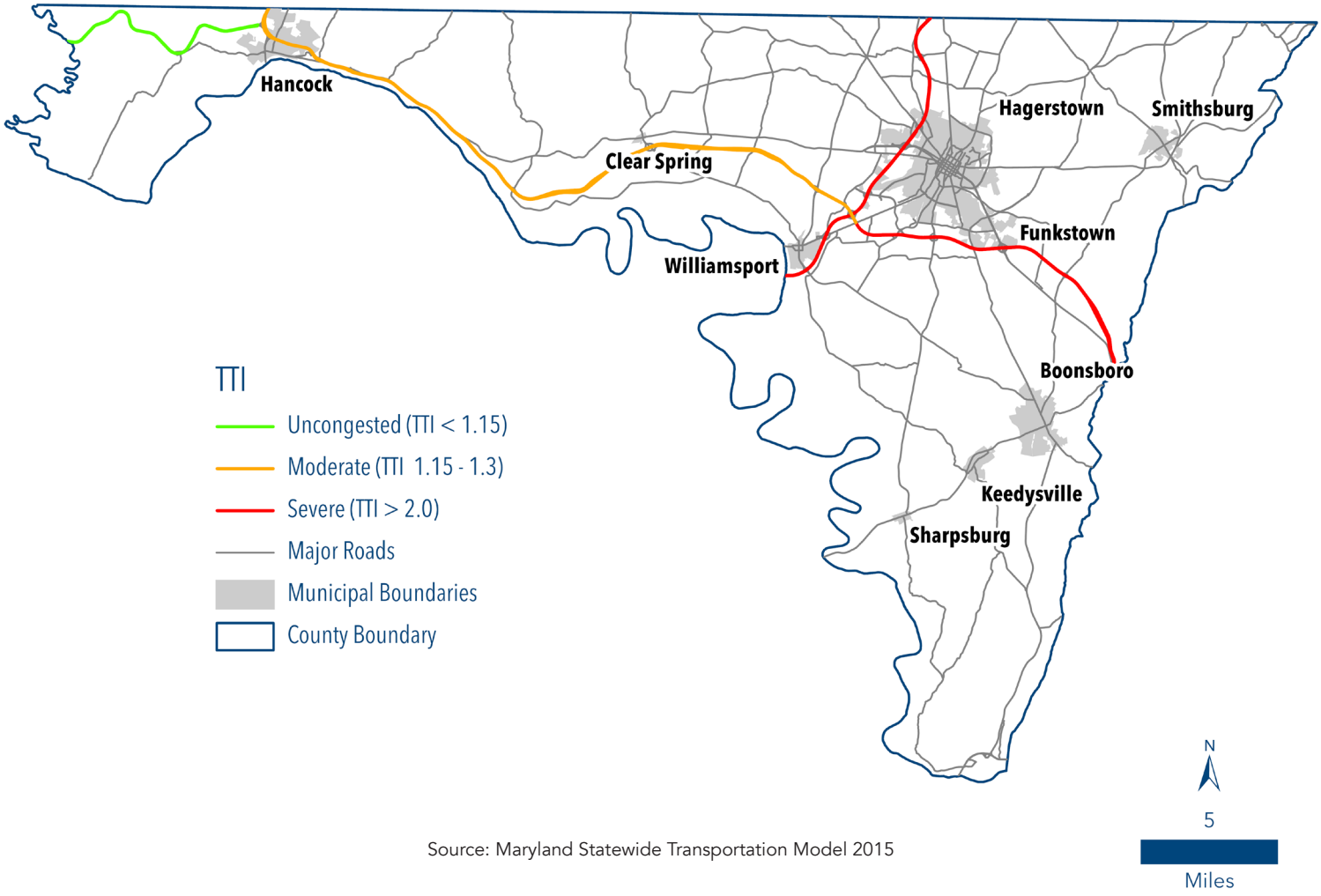
Source: Maryland Department of Transportation State Highway Administration

Interstate Congestion

Maryland is tied with the State of New York for the longest commuting time in the nation with an average commute of 32.3 minutes.[1] While much of this congestion is heavily centered around the Baltimore/Washington D.C. areas, Washington County is also experiencing increasing issues with delayed travel times, particularly on I-81 and I-70.

The MPO's 2045 LRTP indicates that 40% of the increase in annual vehicle miles traveled (VMT) between 2000 and 2015 occurred on these two major transportation routes. Interstate travel on I- 81 and I-70 accounted for 50% of the average daily VMT in 2015. By 2040, the MTP projects a 50% or greater increase in the Travel Time Index (TTI) along the entire length of I-81 through Washington County and on I-70 from the County's eastern boundary to its intersection with I-81 near Halfway. TTI measures congestion conditions on individual road segments by comparing travel times with and without congestion. A TTI of 2.0 or above describes a 10-minute trip in light traffic that would take 20 minutes in heavily congested conditions. Lesser, but still significant increases in TTI, are expected for the remainder of I-70 from the I-81 intersection to its junction with I-68 near Hancock. Map 7-4 shows the projected increase in TTI throughout Maryland by 2040.

Map 7-4: 2040 Travel Time Index Projections



Source: Maryland Statewide Transportation Model 2015

1 2040 Maryland Transportation Plan Technical Memorandum Conditions, Trends and Challenges, p.30, 2018

Accordingly, due to both of these congestion projections as well as associated safety concerns for motorists, interstate widening and interchange improvements on these two major transportation routes are top priorities in the County's 2022 Priority Letter to MDOT for consideration in its current CTP. Specifically, the 2022 letter discusses phased widening of the entire length of I-81 through the County and interchange improvements at the intersection of I-70 and MD-65. Significant amounts of both residential and commercial development have occurred in the immediate vicinity of this interchange in the last 20 years, particularly the completion of a second Walmart in Hagerstown as well as the steady buildout of the Westfields subdivision. This development has positively contributed to the County's tax base, but has also increased congestion at and around this major intersection to a notable degree. The top congested corridors were noted in the MPO's 2050 LRTP and displayed in the table below.

Table 7-2: Top Congested Corridors in Washington County

County	Facility	From	To
Washington	Eastern Boulevard	US 40	N of MD 64
	I-70	Exit 32	W of MD 63
	MD 65	N of Oak Ridge Drive	Poffenberger Road
	US 40	US 11	MD 64
	US 40	Eastern Boulevard	Edgewood Drive
	I-68	I-70	Rt 144
	Maugans Avenue	I-81	US 11

Source: HEPMPO Direction 2050 Long Range Transportation Plan

➢ Traffic Safety

In 2019, the MPO completed a Regional Traffic Safety Study of the Hagerstown/ Eastern Panhandle Metropolitan Planning Area. The Study was done to monitor and assess regional traffic safety using the latest available crash data and public input, building upon the goals and strategies of the Maryland and Washington County Strategic Highway Safety Plans. The conclusions of this study, as well as further safety monitoring efforts, are incorporated into the short and long-term needs identified in the MPO's TIP and LRTP.

Using five-year crash data from MDOT and from the National Highway Traffic Safety Administration Fatality Analysis Reporting System, the Study offers a wealth of information on corridors and intersections with safety concerns that affect land use planning decisions. Map 7-5, shows the top 10 corridors and intersections with safety concerns due to the total number or rate of crashes, injuries or fatalities

Map 7-5: Priority Corridors for Safety Improvements

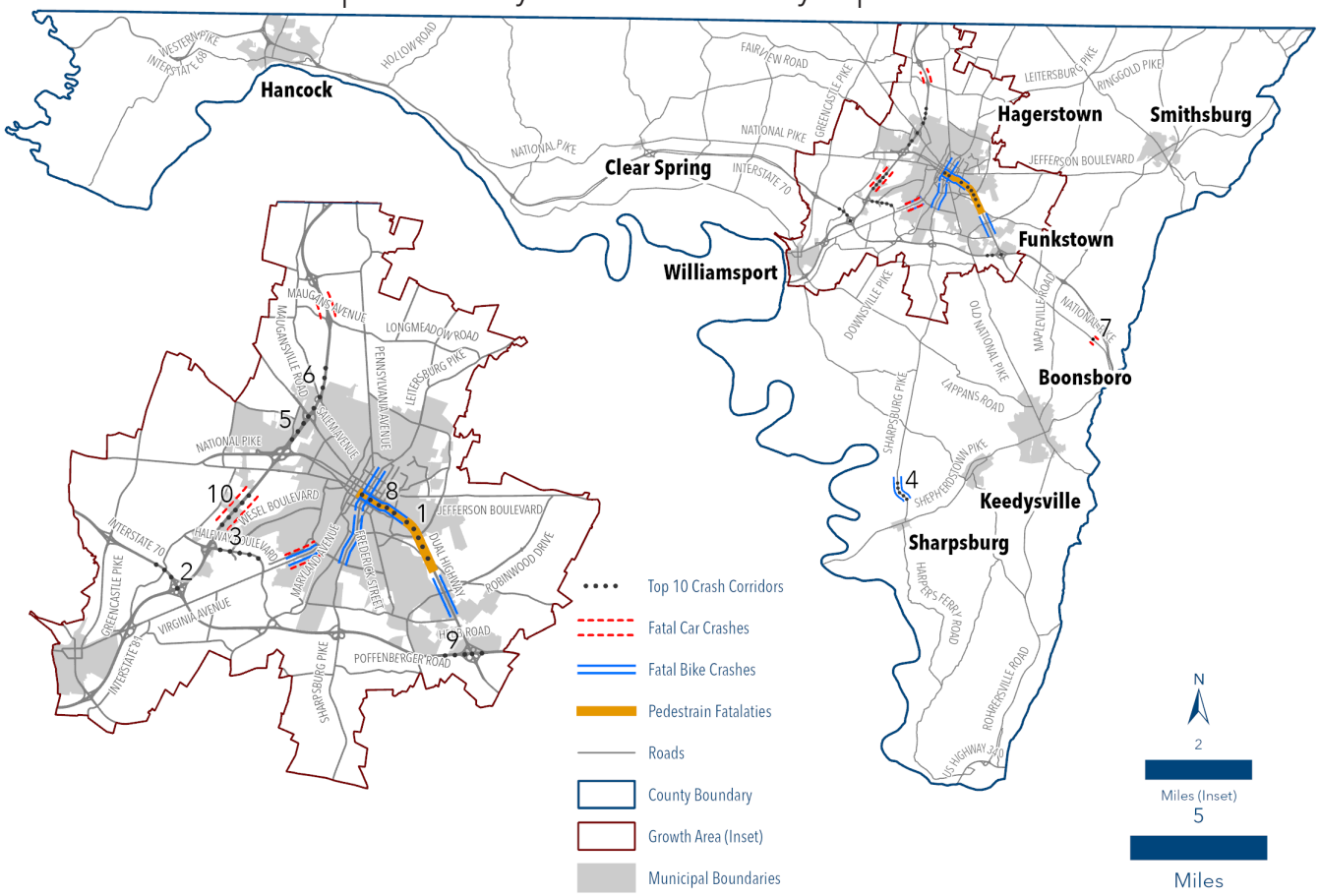


Table 7-3: Corridors

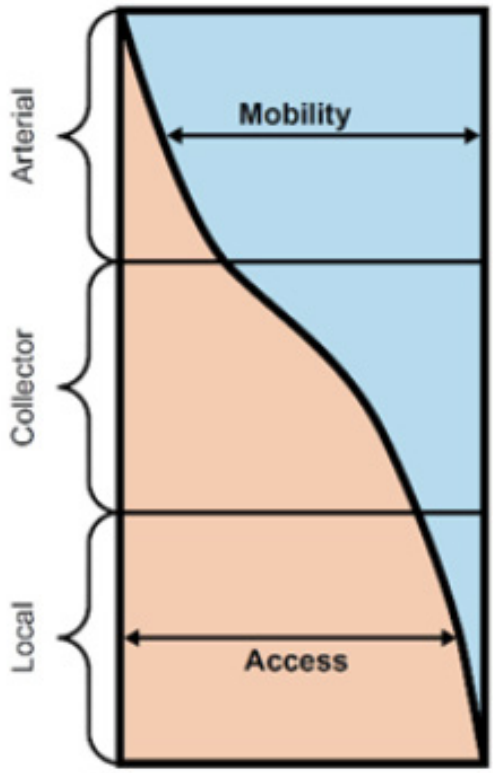
Corridor Name	Corridor Starting Point	Corridor Ending Point	Location	# of Crashes
US 40 EB	Tracys Lane	Covenant Life Church	Hagerstown	134
I-70 EB	Mile 26	Mile 27	Hagerstown	133
Halfway Boulevard	I-81	Virginia Avenue	Hagerstown	124
Maryland 65 (Sharpsburg Pike)	Starke Road	Richardson Avenue	Sharpsburg	113
I-81 SB	Exit 8	Mile 7	Hagerstown	105
I-81 SB	Mile 9	Exit 8	Hagerstown	104
US 40	Crystal Falls Road	The Lodge	Boonsboro	84
US 40 EB	Jonathan Street	Tracys Lane	Hagerstown	84
I-70 EB	Mile 31	Mile 33	Hagerstown	84
I-81 NB	Mile 5	Mile 6	Hagerstown	82
US 11 (Pennsylvania Avenue/N. Burhans Boulevard)	Fairview Road	Railroad Tracks	Hagerstown	80
S. Potomac Street	Charles Street	Baltimore Street	Hagerstown	79
US 40 EB	Crest View Road	Hebb Road	Hagerstown	79
Salem Avenue	Kay Circle	Kinslow Street	Hagerstown	75
I-70 EB	Exit 29 (MD 65)	Mile 30	Hagerstown	73
S. Potomac Street	Lee Street	Wilson Boulevard	Hagerstown	73
Garland Groh Boulevard	Barlow Drive	Bulldog Federal Credit Union	Hagerstown	72
I-70 EB	Exit 35 (MD 66)	Black Rock Road	Hagerstown	71
I-81 SB	Exit 10 (Showalter Road)	Exit 9 (Maugans Ave)	Maugansville	69
US 11 (Virginia Avenue)	S. Burhans Boulevard/W. Wilson Boulevard	Harwood Road	Hagerstown	67

Source: HEPMPO Direction 2050 Long Range Transportation Plan

Traffic corridors with major safety concerns are shown on the map and table above. These corridors include U.S. 40 eastbound (between Tracy's Lane and Mt. Aetna Rd), I-70 eastbound (near the I-81 interchange), Halfway Boulevard (from Virginia Avenue to the I-81 entrance/exit) and Sharpsburg Pike (just north of the Town of Sharpsburg by Antietam National Battlefield). Several of these corridors have been identified for improvement projects in the MPO's TIP and LRTP.

Road Standards - Functional Classification

Figure 7-2: Relationship of Functionally Classified Road Network Levels According to the Fulfillment of the Functions of Mobility and Accessibility



Source: Managing Traffic Data through Clustering and Radial Basis Functions by Heber Hernández

Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the character of the service they intend to provide in moving the public through the transportation network. The goal of this hierarchy is to facilitate transportation movement in an efficient and cost-effective manner. Classification is based upon the mobility and accessibility of any given roadway. As alluded to previously, mobility is measured by the ability of traffic to pass through a defined area in a reasonable amount of time. Accessibility is measured in terms of the road system's ability to provide access to and between land use activities within a defined area. Other factors, such as trip length, speed limit, traffic volume and vehicle mix also play a role in a road's functional classification.

According to Federal guidelines, there are three primary classification categories that are used: Arterial, Collector, and Local. In general, the difference between Arterial, Local and Collector roads in terms of mobility or accessibility can be described by the following characteristics. Arterials provide a high level of mobility. Local roads provide a high level of accessibility. Collectors strike a balance between mobility and accessibility. These terms are more precisely defined in the classification below:

Table 7-4: Relationship between Functional Classification and Travel Characteristics

Functional Classification	Distance Served and Length of Route	Access Points	Speed Limit	Distance Between Routes	Usage (AADT and VMT)	Significance	Number of Travel Lanes
Arterial	Longest	Few	Highest	Longest	Highest	Statewide	More
Collector	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Local	Shortest	Many	Lowest	Shortest	Lowest	Local	Fewer

Source: Federal Highway Administration Highway Functional Classification: Concepts, Criteria and Procedures (2013)

Washington County's Functional Classification system is shown on Map 7-6 and defined on the accompanying table of Highway Standards below:

