Washington County MARYLAND

DEPARTMENT OF PLANNING & ZONING
COMPREHENSIVE PLANNING | LAND PRESERVATION | FOREST CONSERVATION | GIS

AGENDA

WASHINGTON COUNTY PLANNING COMMISSION
July 6, 2020, 7:00 PM
VIRTUAL MEETING ONLY

CALL TO ORDER AND ROLL CALL

MINUTES
1. June 1, 2020 Planning Commission regular meeting minutes *

NEW BUSINESS

FOREST CONSERVATION
1. **Gaver Meadows [FP-20-002]** – Request to utilize off-site retention to satisfy the 20.6 acre planting requirements and to remove 9 specimen trees from the site; Location: 607 Beaver Creek Road; Planner: Travis Allen *

OTHER BUSINESS
1. Proposal to modify land use within an RB (Rural Business) zone at 17318 Shepherdstown Pike; Determination if the change is a significant change per Section 5E.7 of the Zoning Ordinance; Planner: Rebecca Calimer *
2. **Update of Staff Approvals –** Ashley Holloway
3. **Annual Report** – Travis Allen *
4. **Comprehensive Plan Update – Transportation Element** – Planner: Travis Allen *

ADJOURNMENT

UPCOMING MEETINGS
1. Monday, August 3, 2020 – Washington County Planning Commission regular meeting

****attachments***

The Planning Commission reserves the right to vary the order in which the cases are called. Individuals requiring special accommodations are requested to contact the Washington County Planning Department at 240-313-2430 to make arrangements no later than 10 working days prior to the meeting. Notice is given that the Planning Commission agenda may be amended at any time up to and including the Planning Commission meeting.

Washington County
MARYLAND
DEPARTMENT OF PLANNING & ZONING
COMPREHENSIVE PLANNING | LAND PRESERVATION | FOREST CONSERVATION | GIS

MEMORANDUM

TO: Washington County Planning Commission

FROM: Travis Allen, Comprehensive Planner

DATE: June 19, 2020

RE: Forest Conservation Mitigation Approval for Gaver Meadows (FP-20-002)

Attached you will find supporting documentation for two requests to meet forest conservation requirements for this project. The first request is to utilize offsite retention to satisfy the 20.6-acre planting requirement for the Gaver Meadows development at 607 Beaver Creek Road in Funkstown. The second request is to remove 9 specimen trees from the site as a part of its development.

Enclosed for your review are three documents in support of the applicant's request. These include a page from the forest conservation plan (FP-20-002) that shows the location of the offsite easement and depicts the specimen trees proposed for removal, and two justification letters from Qualified Professional Shannon Stotler that make their case for both of these requests.

Article 10.1 of the Washington County Forest Conservation Ordinance (FCO) describes the Preferred Sequence of Techniques for Mitigation for forest conservation plans. This list describes a hierarchy of of techniques ranging from onsite retention and planting to payment of fee in lieu. The overall intent of the FCO is to preserve or create as much forest onsite as is feasible within the constraints of each development project before meeting mitigation obligations offsite.

The removal of specimen trees requires that approval of a variance under Article 15 of the FCO. The applicant must demonstrate the conditions of hardship that exist to warrant the removal of the specimen trees and show that their removal would not adversely affect water quality.

If you have questions or comments regarding this request, please contact me using the information provided below.

Travis Allen
Comprehensive Planner
(240) 313-2432
tallen@washco-md.net

FREDERICK, SEIBERT & ASSOCIATES, INC.

128 South Potomac Street, Hagerstown, MD 21740
301-791-3650 fsa-md.com

CIVIL ENGINEERING | SURVEYING | LANDSCAPE ARCHITECTURE

MEMO — Offsite Mitigation

SUBJECT — FCP for Gaver Meadows

TO — Washington County Planning Commission

CC — Travis Allen

FROM — Shannon Stotler

REMARKS:

The total tract area for the development of Gaver Meadows consist of approximately 67.4 acres. Within those parcels, the proposed development for the Site Plan is 48.12 acres of total disturbance. The required forest mitigation for the proposed development is 20.60 acres.

17.61 acres of forest is being retained onsite with an easement of retention forest and proposed planting. The remaining forest mitigation required is 2.99 acres. All areas on site is either being locked up in a forest easement or proposed for development. There is no other logical place on site to retain or plant forest without creating hardship for development. The proposed additional offsite retention easement is 5.98 acres and is based on the remaining forest mitigation required at a ratio of 2:1. On behalf of the property owner, I request the approval of offsite forest mitigation to meet the forest requirements for the development of the Site Plan for Gaver Meadows.

Sincerely,

Shannon Stotler

FREDERICK, SEIBERT & ASSOCIATES, INC.

128 South Potomac Street, Hagerstown, MD 21740
301-791-3650 fsa-md.com

CIVIL ENGINEERING | SURVEYING | LANDSCAPE ARCHITECTURE

MEMO — Specimen Tree Removal Variance **SUBJECT** — FCP for Gaver Meadows

TO — Washington County Planning Commission

CC — Travis Allen

FROM — Shannon Stotler

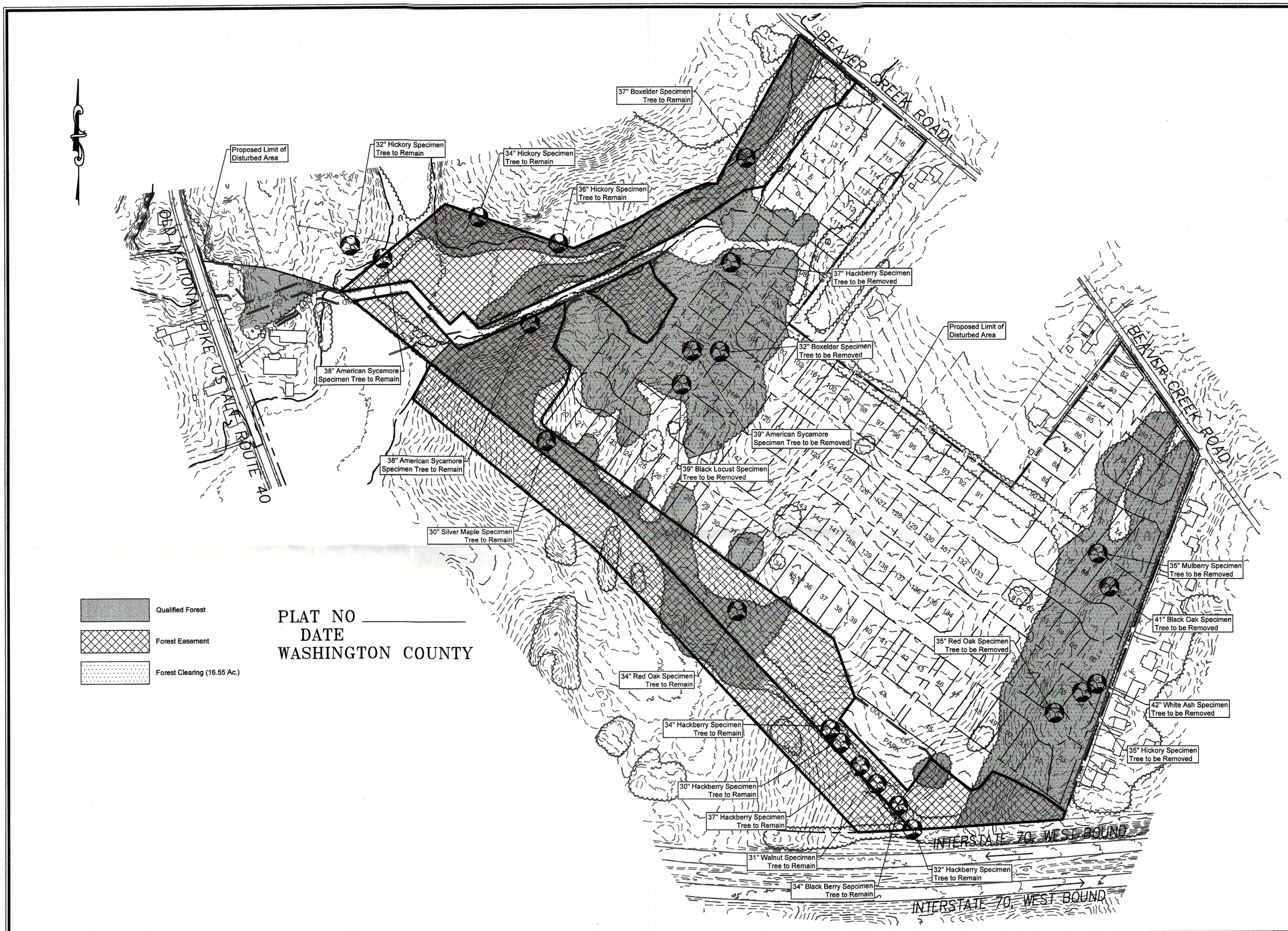
REMARKS:

The total tract area for the development of Gaver Meadows consist of approximately 67.4 acres. Within those parcels, the proposed development for the Site Plan is 48.12 acres of total disturbance. Out of the total disturbance, 17.75 acres of forest is proposed for clearing along with nine specimen trees.

This tract area is zoned Residential. A total of 22 specimen trese exist on site. 13 Specimen trees shall remain as they will be locked up within a retention easement. Those trees that are able to be saved are near the property boundary or within the 100 year floodplain. The nine specimen trees proposed for clearing fall within areas of proposed development. The proposed change in elevation makes it impossible to save the tress within the limit of disturbance. If the specimen trees remained in-place, the development of this site could not occur. On behalf of the property owner, I request a variance for the removal of nine specimen trees due to the hardship as stated above.

Sincerely,

Shannon Stotler



PLAT NO _____
DATE
WASHINGTON COUNTY

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

Owner:
Lyles Family Venture, LLC
c/o David Lyles
18638 Leitersburg Pike Suite 201
Hagerstown, MD 21742

TAX MAP 58-7-108 DISTRICT 10	
DRAWING NUMBER 3 OF 4	
DRAWN BY: DWH	DATE: 12/26/2019
CHECKED BY:	DATE:
SCALE: 1" = 200'	

FREDERICK SEIBERT & ASSOCIATES, INC. ©2019

CIVIL ENGINEERS SURVEYORS LANDSCAPE ARCHITECTS LAND PLANNERS
128 SOUTH POTOMAC STREET, HAGERSTOWN, MARYLAND 21740
20 WEST BALTIMORE STREET, GREENCASTLE, PENNSYLVANIA 17225
505 SOUTH HANOVER STREET, CARLISLE, PENNSYLVANIA 17013
5201 SPRING ROAD, SUITE 3, SHERMANSDALE, PENNSYLVANIA 17090
(301) 791-3650 (717) 597-1007 (717) 701-8111 FAX (301) 739-4956

JOB NUMBER: 5867.1

Preliminary / Final Forest Conservation Plan
for the Development of
Gaver Meadows
situate along the eastern side of Old National Pike, US Alt. 40 west of Beaver Creek Road and North of Interstate 70
WASHINGTON COUNTY, MARYLAND

June 10, 2020

Washington County Planning Commission
100 W. Washington St.
Hagerstown MD 21740

RE: 17318 Shepherdstown Pike

My client is interested in purchasing a property located at 17318 Shepherdstown Pike and building a Dollar General. The site is Zoned RB (Rural Business) which requires the Planning Commission to review and determine if the change is a significant change in the use and intensity of the property that would result in the need for a public hearing.