Map 7-6: Functional Classification of Roadways

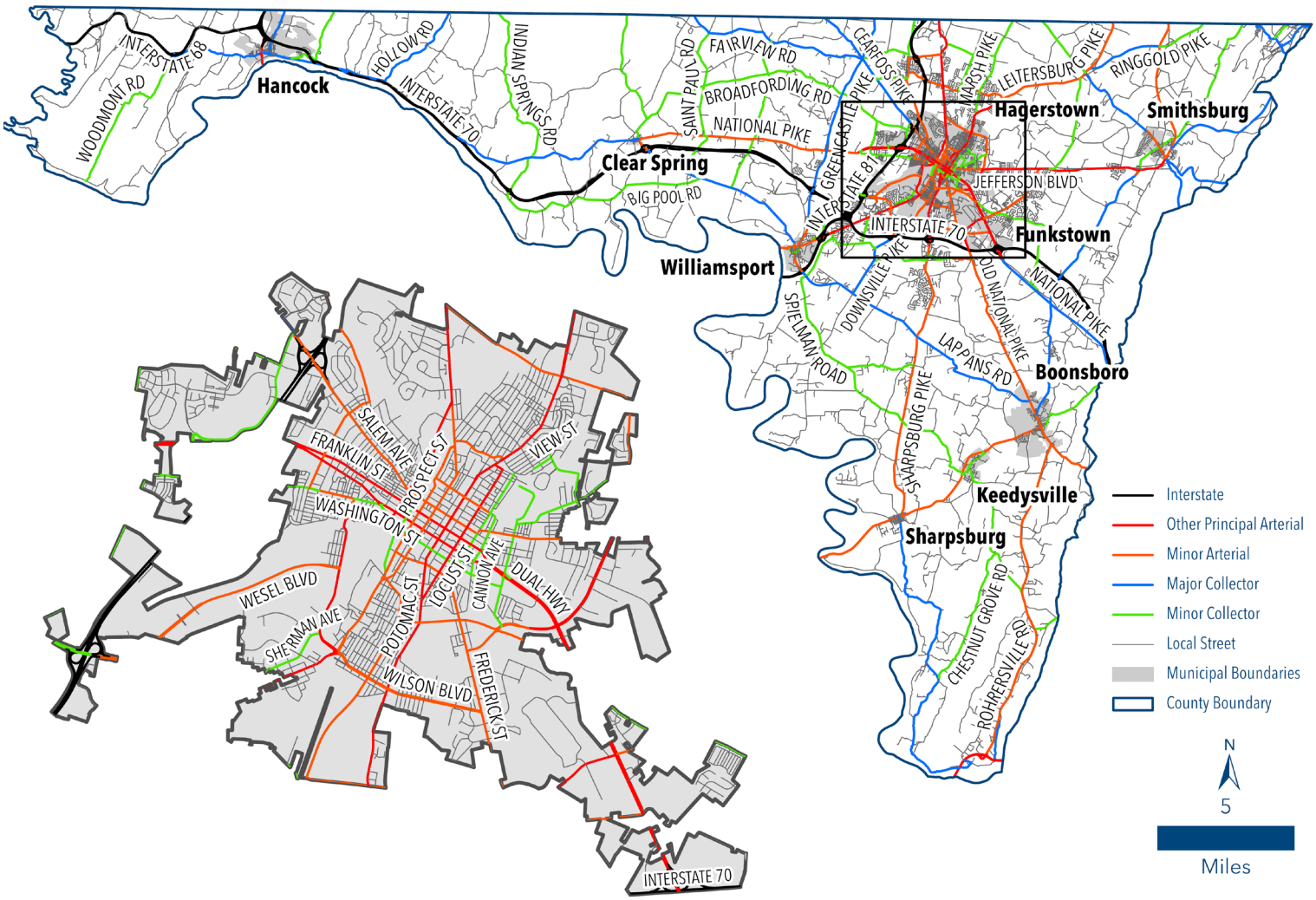


Table 7-5: Highway Standards

Highway Standards						
Functional Classification	Principal Arterial (Interstate	Other Principal Arterial (Non-Interstate)	Minor Arterial (Urban or Rural)	Major Collector (Urban or Rural)	Minor Collector (Urban of Rural)	Local (Urban or Rural)
Design Type	Freeway	Freeway/ Expressway	Expressway/ Two or Multi-Lane Highway	Two or Multi-Lane Highway	Two Lane Highway - Occasionally Multi-Lane	Two Lane Highway
Character of Travel	Interstate or Statewide	Inter-Regional	Intra-Regional	Intra-County	Inter-Community	Intra-Community
Type Generators Served (Population)	Interstate Urbanized >50,000 or Intra-State > 25,000	Urban Area of 5,000-25,000	Major Towns or Communities of 1,000-5,000	Towns and Communities of 500-1,000	Villages and Neighborhoods of 100-500	Individual Properties
Typical Mean Traffic	Rural > 10,000 ADT Urban> 25,000 ADT	Rural> 5,000 ADT Urban> 20,000 ADT	Rural: 2,000 - 5,000 ADT Urban: 5,000 - 25,000 ADT	Rural: 1,000 - 3,000ADT Urban: 2,000-10,000ADT	Rural: 500 -1,500 ADT Urban: 1,000 - 3,000ADT	Rural< 1,000 ADT Urban< 2,000ADT
Typical Operating Speed	55-70 MPH	Rural 45-60 MPH Urban 35-50 MPH	Rural 40-45 MPH Urban 30-40 MPH	Rural 40-45 MPH Urban 25-35 MPH	Rural +/- 40 MPH Urban+/- 25-30 MPH	Rural 30-40 MPH Urban+/- 25 MPH
Access Spacing	No direct property access. Grade separated interchanges only.	Minimum 750′ distance between all new access points	Minimum 500′ distance between all new access points	Minimum 300′ distance between all new access points	Min 100′ distance between property access points & 250′ between public street access points.	No restrictions on new property access points. Street jogs less than 150′ ft. not permitted
Minimum Right- of-Way	150′ to 300′	150′	100′	80′	60′	50′

(1) Engineering data listed herein shall be considered a guide only. Specific design requirements are contained in the appropriate Washington County design standards.

(2) Mean traffic is expressed in ADT (Average Daily Traffic) or the number of vehicles passing a given point in both directions within a 24-hour period. Values shown are typical ranges only and are not to be used to determine particular road classifications. Existing and/or projected volumes are to be used to determine the number of traffic lanes required for a particular road.

(3) Standards for access spacing and right-of-way widths are enforced through the Subdivision Regulations. Right-of-way wider than the minimum may be required especially when accommodating multi-lane highways.

(4) Residential properties are generally restricted to one access per lot. A second access may only be permitted if reviewed and approved by the County Engineer due to extenuating circumstances

Road Standards - Access Management

Access management involves proactively controlling vehicle access to land adjacent to roadways of various classifications in order to achieve efficient and safe traffic flow. This management encompasses a range of spacing, design and location strategies such as limited access points on major arterials, driveway consolidation, dedicated turning lanes, roundabouts, median treatments, right-of-way preservation, and many others. By reducing the number of conflict points along a roadway, the friction between local and through traffic is lessened, improving the overall functionality of the transportation network.

Access management standards on streets and highways are detailed in the table above. Access points location criteria are also described in Article 4 of the Washington County Subdivision Ordinance (Article 405.2). Right-of-way preservation is also discussed in Section 4.7 of the Washington County Zoning Ordinance.

Planned Improvements - Roads

Highway Plan

Map 7-7, below, shows priority roadway projects identified within various State, regional and local transportation plans, including Maryland's CTP, the MPO's LRTP and TIP, and the County's CIP. Please note that numbering on the map and table below does not indicate a priority ranking system for each project. These projects include intersection improvements, new or reconstructed roads and road widening.

Map 7-7: Highways Plan

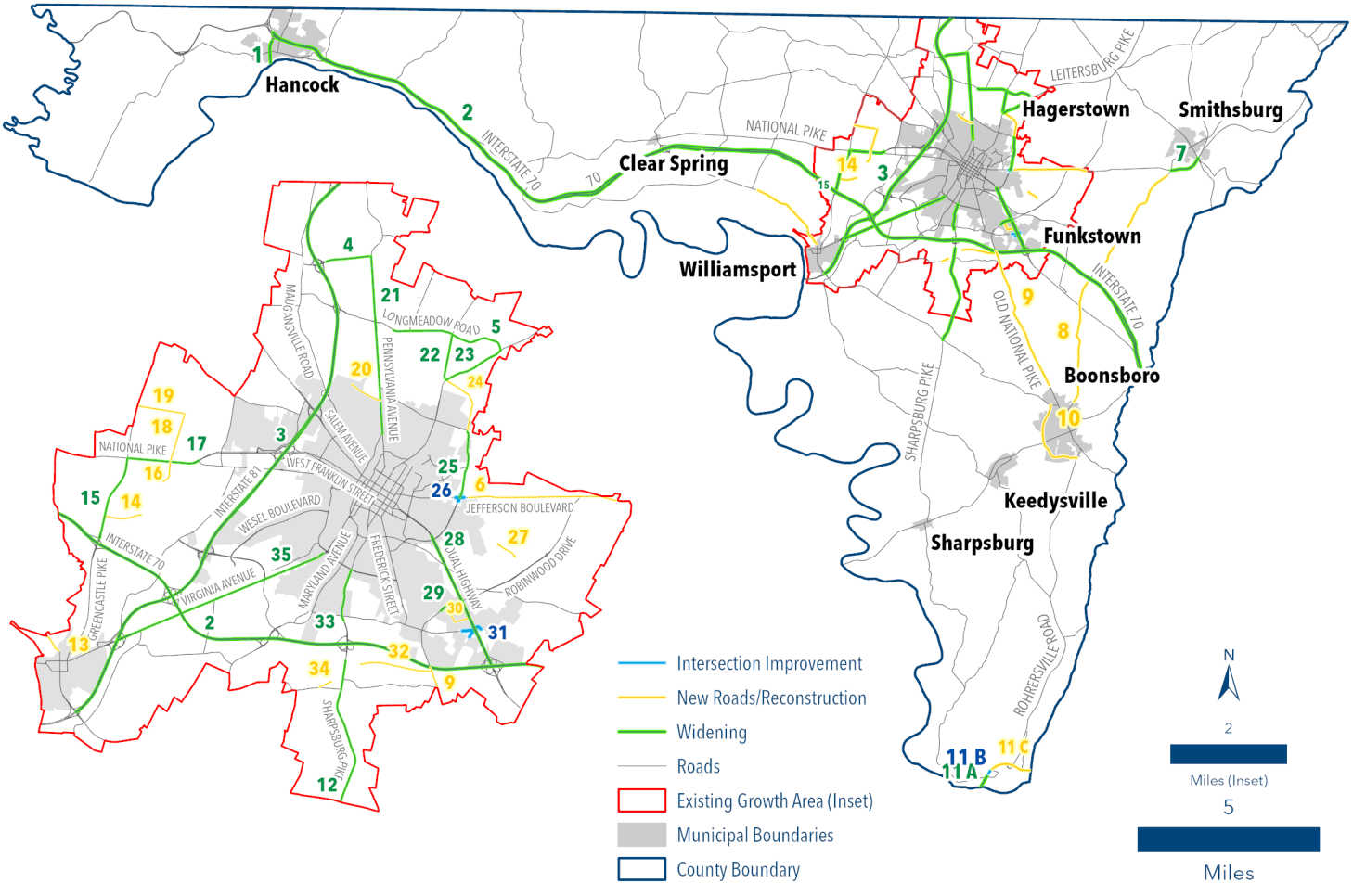


Table 7-6: Highways Plan Detail

Number	Name	Improvement	Source
1	US Route 522 Widening	Widening	HEPMPO
2	I-70 Widening to 6 Lanes	Widening	MDOT
3	I-81 Widening	Widening	HEPMPO
4	Showalter Road Widening to 4 Lanes	Widening	HEPMPO
5	Longmeadow Road Widening	Widening	County
6	Jefferson Blvd Multi Lane Reconstruction	New Roads/Reconstruction	MDOT
7	Jefferson Blvd Widening	Widening	MDOT
8	Mapleville Road Lane Reconstruction	New Roads/Reconstruction	MDOT
9	Old National Pike Lane Reconstruction	New Roads/Reconstruction	MDOT
10	Warrior Blvd Extension to Lappans Road	New Roads/Reconstruction	Municipal
11 A	US Highway 340 Bridge	Widening	HEPMPO
11 B	US Highway 340	Intersection Improvement	HEPMPO
11 C	US Highway 340	New Roads/Reconstruction	HEPMPO
12	Sharpsburg Pike Widening	Widening	MDOT
13	Clear Spring Road Reconstruction	New Roads/Reconstruction	MDOT
14	Halfway Blvd Extension to MD 63	New Roads/Reconstruction	County
15	Greencastle Pike Widening	Widening	MDOT
16	Newgate Blvd to National Pike	New Roads/Reconstruction	HEPMPO
17	National Pike Widening	Widening	MDOT
18	Logistics Blvd Construction	New Roads/Reconstruction	Private
19	Logistics Blvd to Cargo Drive Connection	New Roads/Reconstruction	County
20	Haven Road Lane Reconstruction	New Roads/Reconstruction	Municipal
21	Pennsylvania Ave Widening to 4 Lanes	Widening	MDOT
22	Marsh Pike Widening	Widening	HEPMPO
23	Leitersburg Pike Widening	Widening	MDOT
24	Eastern Blvd Connector to Marsh Pike	New Roads/Reconstruction	County
25	Eastern Blvd Widening to 4 Lanes	Widening	County
26	Eastern Blvd / MD 64	Intersection Improvement	County
27	Professional Blvd Reconstruciton	New Roads/Reconstruction	County
28	Dual Highway Widening to I-70	Widening	CTP
29	Edgewood Drive Widening	Widening	County
30	R Paul Smith Blvd to Dual Highway	New Roads/Reconstruction	County
31	Dual Highway / Hebb Road/ Day Road Instersection Improvements	Intersection Improvement	County
32	Colonel Henry K Douglas Extension	New Roads/Reconstruction	MDOT
33	Potomac Street Widening	Widening	County
34	Arnett Drive to Rench Road	New Roads/Reconstruction	County
35	Virginia Ave Widening	Widening	MDOT

➢ HEPMPO Fiscal Constraint Plan

The MPO's Fiscal Constraint Plan requires the identification of projects that are reasonably expected to receive funding during the timeframe of the LRTP (Direction 2050). Not all of the region's project needs can be included in the Fiscal Constraint Plan as a result of the funding gap between project costs and anticipated funding. Therefore, the prioritization results and year of expenditure project cost estimates are critical in determining the constraint portion of the plan. The Fiscal Constraint Plan is displayed in the table below.

Table 7-7: HEPMPO Fiscal Constraint Plan

Time Frame	Project ID	Facility	Recommendation	2021 Cost	Local Priority	Ranking
Phase 1 Short Term 2027 - 2035	W101.2	I-81 - Phase 2	Widen to six lanes	$ 136,389,000	HIGH	1
	W101.3	I-81 - Phase 3	Widen to six lanes	$ 133,067,000	HIGH	2
	W216.0	Underpass Way / Halfway Blvd.	Intersection Improvements	$ 1,500,000	HIGH	17
	W209.0	Marsh Pike	Widen to four lanes	$ 3,399,088	HIGH	24
	W128.0	I-70 / Exit 32 Dual HIghway Interchange	Interchange improvements, collector / distributor lanes	$ 8,250,000	HIGH	26
	W206.3	Eastern Blvd. Extended - Phase 3	Two lane highway w/ center turn lane and signal	$ 7,850,000	HIGH	27
	W205.0	Eastern Blvd. / Antietam Dr.	Intersection improvements	$ 2,699,463	HIGH	30
	W204.0	E. Oak Ridge Dr. / South Pointe Dr.	Intersection Improvement - traffic signal	$ 461,000	HIGH	37
	W217.0	Burnside Bridge Rd.	Intersection Improvements	$ 544,000	MEDIUM	51
	W101.4A	I-81 Interchange at Maugansville Ave (Exit 9)	Interchange Improvements	$ 6,000,000	HIGH	19
	W101.4B	I-81 Interchange at Showalter Road (Exit 10)	Interchange Improvements	$ 6,000,000	HIGH	6
Phase 2 Long Term 2036-2051	W208.2	Longmeadow Rd. - Phase 2	Widen to five lanes	$ 10,387,776	HIGH	8
	W117.0	US 11 (South)	Widen to four lanes	$ 69,400,000	LOW	11
	W112.0	MD 65 / I-70	Interchange Reconstruction	$ 57,052,960	LOW	12
	W309.0	Burhans Blvd.	Corridor Improvements, signal coordination	$ 2,807,242	HIGH	14
	W303.0	MD 60	Multi-lane urban reconstruct (4 lanes)	$ 19,600,000	LOW	17
	W110.0	MD 65	Widen to four lanes (divided)	$ 46,400,000	HIGH	21
	W125.0	MD 63/MD 68 Intersection	Intersection improvements, turn lanes	$ 1,596,320	LOW	22
	W118.0	US 340 - Potomac River Bridge	Widen to four lanes (inlcudes Potomac River Bridge)	$ 61,900,000	MEDIUM	32
	W208.1	Longmeadow Rd. - Phase 1	Widen to five lanes	$ 2,105,000	LOW	35
	W213.0	Newgate Blvd.	New two lane road	$ 3,500,000	LOW	39
	W129.0	MD 63 Greencastle Pike	Widen to three lanes (add TWLTL)	$ 2,047,760	LOW	41
	W126.0	MD 60 (Leitersburg Pike)/MD 62 Intersection	Intersection improvements, traffic signal, turn lanes	$ 1,979,120	HIGH	44
	W127.0	MD 60 (Leitersburg Pike) / Leiters Mill Road	Intersection improvements	$ 886,688	LOW	46
	W212.0	N. Main St.	Widen road	$ 829,488	MEDIUM	48
	W215.0	Showalter Rd. East	New road construction	$ 2,251,000	MEDIUM	50
	W310.0	Rockdale and Independent Road	Road Adequacy Improvements	$ 1,025,000	MEDIUM	51
	W311.0	Sandstone Dr.	Roadway Realignment	$ 500,000	MEDIUM	51

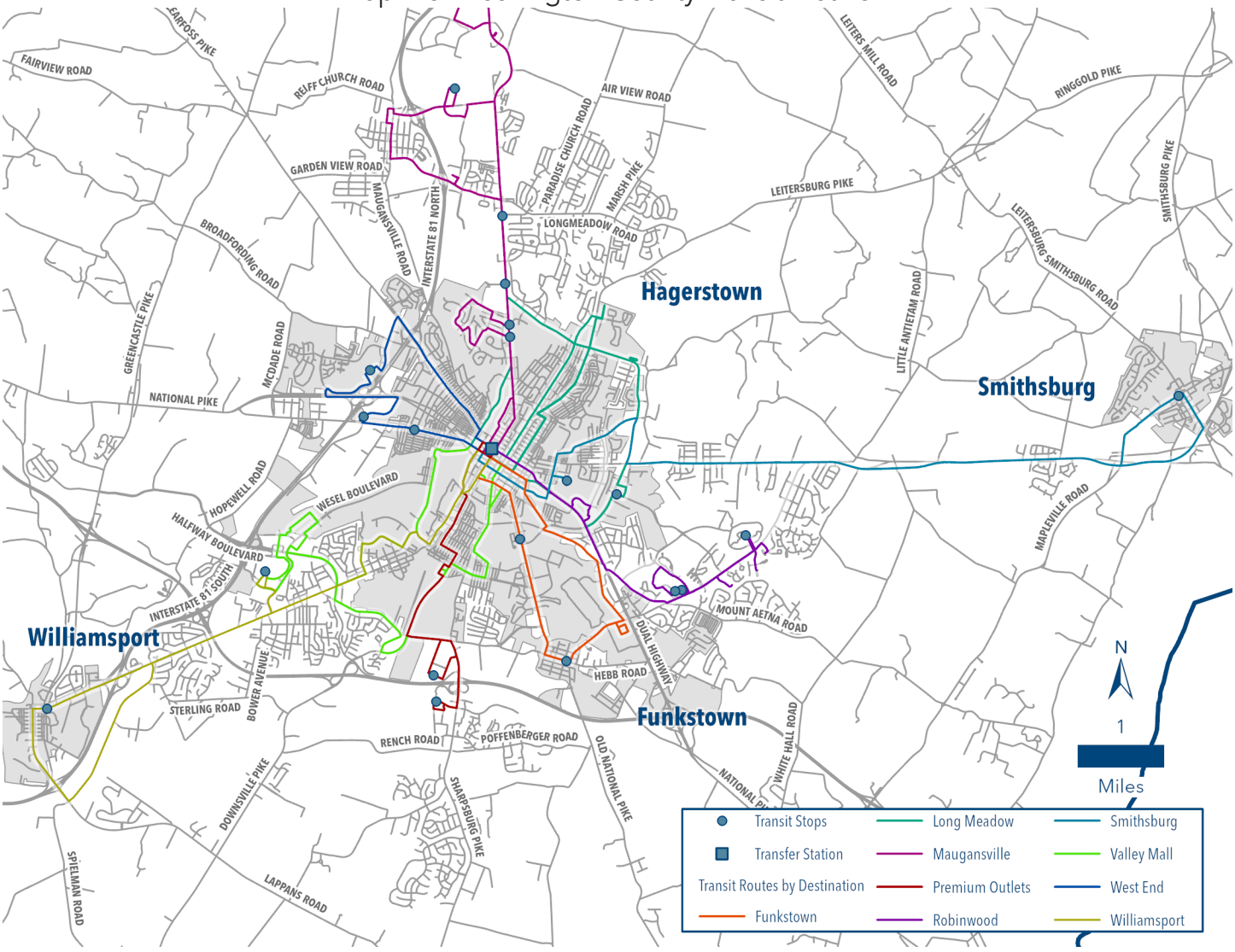
Source: HEPMPO Direction 2050 Long Range Transportation Plan - Washington County - Table

Transit

Overview and Existing Conditions

Being proximate to several major cities, particularly Washington D.C. and Baltimore, MD, the Washington County Transit Department (WCT) provides public transit for the County, primarily through the County Commuter bus system. The system runs 19 vehicles along nine fixed routes, shown below on Map 7-8, that originate in Hagerstown and serve destinations in Funkstown, Halfway, Long Meadow, Maugansville, Robinwood, Smithsburg and Williamsport. In addition, WCT provides transportation for the elderly and persons with disabilities through a ride assist voucher program and ADA compliant Paratransit Service for individuals with disabilities who cannot access fixed-route service. Total yearly ridership for all programs totaled 516,543 passenger trips and more than 518,385 miles, prior to the COVID-19 Pandemic.[1] Ridership was at approximately 75% of pre-Pandemic levels at the time of the County's 2022 Priority Letter to MDOT.

Map 7-8: Washington County Transit Network



Source: Washington County Transit Department

1 Washington County Transit Development Plan, p.10, 2020.

Regional transportation connections are also available from Washington County Transit facilities or services. Greyhound bus service picks up at the Washington County Transit Center in Hagerstown and from the Hancock Truck Plaza providing connections to numerous places in the region. Additionally, the Premium Outlets route of the County Commuter makes a stop at the Motor Vehicle Administration Park and Ride near the Walmart on Sharpsburg Pike. From this Park and Ride lot, residents can pick up the Maryland Transit Administration Route 505 commuter bus service that operates between Hagerstown, Frederick, the Shady Grove Metro Station and Rock Spring Business Park in Bethesda, Maryland. In addition, the Bay Runner Shuttle, a private shuttle service which makes a stop at the County Commuter Transit Center in downtown Hagerstown, takes passengers from across the State to BWI Airport, BWI Amtrak and the Baltimore Greyhound Bus Station.

In addition to Washington County Transit, numerous other organizations provide human services transportation to transit-dependent populations. These organizations include the ARC of Washington County, Easter Seals Adult Day Services, Horizon Goodwill Industries, United Cerebral Palsy of Central Maryland, Washington County Commission on Aging, Washington County Department of Social Services, Washington County Health Department, Washington County Mental Health Authority and the Washington County Community Action Council.

The Community Action Council, for example, provides employment, disability and medical appointment transportation for the elderly, low-income individuals, and individuals with disabilities through its Community Action Transit (CAT) program. This program includes free employment shuttle service, The Hopewell Express, which serves employees of Hopewell Road businesses from downtown Hagerstown. This shuttle service to one of the County's major employment centers operates hourly, 24 hours per day, Monday – Friday with final drop offs occurring early Saturday morning. Transportation is provided by the CAC to both local medical appointments and Baltimore and Washington D.C. hospitals.

Washington County does not offer passenger rail service. It is, however, within less than an hour's drive from a number of commuter rail stations in Frederick County, Maryland on the MARC Brunswick Line in addition to the Harpers Ferry and Martinsburg, West Virginia stations.

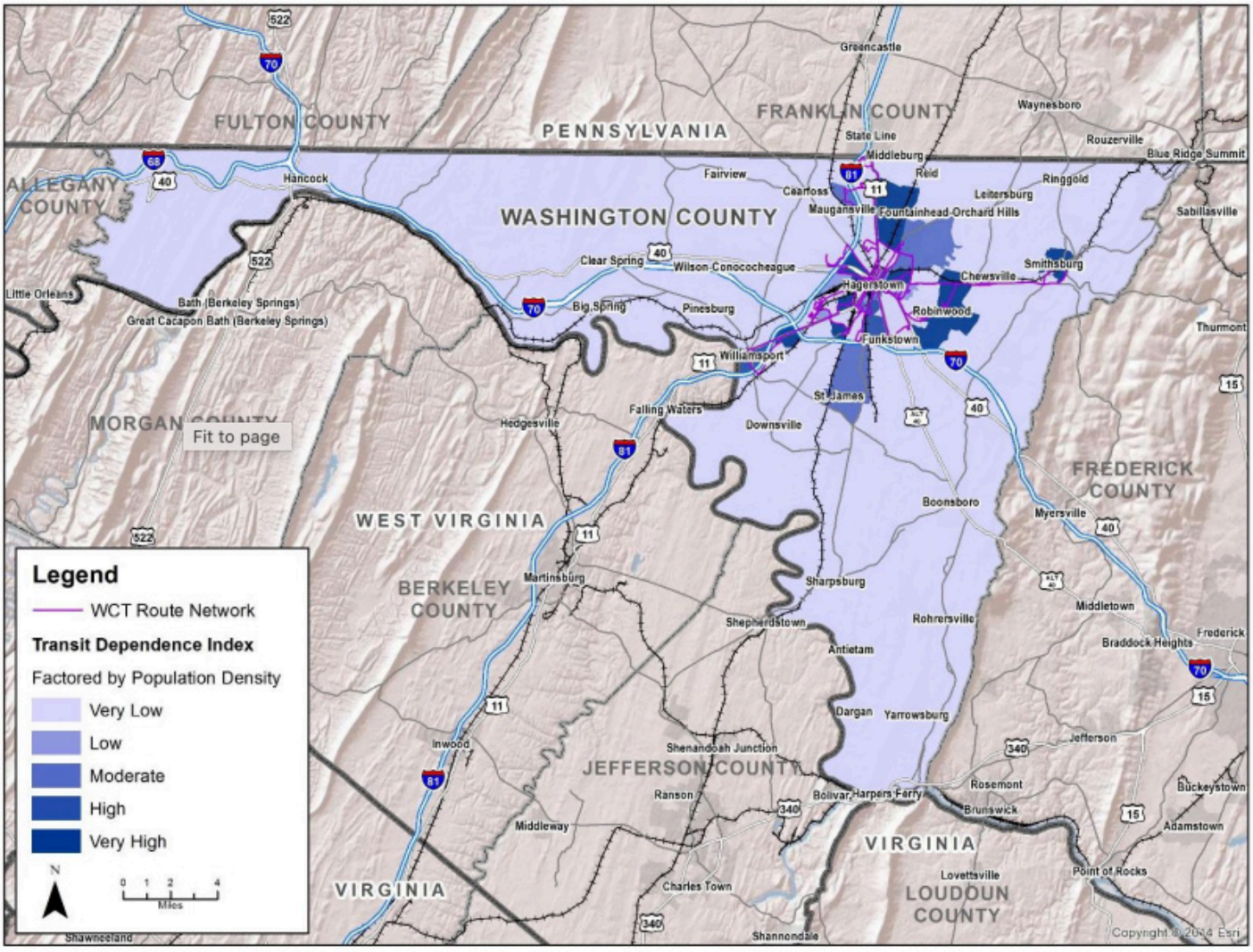
Washington County Transfer Center in Hagerstown, MD

County Transit Plans

Transit Development Plan (2020)

In 2020, the MPO updated its Transit Development Plan to analyze current public transportation services, project future needs and identify areas for improvement over a five-year planning period. The Plan makes numerous recommendations concerning transit service improvements for Washington County, including the identification of where transit needs are the highest. These areas are displayed on Map 7-9, located below

Map 7-9: Areas with Greatest Transit Need



Source: Washington County Transit Development Plan (2020)

The areas with the highest need for transit were heavily centered in the County's designated Urban Growth Area that surrounds the City of Hagerstown. Specific locations of need identified on the map include several census tracts within Hagerstown, the Robinwood and Fountainhead-Orchard Hills areas, and the Towns of Funkstown, Smithsburg and Williamsport. Other areas of the County which currently have no transit service, such as western and southern Washington County, also showed great need when looking at specific measures within the larger Transit Dependence Index.[1]The transit needs assessment was done at the Census Tract and Block Group levels according to the following characteristics:

- Population Density
- Auto less Households
- Elderly Population
- Youth Population
- Below-Poverty Level Population

In addition to those areas identified in the Transit Development Plan, the MPO's LRTP also identified service gaps during peak or all-day periods between Hagerstown and Clear Spring, Hagerstown and Boonsboro, and near the I-70/MD-65 interchange where considerable development has occurred recently.

Transit Development Plan Recommendations

The 2020 Transit Development Plan offers the following recommendations for service improvements to Washington County Transit, assigned to short, medium and long-term time horizons:

- Enhance on-time performance through interlining bus routes (Short-Term)
- Enhanced marketing to better promote transit services (Short-Term)
- Hire additional transit staff (Medium-Term)
- Incorporate Hopewell Express into Washington County Transit (Medium-Term)
- Develop Smartphone Payment App (Long-Term)
- Introduce Sunday Service (Long-Term)
- Create Boonsboro to Hagerstown Route, with potential to serve points beyond (Long-Term)
- Provide system-wide evening service (Long-Term)

1 See 2020 Washington County Transit Development Plan pages 50-54

Human Services Transportation Plan (2019)

Human services transportation refers to meeting the mobility needs of people with disabilities, senior citizens, veterans, individuals with low incomes and young people without access to transportation. Human services transportation plans are created to receive Federal funding for these needs in order to provide transportation for these target populations beyond what is provided by traditional public transit and paratransit services.

In 2019 a study was prepared for the Maryland Transit Administration to address human services transportation for the Western Maryland Counties of Allegany, Frederick, Garrett and Washington. The study identified the following needs for Washington County:

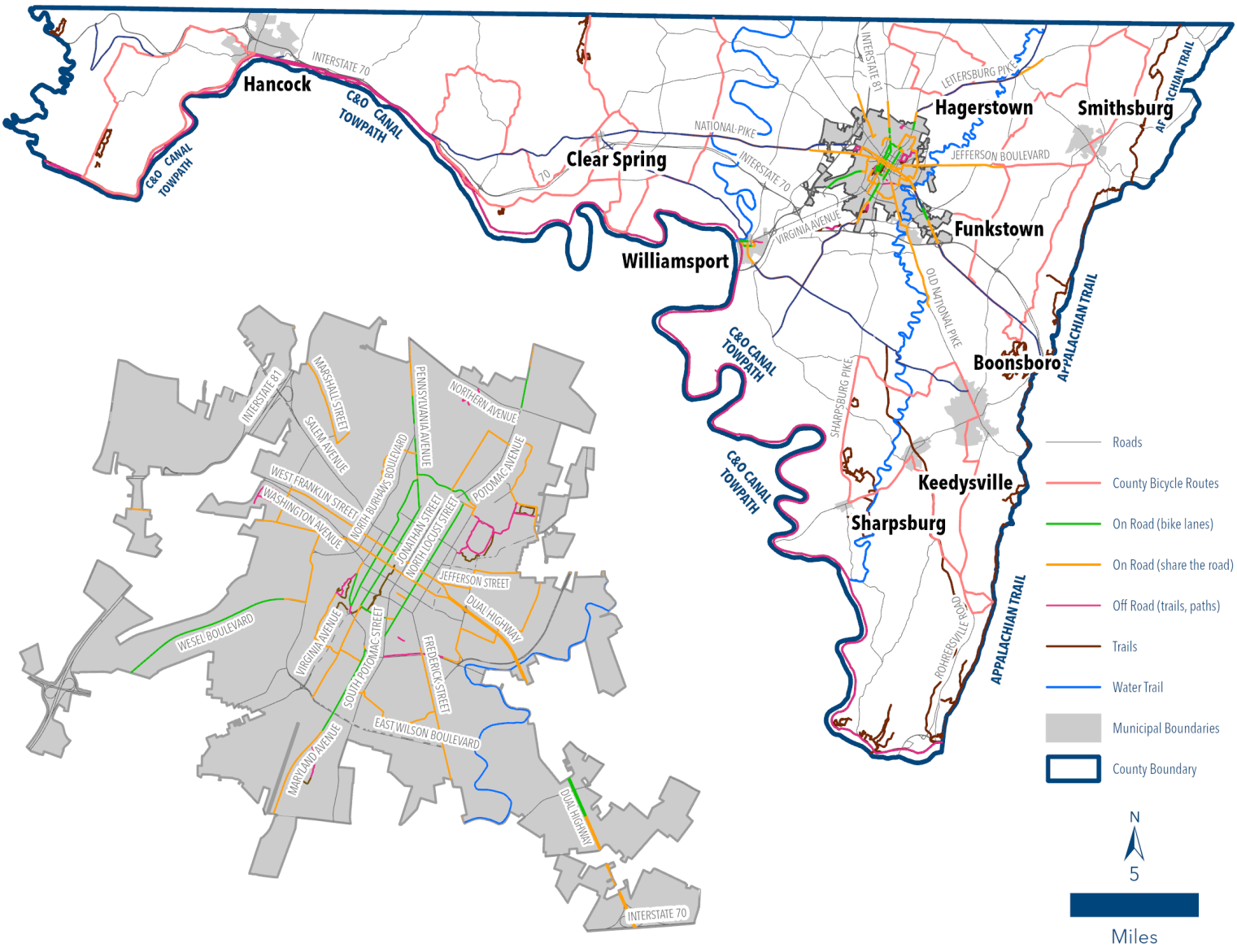
- More wheelchair-accessible vans and better coordination among agencies to access the existing fleet of accessible vans.
- Expanded transit availability to access employment opportunities, including evenings, weekends, and holidays.
- Improved communication and coordination between provider agencies and clients to better plan, schedule and operate trips based on available capacity.
- Additional administrative funding to support expanded operations.
- Supervisory body over coordinated services to ensure funded projects are being implemented.
- Additional transit options to meet transit needs outside of the current County Commuter service area, including some new residential developments.
- Expanded transit availability for all trip purposes on weekends.
- Additional operational funding, including potential cost sharing between the City and County for County Commuter Services.
- Additional marketing and advertising program for County Commuter.
- Additional funding programs for people who do not qualify for specific governmental assistance programs, including a taxi voucher program.
- Additional transit services in the evenings for all trip purposes.
- Additional transit availability for the Hopewell Road area, where several distribution centers have been built.
- Additional transit availability for dialysis trips

Bicycle, Pedestrian and Recreational Trail Facilities

Overview and Existing Conditions

Washington County is fortunate to have an extensive network of facilities serving bicyclists, pedestrians and recreational trail users throughout its borders. Significant investments have been made by Federal, State and local entities to provide on and off-road infrastructure for these travel modes. These facilities are displayed on the map below and described in greater detail in the sections that follow.

Map 7-10: Existing Bicycle, Pedestrian and Trail Facilities



➢ Federal Bicycle, Pedestrian and Trail Facilities

Washington County is home to two U.S. Bicycle Routes, one National Scenic Trail reserved for pedestrian travel, and a nationally recognized multi-use trail that is part of a linear historic park. These facilities include:

- **U.S. Bicycle Route 50 –** Signed multi-state bike route that runs through Washington County as it travels between Washington D.C. and San Francisco, California.

- **U.S. Bicycle Route 11 –** Signed multi-state bike route traveling north-south from the Washington County/Pennsylvania border to northwestern North Carolina. USBR11 has been designated since 2014, but the preferred route is still being finalized.

- **Appalachian National Scenic Trail –** 41 miles of the trail's more than 2,000-mile length between Georgia and Maine, run along the County's eastern boundary atop South Mountain.

- **C&O Canal Towpath –** Multi-use trail running through the linear C&O Canal National Historic Park, roughly 80 of the 184-mile trail runs through Washington County between Sideling Hill and Sandy Hook. The C&O Canal Towpath connects with the Great Allegheny Passage (GAP) Trail in Cumberland, Maryland, where it continues another 150 miles before terminating in Pittsburgh, Pennsylvania.

- **Harpers Ferry National Historic Park and Antietam National Battlefield –** While primarily parks whose mission is focused in providing historic preservation and interpretation, Harpers Ferry and Antietam offer more than 30 miles of hiking trails, as well as connections to longer distance trails like the Appalachian Trail and C&O Canal Towpath.

C&O Canal Tow Path - Source: NPS Facebook

➢ State Bicycle, Pedestrian and Trail Facilities

The State of Maryland retains jurisdiction over on and off-road bicycle facilities along State highways and select abandoned rail corridors. The State also has a robust network of recreational trails in the State Parks found throughout Washington County. These facilities include:

- **The Western Maryland Rail Trail in Hancock -** The majority of the approximately twenty-eight mile off-road, converted rail trail occurs within Washington County between Fort Frederick State Park and Sideling Hill Ridge near Hancock, before extending into neighboring Allegany County. The paved trail is open to cyclists and pedestrians.