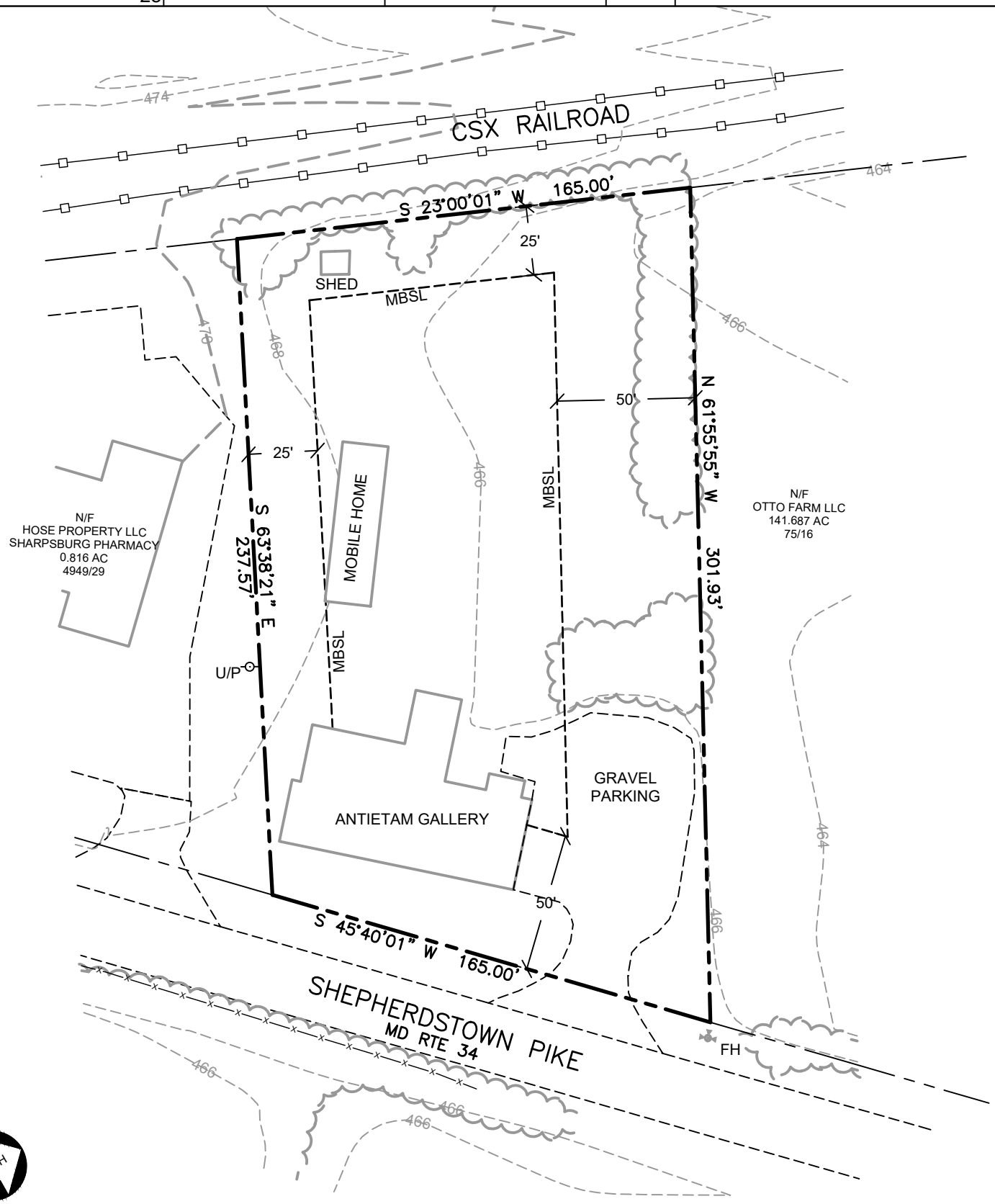
Currently the site is occupied by a mobile home and the Antietam Gallery with associated parking lot. The Antietam Gallery opened its doors over 22 years ago in Sharpsburg, MD, just down the road from Antietam National Battlefield. Jim Kehoe, owner of the gallery, has been in the framing business since 1985, beginning with a retail location in Lake Forest Mall, MD. From there, he slowly moved west, opening several galleries but finally settling the business in Sharpsburg. Their friendly staff enjoys solving framing challenges for individuals and small town businesses as well as corporate clients. In addition to custom framing, their gallery offers a wide variety of civil war related art, books and gifts, sports photography and pottery.

My client would like to build a Dollar General on this property. Dollar General is proud to be America's neighborhood general store they strive to make shopping hassle-free and affordable with more than 16,000 convenient, easy-to-shop stores in 46 states. Their stores deliver everyday low prices on items including food, snacks, health and beauty aids, cleaning supplies, basic apparel, housewares, seasonal items, paper products and much more from America's most-trusted brands and products, along with Dollar General's high-quality private brands. From serving their customers with value and convenience and their employees with career opportunities to serving the communities we call home through literacy and education. Dollar General has been committed to its mission of *Serving Others* since the company's founding in 1939. We would remove the all existing structures and build a 9,100sf store with 28 parking spaces. The store would be designed to be architecturally similar to a historic general store as one the Dollar General standard models for historic areas. Attached are two exhibits a current conditions and a proposed site exhibit.

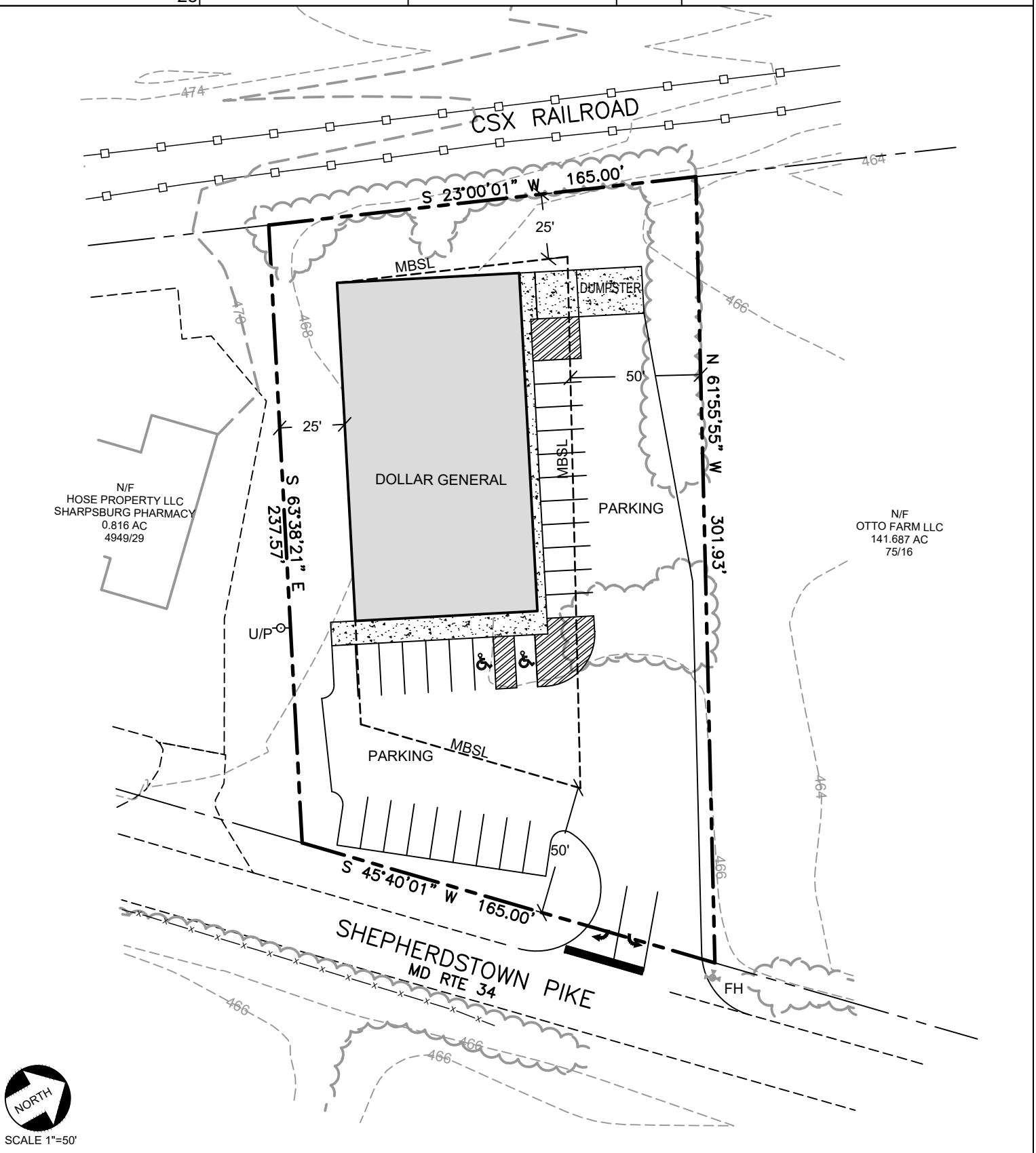
Sincerely,

Adam Hager, Project Manager

CURRENT CONDITIONS		CITY,STATE - STREET: SHARPSBURG MD. SHEPHERDSTOWN PIKE		
PROTOTYPE:	DEVELOPER	DESIGNER		DATE:
BLDG/SALES SF: 9,100	COMPANY:	COMPANY:	FREDERICK SEIBERT	4-30-20
ACREAGE: 1.003	NAME: DEREK HECKMAN	NAME:	ADAM HAGER	
PARKING SPACES: 28	PHONE #: 301-991-1235	PHONE #:	301-791-3650	



PROPOSED SITE		CITY,STATE - STREET: SHARPSBURG MD. SHEPHERDSTOWN PIKE		
PROTOTYPE:	DEVELOPER	DESIGNER		DATE:
BLDG/SALES SF: 9,100	COMPANY:	COMPANY:	FREDERICK SEIBERT	4-30-20
ACREAGE: 1.003	NAME: DEREK HECKMAN	NAME:	ADAM HAGER	
PARKING SPACES: 28	PHONE #: 301-991-1235	PHONE #:	301-791-3650	



DOLLAR GENERAL- SHARPSBURG, MD

Concept Plan Rendering

Washington County, Maryland

June, 2020

0' 20' 40' 60'

FSA

CONCEPT DATA

Zoning	*RB (Rural Business)*
Setbacks	
	Front- 50'
	Side- 25' (50' when adjoining a residential land use)
	Rear- 25' (50' when adjoining a residential land use)
Lot Area	*1.00 acres ±*
Proposed Parking	*28 spaces proposed*

CONCEPT NOTES

1. *This concept plan is not a final designed plan and is subject to change.*
2. *Additional field surveying might be needed in order to locate any existing site features.*
3. *No utility studies have been performed as part of this design phase.*
4. *All entrances must be approved by the appropriate reviewing agency.*
5. *Stormwater management is conceptual in size and location. Stormwater management design and development has not been performed as part of this design phase.*

Annual Report Worksheet
Reporting (Calendar) Year 2019

INSTRUCTIONS

Each Planning Commission/Board shall approve an Annual Report for the Reporting Year 2019 as required under **§1-207(b)** of the Land Use Article. In addition, this Annual Report shall be filed with the local legislative body and the Maryland Department of Planning (Planning), no later than July 1, 2020.

Local jurisdiction may use the attached template form or any of the previous Annual Report forms. The requirements have not changed for 2019. An optional survey is included in Section III. We encourage all jurisdictions to consider responding.

Section I- **New Residential Permits**, and **Section II- Amendments and Growth Related Changes**, are required by all local jurisdictions.

Section III- **Development Capacity Analysis**, is required every three years.

Section IV- Locally Funded Agriculture Preservation, is required by Counties only.

Section V – Measures and Indicators, is required by jurisdiction reporting more than 50 new residential permits in Section I.

Section VI- Adequate Public Facility Ordinances, is required every two years by jurisdictions with adopted Adequate Public Facility Ordinances (APFOs).

Section VII – **Planning Survey Questions** is optional

Annual Report Worksheet
Reporting (Calendar) Year 2019

Section I: New Residential Permits Issued (Inside and Outside the PFA) (§1-208(c)(1)(i) and (c)(3)(ii))

(A) In *Table 1*, *New Residential Permits Issued (Inside and Outside the PFA*) below, enter the numer of new residential building permits issued in calendar year (2019). Enter 0 if no new residential building permits were issued in 2019.

Table 1: New Residential Permits Issued
Inside and Outside the Priority Funding Area (PFA)

Residential – Calendar Year 2019	PFA	Non - PFA	Total
# New Residential Permits Issued	165	30	195

Section II: Amendments and Growth Related Changes In Development Patterns (§1-207(c)(1) and (c)(2))

Note: Growth related changes in development patterns are changes in land use, zoning, transportation capacity improvements, new subdivisions, new schools or school additions, or changes to water and sewer service areas.

(A) Were any new comprehensive plan or plan elements adopted? If yes, briefly summarize what was adopted Y ☐ N ☒

No new comprehensive plan or plan elements were formally adopted. An update of our comprehensive plan is in progress however, and drafts of a number of new elements have been completed in the past year. These elements will soon be presented to the Washington County Planning Commission to gain their input prior to taking the plan for adoption by the Board of County Commissioners.

(B) Were there any amendments to the zoning regulations or zoning map? If yes, briefly summarize each amendment, include a map, or GIS shapefile, if available. Y ☒ N ☐

Case Number	Name	Location	Total Acres	From Zone	To Zone	Decision Date
RZ-19-002	Mineral Extraction (TEXT)					07/30/2019
RZ-19-004	JPK Properties (MAP)	18423 Breathedsville Rd.	2.86	AR	AR with RB Overlay	12/3/2019
RZ-19-005	Alcohol Production Facilities (TEXT)					11/13/2019

RZ-19-002

- Several sections of the Zoning Ordinance text were amended restoring the low, moderate and high volume mineral extraction classifications to the Zoning Ordinance. The purpose of the amendment is to provide opportunities for less intense operations to exist in the rural areas without excessive regulation.

RZ-19-004

- Piecemeal application - Zoning Ordinance map amendment to create a rural business floating zone over 2.86 acres, enabling the use of the property as a storage facility for excavation and construction equipment.

RZ-19-005

- Several sections of the Zoning Ordinance text were amended pertaining to the regulation of alcohol production facilities. As alcohol production facilities and State required alcohol manufacturing licenses have continued to evolve, the County has attempted to accommodate these uses in the Zoning Ordinance. Because this industry continues to evolve, the proposed amendments help consolidate and streamline the definitions and permitted locations for alcohol production facilities as a whole rather than associate the uses with specific manufacturing licenses that are subject to change during each legislative session.

(C) Were there any growth related changes, including Land Use Changes, Annexations, New Schools, Changes in Water or Sewer Service Area, etc., pursuant to of the Land Use Article? If yes, please list or map and provide a description of consistency of internal, state or adjoining local jurisdiction plans. Y ☒ N ☐

Case	Name	Location	Change	Resolution	Date
WS-19-001	Cloverly	Smithsburg	W-5/7 revised to W-1/3	Administrative	4/30/2019
WS-19-002	Cloverly	Smithsburg	12 parcels revised to S-3/S-5	RS-2019-23	10/15/2019

WS-19-001

- Amendments were made to the existing Water and Sewer plan to correct administrative errors in the current water service designation of several parcels along Cloverly Farm Lane in Smithsburg. The designation of the subject parcels has been revised to those noted in the table above upon discovery of an existing water line running on or immediately adjacent to these properties, which are also located within the updated Town Growth Area boundary.

WS-19-002

- Amendments were made to the existing Water and Sewer plan to accommodate changes to the Town of Smithsburg's growth area boundary as a part of the planned Cloverly Hill development. The sewer service designations were updated to reflect a Programmed Service designation (S-3) for three parcels at the location of this planned development, which were part of an annexation by the Town. Several others in the immediate vicinity were given the S-5, Long-Term Planned Service designation, which indicates connection to public sewer in the future but does not require existing properly owners to immediately connect provided their septic systems are functioning properly.

(D) Did your jurisdiction identify any recommendations for improving the planning and development process within the jurisdiction? If yes, please list. Y ☐ N ☒

Annual Report Worksheet
Reporting (Calendar) Year 2019

Section III: Development Capacity Analysis (DCA)(§1-208(c)(iii))

Note: MDP provides technical assistance to local governments in completing a development capacity analyses. Please contact your MDP regional planner for more information.

(A) Has an updated DCA been submitted with your Annual Report or to MDP within the last three years? Y ☐ N ☒

1. If no, explain why an updated DCA has not been submitted, such as, no substantial growth changes, etc.

A development capacity analysis is being completed as a part of our comprehensive plan update. This analysis is anticipated to be completed in 2020.

2. If yes, when was the last DCA submitted? Identify Month and Year:

   a. Was the DCA shared with the local School Board Facilities Planner? Y ☐ N ☐

(B) Using the most current DCA available, provide the following data on capacity inside and outside the PFA in *Table 2, Residential Development Capacity (Inside and Outside the PFA)*:

Table 2: Residential Development Capacity (Inside and Outside the PFA)

Parcels & Lots w/ Residential Capacity	PFA	Non – PFA	Total
Residentially Zoned Acres w/ Capacity			
Residential Parcel & Lots w/Capacity			
Residential Capacity (Units)			

Annual Report Worksheet
Reporting (Calendar) Year 2019

Section IV: (Locally) Funded Agricultural Land Preservation & Local Land Use Goal (Counties Only) (§1-208(C)(1)iv and v)

(A) How many acres were preserved using local agricultural land preservation funding? Enter 0 if no acres were preserved using local funds. Enter value of local program funds, if available.

Table 3: Locally Funded Agricultural Land Preservation

Local Preservation Program Type	Acres	Value ($)
CREP Easement (4)	302.47	940,741.82
MAPLF Easement (2)	127.59	434,022
Rural Legacy Easement (7)	633.82	1,995,849.02
Next Generation Farmer (0)	0	0
Total	1,063.88	3,370,612.84

(B) What is the county's established local land use percentage goal? %

Washington County does not have a percentage goal for land preservation efforts. We have had a long established acreage goal of 50,000 acres.

(C) What is the timeframe for achieving the local land use percentage goal? Years.

20-30 years

(D) Has there been any progress in achieving the local land use percentage goal?

Yes, more than 34,000 acres of land has been permanently preserved across all programs since the start of the County's participation in agricultural land preservation 40 years ago.

(E) What are the resources necessary for infrastructure inside the PFAs?

Additional funding, streamlining regulations that have similar goals but require dedicated infrastructure to accomplish required mandates (I.e.- programs that address water quality)

(F) What are the resources necessary for land preservation outside the PFAs?

- Seek out permanent funding sources that sustain agricultural easement and development rights acquisition.
- Promotion and implementation of the Agricultural District program as a method of incentivizing farmers to preserve their land until funds become available for permanent easement.

- Emphasize preserving large continuous blocks of permanent farmland containing 1,000 or more acres by including this variable in the priority ranking system.
- Implement strategies to deter uses that remove large blocks of prime agricultural land out of active production (i.e. solar energy generating facilities).
- Promote education and start up assistance to inspire a new generation of young farmers.
- Provide additional agri-tourism opportunities for farmers to expand operations with value added products or cottage industry type uses.

Annual Report Worksheet
Reporting (Calendar) Year 2019

Section V: Measures and Indicators (§1-208(c)(1))

Note: The Measures and Indicators, Section VII, is only required for jurisdictions issuing more than 50 new residential building permits in the reporting year, as reported inTable 1.

Table 4A: Amount of Residential Growth (Inside and Outside the PFA)

Residential – Calendar Year 2019	PFA	Non - PFA	Total
Total # Minor Subdivisions Approved	8	13	21
Total # Minor Subdivision Lots Approved	15	25	40
Total # Minor Subdivision Units Approved	14	25	39
Total Approved Minor Subdivison Area (Gross Acres)	19.25	846.73	865.98
Total Approved Minor Subdivision Lot Area (Net Acres)	18.88	291.88	310.76
Total # Major Subdivisions Approved	4	1	5
Total # Major Subdivision Lots Approved	177	9	186
Total # Major Subdivision Units Approved	177	9	186
Total Approved Major Subdivision Area (Gross Acres)	161.27	75.40	236.67
Total Approved Major Subdivision Lot Area (Net Acres)	35.50	74.31	109.81
Total # Units Constructed in Jurisdiction	165	30	195
Total # Units Demolished*	14	9	23
Total # Units Reconstructed/Replaced*	5	7	12

**Not required.*

Table 4B: Net Density of Residential Growth (Inside and Outside the PFA)

Residential – Calendar Year 2019	PFA	Non – PFA	Total
Total # Units Approved (Major + Minor Subdivisions)	191	34	225
Total # Approved Lot Area (Major + Minor Subdivisions)	54.38	366.19	420.57

Table 4C: Share of Residential Growth (Inside and Outside the PFA)

Residential – Calendar Year 2019	PFA	Non – PFA	Total
Total # Units Approved (Major + Minor Subdivisions)	191	34	225
% of Total Units (# Units/Total Units)	85	15	100%

Annual Report Worksheet
Reporting (Calendar) Year 2019

Table 4D: Amount of Commercial Growth (Inside and Outside the PFA)

Commercial – Calendar Year 2019	PFA	Non - PFA	Total
Total Site Plan Area Approved (Gross Acres)	564.27	501.05	1065.32
Total Building Square Feet Approved (Gross)	1620048	31092	1651140
Total # New Permits Issued	32	6	38
Total Square Feet Constructed in Jurisdiction (Gross)	643097	87646	730743

Table 4E: Net Density of Commercial Growth (Inside and Outside the PFA)

Commercial – Calendar Year 2019	PFA	Non – PFA	Total
Total Building Square Feet Approved (Gross)	1620048	31092	1651140
Total Lot Size (Net Acres)	476.19	414.77	890.96

Table 4F: Share of Commercial Growth (Inside and Outside the PFA)

Commercial – Calendar Year 2019	PFA	Non – PFA	Total
Total Building Square Feet Approved (Gross)	1620048	31092	1651140
% of Total Building Square Feet (Building Square Feet/Total Approved Square Feet)	98	2	100%

Annual Report Worksheet
Reporting (Calendar) Year 2019

Section VI: Adequate Public Facility Ordinance (APFO) Restrictions (§7-104)
(Section VI is only required by jurisdictions with adopted APFOs)

Note: Jurisdictions with adopted APFOs must submit a biennial APFO report. The APFO report is due by July 1 of each even year and covers the reporting period for the previous two calendar years. APFO reports for 2018 and 2019 are due July 1, 2020. However, jurisdictions are encouraged to submit an APFO report on an annual basis.