- **On-Road Bicycle Facilities -** Outside of the City of Hagerstown, many State highways provide shared road space for bicycles. These include MD 60, MD 64, MD 68, MD 632, U.S. 40, and U.S. Alt-40. While these facilities are classified as 'shared lanes', a de facto bike lane is created by the wide paved shoulder present on portions of the above roadways. At present however, only the connection between Hagerstown and Williamsport along MD 632 and MD 68 provides dedicated shoulder space the entire way between two distant municipalities. There are approximately 61 miles of paved shoulders with space for bicycle usage along these State routes in Washington County.

- **State Parks –** Fort Frederick, Gathland, Greenbrier, South Mountain, South Mountain Battlefield and Washington Monument State Parks are all contained partially or completely within Washington County. These parks offer dozens of miles of hiking trails within their borders as well as connections to long-distance multi-use paths such as the C&O Canal Towpath, Western Maryland Rail Trail, and the Appalachian Trail. Mountain biking is allowed on the trails at Greenbrier State Park. State Wildlife Management Areas (WMA) and Natural Resource Management Areas (NRMA) found within the County, such as Indian Springs WMA and Woodmont NRMA, also offer some trails that are open to the public.

Western Maryland Rail Trail - Source: Facebook Western MD Rail Trail

City of Hagerstown Bicycle, Pedestrian and Trail Facilities

The City of Hagerstown provides on-road bicycle facilities of various types, multi-use paths and a robust network of pedestrian facilities. These facilities occur on or along City streets, State highways that run through the municipality, and within City parks. Hagerstown, as noted earlier, was named a "Bicycle Friendly Community" by The League of American Bicyclists at the Bronze level in 2014. The City had approximately 28 miles of existing bicycle infrastructure by 2016, which represented a 50 percent increase since 2010. Hagerstown has also designated a signed 10-mile bike loop within its boundary that utilizes on-road and off-road bicycle infrastructure, dubbed the Hub City Bicycle Loop.

Hub City Loop - Source: City of Hagerstown

County Bicycle, Pedestrian and Trail Facilities

Existing bicycle, pedestrian and recreational trail facilities under the jurisdiction of Washington County tend to occur within residential neighborhoods in the Urban Growth Area or within County parks. The County has also designated eight recreational bicycle routes comprising a 186-mile network of rural roads which provide an outstanding look at the scenic and historic nature of the local landscape. These routes are not currently signed, but a brochure produced by the Hagerstown and Washington County Convention and Visitors Bureau maps the routes geographically and provides detailed directions and descriptions of each tour.

Water Trails

The County's partnership with the Maryland Public Access, Water Trails, and Recreation Planning program has been used to build upon existing water trails designated by the State of Maryland. The most prominent water trail is the Upper Potomac River Water Trail which spans from Shepherdstown, WV to Cumberland, MD. This trail provides an invaluable resource for paddlers, boaters, and anglers. Most of the nine primary tributaries that drain into the Potomac River have sections which are navigable as well. Among these tributaries, the County has focused its greatest efforts to develop true Water Trails along the Antietam and Conococheague Creeks. Of these two waterways, development of the Antietam Creek Water Trail has advanced the furthest with access to the Creek being provided at 11 different points throughout the County.

Regional and Local Bicycle and Pedestrian Plans

Aside from the long-range transportation plans already referenced throughout this chapter that briefly cover active transportation modes as part of their intermodal survey, a number of studies specifically looking at bicycle and pedestrian needs within Washington County have been conducted by the MPO or the City of Hagerstown. These are briefly described below.

- **US 40 Dual Highway Pedestrian Safety Study and Audit (2015), Hagerstown Dual Highway Speed Management Study (2022)**

  Following a number of pedestrian fatalities along the Dual Highway in Hagerstown Maryland, a pedestrian road safety audit (PRSA) review process was undertaken. The study limits were between Cannon Avenue and Redwood Circle in Hagerstown. A PRSA is a formal procedure for assessing accident potential and safety performance for an existing roadway section. The PRSA review process consisted of a multidisciplinary audit team of professionals representing City and County engineers and planners, SHA representatives from highway, planning and pedestrian sections, as well as City, County and State law enforcement, the Hagerstown/Eastern Panhandle MPO and its consultants. The study recommended numerous short and long-term improvements, including curb extensions, crosswalk markings, pedestrian signals, education and enforcement campaigns and more.

  In 2022, another study of Dual Highway aimed to identify safety recommendations to reduce traffic-related serious injuries and fatalities. Study limits were from Cannon Avenue east to Cleveland Avenue along US40/Dual Highway in the City of Hagerstown. Turn movements, pedestrian counts, traffic analysis, land use context and signal timing were all evaluated, along with various design interventions. This Study was one of the recommendations for further investigation in the 2020 Hagerstown Bicycle and Pedestrian Priority Area Plan detailed below.

- **HEPMPO Regional Bicycle Plan (2016)**

  HEPMPO developed the regional bicycle plan to outline bicycle needs and priorities for the region. The Plan identified mobility and safety needs, evaluated existing conditions, recommended specific improvements for key linkages, and highlighted anticipated costs and potential implementation funding sources.

- **City of Hagerstown Bicycle Master Plan Update (2016)**

  Hagerstown is recognized as a "Bicycle Friendly Community" in Maryland and this updated plan looked to build on the momentum generated by their 2010 Bicycle Master Plan. The Plan was a collaborative effort between the City of Hagerstown and HEPMPO that sought to introduce new ways to evaluate the City's existing and proposed bicycle infrastructure and amenities, such as bicycling comfort and potential demand, as well as identifying implementation strategies for priority projects.

➢ Hagerstown Bicycle and Pedestrian Priority Area Plan (2020)

The concept of Bicycle and Pedestrian Priority Areas (BPPA) was created to emphasize planning for areas with a high potential of bicycling and walking. The purpose of the Plan was to identify bicycle and pedestrian existing needs, safety concerns, challenges, and potential improvements within the study area of Hagerstown's urban center. This Plan was developed by the MDOT SHA in partnership with the City of Hagerstown and HEPMPO. Existing conditions of roadways, bicycle facilities and pedestrian facilities were assessed, along with analysis of recent crash history. Assessments and analysis led to site-specific recommendations, identification of best practices, detailed discussion on sidewalks and facility-type descriptions.

Bicycle and Pedestrian Programs and Regulations

➢ "Bicycle Friendly" Recognition

The League of American Bicyclists, a national bicycle advocacy organization, has developed a "Bicycle Friendly" designation for communities, businesses, and universities. This certification is awarded by the organization only to communities that have made substantial commitments to bicycling through a multi-pronged framework of design and policy interventions known as the Five "E's". The Five "E's" stand for: Engineering, Education, Encouragement, Enforcement, and Evaluation. Equity was recently added as the 6th "E" to this framework.

Interested parties work to complete an extensive application and questionnaire which encompasses a range of "Bicycle Friendliness" with the hope of being awarded this designation. The achievement of this certification is useful not only as a marketing tool, but also as a framework for making measurable progress towards improving conditions for bicyclists. Feedback provided in response to the submission of an application illuminates deficits in existing conditions for bicyclists and how they could concretely be improved through various methods.

As noted, the City of Hagerstown achieved bronze level certification as a Bicycle Friendly Community in 2014 and is working towards the silver level designation. Though the "Bicycle Friendly" designation is not available for counties, it could still be an excellent way for Towns, colleges and businesses in Washington County to improve conditions for bicyclists while pursuing the award. The 6 E's approach is an outstanding way to promote inter-jurisdictional cooperation by involving many entities from the public, private, and non-profit sectors who can work to collaboratively address the provision of non-motorized transportation options that enhance local quality of life.

➢ Funding Programs

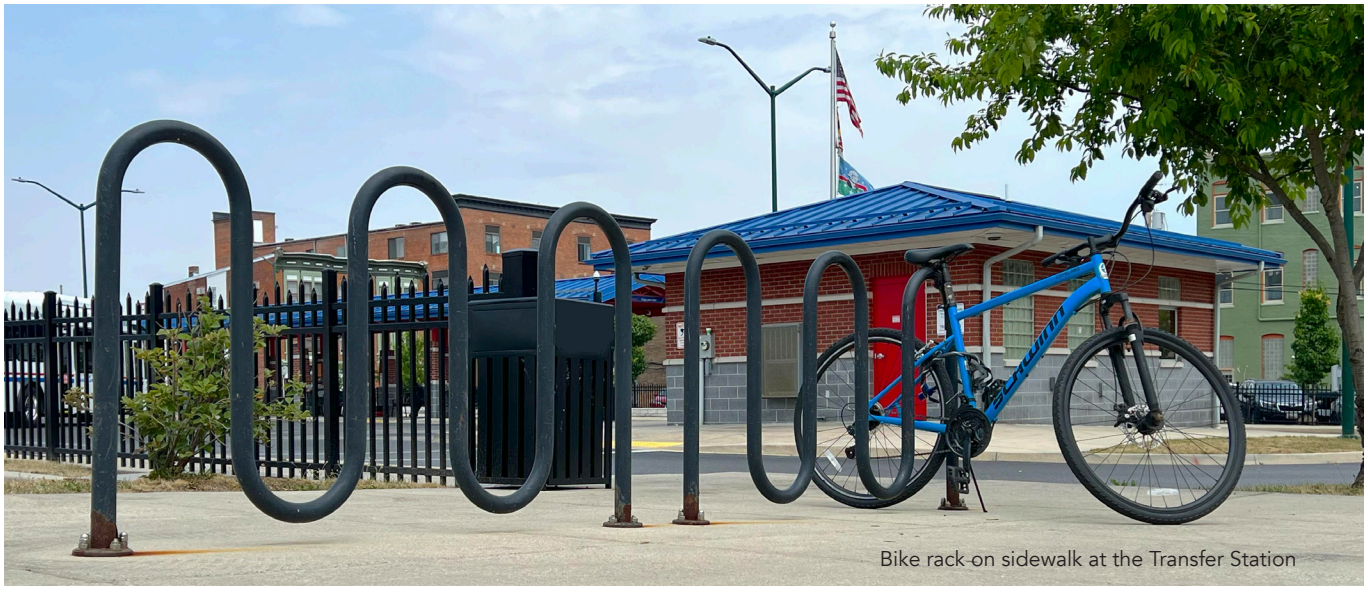
Numerous sources exist for local jurisdictions to apply for Federal or State funds to help plan, design and build bicycle and pedestrian projects throughout Maryland. Discretionary grant programs administered by MDOT include the Transportation Alternatives Program, Maryland Bikeways Program, Recreational Trails Program and Maryland Highway Safety Office Grant. Other MDOT funding programs for these travel modes include the Sidewalk Reconstruction for Pedestrian Access, New Sidewalk for Pedestrian Access, and Bicycle Retrofit funds. Other State grants can be obtained through the Community Legacy Program, Program Open Space, Community Parks and Playgrounds and Maryland Heritage Areas Programs. Prominent Federal grant opportunities are offered through BUILD Grants, the Rivers, Trails and Conservation Assistance Program and Federal Lands Access Program.

In recent years, the City of Hagerstown and Town of Williamsport have been successful in receiving significant grant funding from the Maryland Bikeways and Federal Lands Access Program to support bicycle infrastructure improvements within their jurisdictional limits.

➢ County Bicycle and Pedestrian Regulations

Washington County's Subdivision and Zoning Ordinances have design requirements for bicycle and pedestrian facilities. Design guidelines for sidewalks, crosswalks, and block lengths are specified within the Subdivision Ordinance. Sidewalks are not required along streets as a part of the subdivision process "unless deemed necessary by the Planning Commission for pedestrian safety or convenience."

Certain zoning districts, such as Residential Multi-Family, Planned Business, or Mixed-Use Districts, require a cohesive and comprehensive network of pedestrian paths that provide access to dwellings, parking areas, recreational amenities, community buildings, auxiliary or recreational vehicle parking areas, solid waste disposal, mailboxes, and on-site public transportation stops. The County's Zoning Ordinance also specifies requirements for bicycle parking and pedestrian access in Article 22. Language in this section also details required types and locations of racks or lockers for bicycles as well as appropriate design and access points for pedestrian facilities such as sidewalks, crosswalks and walkways.



Bike rack on sidewalk at the Transfer Station

Bicycle and Pedestrian Project Priorities

The following bicycle and pedestrian needs, priorities or concerns for Washington County have been identified in various planning documents as detailed below:

➢ HEPMPO Regional Bicycle Plan (2016)

Table 7-8: Proposed Washington County Bicycle Facilities

Map ID	Description	Facility	Type	Cost Estimate
Washington County				
W1	Improve bicycle facilities on MD 34 between Boonsboro and Shepherdstown	Rt. 34	Proposed bike on shoulder signage	$22,572
W2	Improve bicycle facilities on Virginia Ave. between Hagerstown and Williamsport	Rt. 11 (Virginia Ave.)	Proposed bike on shoulder signage	$13,840
W3	Improve bicycle facilities between Williamsport and Boonsboro	Rt. 68, Downsville Pike, Spielman Rd., Manor Church Rd., Monroe Rd.	Proposed bike on shoulder signage, share the road signage	$51,000
W4	Improve bicycle facilities on MD 64 between Hagerstown and Smithsburg	Rt. 64	Proposed bike on shoulder signage	$19,740
W5	Improve bicycle facilities on US 40 between Hagerstown and Clear Spring	US 40	Proposed bike on shoulder signage	$10,454
W6	Improve bicycle accessibility to Harpers Ferry (bike ramp)	-	Proposed bike ramp	NA/TBD
W7	Introduce bicycle signage on US 11 bridge	Rt. 11	Proposed share the road signage	$2,150
W8	Improve bicycle facilities on MD 65 between MD 68 and Sharpsburg	Rt. 65	Proposed bike on shoulder signage	$8,100
W9	Improve bicycle facilities between Hagerstown and Williamsport as an alternative to Virginia Avenue	Downsville Pike, Maryland Ave.	Proposed bike on shoulder signage	$7,000
W10	Improve cycling comfort and connectivity on MD 68 between Clear Spring and Williamsport	Rt. 68 and Bottom Rd.	Proposed bike on shoulder signage, share the road signage	$28,320
W11	Improve cycling comfort and connectivity on US 40-Alt (USBR 11) from Funkstown to Boonsboro	US 40-Alt	Proposed bike on shoulder signage	$7,872
W12	Improve connections to Hagerstown via W. Washington Street	W. Washington St.	Proposed bike on shoulder signage	$2,136
W13	Scenic Route 40 Improvements	Scenic Route 40	Proposed share the road signage	$26,700
W14	Connect Boonsboro and Cavetown-Smithsburg	Mountain Laurel Rd. and Crystal Falls Dr.	Proposed share the road signage	$67,200

Source: HEPMPO Regional Bicycle Plan (2016)

➢ HEPMPO Direction 2050 LRTP

Table 7-9: Top Washington County Corridors Identified by Public Comments for Bike and Pedestrian Needs

Area	Corridor	Extents	Type
Hagerstown, Williamsport	Route 11	Williamsport to Hagerstown	Sidewalk or shared-use path and bridge
Hagerstown	Dual Highway	Tracys Lane to Cannon Ave	Sidewalk shared-use path, bike lanes
Hagerstown	Robinwood	Jefferson Blvd. to Dual Highway	Sidewalk or shared-use path

Source: HEPMPO Direction 2050 LRTP

➢ Washington County Capital Improvement Plan (2025-2032)

Table 7-10: County Sidewalk Improvements

Washington County Capital Improvement Program 2025-2032								
Project	Total	Prior Approval	Budget Year	Ten Year Capital Program				
			FY2025	FY2026	FY2027	FY2028	FY2029	Future
ADA Accessibility	$1,785,023	$385,023	$500,000	$100,000	$100,000	$100,000	$100,000	$500,000
Robinwood Drive Sidewalk Extension	$750,000	$0	$0	$0	$250,000	$500,000	$0	$0
TOTALS	$2,535,023	$385,023	$500,000	$100,000	$350,000	$600,000	$100,000	$500,000

Freight Movement

Overview

Washington County's location at the junction of several major arterial road corridors and railroad lines has long made it a major regional hub along the supply chain which moves freight throughout large portions of the United States. This is increasingly true as a result of heightened consumer expectations for on-time delivery from various E-commerce retailers. These heightened expectations have made the role of hub communities even more important as critical links in the global supply chain network. Long range planning to ensure that the County has adequate transportation infrastructure and associated facilities to support its role in this interconnected network is essential.

The MPO's 2050 LRTP notes that in 2017, the HEPMPO region was responsible for shipping and receiving 23 million tons of freight valued at over $20 billion. Much of the trade taking place is between domestic partners (Maryland, West Virginia, Virginia, Pennsylvania, and Kentucky), with a strong emphasis on raw materials such as aggregates, and non-metallic minerals as well as foodstuffs being shipped into the region. Finished goods, with a relatively greater value per ton, such as machinery, mixed freight, and chemical products are shipped outbound from the region to regional trade partners. Most of the region's international trade activity is with Europe and Asia, for goods related to machinery, metals, and electronics. To source and ship these goods, the region relies on the Ports of Baltimore, Norfolk, and New York-New Jersey.

It is expected that from 2017 – 2050, the volume of freight moving into, out of, and within the region will grow by nearly 29 million tons. This represents a little more than doubling in the volume of activity over the 33-year period, or 2.5 percent growth in volume per year.[1] Future economic growth in the region will therefore demand more from freight movement on both the road and rail networks.

1 HEPMPO Direction 2050 Long Range Transportation Plan, p.24-25, 2022.

Highway Frieght

In 2019, tractor-trailer combinations carried nearly three-quarters of the Nation's freight by weight and 80 percent by value.[1] In Washington County, a substantial amount of highway freight is transported along its major roads, including I-81, I-70, I-68, U.S. 40 and U.S. 11. As the principal north-south alternative to I-95 for highway freight, I-81 is the most critical of these major corridors for the movement of goods. Freight generation along these routes reflects both industries that consume and produce goods within the region as well as material flows that support transportation sectors and wholesale/retail locations spread across the region.

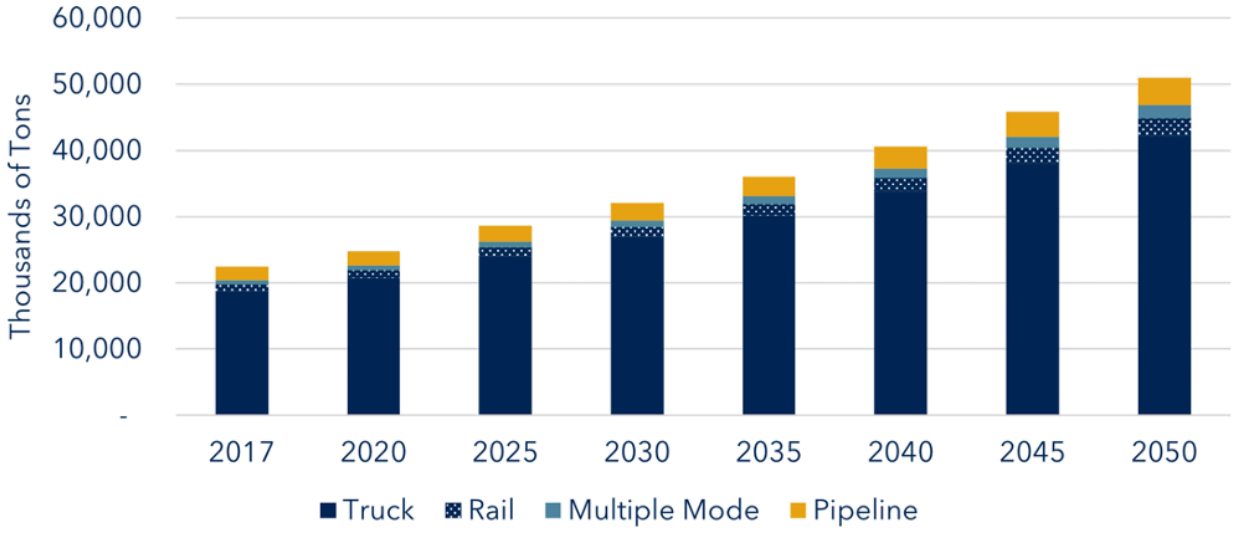
Recent Federal legislation has weighted available fiscal resources toward serving the movement of goods along these critical corridors as well as the connecting routes that help support them. Connecting routes such as Halfway Boulevard from I-70 to MD 63, MD-63 from I-70 to Elliott Parkway, Oak Ridge Drive and MD-65 have all been designated as Critical Urban Freight Corridors in Washington County by the HEPMPO Interstate Council.

➢ Highway Freight Issues

- **Truck Traffic**

  The projected 29-million-ton increase in the volume of freight moving into, out of, and within the region noted above is anticipated to be transported primarily by truck traffic. As shown in the chart below, the volume of freight moved by trucks will double from just under 20 million tons to more than 40 million tons.

Chart 7-6: Projected Volume of Freight by Travel Mode (2017-2050)



Source: HEPMPO Direction 2050 Long Range Transportation Plan

Correspondingly, Direction 2050 notes that daily truck traffic on the two vital freight corridors is forecasted to grow as follows from 2018 to 2045:

» An additional 7,400 daily trucks would appear by 2045 on the I-70 corridor in western Washington County.

1 Federal Highway Administration (FHWA) Office of Operations, *Truck Parking Development Handbook,* 2022, P. 11

➢ Truck Parking

Truck parking shortages are a national concern affecting the safety of commercial motor vehicle drivers and other roadway users as well as the efficiency of U.S. supply chains. More than 75 percent of truck drivers reported regularly experiencing problems with finding safe parking locations in 2019.[1] Insufficient truck parking in rest zones have been cited as a key factor in recent nationwide increases in fatal truck-involved crashes.[2]

Providing drivers with safe, designated places to park reduces the use of locations like highway shoulders, freeway exit/entrance ramps, vacant lots, and side streets. Averting parking in undesignated locations improves community safety for all and reduces maintenance costs for repairing highway shoulders, ramps, and private property not designed for heavy vehicle parking. Adequate truck parking also reduces overall freight transportation costs, supply chain costs, and increases economic competitiveness in ways that benefit drivers, businesses and individual consumers.

Truck drivers need to park for many reasons and there are unique challenges for various types of parking needs (see figure 7-3). Drivers must adhere to Federal and State hours of service regulations that place time-definitive limits on driving and rest intervals. Modern supply chains and consumer buying habits also influence parking patterns. Finally, truck drivers are essential workers who need to take breaks for rest and safety.

Figure 7-3: Reasons Truck Drivers Park

Long-Haul	Staging	30-Minute Break	Emergency	Time Off
Long-haul drivers are on the road for days or weeks traveling across the country. They need more amenities than drivers who are home regularly.	Truck drivers picking up and delivering freight at manufacturers, warehouses, and distribution centers need to park nearby to await an appointment often in busy urban areas.	As part of the Federally mandated 30-minute break, the driver must be off duty, meaning they are no longer working and will not have to move the truck for any reason.	Drivers may be impacted by an incident that has closed or severely congested the roadway. Their original itinerary is disrupted, and parking is needed immediately.	Independent drivers do not have a company facility for off-duty parking. They need a place to park while off-duty, but ordinances may prohibit parking at their home.

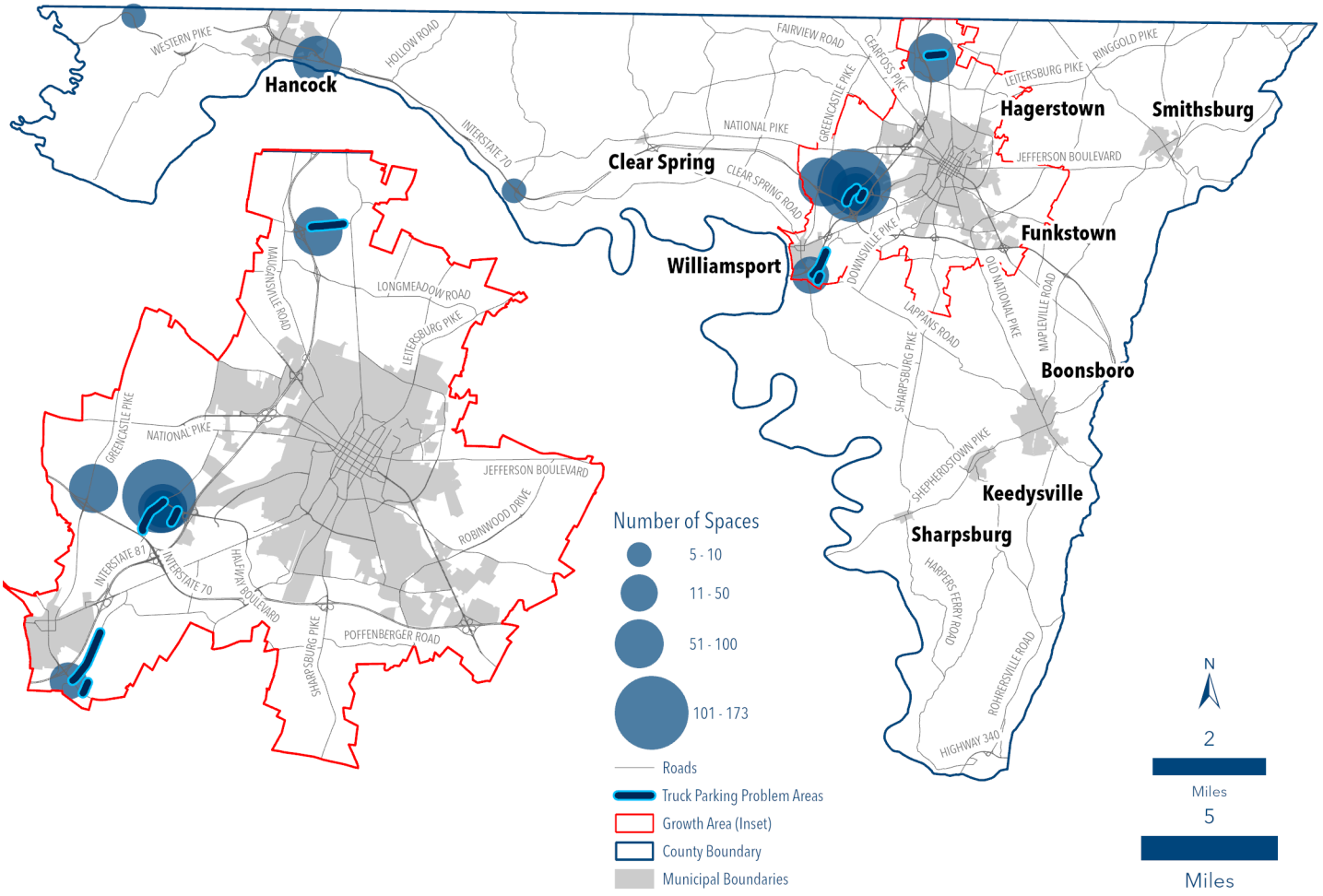
Source: Federal Highway Administration Truck Parking Development Handbook (2022)

1 Federal Highway Administration (FHWA) Office of Operations, Truck Parking Development Handbook, 2022, p.2
2 United States Department of Transportation. National Freight Strategic Plan - Executive Summary. 2020, p. 7

The projected increase in truck traffic noted in the previous section will also worsen current truck parking issues unless mitigating strategies are implemented. Currently, as seen on the map below, the highest concentration of truck parking in Washington County is located near the I-81/I-70 junction. Ample truck parking is also located on I-70 near the Town of Hancock. Outside of these two major concentrations, most other truck parking facilities in the County tend to have fewer total spaces, thereby preventing additional accommodation across notable portions of the County.

Truck parking problem areas, as identified by the Washington County Sheriff's Department are also shown on the Map. These are locations where inadequate truck parking has led to trucks parking illegally along County roadways. Noted locations include Showalter Road, Hopewell Road, Stotler Road, Governor Lane Boulevard, and Prosperity Lane.

Map 7-11: Regional Truck Parking



Source: HEPMPO Direction 2045 Long Range Transportation Plan, MDOT Truck Parking Study (2020), HEPMPO Regional Frieght Plan (2023)

MDOT completed a Truck Parking Study in 2020 that recommends additional parking at or near:

- Exit 1 on I-81 in Williamsport
- Exit 24 on I-70 at Greencastle Pike
- I-70 Welcome Center in Fulton County, PA (just across the MD state line)

- **Truck Parking Siting Considerations**

  Appropriately-located truck parking facilities can serve community needs: they can improve roadway safety, increase economic competitiveness of local freight intensive businesses, and contribute to local tax revenue. However, siting of truck parking facilities should be done in consideration of the potential externalities such as:

  - Roadway impacts from increased truck traffic.
  - Nighttime light pollution.
  - Noise and air pollution from idling trucks.
  - Trash and dumping at the site.
  - Perceptions of security and crime issues.
  - Equity impacts to neighborhoods adjacent to freight-intensive land uses.

  These concerns can be mitigated through thoughtful siting and design of truck parking facilities. Truck parking siting considerations mirror other commercial and industrial siting considerations:

  - Avoid sites near residential land uses, schools, and other community amenities where people may be exposed to air, noise, and light pollution. Site design and buffering can be used to further mitigate these issues.
  - Prioritize locations near major highways with suitable access to reduce traffic impacts and increase trucking efficiency.
  - Evaluate how siting choices will positively or negatively impact the equitable distribution of transportation externalities in your community.
  - Assess the ability of access roadways to accommodate large trucks and identify necessary changes for safe operation. For example, intersection and traffic control may need to be improved to support truck traffic.
  - Co-locate with existing industrial developments to better serve the freight industry and reduce community impacts.
  - Choose sites with sufficient space and utilities for restrooms and trash service.
  - Consider how truck traffic may impact other critical transportation services, such as ambulances or firetrucks.

- **Truck Parking Site Design Considerations**

Figure 7-4: Mitigating Impacts on Adjacent Land Uses Diagram

Source: Federal Highway Administration *Truck Parking Development Handbook* (2022)

When planning or developing a truck parking project, the surrounding community may have a negative perception of the trucking industry and truck parking. Some specific strategies that can be incorporated into site design to mitigate such concerns include:

» Comparing impacts of multiple uses at a site. A single industrial site may incorporate several functions. For example, a site may include a warehouse, a laydown area, equipment storage, and truck parking. The relative impacts of each of these uses should be compared, and those uses with the lowest impacts should be located nearest sensitive adjacent land uses.

» Buffering impacts. Distance, trees, or physical barriers may be necessary to separate the light, noise, and air pollution generated at a truck parking facility. These buffers can also reinforce existing community character, such as utilizing native foliage between parking and adjacent uses.

» Using directional lighting. Lighting is an essential element of any truck parking facility to ensure safety and security. Directional lighting illuminates the parking area while reducing light pollution for the surrounding community. The International Dark-Sky Association has published resources to prevent light pollution, including common practices, ordinances, and other guides.

» Providing adequate waste service. Littering is a common community concern related to truck parking facilities. Sites should be designed to include sufficient trash volume and frequent enough service to prevent littering. Additionally, providing restroom facilities reduces waste concerns. If a site cannot accommodate flush toilets, portable toilets are recommended to reduce human waste issues.

» Prioritizing access points to and from major roadways. Truck traffic impacts will be reduced when truck drivers need to make fewer turns and travel a shorter distance to access parking facilities. Primary entrance and exit points should efficiently move trucks between thoroughfares and the site while minimizing travel on local streets.

- **Recent County Regulations for Truck Parking**

  Washington County adopted changes to zoning regulations that impacted truck parking at convenience stores and truck stops in 2024. The proposed changes aimed to modernize County regulations to better accommodate the evolving needs of the trucking industry and local businesses. Among the key provisions of these amendments were:

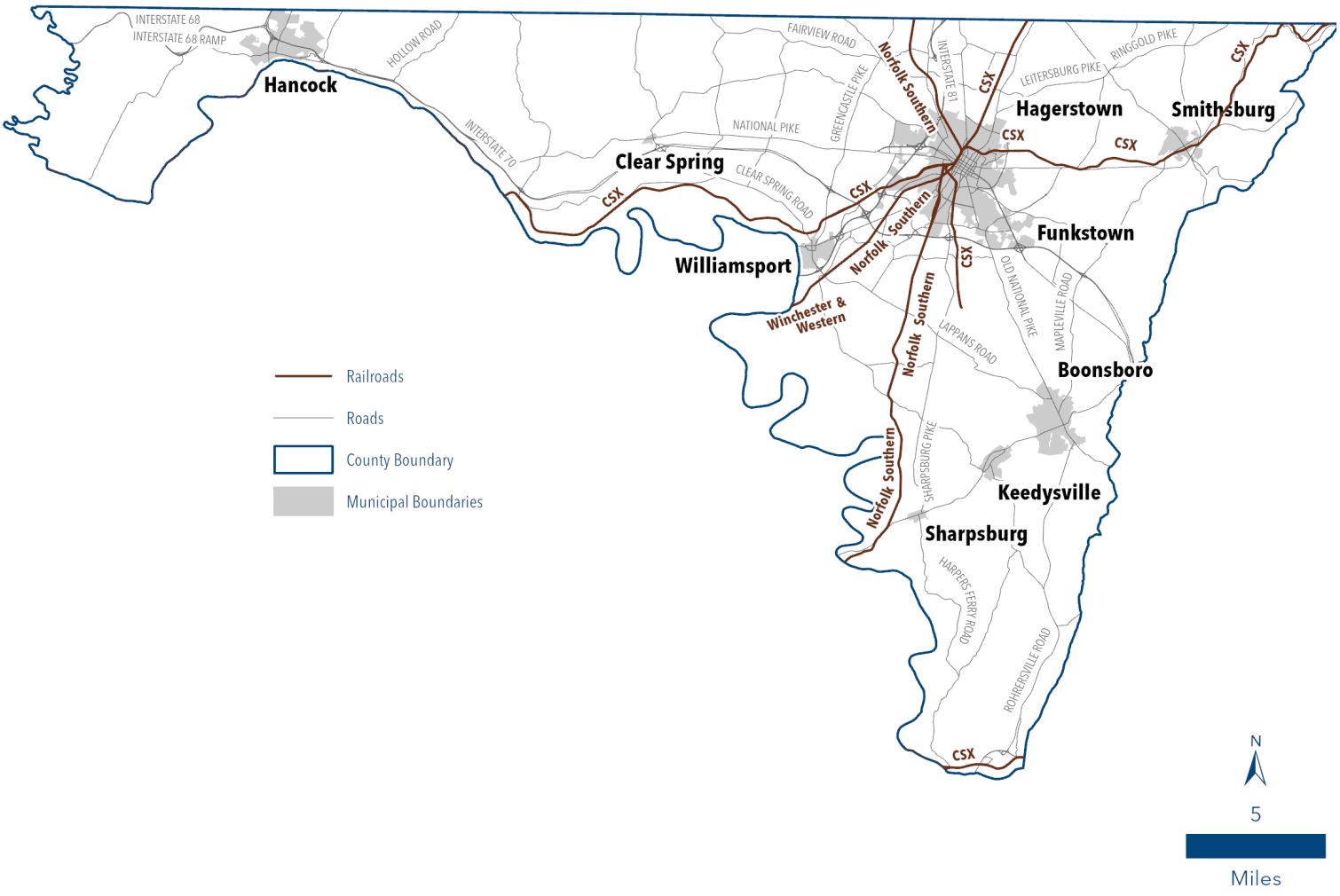
  - **Updated Definitions:** Language was added to the definitions of both truck stops and convenience stores to provide greater clarity in the differences between the two land uses for regulatory purposes. For example, the definition for truck stops now specifies that they "... may also include one or more of the following: service/repair facilities for trucks and/or trailers, on-site shower facilities, on-site laundry facilities, overnight stay accommodations, on-site truck wash, on-site truck scales, and/or truck parking in excess of the limitation in Section 22.15 for convenience stores. Convenience stores may not offer the additional amenities listed in this definition."
  - **Removing Size Restrictions:** The current 5,000 square foot size limits on convenience stores was lifted, allowing these businesses to expand as needed to serve their customers better.
  - **Zoning District Adjustments:** Convenience stores are now explicitly permitted in Business Local and Business General Zoning Districts, ensuring that they are situated in areas that support high traffic and commercial activity. Truck stops remain a permitted use in the Highway Interchange District

- **Truck Parking Specifications**
  - **Space Allocation:** A new formula set a maximum of 3.5 truck parking spaces per 500 sq. ft. of the store's gross leasable area. This formula is designed to ensure sufficient parking while managing space effectively.
  - **District Limits:** The number of truck parking spaces is capped, with a maximum of 10 spaces in BL and BG districts and 5 spaces in Rural Business districts. These limits aim to balance the needs of truckers and other customers.
  - **Separate Traffic Patterns:** Truck parking facilities must have a distinct internal circulation pattern separate from that of automobiles. This requirement is intended to enhance safety and improve traffic flow within the parking area.
  - **Time Restrictions:** Trucks are limited to parking for no more than four hours within a 24-hour period in BL, BG, and RB districts. This restriction is aimed at preventing long-term parking and ensuring space availability.
  - **Screening Requirements:** Where truck parking is adjacent to residential or healthcare facilities, appropriate screening measures must be implemented to minimize visual and noise impact on nearby residents.