(A) What is the type of infrastructure affected? (List each for Schools, Roads, Water, Sewer, Stormwater, Health Care, Fire, Police or Solid Waste.)

Roads, Schools, Sewage Disposal Systems, Water Supply and Distribution Systems, and Fire Protection.

(B) Where is each restriction located? (Identify on a map, including PFA boundary.)

Schools: Countywide
Roads: Countywide
Water and Sewer: In service areas designated in the Water and Sewer Plan
Fire Protection: Inside adopted Urban and Town Growth Areas

(C) Describe the nature of what is causing each restriction.
Schools: The majority of school districts are over the designated school capacity due to population growth and limited funding to build new schools.
Roads: The majority of restrictions are in rural areas where some roads are not considered adequate to today's standards.
Water: Distribution systems are aging and need upgraded. Availablity of water is limited by permitting and water quality regulations.
Sewer: Collection systems are aging and need upgraded. Availability of treatment capacity is limited by water quality regulations.
Fire: No restrictions at this time.

(D) What is the proposed resolution of each restriction?
Schools: The County has adopted an Alternate Mitigation Contribution option for developers who will voluntarily pay a fee to help mitigate the impacts of new development on school districts. Funds collected go toward expanding capacity in the educational system.
Roads: Restrictions are mitigated on a case by case basis
Water: Developers are required to install and/or upgrade infrastructure to service their development. There is no local control that can resolve the issue of diminishing availability due to State and Federal water quality redulations.
Sewer: Same as Water.
Fire: No restrictions at this time.

(E) What is the estimated date for the resolution of each restriction?

All categories are mitigated on a case by case basis and have no established timeline for resolution.

(F) What is the resolution that lifted each restriction?

n/a

(G) When was each restriction lifted?

n/a

(H) Addition Information. To help the Sustainable Growth Commission Statewide School Education Committee for School related restrictions:

1. List the State Rated Capacity for each affected facility.

Current Elementary School Enrollment from BOE (Jun 2019)		State Rated Capacity
Bester	604	628
Boonsboro	581	499
Cascade	160	278
Clear Spring	419	385
Eastern	442	572
Emma K. Doub	338	297
Fountaindale	378	352
Fountain Rock	261	271
Greenbrier	214	274
Hancock	237	295
Hickory	309	235
Jonathan Hager	382	471
Lincolnshire	550	555
Maugansville	705	755
Old Forge	380	366
Pangborn	764	745
Paramount	430	408
Pleasant Valley	241	225
Potomac Heights	303	294
Rockland Woods	590	751
Ruth Ann Monroe	579	692
Salem Avenue	727	725
Sharpsburg	243	249
Smithsburg	371	431
Williamsport	587	568

Annual Report Worksheet
Reporting (Calendar) Year 2019

Current Middle School Enrollment from BOE (Jun 2019)		State Rated Capacity
Boonsboro	745	870
Clear Spring	350	605
E. Russell Hicks	816	841
Northern	726	913
Smithsburg	642	839
Springfield	843	1096
Western Heights	949	998

Current High School Enrollment from BOE (Jun 2019)		State Rated Capacity
Boonsboro	942	1098
Clear Spring	451	656
Hancock Middle/High	251	591
North Hagerstown	1334	1423
Smithsburg	751	897
South Hagerstown	1236	1240
Williamsport	894	1094

2. Identify date local School APFO standards were last evaluated or amended.

   The Washington County APFO was last amendment in 2013 to include an Alternate Mitigation Contribution by developers to help the County raise funds for expansion of educational service.

3. Provide a letter from the School Board confirming what actions are being taken by the School Board to remedy each restriction. (This could include a change in State Rated Capacity (SRC); scheduled improvements in the the local Capital Improement Program (CIP); or redistricting, etc., to address (B) –(G) above.)

Section VII: Planning Survey Questions (Optional)

The information provided can assist MDP and MDOT staff with identifying potential pedestrian/bicycle projects and project funding.

(A) Does your jurisdiction have a bicycle and pedestrian plan? Y ☐ N ☒

1. Plan name
2. Date Completed (MM/DD/YR)
3. Has the plan been adopted? Y ☐ N ☐
4. Is the plan available online? Y ☐ N ☐
5. How often do you intend to update it? (Every ____ years)
6. Are existing and planned bicycle and pedestrian facilities mapped? Y ☐ N ☐

(B) Does your jurisdiction have a transportation functional plan in addition to your comprehensive plan? Y ☐ N ☒

1. Plan name
2. Date completed (MM/DD/YY)
3. Has plan been adopted? Y ☐ N ☐
4. Is the plan available online? Y ☐ N ☐
5. How often do you intend to update it? (Every ____ years)

END

Submitting Annual Reports and Technical Assistance

(A) Annual Reports may be submitted via email (preferred) to david.dahlstrom@maryland.gov or one copy may be mailed to:

Office of the Secretary
Maryland Department of Planning
301 W. Preston Street, Suite 1101
Baltimore, Maryland 21201-2305
Attn: David Dahlstrom, AICP

(B) Annual Reports should include a cover letter indicating that the Planning Commission has approved the Annual Report and acknowledging that a copy of the Annual Report has been filed with the local legislative body. The cover letter should indicate a point of contact(s) if there are technical questions about your Annual Report.

(C) You may wish to send additional copies of your Annual Report directly to your MDP Regional Planner or School Board Facilities Planner.

(D) If you need any technical assistance in preparing or submitting your reports, our Regional Planners are available to assist you. Regional Planner contact information can be found at: Planning.Maryland.gov/OurWork/local-planning-staff.shtml

(E) Copies of this Annual Report worksheet and links to legislation creating these Annual Report requirements can be found on the Maryland Department of Planning website: Planning.Maryland.gov/YourPart/SGGAnnualReport.shtml

(F) If you have any suggestions to improve this worksheet or any of the annual report materials, please list or contact David Dahlstrom at david.dahlstrom@maryland.gov.

Transportation Element

I. Introduction and Purpose

Transportation networks are among the primary elements which determine a community's character. Transportation planning therefore serves as a primary catalyst for determining the location, pace and timing of development activities in a given location as transportation facilities not only open up land for development, but also 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 primacy 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, such as expanding road capacity. This focus can sometimes lead to transportation planning which places greater emphasis on mobility (moving people and goods from place to place) than accessibility (the ease by which we can reach desired activity centers such as work, school, recreation, etc.).

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 context of the locality or region 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. In pursuit of a desired community character, the integration of transportation planning with many other elements of the Comprehensive Plan, particularly economic development strategies, housing provision, community facility siting and sensitive area protection is essential.

The Transportation Element serves these objectives by identifying the strengths and weaknesses of 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.

II. Goals and Objectives

A. Sample Goals and Objectives

a. Create a safe, efficient, resilient and cost-effective transportation network that serves all users regardless of their travel mode.

i. Coordinate with diverse partners to provide transit and human service transportation to meet the needs of transit-dependent populations Countywide.

ii. Prioritize the maintenance and improvement of existing transportation facilities over the creation of new facilities in

capital budgeting unless the latter is warranted by significant public welfare concerns.

iii. Create a sustainable transportation network that minimizes vulnerability to changing conditions and avoids preventable hazards.

b. Ensure that all transportation modes are routinely considered in the creation of new or retrofitted transportation facilities.

i. Incorporate Complete Streets principles into roadway designs where technically and fiscally feasible, particularly in planned growth areas.

c. Align transportation and land use planning to achieve long-term comprehensive planning objectives and encourage desired patterns of growth and development.

i. Transportation investments should enhance quality of life, promote compact development within planned growth areas and support existing neighborhoods.

ii. Ensure consistency between transportation and land use plans, as well as Zoning, Subdivision and Adequate Public Facilities Ordinances.

iii. In concert with other public infrastructure, create transportation facilities that concentrate development within

planned growth areas and connect citizens with essential services.

iv. Strive to create an interconnected transportation network linking new and present development to facilitate efficient circulation patterns and promote community cohesion.

v. Road projects should be context sensitive and consider protection of sensitive environmental, historic and scenic resources in their alignment or improvement.

vi. Transportation investments should help spur sustainable patterns of economic development, facilitate the efficient movement of goods and promote tourism of heritage resources.

d. Utilize diverse strategies to relieve traffic congestion on arterial and collector roads.

i. Utilize access management principles to separate local and through traffic in roadway planning and design.

ii. In accordance with hierarchical road classification objectives, access to arterial roads should be primarily from collector roads, not local roads.

iii. Pursue transportation demand management strategies to alleviate congestion prior to adding additional road capacity.

Commented [1]: yes, thanks for the connection to historic element

iv. Encourage modal switching from single occupancy automobiles to ridesharing, transit and active transportation modes by incorporating principles from the "5 E's" (Education, Enforcement, Engineering, Encouragement, Evaluation and Planning).

v. Minimize conflicts between traffic related to agricultural operations and other road users in order to both improve traffic safety and facilitate normal agriculture industry operations.

Commented [2]: JDitto brought this up at each meeting. Glad you remembered it

e. Create a comprehensive, interconnected bicycle and pedestrian network that provides viable opportunities to make utilitarian and recreational trips by means of active transportation.

i. The bicycle and pedestrian network should connect urbanized and rural lands to realize the full potential and benefits of a County-wide active transportation system.

ii. Strive to provide dedicated space for pedestrians and bicyclists in road and facility design whenever possible.

iii. Implementation of complete street design to ensure safety of non-motorized vehicle users.

f. Encourage public participation in transportation planning and account for feedback in project prioritization, design and implementation.

B. 2002 Comprehensive Plan Goals

a. Maintain and improve the quality of the transportation system.

b. Increase the efficiency of the existing transportation system.

c. Promote desirable social and economic impacts from the transportation system.

d. Minimize the costs to improve the quality and efficiency of the transportation system.

e. Minimize undesirable impacts of the transportation system.

C. 2002 Comprehensive Plan Policies

a. Urban and Town Growth Areas

i. Develop and maintain an integrated multi-modal transportation system that supports existing and planned development in the Urban and Town Growth Areas.

ii. Plan for, develop and encourage the use of alternatives to single occupant vehicles.

iii. Provide a multi-modal transportation system that meets the mobility needs of the citizens of Washington County, including the transit dependent.

iv. Provide a multi-modal transportation system that effectively links the Urban and Town Growth Areas and accommodates inter-regional travel through the County.

v. Maintain the policy for determining adequacy of existing roads, as required under the Adequate Public Facilities Ordinance.

b. Rural-Agricultural Areas

i. Manage and operate the transportation system in a manner that protects and preserves the County's farmland, forests, open space and other significant natural, historic or cultural resources.

ii. Maintain and improve the existing transportation system to promote safe travel for all vehicles.

iii. Provide safe and efficient linkages to the Urban and Town Growth areas, as well as to natural, historic and recreational areas.

iv. Minimize conflicts between traffic related to agricultural operations and residential uses.

III. 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:

1. Hagerstown/Eastern Panhandle Metropolitan Planning Organization

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. Among other planning responsibilities, the MPO is responsible for developing the regional Long-Range Transportation Plan (LRTP), 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 2045* 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 multimodal transportation.

2. Washington County Capital Improvement Plan

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. Transportation investments that fall under the umbrella of this plan include County roads and bridges, a fixed-route bus service (County Commuter) and the Hagerstown Regional Airport, as well as the facilities, vehicles and equipment associated with each. Projects are prioritized based on established criteria that includes County plans and policies. The plan is flexible and covers ten 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.