Rail Freight

Washington County's long history as a railroad hub has been previously detailed in the Historic Resources Element. While there is currently no passenger rail service in the County, railroads do move extensive amounts of freight to larger markets in the Mid-Atlantic, Northeast, Midwest and Southeastern portions of the Country. CSX and Norfolk Southern are the primary rail owners and operators in Washington County. CSX primarily transports goods east-west between the Beltway region and northwest Ohio through Pittsburgh. Recent investments by CSX along this line have enabled it to now handle double-stack containers. Norfolk Southern has lines which parallel I-81 that run between the Southeastern United States and Harrisburg, Pennsylvania before hitting destinations further afield. Winchester and Western also operates a short line railroad from Gore, Virginia to Hagerstown, Maryland that runs mostly along I-81. The County does not host any intermodal facilities, however, there are three intermodal facilities just across state lines: two in Pennsylvania located on I-81 (Greencastle and Chambersburg), and one in Virginia off I-66 (Front Royal). The County's active rail lines are shown on Map 7-12 below.

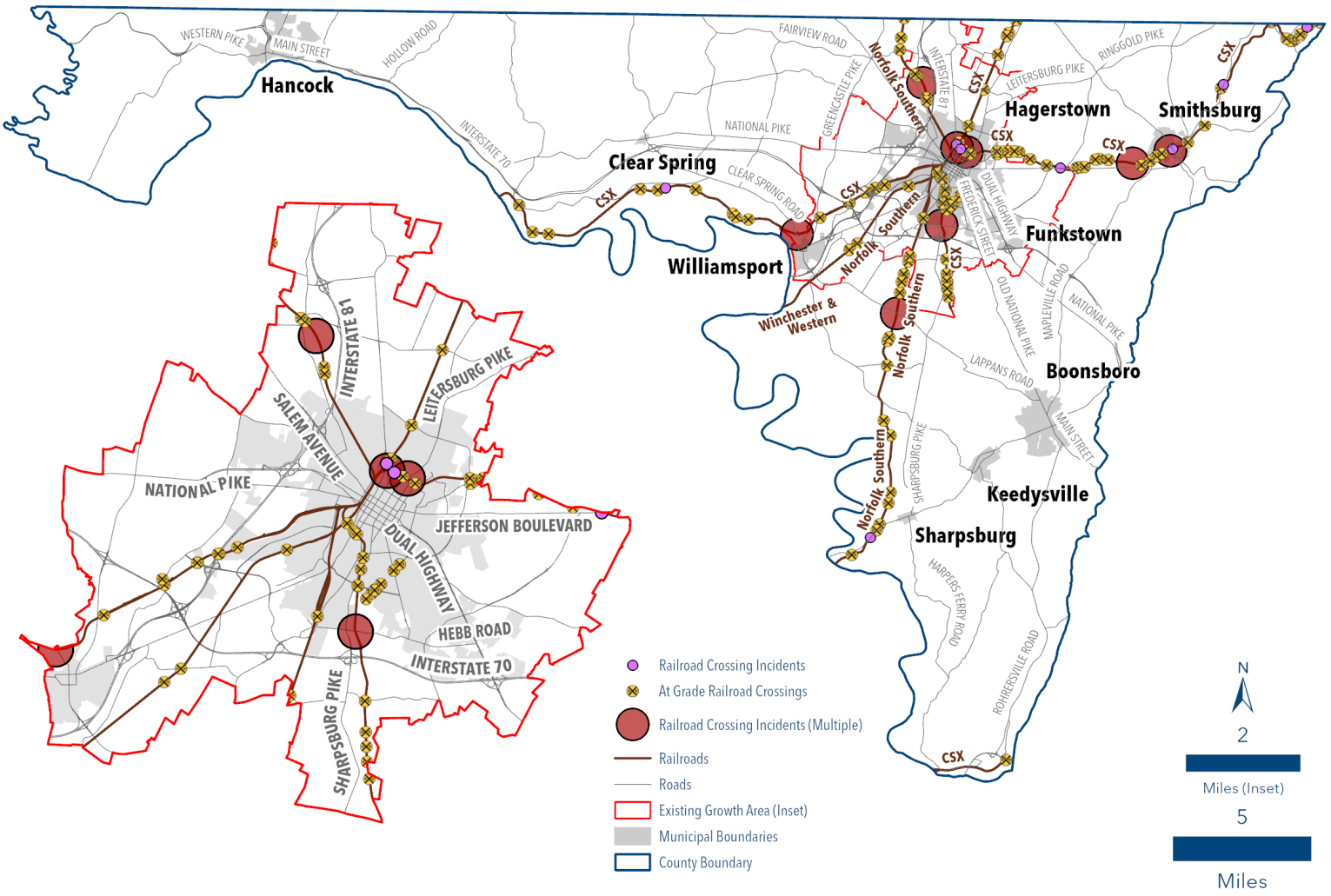
Map 7-12: Active Railroads



➢ Rail Freight Issues

Between 2000 and 2022, a total of 23 incidents were reported at Washington County's 89 at-grade railroad crossings, including five injuries but no fatalities.[1] The map below shows locations of all rail-related incidents that have occurred in the County. Locations where more than two incidents have occurred are shown in red. As would be expected, nearly all locations where multiple incidents occurred are found within designated Urban or Town Growth Areas where rail crossings occur within developed areas.

Map 7-13: Rail Incidents 2000-2022



Source: HEPMPO Regional Freights Plan (2023)

The County will continue to address at-grade railroad crossing safety through its Capital Improvement Plan. Through this program, the County analyzes such intersections for potential collision and sight distance hazards. Other factors, including accident records, development potential in the area surrounding the crossing, number of school buses, and the overall condition of the crossing and the surrounding pavement are also considered in assessing the need for improvements to the crossing. Through these metrics, a priority ranking of all crossings in the County is developed to guide the CIP program. Improvements include flattening the approach roadway grades and improving the alignment, installing signs and pavement markings, improving sight distance by removing trees/brush/rock outcroppings, and utility relocations.

1 Source: HEPMPO Regional Freight Plan (2023), P. 12

Elsewhere within Maryland, significant progress to improve the Howard Street Tunnel in Baltimore, allowing for double-stacked containers, is moving toward implementation in a bid to compete with other ports for container traffic. While the development takes place outside the region, it could spur added demand for rail traffic involving the port.

Regional Rail Freight Plan (2023)

In 2023, the MPO completed a Regional Freight Plan to help guide the development of the region's freight system. With the passage of the Federal Bipartisan Infrastructure Law in 2021, it is anticipated that significant increases in funding for the nation's freight infrastructure will become available for states and local jurisdictions to tap into. The Plan helps to identify local priorities for such purposes and provides overall guidance in maintaining and improving the regional multi-modal freight transportation system.

The Plan expands upon a number of the topics touched upon earlier in this section of the Transportation element, such as priority freight corridors and truck parking, in addition to offering additional information on freight related employment, the density of freight related infrastructure, truck crash locations and more. This section will look further at some of these selected topics from the Plan to further illuminate County freight planning needs.

➢ Regional Freight Profile

A Regional Freight Profile is offered within the Plan which offers data and informational resources on various economic and transportation related subject matter. The Profile within the Plan is wide-ranging and is presented in a variety of formats. Select data from this Profile is offered on the following page, to develop the picture of Washington County's network of freight related employers and infrastructure.

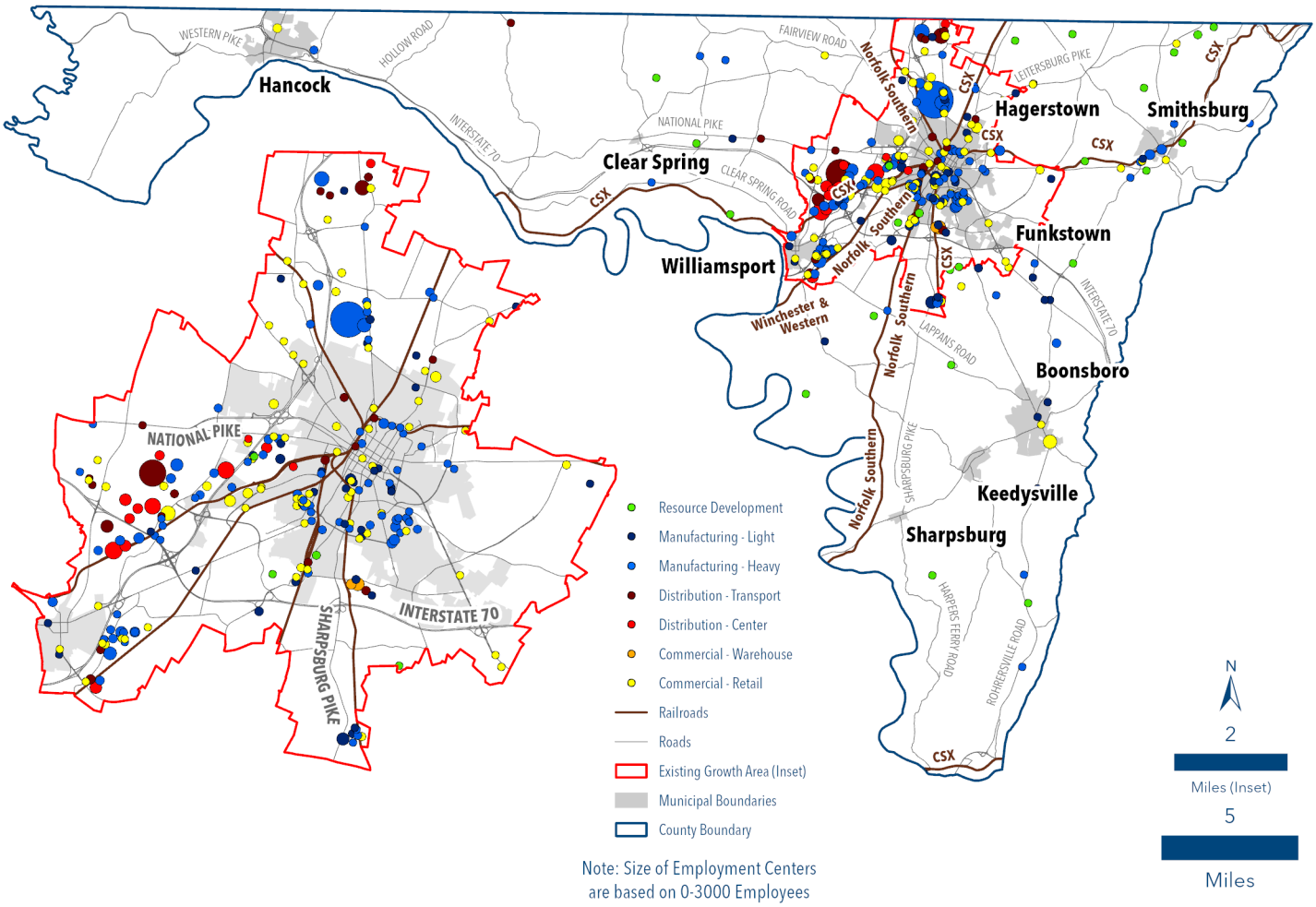
• Freight Employment and Infrastructure

The map on the following page shows freight employment locations of freight-related job types, grouped based on their North American Industry Classification System (NAICS) codes, and the number of employees at each location. The road and rail network are also shown on the map to provide context on the transportation facilities serving these employers. Approximately 15% of the HEPMPO region's employment is in sectors that rely on freight to go about their daily business.[1]

D.M. Bowman Truck, Facebook @D.M.Bowman, Inc.

1 HEPMPO Regional Freight Plan, 2023, P. 40

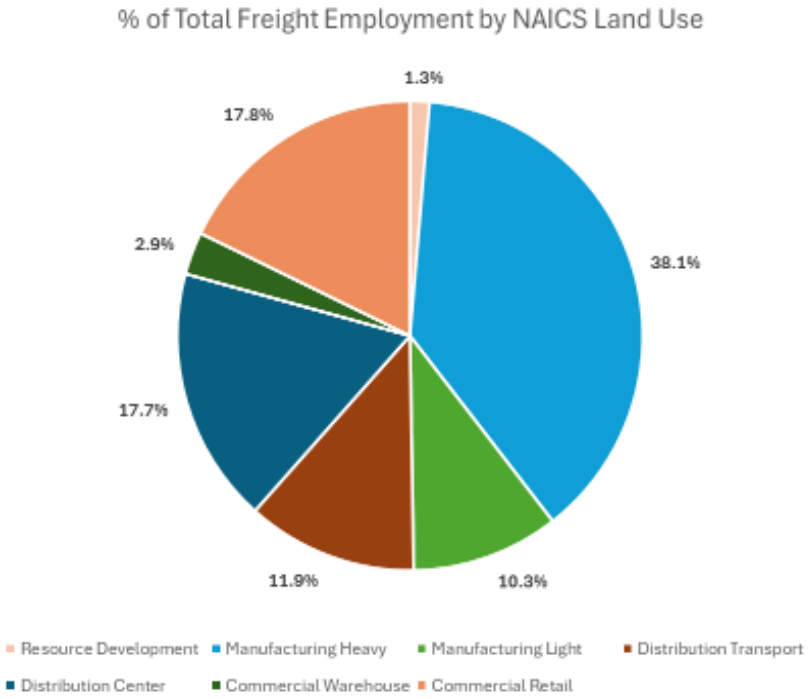
Map 7-14: Freight Employment Locations



Source: HEPMPO Freight Profile (https://tmp-map.s3.amazonaws.com/hepmpo2022/map.html)

The Plan indicates that in the HEPMPO region, Commercial-Retail is the industry classification with the most freight related employment. This is a prevalent industry in Washington County as well, but the map above and chart on the following page, indicate high concentrations of freight related employment in the Heavy Manufacturing and Distribution Center industries within our borders. These employers are highly concentrated within the County's Urban Growth Area surrounding the City of Hagerstown, where infrastructure exists to serve commercial and industrial development. Planned industrial centers such as Hopewell Valley, Elliott Parkway, Governor Lane Boulevard, around the Airport and along U.S 11 are where most freight related employment is located in the County. Much of these businesses are served by truck traffic and delivery vehicles using the interstate highway systems or state highways that bisect the County. Rail lines directly service some of these areas as well however, with rail spurs connecting to several businesses along Governor Lane Boulevard and in Hopewell Valley.

Chart 7-7: Percentage of Total Freight Employment by NAICS Land Use



Source: HEPMPO Freight Profile – Freight Employment by Census Block (https://tmp-map.s3.amazonaws.com/hepmpo2022/map.html)

Table 7-11: Freight Employment Typology by 2022 NAICS Codes

Land Use / Facility Use	NAICS Description	NAICS Cde
Resource Development	Agriculture and Natural Resource Development	11,21
Manufacturing - Heavy	Converting raw resources into products	31, 32, 33
Manufacturing - Light	Converting products into deliverable goods, and construction	23, 3212
Distribution - Transport	Transfer of products and goods between carriers or modes. Short Term	48
Distribution - Center	Large-scale Warehousing or storage of deliverable goods. Typically supplying Distribution warehouses	4931
Commercial - Warehouse	Warehousing prior to point-of-sale distribution	4921
Commercial - Retail	End User & Point of Sale	42, 44, 45, 4911, 4922

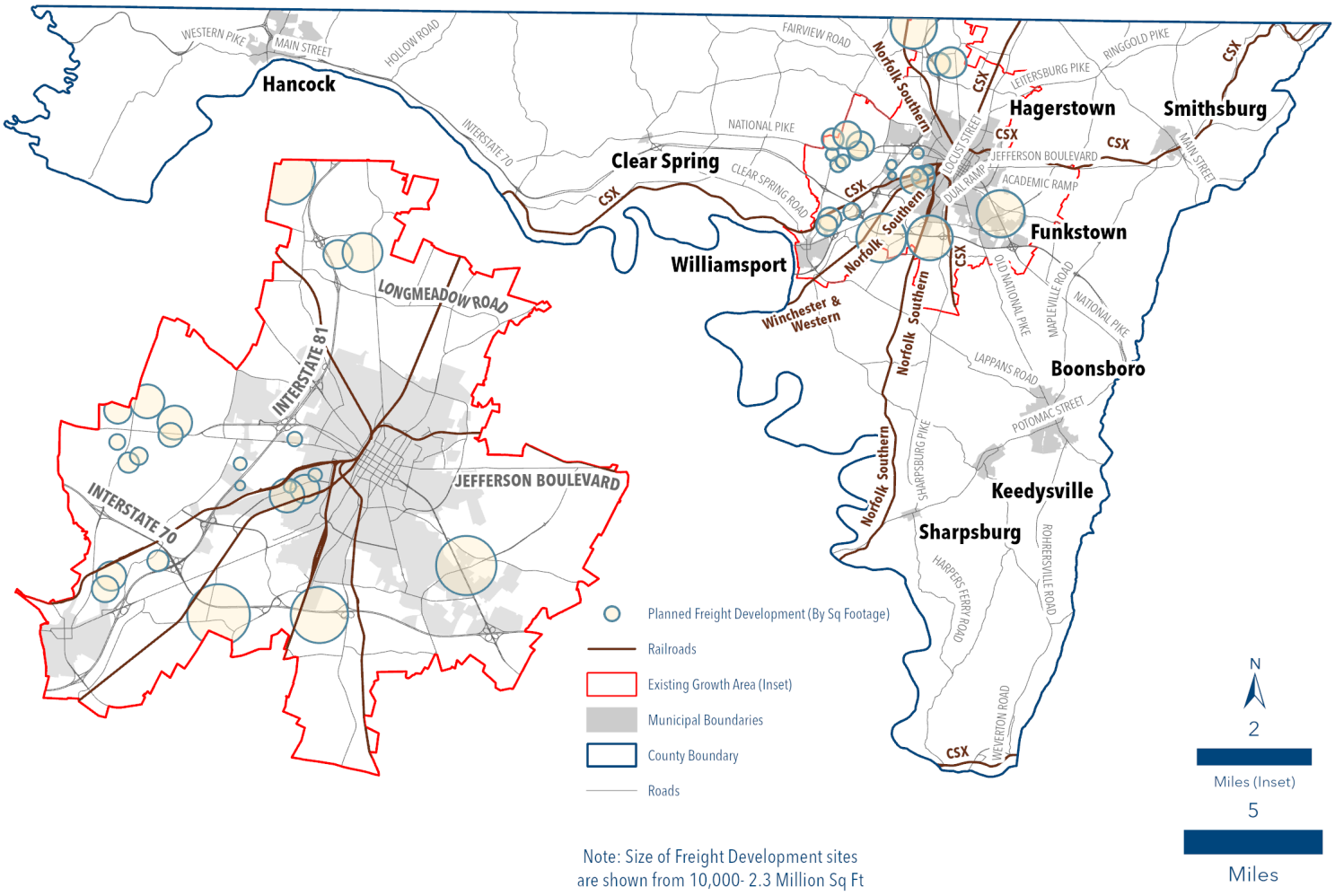
Source: HEPMPO Regional Freight Plan (2023), p.9

- **Planned Freight Development**

  According to the Plan, 19,051,863 square feet of new freight development is planned across Washington County.[1] The projects shown on the map on the next page are at various stages of completion, with several already fully constructed. The majority of recently approved projects could be characterized as commercial warehouse or distribution facilities. Larger dots represent larger planned freight developments in terms of facility square footage.