3. 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). The Adequate Public Facilities Ordinance has been in place since 1990 in Washington County. The APFO was enacted to ensure "that public facilities and services needed to support new development shall be available concurrently with the impacts of such new developments." "Adequate Public Facilities" are defined by the Ordinance as "those facilities relating to roads,

sewerage disposal systems, schools, water supply and distribution systems, and interim fire protection systems meeting established minimum standards."

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.

4. 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. The progress to 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 statewide transportation provision including the Maryland Aviation Administration, Maryland Port Administration, Maryland Transit Administration, Maryland Transportation Authority, Motor Vehicle Administration and State Highway Administration.

IV. Current County Transportation Snapshot

Commented [3]: Much of this section already reviewed and Commented on for housing chapter

To project future transportation needs for the County, it's important to have a snapshot of our current multi-modal system. 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 travels needs according to the mode of transportation.

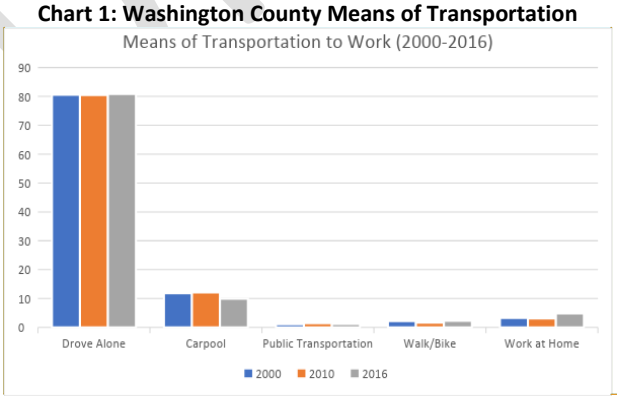
A. Travel Mode

A travel mode is a means of transportation, such as a motor vehicle, bus, bicycle, or by walking. A multi-modal and inter-modal system will be needed to serve the County's future transportation needs. A multi-modal transportation system consists of highway, transit, pedestrian and bicycle facilities, airport and rail facilities, together with interconnections between each mode.

Since the early 1990s when Congress passed the Intermodal Surface Transportation and Efficiency Act (ISTEA), there has been strong emphasis on developing a multi-modal and intermodal transportation system that is economically efficient and environmentally sound, and that focuses on the efficient movement of people and goods, rather than vehicles.

Chart 1 displays the means of transportation to work in Washington County between 2000 and 2016. The preferred mode of transportation has changed little in Washington County in the last seventeen years. Slightly more than 80% of County residents drove a car, truck or van alone to work throughout the period surveyed. Between 10-12% of commuters carpooled. 1-2% of residents took public transportation, walked or bicycled to work. Nearly 5% of respondents are estimated to work at home as of 2016, representing an increase of almost 2% from 2010.

Chart 1: Washington County Means of Transportation



Source: U.S. Census 2016 & 2010 5-Year ACS (B08301), 2000 SF3 (P030)

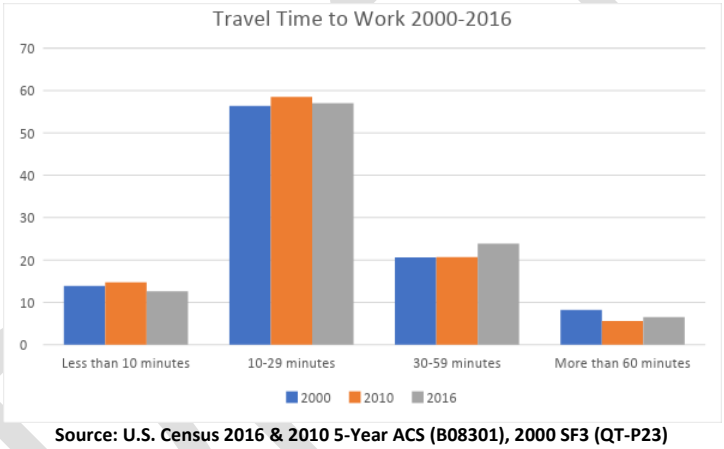
Commented [4]: So our carpooling is down an equal amount to work from home people. Its pretty interesting that with all the different plans and attempts at change nothing has really changed in the breakdown

Commented [5]: I found this graphic really interesting as well. Seems like no matter what people want to travel alone to work.

B. Travel Time to Work

Chart 2 displays the travel time to work for those who did not work at home in Washington County between 2000 and 2016. The percentage of County residents traveling 10-29 minutes to work each day was nearly 60% throughout this time period. This would indicate that most County residents are working within or just outside Washington County. Nearly 25% of local citizens commute between 30-59 minutes each day, a time length that would allow them to reach nearby job centers in Frederick or closer to the Beltway Corridor.

Chart 2: Washington County Travel Time to Work

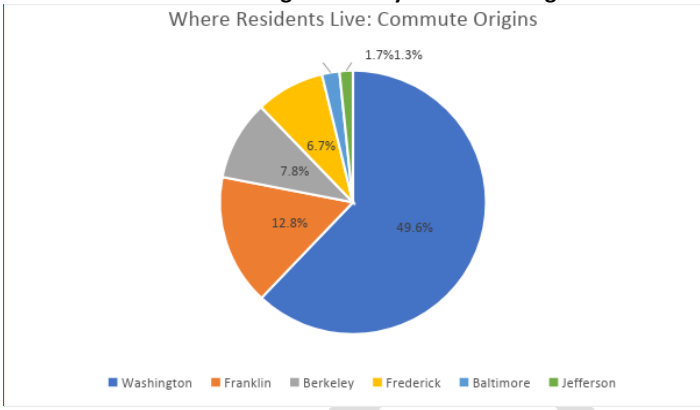


Source: U.S. Census 2016 & 2010 5-Year ACS (B08301), 2000 SF3 (QT-P23)

C. Commuting Patterns

In the most recent update of its LRTP, *Direction 2045*, the HEPMPO utilized data taken from the Longitudinal Employer-Household Dynamics program of the U.S. Census Bureau to provide insight into commuter origins and destinations in the HEPMPO region. This data, taken from 2015, is summarized in Charts 3 and 4 below.

Chart 3: Washington County Commute Origins



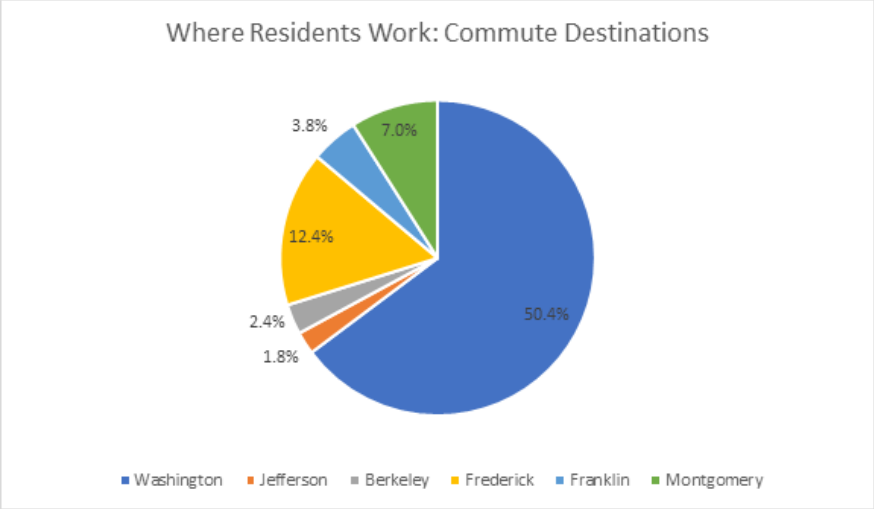
Source: HEPMPO *Direction 2045*

The primary commute origin and destination for Washington County residents is within their home county, as indicated in Chart 3. This is a positive indicator for the desirability of housing choices currently available in the County. Washington County enjoys a closer proximity to larger job centers within the Beltway Corridor than other counties in the region served by the MPO, such as Berkeley and Jefferson Counties. So, despite having access to a wider range of employment and housing opportunities, a high percentage of Washington County residents appear to be finding both gainful employment and satisfactory housing within the County. The next most prevalent commute origin for Washington County workers lies across state lines as 12.8% of Washington County workers reside in Franklin County, PA.

Commented [6]: The colors for Washington County and Baltimore are very similar

Commented [7]: Add graphic for to/from mapping

Chart 4: Washington County Commute Destinations



Source: HEPMPO *Direction 2045*

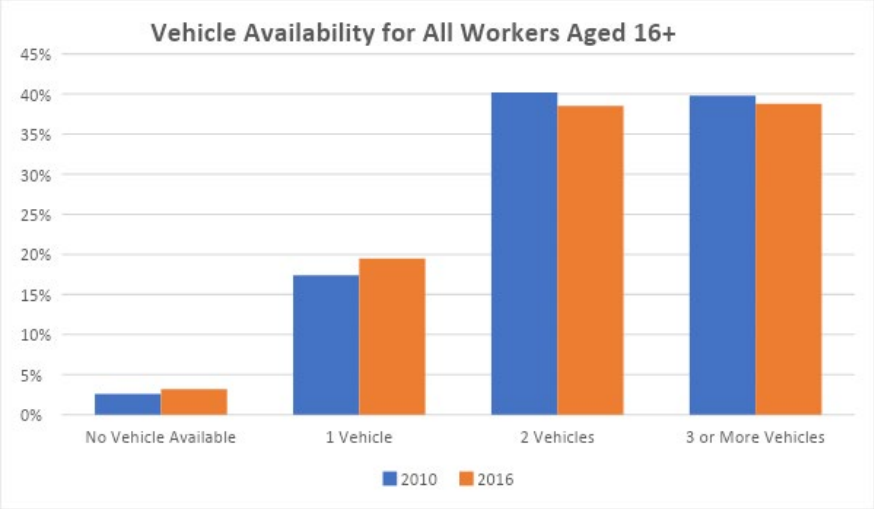
As shown in Chart 4 above, 12.4% of Washington County residents commute to work in Frederick County, MD, making it the most prevalent commuter work location outside of the County's borders. Seven percent of local workers also travel to work in Montgomery County, MD demonstrating the feasibility of Washington County as a place to live for Beltway commuters. These origin and destination numbers help complete the picture established by Charts 1 & 2 above. Essentially, the average Washington County resident who does not work within the County is most commonly commuting approximately 30-60 minutes to either Frederick or Montgomery County.

D. Vehicle Availability

The availability of a vehicle is a critical factor in determining the mobility of the local population. Vehicle ownership, particularly in rural Counties where lower population densities make the feasibility of public transportation more difficult, is critical to accessing employment

and essential goods and services. Chart 5 shows the number of vehicles available to workers aged 16 and over between 2010 and 2016. This data measurement was not available at the time of the 2000 Census.

Chart 5: Washington County Worker Vehicle Availability



Source: U.S. Census 2016 and 2010 5-Year ACS (S0802)

Chart 5 indicates that the overwhelming majority of workers aged 16 or older live in a household with at least two vehicles available. Nearly 80% of workers had two or more vehicles available in 2010, and in 2016, this was still true for 77% of workers. This left approximately 20%-23% of workers aged 16 and older with only 1 or fewer vehicles available. Overall, these percentages suggest that most of the local population is reliant on automobile travel to carry out daily activities and that households possess enough vehicles to facilitate worker mobility to opportunity centers. Strong consideration should be given to the needs of workers with fewer vehicles, however, as the percentage of workers with less than 2 vehicles did grow between 2010 and 2016. This growth is likely reflective of both demographic trends, such as poverty measures,

and changing lifestyle patterns which affect transportation mode choices, including housing location, on-demand ride services and other factors.