1 2023 HEPMPO Regional Freight Plan, p.11

Map 7-15: Planned Freight Development



Source: HEPMPO Regional Freight Plan (2023)

- **Critical Freight Corridors**

The National Highway Freight Network is made up of the following designated roadway corridors:

Primary Highway Freight System (PHFS)	Critical Rural Freight Corridors (CRFCs):	Critical Urban Freight Corridors (CUFCs):
•The most critical highway portions of the U.S. freight transportation system determined by measurable and objective national data. •PHFS is managed by the Office of Freight Management and Operations.	•Public roads not in an urbanized area which provide access and connection to the PHFS with other important ports, public transportation facilities, or other intermodal freight facilities.	•Public roads in urbanized areas which provide access and connection to the PHFS with other ports, public transportation facilities, or other intermodal transportation facilities

Source: HEPMPO Regional Freight Plan (2023)

Table 7-12: Existing Critical Urban and Rural Freight Corridors

County	Route Description	Mileage	Urban / Rural
Washington	Halfway Boulevard	4.26	Urban / Rural
	Greencastle Pike MD 63	0.93	Urban
	Sharpsburg Pike (MD 65)	0.79	Urban
	East Oak Ridge Dr	0.32	Urban
	US HWY 340	0.58	Rural
	Maryland Total Mileage	**6.88**	

Source: HEPMPO Regional Freight Plan (2023)

Periodically, the HEPMPO works with each state DOT to evaluate and update the CUFCs and CRFCs. These designations allow dedicated freight funding to be used for projects on those roads. These critical corridors are also used by HEPMPO to prioritize projects included in the TIP and LRTP and to guide future studies and initiatives aimed at identifying new freight projects.

The table below includes a list of corridors in the region that should be considered as the priority freight corridors.

Table 7-13: Priority Freight Corridors

Urban	
Route Description	**Corridor Limits**
I-81 Phase 3 and 4	CSX Bridge to PA State Line
I-70	Exit 24 (Route 63) to Exit 32 (US 40 Dual Highway)
Maugans Avenue to Volvo Entrance	Shawley Drive to Volvo Way
Showalter Road	I 81 SB Ramp to Pennsylvania Avenue
Crayton Blvd	Maugans Avenue to Showalter Road
Western Maryland Parkway	Cosmo Films to US 40
Wesel Blvd	Halfway Blvd to S Burhams Blvd
MD 63	I-70 to National Pike
Sterling Road	Bower Avenue to MD 632
MD 68 Lappans Rd @ Exit 1	I-81 SB Ramps to Prosperity Lane
Hopewell Rd	Hunters Green Parkway to Urban Area Boundary
MD 144	McDade Road to Western Maryland Parkway
MD 632 Downsville Pike	I-70 Underpass to Halfway Blvd
Rural	
Extension of New Gate Blvd (Not Present Now)	New Gate Blvd to US 40
Hopewell road	MD 144 to Urbanized Boundary
MD 144	US 40 to McDade Rd and Urban Boundary East of Delwood Ave to Urban Boundary West of Cedar Crest Ave.
MD 632 Downsville Pike	Sterling Road to I-70 Underpass

Source: HEPMPO Regional Freight Plan (2023)

These routes were selected by using the Freight Infrastructure Density Model (a component of the Regional Freight Plan) that serve the needs of the freight travel and potential growth of planned developments. This Model uses a variety of data resources such as Road Mileage (for either Federal or State roads, depending on the measure), Freight Related Employment, Total Employment, Overnight Truck Parking Spaces and Planned Freight Development square footage to identify essential routes for freight movement. The priority freight corridors serve as the basis for selecting the Critical Urban and Rural Freight Corridors that lead to project evaluation, programming of funding.

- **Candidate Critical Freight Corridor Recommendations**

  Table 7-14 lists the Candidate CUFC and CRFC recommendations within the HEPMPO region sent to the Interstate Council (ISC) for approval. The corridors are limited in mileage totals as determined by the State DOTs. Once approved by the ISC and MDOT, these corridors will be eligible to receive dedicated freight funding and serve as priority areas for freight-related transportation and safety projects within the region. Note that Washington County did not have any additional CRFC's as part of the Regional Freight Plan.

Table 7-14: Candidate Critical Urban Freight Corridors

Urban	
Route Description (Corridor Limits)	**Mileage**
Crayton Blvd (Maugans Avenue to Showalter Road)	0.96
Halfway Blvd (Downsville Pike to Urban Area Boundary)	2.95
Showalter Road (I-81 SB Ramp to Pennsylvania Avenue)	1.06
MD63(I-70 to National Pike)	1.58
Maugans Avenue (Shawley Drive to Volvo Way)	0.33
Sharpsburg Pike (Col HK Douglas Drive to Oak Ridge Drive)	0.79
Hopewell Road (Hunters Green Pkwy to Urban Area Boundary)	1.76
Downsville Pike (I-70 Underpass to Halfway Boulevard)	0.22
East Oak Ridge Drive (MD65 to Oakmont Drive)	0.32
Total Urban	**9.97**

Source: HEPMPO Regional Freight Plan (2023), p. 60

E-Commerce Traffic

The spillover effects of E-commerce traffic on local communities associated with the movement of goods throughout the supply chain is an interrelated land use issue noted at the beginning of this section of the chapter. First, although E-commerce reduces the number of household trips to commercial locations, it requires more trucks on roadways to deliver goods. Second, increases in the number of delivery trucks from distribution centers puts additional impacts on the local road system, increases traffic congestion, increases the demand for short-term parking and drop-off zones and raises various safety issues. Third, E-commerce centers attract commuting trips from larger numbers of employees working multiple shifts, often outside traditional transit service areas. Thus, the timing of trips and demand for transportation services does not always conform to standard hours of operation. Finally, land use planning must ensure that the locations of distribution centers are acceptable to communities in relation to adjacent residential communities, sensitive resource areas and more.

Mitigating these myriad impacts will be an important issue in transportation planning moving forward. Recommendations at the end of this chapter begin looking at policies to tackle these challenges.

Airport

Overview

Operated by the Washington County Division of Public Works, the Hagerstown Regional Airport—Richard A. Henson Field (HGR) is the only commercial service airport in Western Maryland and within our Interstate 81 corridor, four-state region. The 700-acre facility is located on US 11, adjacent to I-81, four miles north of the City of Hagerstown.

The Airport is home to more than 150 based aircraft and 30+ aeronautical and non-aeronautical businesses. Hagerstown Regional Airport also regularly supports VIP movements to and from nearby Camp David, and has the ability to serve regular flights by Group III aircraft such as the Boeing 737 and even occasional visits by larger Group IV aircraft such as the Boeing 757. HGR has a staffed Airport Fire Station and Federal Contract Tower providing air traffic control services (one of only six air traffic control facilities operated at Maryland's public-use airports).

In 2007, the airport's primary Runway 09-27 was expanded to the east, in a project involving the installation of bridges and tunnels over U.S. Highway 11. This lengthened its dimensions to 7,000' x 150', now one of the largest runways in the State of Maryland. HGR additionally features state-of-the-art navigational aids such as Category I Instrument Landing Systems on both ends of Runway 09-27. HGR has the capacity to house two to three airlines and space for several concessions and car rental agencies.

Photo: HGR staff unloading plane

The Airport is the centerpiece of a major office/industrial park. Numerous private commercial businesses are located on the larger airport property. These include a fixed base operator offering large commercial and corporate hanger rentals, a maintenance repair operation and a suite of onsite passenger services and amenities; Maryland's only post-secondary aviation mechanics school, two restaurants, two flight schools, and a variety of other corporate entities offering aviation related services such as aircraft airframe and engine maintenance, repair and overhaul, aircraft painting, avionics, damaged aircraft retrieval, restorations, modifications and aircraft brokerage.

A 2018 study by the Maryland Aviation Administration found that HGR was third in total economic impact among Maryland's 35 public use airports generating $306.7 million in annual economic activity. This included $130.1 million in business revenue, $50.8 million in local purchases and $21.4 million in taxes. The business activity generated by the Airport supported jobs for 1,800 people and$104.4 million in total personal income.

Currently, Allegiant Airlines offers year-round flights to Orlando Sanford (SFD), Florida and seasonal service to St. Petersburg/Clearwater (PIE), Florida and Myrtle Beach (MYR), South Carolina. Between 2012-2023, Allegiant Airline's partnership with Hagerstown Regional Airport has provided service to a combined total of 386,869 passengers as of May 12, 2022, according to information posted on their website.

After the airline industry was de-regulated in 1978, Hagerstown was selected for participation in the Essential Air Service program. EAS provides federal subsidies to airlines that agree to provide a minimal level of scheduled flight service to communities that would otherwise not be commercially viable or profitable. A succession of airlines provided these services between 1978 and 2019. Most recently, daily commercial air service was also provided by Southern Airways to Pittsburgh (PIT) and Baltimore/Washington International (BWI) Airports.

By October 2019, however, the United States Department of Transportation announced the termination of the Essential Air Service (EAS) Waiver eligibility for Hagerstown, contending that HGR no longer met minimum requirements to receive the Federal subsidy. Subsidy requirements included a minimum number of enplanements (a person getting on a plane) per service day, and caps related to the cost to subsidize each passenger ticket. Washington County unsuccessfully appealed the DOT's decision to the U.S. Court of Appeals in Washington, D.C. in April of 2020. Additional remedies through the court system were judged unlikely to succeed by the County Attorney's Office, ending the County's effort to restore the Federal subsidy. The County's geographical position within roughly 80 miles of three large hub airports in Washington D.C. and Baltimore presented a significant hurdle in its case for the Essential Air Service Waiver.[1]

Hagerstown Regional Airport Terminal Entrance

1 Greene, Julie. Washington County loses appeal to reinstate Southern Airways service. Retrieved from: https://www.heraldmailmedia.com/ story/news/local/2020/07/07/washington-county-loses-appeal-to-reinstate-southern-airways-service/115819448/. 2020.

Planned Improvements

Despite the setback outlined on the previous page, the County has made a number of notable improvements to the Airport in recent years with more planned for the future. Private entities operating at the Airport have also continued to invest in business expansions or in service improvements at HGR. Significant projects planned or recently completed at the Airport are noted below.

- A $6 million terminal expansion project at Hagerstown Regional Airport was completed in March 2021. This project added a 5,000 square foot addition to the hold room, doubling the size from 150 passengers to 300 passengers. Restrooms were also relocated, and the TSA check-in was relocated and improved.

- Design for the approximately 4,800-square-foot terminal expansion that will allow for additional ticket counters, baggage processing, and ground service vehicle storage has also commenced.

- HGR is finalizing acquisition of approximately three acres for the design and construction of a project to promote both the clearance of the Runway Visibility Zone and the Runway Object Free Area to improve safety on the airfield.

- The relocation and reconstruction of Taxiway 'F' that will greatly improve safety on the airfield will begin in FY23.

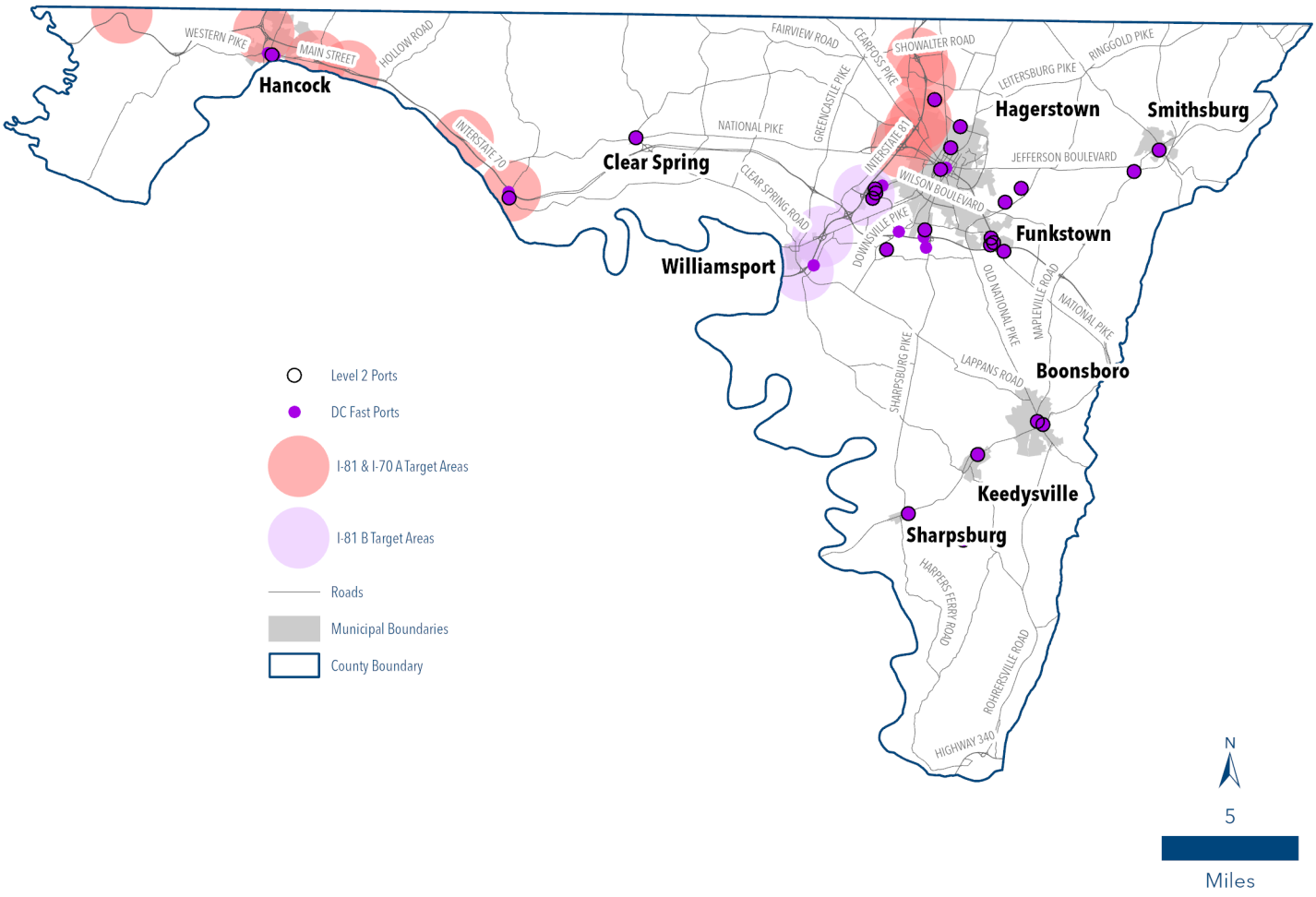
Other Future Transportation Trends

Electric Vehicles

In response to concerns about climate change and the volatility of gas prices, the production and ownership of alternative fuel vehicles which produce little or no greenhouse gases during operation has increased dramatically across the United States, including in Maryland. Electric vehicles (EV) have risen to the forefront of the alternative fuel market in much of the transportation sector during this transition. In fiscal year 2012, Maryland had only 609 EVs registered statewide. As of February 29, 2024, Maryland's EV Dashboard noted 96,725 EVs registered throughout the state, or 15.69 EVs per thousand people. This represents an 8,000% increase EV ownership in Maryland since 2012. 926 EVs were registered in Washington County as of the dated noted above, according to the Dashboard.

The dramatic increase in EV ownership has implications on land use and site planning for local jurisdictions. Principally this relates to the charging stations required to refuel EVs. The federal Bipartisan Infrastructure Law, enacted in 2021, included a national EV Charging Program to provide funding that the Federal Highway Administration shall distribute among the States to strategically deploy EV charging infrastructure and to establish an interconnected network. Washington County currently has 100 charging stations, according to the 2024 Dashboard, which can be seen on the map 7-16 on the next page.

Map 7-16: Existing Electric Vehicle Charging Stations and Targeted Areas



Source: Maryland Department of Transportation - Maryland Zero Emission Vehicles & Infrastructure Dashboard

Figure 7-5: Electric Vehicle Charging Levels

- **Level 1 Ports -** Typical household 120-volt power outlet suitable mostly for trickle charge or keeping a vehicle topped up when it isn't in use as charging speeds are very slow.
- **Level 2 Ports -** Provide 10-20 miles of range per hour of charging and are ideal for locations with longer dwell times, such as workplaces or at home.
- **DC Fast Ports -** Provide 60-80 miles of range per 20 minutes of charging and are ideal for locations with shorter dwell times, such as retail and grocery stores.

In the initial use of federal funds for the buildout of EV charging infrastructure, States are required to prioritize the use of funding for EV charging stations along interstates and other Alternative Fuel Corridors (AFC) designated throughout Maryland in order to meet the needs of those traveling long distance or for multiple hours at a time. I-81 and I-70 are the primary AFCs identified within Washington County to receive new EV charging stations. Once Maryland has built out these priority corridors, it is possible that federal funding could be used in installing infrastructure in communities.

Round 1 Target Areas shown on the map indicate locations within 1-mile of AFC exit or interchange. Additional location-based considerations for new charging stations include characteristics such as: location within a rural or disadvantaged community, identified as optimal site in previous surveys, existing EV ownership within census tract, existing land use, proximity to transit-oriented development site, and within a priority funding area or sustainable community.

As of October 1, 2023, the State of Maryland passed a new EV charging station requirement for new residential construction. The new policy requires that all new single-family detached houses, semi-detached houses, duplexes, and townhouses subject to the provisions of the International Residential Code (not more than three stories above grade plane in height with a separate means of egress) must incorporate one Electric Vehicle Supply Equipment (EVSE)-Installed Parking Space or one Electric Vehicle-Ready Parking Space. This initiative aligns with Maryland Public Safety Code Annotated Section 12-205 (House Bill 830), which outlines the requirements for integrating EV infrastructure in new residential developments. The County has updated its building code in accordance with the new statewide requirement.

The County should, in consultation with the HEPMPO and MDOT, identify priority locations for Electric Vehicle charging infrastructure along designated corridors and within local communities and make improvements where necessary to assist in the completion of the nationwide network. In the future, it may also wish to determine whether any changes to development regulations are needed to facilitate inclusion of such facilities at appropriate locations during the site planning review process.

Micromobility

Shared micromobility devices such as bicycles, electric bicycles (e-bicycles), and e-scooters have the potential to create a more diverse, convenient, and accessible transportation network, which can provide more transportation options, reduce congestion, and improve quality of life. In response to increasing demand for walking and bicycling facilities and a desire to reduce single-occupancy vehicle trips in cities and towns across the country, many jurisdictions are exploring micromobility as an alternative mode for short trips and active transportation.

Because micromobility is still a relatively new and emerging mobility option, there are various definitions in use of what constitutes "micromobility." The Federal Highway Administration broadly defines micromobility as any small, low-speed, human- or electric-powered transportation device, including bicycles, scooters, electric-assist bicycles, electric scooters (e-scooters), and other small, lightweight, wheeled conveyances. Other definitions of micromobility focus primarily on powered micromobility devices and characterize these devices as partially or fully motorized, low-speed (typically less than 30 miles per hour), and small size (typically less than 500 pounds and less than 3 feet wide). [1]

1 Jeff Price, Danielle Blackshear, Wesley Blount, Jr., and Laura Sandt. Micromobility: A Travel Mode Innovation, Public Roads Magazine - Spring 2021, Vol. 85 No. 1

Figure 7-6: Examples of Powered Micromobility Devices

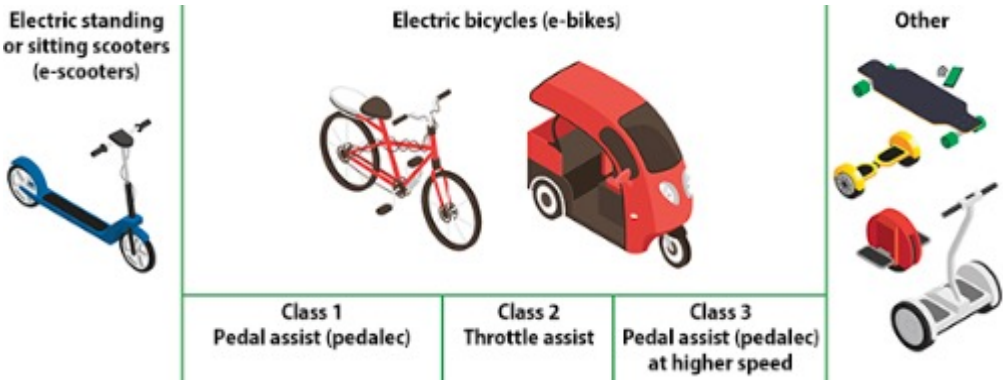


Image Source: Laura Sandt - Pedestrian Bicycle Information Center

Although micromobility devices may be individually owned, the recent surge of devices in cities is due primarily to the deployment of shared fleets by private companies. Shared micromobility systems are deployed in targeted service areas with the usage generally intended for short trips such as "first- and last-mile" connections to complete trips made via other modes, including transit. Shared fleets provide users with on-demand access to devices. These fleets are most commonly parked in the public right-of-way, either grouped at a dock or as dockless devices. Users typically unlock the devices using a smartphone application or key fob.

There is still much to be understood about this newly emerging mode of short trip transportation. Cities are experimenting with a range of approaches to actively manage micromobility programs to ensure positive safety and equity outcomes. The effects of various safety practices—including how to set service areas, determine maximum safe micromobility device speeds, and restrict vehicle speeds or times of operation in areas with dense micromobility ridership—and exploring approaches to incentivize helmet use are being examined by various jurisdictions around the Country.

The County, in consultation with the HEPMPO and MDOT, will continue to monitor the trend of micromobility growth as additional research and best practices are developed which provide the basis for clear regulation of this new travel mode by local governments. In the future, micromobility may become another travel mode to be considered as part of a broader complete streets approach to transportation facility provision.

TRANSPORTATION RECOMMENDATIONS

Roads

- Seek diverse funding sources to plan, design and construct priority projects identified in the MPO's current, TIP, LRTP and in the County's Capital Improvement Program.
- Develop a localized functional road classification similar to the Federal classification system with an emphasis on adequate right of way, access spacing needs and compatible adjacent land use.
- Coordinate with other jurisdictions and transportation planning entities at the Federal, State, regional and local levels to efficiently and cost-effectively create transportation improvements in a timely manner.
- Consider formally adopting a Complete Streets Policy to ensure that multi-modal transportation options are routinely considered as a part of all new or retrofitted road projects, or during road resurfacing.
- Encourage multi-modal inter-parcel connections between commercial businesses to preserve capacity of collector and arterial roads. Strip development with access onto major public roads should be discouraged as much as possible.
- In residential areas along major transportation routes, encourage or require driveway consolidation or provide frontage roads that divert traffic to safe, controlled points of access.
- Investigate the creation of an inventory and ranking system of Rural Roads with scenic, historic or environmentally significant resources. Consider regulatory changes and/or create corridor management plans that protect highly ranked road corridors with these resources in abundance to maintain the County's rural character and heritage.
- Transportation investments within rural areas should focus on safety improvements to existing facilities and avoidance of sensitive resource lands rather than adding lane capacity. Transportation facilities in rural areas should also minimize impacts on agricultural land targeted for permanent retention in Priority Preservation Areas.
- Identify roads vulnerable to natural or man-made hazards or incidents and develop long-term strategies for their improvement, relocation, or realignment to avoid preventable damage to people and property.
- Where possible, design road projects to minimize new impervious surface cover to meet regulations related to water quality and stormwater management.
- Consider the potential opportunities, effects and land use implications of emerging transportation technologies such as on-demand ride sharing, connected and autonomous vehicles, and alternative fuel vehicles in comprehensive planning and capital investments.

Transit

- ★ Implement the recommendations of the MPO's Transit Development Plan and Human Service Transportation Plan.

- ★ Make certain that transit, human service transportation and/or on-demand public transportation provide access to critical services such as health care, grocery stores, childcare, and community facilities.

- ★ Investigate the feasibility of expanding County Commuter hours of operation, particularly to include at least limited service hours on Sundays and system-wide evening service.

- ★ Determine feasible options to provide public transportation to Towns and rural areas of the County outside of planned growth areas that are not currently served by the County Commuter, but which exhibit enough potential ridership to warrant at least occasional transit service to and from the County's Urban Growth Area. Demand responsive micro-transit options, similar to the employment or health care shuttles provided by various community organizations around the Urban Growth Area, may offer a more cost-effective model to address transit needs in certain areas of the county.

- ★ Provide transit service to within a reasonable distance by non-motorized means of travel to all major subdivisions and major employment centers in the Urban Growth Area. Work with major employers to incentivize ride sharing and transit usage to discourage commuting by single- occupancy vehicles.

- ★ Identify opportunities to utilize Transit Oriented Development principles to create sufficient density around transit facilities to encourage the provision of cost-effective service to those locations.

    - ➢ Identify areas where higher-intensity, mixed-use development could be encouraged around major mass transportation facilities (i.e.- transfer centers or other major transit facilities, ridesharing lots, trailheads for multi-use paths in urban areas, etc.) to promote efficient land use patterns and encourage mode switching for some trips.

- ★ Coordinate existing transit routes to better connect the County Commuter to park-and-ride facilities and regional commuter services in order to provide expanded travel options for residents to reach regional employment centers while residing in Washington County.

- ★ Look for opportunities to increase the number of park-and-ride lots and/or spaces to promote ride sharing.

- ★ Improve passenger amenities at County Commuter stops where there is high passenger demand with special attention to increasing the number of bus shelters.

- ★ Work with HEPMPO to consider feasibility of transit plans that would connect commuters with employment centers along the I-81 corridor.

Bicycle, Pedestrian and Trail

A. Urban Growth Area

- ★ Consider amending the County's Adequate Public Facilities Ordinance to include the provision of bicycle, pedestrian and/or transit facilities for new development or redevelopment within Urban or Town Growth Areas to accommodate and capture new traffic flow from the proposed development by non-motorized means.
  - ➢ To prioritize the use of funds collected or directed to this purpose, identify gaps in the current Bike/Ped infrastructure network and prioritize projects that fill those gaps to create a comprehensive and functional system of facilities for non-motorized travel.
  - ➢ Amendment of the Zoning Ordinance to require provision of these facilities in specified zoning districts with accompanying design standards offers another potential route for increasing bicycle and pedestrian infrastructure.

- ★ Conduct Pedestrian Road Safety Audits to identify corridors, roads/streets and intersection locations where a high number of crashes between bicyclists and motor vehicles, or pedestrians and motor vehicles occur.
  - ➢ Implement recommendations of such audits that may include traffic calming measures or new or improved bicycle or pedestrian facilities that include dedicated user space and improved safety features for non-motorized travel.

- ★ Identify activity centers where housing and jobs, schools, commercial uses, transit, community facilities or public spaces occur in close proximity. Strengthen bicycle and pedestrian connections between these places where those facilities are absent.
  - ➢ Strengthen first and last mile connections to transit facilities by providing bicycle or pedestrian infrastructure linkages between housing, activity centers and transit.
  - ➢ Promote and pursue bicycle and pedestrian connections to schools through the Safe Routes to Schools program.
  - ➢ Incentivize the creation of end-of-trip facilities for bicyclists at activity centers in planned growth areas such as bicycle parking, lockers and/or showers to promote increased bicycle commuting and modal switching.
  - ➢ Equip County Commuter buses with bicycle racks to facilitate multi-modal travel.
  - ➢ Target areas noted in the HEPMPO Regional Bicycle Plan as possessing a high latent demand for facilities such as in Halfway, Funkstown, Robinwood, and Hancock.
  - ➢ Investigate opportunities for State designated Bicycle and Pedestrian Priority Areas and Short Trip Opportunity Areas.

- ★ Encourage infill and compact, mixed-use development within planned growth areas that creates inherently "walkable and bikeable" communities through policy and regulation.

- ★ Incorporate consideration for the creation of on-road bicycle facilities into resurfacing projects to allow for routine expansion of the bicycle network in a cost-effective manner.

- ★ Review parking requirements to determine whether they encourage the transportation by non-motorized means and do not unnecessarily decrease available land for property improvements, particularly within urbanized areas. Parking reduction measures support other transportation demand strategies that help reduce traffic congestion. Eliminating or reducing minimum parking requirements in select areas such as in Town or city centers is a potential option.

- ★ Consider "road diets" along streets that may have excess capacity to calm traffic and examine the potential of replacing the excess travel lane with space for bicyclists, pedestrians or transit.

B. Town Growth Areas

- ★ Ensure multi-modal transportation options are available which connect Town and Urban Growth Areas.
  - ➢ Support the provision of dedicated shoulder space, as well as "Share the Road" signage, for bicyclists along State highways and along County roads wide enough to include such facilities in service of the above objective.
  - ➢ Use floodplains and railroad right-of-way to improve bicycle and pedestrian connections between Towns and the City of Hagerstown. The use of utility corridors is also being explored by some jurisdictions.

- ★ Coordinate with Towns in identifying dedicated bicycle and/or pedestrian projects on County roads that fall within their jurisdictions for inclusion in County capital budgeting.

C. Rural Areas (Rural Villages, County roads outside developed areas)

- ★ Pursue context sensitive design and implementation of all transportation facilities in Rural Villages to preserve community character while also accommodating modern multi-modal transportation needs.

- ★ Provide signage, pavement markings and wayfinding for the County designated bicycle route network to promote active transportation and tourism in rural areas. Where feasible, add dedicated shoulder space to make these routes more bicycle friendly.

D. Natural Areas (Parks, Trails, Greenways, other preserved land)

- ★ Identify opportunities to make bicycle and pedestrian facility connections between publicly accessible preserved lands and adjacent Towns that serve as gateways to these recreational resources, where they are currently absent, by multi-use paths and other bicycle or pedestrian facility types.
  - ➢ Connections such as these promote public health, facilitate economic development through heritage tourism and create contiguity among protected lands, amplifying their benefits to people and environmental systems.
  - ➢ Program Open Space funds could be applied for to achieve projects such as these as well as other State and Federal grant programs.

- ★ Conduct a feasibility study and gain additional public input on the creation of the Civil War Railroad/Weverton Roxbury Corridor Rail Trail, as identified in Maryland's Land Preservation and Recreation Plan, to link the Urban Growth Area with existing long-distance multi-use paths (i.e. - C&O Canal towpath) and promote increased active transportation. If the project is judged feasible, a section of the trail could be piloted in a location where public support indicates the potential for facility demand and usage.

- ★ Incorporate walking or bicycling trails into the development of all new County parks to promote lifelong fitness. Trail development in existing parks with unused recreational space should also be considered.

- ★ Identify and target priority corridors and lands for acquisition or protection through land preservation programs and ordinances, donated easements (i.e.-floodplain corridors) or using various Federal or State transportation alternatives grant funding.

E. Bike/Ped Other

- ★ Design bicycle facilities to accommodate the safety and comfort needs of novice cyclists providing dedicated space where feasible.

- ★ Adopt design standards for on and off-street bicycle facilities and multi-use trails within County road design manuals.

- ★ Utilize emerging measures, such as Level of Traffic Stress, to determine the appropriate new facility type or design intervention for bicyclists on a given road segment to promote rider comfort in addition to traditional measures such as Bicycle Level of Comfort.

- ★ Develop programs and strategies to increase bicycling and pedestrian activity through Encouragement, Education, Enforcement, Equity and Evaluation efforts in addition to Engineering improvements (The Six E's Model).

- ★ Continue ADA compliance with sidewalk and other transportation system improvements, particularly at intersections.

- ★ Continue to expand access to water trails along Antietam and Conococheague Creeks.

Freight Movement

- ★ Evaluate priority locations for new truck parking facilities along major arterial routes and pursue opportunities for their development in context appropriate locations to facilitate the intermodal movement of goods and support economic development goals.

- ★ Facilitate land use practices that encourage goods to be transported by rail to the maximum practical extent to preserve road capacity on arterial routes and improve safety.

- ★ Ensure that zoning and infrastructure along rail lines supports industry needs to move and distribute freight in or through the County by that mode of transportation.

- ★ Consider identifying Freight Movement Protection Corridors for priority trucking routes and rail lines to ensure the efficient movement of goods and the creation of support services and facilities.

- ★ Continue to monitor and make capital improvements to at-grade railroad crossings to promote multi-modal transportation safety

Airport

- ★ Continue to implement Airport modernization and improvement projects identified in capital planning and long-range transportation plans that promote safe and efficient airport operations, enhance passenger amenities, and solidify the position of the Airport as a hub for economic development in Washington County.

- ★ Pursue the location of businesses within the Airport Overlay Zone that are compatible with airport operations and support industries. Continue to provide support for the growth and expansion of existing private businesses operating within the larger Airport industrial/office park.

- ★ Consider future needs to expand airport operations in land acquisition and capital planning.

- ★ Continue to investigate opportunities to restore commercial flight service connections from Hagerstown to major regional airports to ensure that airline travel for business and commuting purposes remains viable in the County in the long-term.

Transportation - Other

- ★ Consider creating, with input from transportation planning partners, a Bicycle and Pedestrian Plan. The plan would identify gaps in the network and prioritize improvements based upon public safety concerns and opportunities to encourage modal switching and reduce traffic congestion.

- ★ Evaluate adequacy of evacuation plans and routes in the event of severe weather or a catastrophic event.

- ★ Consider alternative fuels or more fuel-efficient options for new County vehicles (transit, staff, etc.) to minimize air quality impacts and reduce energy costs.

- ★ Work collaboratively with the HEPMPO and MDOT to identify priority locations for Electric Vehicle charging infrastructure along designated corridors and within local communities and make improvements where necessary. Determine whether any changes to development regulations are needed to facilitate the inclusion of such facilities at appropriate locations during the site planning review process.