V. Roads

A. Existing Network Overview

With its proximity to several major cities, particularly Washington D.C. and Baltimore, Washington County contains several major transportation routes. I-81 and U.S. 11 run north-south parallel to one another 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 the latter interstate while transporting goods throughout the eastern United States or connecting to other major transportation routes across the country. Interstates 68 and 70 and U.S. 40/National Pike travel east-west, connecting Washington County to the Beltway Region as well as the remainder of western Maryland and cities throughout the Allegheny Mountains. I-81 and I-70 intersect within the Urban Growth Area, halfway between Hagerstown and Williamsport.

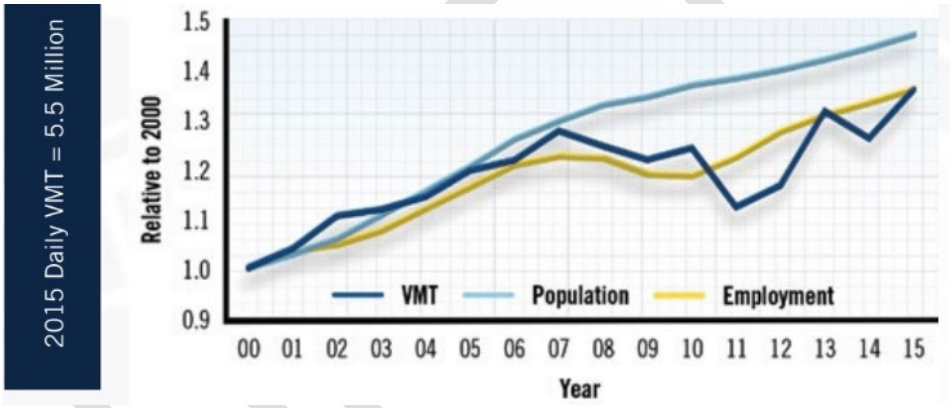
B. Road Travel Trends, Issues and Opportunities

i. Vehicle Miles Traveled v. Population and Employment Growth

The Maryland Transportation Plan and the MPO's Long Range Transportation Plan provide insight on trends in vehicle miles traveled (VMT) in relation to population and/or employment growth, indicators that are typically correlated with each other and provide insight on travel choices statewide, including Washington County. Between 2000 and 2015, the LRTP describes a 10% growth rate in annual VMT during the 15-year period in Washington County. Berkeley County, by comparison, saw 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 Great Recession between 2007 and 2010, both VMT and employment experienced significant declines, while population continued a steady upward trajectory in Washington County. Rising gas prices were surely a significant factor in the decoupling of these three indicators during the study period, as people utilized other transportation modes to accomplish their daily tasks.

Chart 5: Washington County Vehicle Miles Traveled, Population and Employment Growth 2000-2015



Source: Direction 2045 Long Range Transportation Plan

The MTP offers additional data on these indicators, both statewide and for the Western Region of Washington, Allegany and Garrett. Between 2010 and 2016, the population in the Western Region declined by .3% according to MDOT, using data from the U.S. Census.[1] Accordingly, the population is projected to grow by just 18.1% by 2040 in the Western Region. In contrast, MDOT projects a 29% increase in VMT and an 82% increase in vehicle hours of travel

[1] *2040 Maryland Transportation Plan Technical Memorandum Conditions, Trends and Challenges*, p. 17, 2018

(VHT) by 2040 in the Western Region.[2] Statewide, annual VMT has grown at a faster rate than population between 2010 and 2017, with VMT growing by 6.6% and population growing at 4.4% during the seven-year period.[3]

ii. Traffic Volume

The MPO and SHA also provide data on Average Annual Daily Traffic Volumes (AADT). The LRTP notes that I-81 in Maryland averages 71,300 AADT, 27% of which is truck traffic.[4] AADT collected by SHA traffic counters at the following select locations in Washington County outside of the City of Hagerstown illustrate the growth of traffic volume in the following select locations in the table below:

Table 1: Traffic Volume at Select Locations 2000-2018

Year	I-81 @ Crosspoint Shopping Center	I-70 @ Frederick County Line	MD-65 South of I-70	MD-64 @ Eastern Blvd	U.S. 11 @ Maugans Ave	U.S. 40 West of MD-63
2018	73,750	82,451	23,012	7,212	15,372	10,902
2010	68,311	59,191	20,530	6,090	14,140	11,610
2000	55,075	74,175	17,550	7,750	NA	14,450

Source: Maryland Department of Transportation State Highway Administration

The highest increase in AADT in the select Washington County locations noted above occurred on I-81 adjacent to the Crosspoint Shopping Center. At that location, traffic grew by nearly 34% between 2000 and 2018. Conversely, AADT actually declined on U.S. 40 west of MD-63 by almost 25% during the nineteen year period surveyed.

iii. Traffic Safety

[2] Ibid, p.35 & 49
[3] *2040 Maryland Transportation Plan,* p. 8, 2019
[4] *Direction 2045 Long Range Transportation Plan*, P. 45, 2018

Commented [9]: I agree with Meghan.Significant change that should really catch the eye.

Commented [10]: The table outgrew the width of the page when I added % increase/decrease columns to each location. I highlighted the changes you pointed out in a paragraph added below the table.

Commented [8]: This is a crazy increase and i think maybe this chart would benefit from some percentages directly in the chart? or maybe some type of color coding for how big the increase is

Commented [11]: This is a crazy increase and i think maybe this chart would benefit from some percentages directly in the chart? or maybe some type of color coding for how big the increase is

Commented [12]: I agree with Meghan.Significant change that should really catch the eye.

Commented [13]: The table outgrew the width of the page when I added % increase/decrease columns to each location. I highlighted the changes you pointed out in a paragraph added below the table.

Commented [14]: This is a crazy increase and i think maybe this chart would benefit from some percentages directly in the chart? or maybe some type of color coding for how big the increase is

Commented [15]: I agree with Meghan.Significant change that should really catch the eye.

Commented [16]: The table outgrew the width of the page when I added % increase/decrease columns to each location. I highlighted the changes you pointed out in a paragraph added below the table.

Commented [17]: This is a crazy increase and i think maybe this chart would benefit from some percentages directly in the chart? or maybe some type of color coding for how big the increase is

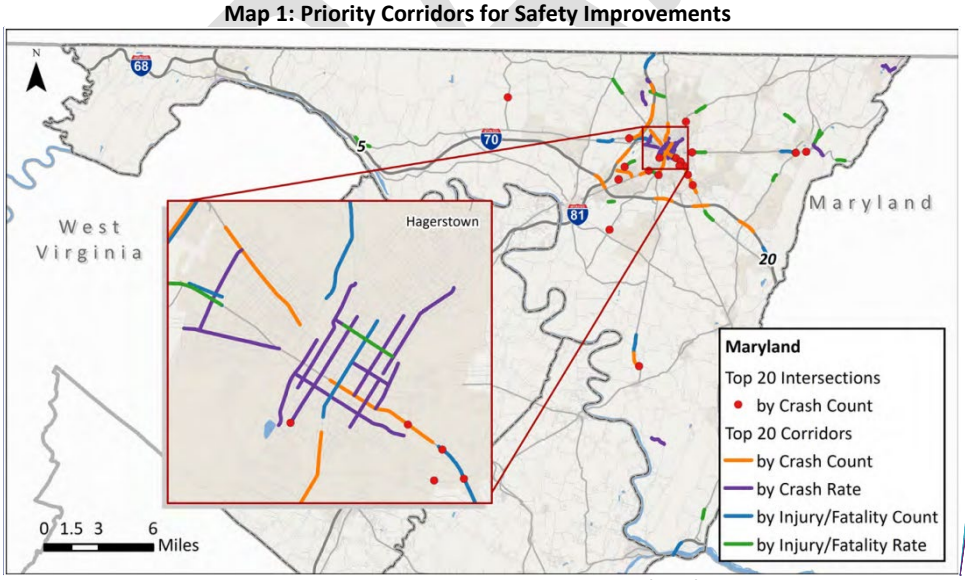
Commented [18]: I agree with Meghan.Significant change that should really catch the eye.

Commented [19]: The table outgrew the width of the page when I added % increase/decrease columns to each location. I highlighted the changes you pointed out in a paragraph added below the table.

The MPO recently 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 the most recent 5-year crash data (2013-2017) 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 1, below, shows the top 20 corridors and intersections with safety concerns due to the total number or rate of crashes, injuries or fatalities.

Map 1: Priority Corridors for Safety Improvements



Source: HEPMPO Regional Traffic Safety Study (2019)

Commented [20]: This needs an accompanying chart of the intersection names or the map needs modified to denote them. We might be able to see what they are but citizens would benefit from additional perspective...unless you feel like you are okay with the generalized description below which is also fine by me

Commented [21]: Table of intersections was cut for space considerations due to large size

Areas with major safety concerns shown on the map above align with locations where one would expect them to occur. Principally these corridors include large stretches of I-81, the interchanges along I-70 inside of the Urban Growth Area and many streets in and around the City of Hagerstown where the greatest traffic density is found. Problematic intersections are also concentrated in similar areas, especially along Dual Highway as it approaches Hagerstown from the southeast. Most areas identified as priorities for future safety improvements do fall within or are peripheral to Urban or Town Growth Areas. As nearly all of these areas are designated as Priority Funding Areas, obtaining State funding for safety improvements should be possible in the long-term to improve conditions in the County's transportation network.

iv. Interstate Congestion

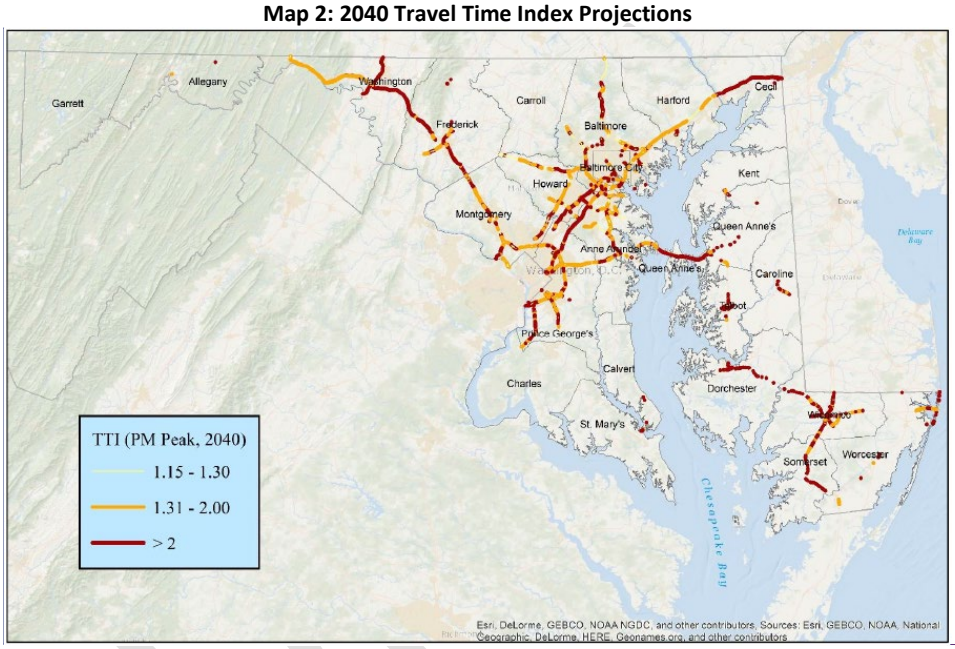
Maryland is tied with the State of New York for the longest commuting time in the nation with an average commute of 32.3 minutes.[5] While much of this congestion is heavily centered around the Baltimore/Washington D.C. areas, Washington County is also experiencing increasing issues with delayed travel times, particularly on I-81 and I-70.

The MPO's LRTP indicates that 40% of the increase in annual VMT between 2000 and 2015 occurred on these two major transportation routes. Interstate travel on I-81 and I-70 accounted for 50% of average daily VMT in 2015.[6] 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

[5] *2040 Maryland Transportation Plan Technical Memorandum Conditions, Trends and Challenges*, p.30, 2018
[6] *Direction 2045 Long Range Transportation Plan*, P. 45, 2018

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 2 shows the projected increase in TTI throughout Maryland by 2040.

Map 2: 2040 Travel Time Index Projections



Source: Maryland Statewide Transportation Model 2015

It is because of these trends, as well as the associated safety concerns for travelers, that interstate widening and interchange improvements on these two major transportation routes tops the list in the County's 2019 Priority Letter to MDOT for consideration in its FY 2020 to FY 2025 CTP. Phased widening of the entire length of I-81 in the County tops the list of priorities with interchange improvements at the intersection of I-70 and MD-65 ranking second. Significant amounts of both residential and commercial development have occurred in the immediate

Commented [22]: Do you want this to be western county centric to get a little closer perspective? We can do that if so

Commented [23]: If this graphic is left in, the statewide perspective could be useful to demonstrate the congestion issues on I-81 & I-70 compared to other major roads in MD

Commented [24]: Just a tag for update later

vicinity of this interchange in the last 20 years, particularly the recent completion of a new Walmart as well as the steady buildout of the Westfields subdivision. This growth, while adding to the County's tax base, will continue to increase congestion at and around this major intersection. Interstate-81 corridor improvements, including widening to reduce congestion, are mentioned as an illustrative project for the SHA to help achieve its goal of providing better transportation choices and connections within the next 20 years in the MTP.

C. Transportation Design Concepts - Roads

i. Capacity

The maximum hourly rate of persons or vehicles that can be expected to traverse a given road segment or point, such as signalized intersections, under prevailing road, traffic and control conditions is known as its capacity. A road facility's stated capacity defines a flow of traffic that can be achieved repeatedly for peak periods of demand. Thus, because transportation facilities operate poorly at full capacity, stated capacity is not the highest flow rate recorded at a facility. Instead, qualitative measures such as a roadway's level of service seek to better describe the facility's performance under prevailing conditions.

ii. Level of Service

Level of service (LOS) measures operational conditions experienced by users within a flow of traffic or at an intersection. Quality levels are assigned based upon performance measures such as traffic volume compared to facility capacity, travel time, and user comfort derived from multiple variables like road conditions, safety hazards and travel distance. Publications such as the Federal Highway Administgration's Highway Capacity Manual or the American Association of

State Highway Transportation Officials Geometric Design of Highways and Streets ("Green Book") are the primary guidance documents used to grade the service of a facility.

Typical Level of Service systems assign a letter designation from A to F, with LOS A being the best operating conditions and LOS F the worst. These terms are defined below:

- **LOS A**: Free Flow. Traffic flows at or above the posted speed limit and motorists have complete maneuverability between lanes
- **LOS B**: Reasonably Free Flow. LOS A speeds are maintained, maneuverability within the traffic stream is slightly restricted.
- **LOS C**: Stable Flow. Ability to maneuver through lanes is noticeably restricted and lane changes require more driver awareness. Declines in comfort and convenience.
- **LOS D**: Approaching Unstable Flow. Speeds slightly decrease as traffic volume slightly increases. Freedom to maneuver within the traffic stream is much more limited and driver comfort levels continue to decrease.
- **LOS E**: Unstable Flow, Operating at Capacity. Flow becomes irregular and speed varies rapidly because there are virtually no usable gaps to maneuver in the traffic stream and speeds rarely reach the posted limit. Comfort and convenience have reached poor levels.
- **LOS F**: Forced or Breakdown Flow. Every vehicle moves in lockstep with the vehicle in front of it with frequent slowing required. Travel time cannot be predicted, with generally more demand than capacity. Accident exposure increased significantly.

In addition to analyzing roadway segments, engineers also look at the level of service at roadway intersections. Intersections can cause a high level of disruption in traffic flow on

individual segments of a road network. This disruption is measured in terms of time waiting for an opportunity to make a turn onto another road segment. Intersection level of service becomes extremely important in maintaining the safety of our local road network. The table below outlines the average wait times and their corresponding level of service.

Table 2: Level of Service Grades and Intersection Wait Times

LOS	Signalized Intersection	Unsignalized Intersection
A	</= 10 seconds	</= 10 seconds
B	10-20 seconds	10-15 seconds
C	20-35 seconds	15-25 seconds
D	35-55 seconds	25-35 seconds
E	55-80 seconds	35-50 seconds
F	>80 seconds	>50 seconds

iii. Functional Classification

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.

Commented [25]: nearby graphic needs to be updated for readability. Its blurry to me

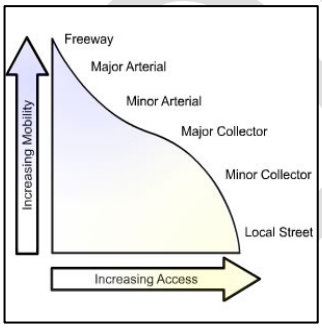


Figure Accessibility vs. Mobility
Source: FHWA Office of Operations

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. Arterial and Collector roads also have sub-classifications that further define their mobility characteristics. These sub-categories have changed over the years. The most recent guidance provided by Federal Highway Administration is outlined in *Highway Functional Classification Concepts, Criteria and Procedures 2013 Edition*. According to these new guidelines, the focus of road classification should be on the function of the road and not whether the road is located in an urban, rural or rural context. Table 1 below shows the changes to the Functional Classification System.

Table 1: 2008 Changes to Federal Functional Classification System

New Functional Classifications	Old Urban Functional Classifications	Old Rural Functional Classifications
Interstate	Urban Interstate	Rural Interstate
Other Freeways and Expressways	Urban Other Freeways and Expressways	
Other Principal Arterial	Urban Other Principal Arterial	Rural Other Principal Arterial
Minor Arterial	Urban Minor Arterial	Rural Minor Arterial
Major Collector	Urban Collector	Rural Major Collector
Minor Collector		Rural Minor Collector
Local	Urban Local	Rural 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 2: 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 DVMT)	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

i. **Arterial: Interstate/Expressway/Freeway**

- Provide for the continuous and efficient routes for movement of high-volume traffic over long distances;
- Controlled roadway access points limit access to adjacent land uses;
- Higher posted speed limits;
- Multiple travel lanes separated by physical barrier;
- Usually funded and maintained by state government;
- Supports regional mobility;

ii. **Arterial: Other Principal Arterial**

- Serve high-volume traffic in major centers of metropolitan areas;
- Adjacent land uses may be served directly through at grade intersections or driveways to specific parcels;
- Typically funded and maintained by a local government;
- Supports regional mobility;

iii. **Minor Arterial**

- Serve moderate length trips and geographical areas;
- May serve local bus routes and include sidewalks, signalized intersections, or on-street parking;
- Typically maintained by local government, but capital costs may be the responsibility of state government;

iv. **Collector (Major and Minor)**

- Gather traffic from local roads and funnel into arterial network;

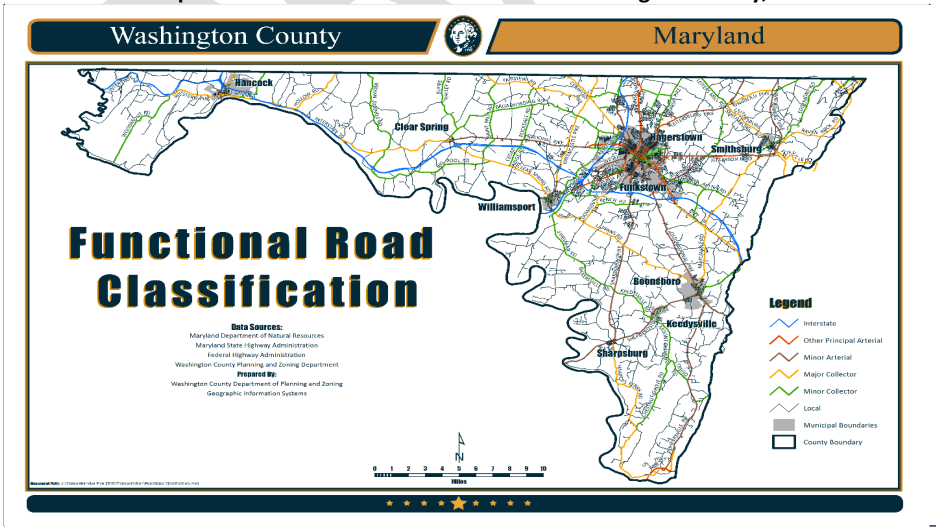
- Major collectors usually have longer, fewer driveways, higher speed limits and traffic volumes and more travel lanes than minor collectors;
- Provide traffic circulation within residential neighborhoods as well as commercial, industrial or civic districts;
- Generally designed, constructed, and funded by local government;

v. **Local**

- Provide direct access to adjacent land uses over short travel distances;
- Lower posted speed limits;
- Designed to discourage through traffic;
- Not typically a part of transit routes;
- Usually funded by local government.

The following map shows the functional classification system of roads throughout Washington County:

Map 2: Functional Road Classifications of Washington County, MD



Commented [26]: check to make sure most recent

iv. 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 is described in Article 4 of the Washington County Subdivision Ordinance, particularly Article 405.2. Right-of-way preservation is also discussed in Section 4.7 of the Washington County Zoning Ordinance.

v. Transportation Demand Management

An alternative approach to addressing congestion related issues in transportation planning from expanding road capacity is demand management. Transportation demand management (TDM) looks at a range of strategies to reduce front end demand for road facilities, such as expanding transportation choices, financial incentives, land use management, and other policies and programs. At the State level, Commuter Choice Maryland is Maryland's TDM Program. This program includes programs and investments in transit facilities and services, carpool and rideshare information and facilities, bicycle and pedestrian facilities, teleworking assistance, Maryland Commuter Tax Credit, education and marketing to individuals and employers, and Guaranteed Ride Home for transit users or those carpooling. Additional strategies such as promoting compact development, toll or road pricing strategies, fuel taxes,

and parking management all fall under the larger umbrella of TDM beyond what is promoted by the State's program.

The MPO, in consultation with the SHA, recently sent out a survey concerning the completion of a forthcoming plan for Transportation Systems Management and Operations on I-81 and I-70 in Washington County. In this survey, respondents were asked to consider or provide suggestions on demand management strategies for these arterial roads, including traveler information, corridor management, ramp metering, the use of freeway shoulder for peak period travel, HOV lanes, reversible lanes, ramp metering and signalization, variable speed limits, park and ride facilities, connected and automated vehicle deployment, weather and traffic incident management, and more.

Commented [27]: It would be interesting to see the results of this survey. Personally for myself I'd like to see the the expansion of I-81 to 3 lanes the entire way to Harrisburg but the reality of that happening is slim.

vi. Traffic Calming

Source: Project for Public Spaces

Traffic calming uses a variety of street design and management techniques to improve the safety of roadways for multiple modes of transportation while enhancing the livability of adjacent communities. Traffic calming measures, which are typically installed in urbanized areas where current street conditions may present an unsafe or undesirable environment for non-motorized users, can encompass a wide range of design interventions. Examples include reducing lane widths and speed limits, managing traffic flows, creating

roundabouts, speed bumps, pavement treatments, pinch points, landscaping in medians or along right of ways, refuge islands for pedestrians and many other techniques. Many communities in Washington County, by virtue of their historic settlement and development prior to the advent of automobile transportation, already possess some of these characteristics such as reduced lane widths in urban and town centers. Considering additional supportive design measures such as those described above, some of which have already been implemented in select locations, could further enhance the safety and livability of many urbanized areas in the County.

vii. Environmental Considerations

1. Air Quality

Pollutant emission sources resulting from the transportation sector of the economy are largely regulated at the Federal and State levels due to the widespread nature of the issue and the infeasibility of assessing and addressing the problem solely at a local level. The Federal Clean Air Act does however require that LRTPs and TIPs conform to the purpose of the State Implementation Plan (SIP). Conformity to the SIP mandates that projects and programs will not cause or contribute to any new violations of the National Ambient Air Quality Standards (NAAQS); increase the frequency or severity of NAAQS violations; or delay timely attainment of the NAAQS or any required interim milestone. Conformity requirements apply in areas that either do not meet or previously have not met air quality standards for ozone, particulate matter, lead, sulfur dioxide, carbon monoxide or nitrogen dioxide. These areas are known as "nonattainment areas" or "maintenance areas," respectively. Washington County is currently in attainment status for all critical pollutants.

While air quality cannot be solely improved at a local level, efforts such as employing transportation demand strategies, improving multi-modal transportation options, developing compact, mixed-use communities which offer a high degree of access to centers of activity, and promotion of alternate fuels in motorized transportation are just a few ways in which local communities can help to address this issue.

2. Network Resiliency

As has been made evident through a number of recent extreme weather events that occurred in the County, such as the severe flash flooding that affected southern Washington County in May 2018 which damaged roadways in 73 different locations and necessitated several active rescues of local citizens, creating a resilient transportation network with less vulnerability in times of rapidly changing conditions is of vital importance in long range transportation planning. Strategies for creating a resilient or adaptive transportation network can take many forms: from identifying existing transportation infrastructure within the limits of floodplains or other natural hazards and considering new route alignments; improving drainage and stormwater management infrastructure; utilizing paving techniques which adapt to extremes in temperature; to expanding network connectivity and access to multi-modal transportation so that when one mode of transportation becomes gridlocked, other options are available. Accounting for variability and vulnerability in transportation planning, design and construction, helps to improve the safety, reliability and sustainability of the network as a whole. Given fiscal constraints and the immense costs associated with cleaning up from events causing significant damage to people or property, planning for these uncertainties in advance plays a large role in the ability of communities to recover in the aftermath of these unforeseen events.

3. Scenic Byways & Context Sensitive Design

Context sensitive design recognizes that mobility is not the only goal in transportation planning. Since the 1990s, federal, state and local governments have increasingly considered how transportation facilities impact an area's quality of life. This broader view of transportation development has sought to solicit greater input from a variety of stakeholder groups to achieve projects that positively impact communities in a manner that supports their desired pattern of development and protects sensitive resources.

One program that supports these larger objectives related to context sensitive design is the Scenic Byways program. Presently, both Federal and State roads can be given Scenic Byway designation. Roads given the National Scenic Byway designation possess one or more of six "intrinsic qualities": archeological, cultural, historic, natural, recreational, and scenic. The program was established by Congress in 1991 with the passage of the Intermodal Surface Transportation Efficiency Act to promote tourism and economic development while conserving heritage resources along these roadway corridors. The designation requires the preparation of corridor management plans, with public involvement, to conserve the roadways intrinsic qualities and aid in regional economic development.

The Maryland SHA, in partnership with the Maryland Department of Planning, has created its own program modeled on the Federal program. These entities work with local communities to develop corridor management plans and assist in their efforts to protect and enhance these desirable routes.

The Federal National Scenic Byway designation has been applied to two routes that pass-through Washington County, the Historic National Road (U.S.-40 and US ALT. 40) and “Journey

Through Hallowed Ground." The former route commemorates the nation's first federally funded interstate highway which opened western lands for settlement and the transportation of goods. The latter route travels primarily through the Catoctin Mountains passing by notable Civil War sites and natural areas, including MD-77 to Smithsburg.

Portions of the State-designated "Antietam Campaign" Scenic Byway pass by places integral to the events of that pivotal Civil War battle in 1862, including several roads in southern Washington County. The "Chesapeake and Ohio Canal" State Scenic Byway follows 236 miles of country roads and state highways in the immediate vicinity of one of the first major transportation routes that moved goods and people into the Country's interior before the dawn of the age of Railroads. The Byway follows numerous State and County maintained roads in the proximity of the Canal. The C&O Canal is also a 184-mile National Historic Park overseen by the National Park Service.

To address both community quality of life as well as sensitive area protection, the County may want to consider developing its own version of a scenic byways program for County-owned rural roads. The first step in such an effort would be to create a scenic resources inventory along priority roads or corridors in Washington County. Some resources, such as historic properties or structures, may already have some level of documentation on the Maryland Historic Sites Inventory or on the National Historic Register. Sensitive environmental resources also appear as targets on State and local mapping efforts such DNR's GreenPrint or BioNet programs, County agricultural land preservation or Soil Conservation District rankings, as well as other sources. By creating a local scenic byway designation, potentially through the creation of a new overlay zoning district or other regulatory mechanism, existing corridors of scenic, environmental and

Commented [28]: Can't remember if i tied this into the historic element but this should be and also it should be a goal of the HDC to use this as a priority to reexamine resources and set priorities to them

economic importance could be preserved while still promoting their use through Heritage Tourism and other context sensitive development strategies.

D. Planned Improvements

i. Recent Major Road Improvements

The following table displays select major road projects that were recommended in the 2002 Comprehensive Plan that have been completed:

Table 3: Select Major Road Projects Completed Since 2002

Reconstruction of US 11 to accommodate Hagerstown Airport runway extension.	Robinwood Drive widening from Medical Campus Road to HCC and from Mt. Aetna Road to Dual Highway.
Reconstruction of the Dual Highway and Edgewood Drive/Robinwood Drive intersection	Extension of Yale Drive to Hagerstown Community College
Reconstruction of the Halfway Boulevard and Massey Boulevard Intersection.	Crayton Blvd Extended to Showalter Road Phase 1
Construction of Southern Boulevard from West Oak Ridge Drive to Frederick St.	Professional Blvd Phase 1 Bridge construction underway with Phase 2 to be complete Fall '21
Construction of Halfway Blvd Extended to New Gate Blvd	I-81 Bridge Replacement at Exit 1 over Potomac River
Interchange Improvements at I-70 and MD-65	

Future road improvements for the HEPMPO region are identified in the MPO's LRTP according to differing planning timeframes and anticipated funding levels. These planning horizons include existing and committed projects which will be under construction by FY 2022, a fiscally unconstrained plan which represents anticipated long-term needs within the region through 2045, and the fiscally constrained plan which accounts for local priorities and anticipated funding through 2045. Due to space limitations, only the existing and committed projects and the fiscally constrained projects are displayed in the tables that follow:

Commented [29]: From 2002 Comp Plan Recommendations Matrix. There may be other achievements not captured by matrix.

Commented [30]: I know PR has some pictures of these but it would be nice to have a couple of them in pictures to lighten it up

Commented [31]: Engineering GIS has the webmap for CIP projects on our website also

Commented [32]: I know PR has some pictures of these but it would be nice to have a couple of them in pictures to lighten it up

Commented [33]: Engineering GIS has the webmap for CIP projects on our website also

Commented [34]: I know PR has some pictures of these but it would be nice to have a couple of them in pictures to lighten it up

Commented [35]: Engineering GIS has the webmap for CIP projects on our website also

Commented [36]: I know PR has some pictures of these but it would be nice to have a couple of them in pictures to lighten it up

Commented [37]: Engineering GIS has the webmap for CIP projects on our website also

Commented [38]: I know PR has some pictures of these but it would be nice to have a couple of them in pictures to lighten it up

Commented [39]: Engineering GIS has the webmap for CIP projects on our website also

Table 4: Washington County Existing and Committed Projects

W2009-01	WM Railway Lift Bridge Restoration	$2.2M	Washington
W2017-07	Garis Shop Road Bridge	$1.8M	Washington
W2017-07	Crystal Falls Drive Bridge	$1.6M	Washington
W2017-07	Keedysville Road Bridge	$1.5M	Washington
W2017-07	Poffenberger Road Bridge	$2.0M	Washington
W2017-07	Old Roxbury Road Bridge	$3.1M	Washington
W2017-07	Halfway Boulevard Bridges	$2.1M	Washington
W2017-08	Eastern Boulevard Widening Phase II	$5.3M	Washington
W2017-01	Paramount Elementary School Safe Routes To School (in design)	$.5M	Washington
W2014-09	I-81 Widening and Bridge Rehabilitation	$71.3M	Washington
W2016-01	Crayton Boulevard - Phase I	$3.3M	Washington
W2017-11	Colonel Henry K. Douglas Drive Extended Phase 1	$3.2M	Washington
W2014-01	I-70 Interchange Improvements at MD 65 - PE	$1.5M	Washington

Source: Direction 2045 Long Range Transportation Plan

Commented [40]: confirm at 11th hour with engineering

VI. Transit

A. Existing Network

The Washington County Transit Department (WCT) provides public transit for the County, primarily through the County Commuter bus system. The system runs nineteen vehicles along nine fixed routes 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. WCT also operates the Job Opportunity Access Program in cooperation with the Washington County Department of Social Services to serve eligible riders with transportation from work and childcare facilities. Total yearly ridership for all programs averages over 516,000 passenger trips and more than 516,000 miles annually.

Commented [41]: Interesting that they numbers are identical

Commented [42]: I agree. This comes directly off the County's transit homepage. Should we trust that data?

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 new 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 but is within less than an hour's drive from a number of MARC Brunswick Line commuter rail stations in Frederick County, Maryland and those in Harpers Ferry and Martinsburg, West Virginia as well. This line terminates at Union Station in Washington D.C. hitting many other stops in the metro area en route. Harpers Ferry is also a daily weekday stop for Amtrak's Capitol Limited Route that runs between Washington D.C. and Chicago.

B. Transportation Design Concepts – Transit

i. Transit Oriented Development

Transit Oriented Development (TOD) is an urban planning tool which promotes a compact, mixed-use pattern of development by the clustering of residential, commercial and other complementary land uses within reasonable walking distances from transit hubs. The successful implementation of TOD depends on access and density around transit facilities. Typically, TOD areas are located within a ¼ to ½ mile radius of a central transit stop such as a train, light rail, or bus stop.

TOD can be difficult to achieve in a primarily rural area such as Washington County where there is no train, light rail or bus rapid transit system in place and population density to foster higher transit ridership is more marginal outside of the City of Hagerstown. The greatest potential for the implementation of TOD in Washington County outside of Hagerstown lies within portions of the Urban Growth Area where residential and business uses are clustered at a reasonably high density. As the County becomes more urbanized and transit services continue to expand incrementally with available funding, TOD may become more viable. In the meantime, using TOD principles, such as creating clustered mixed-use communities at a pedestrian-scale

Commented [43]: Add a map to this section with transit stops

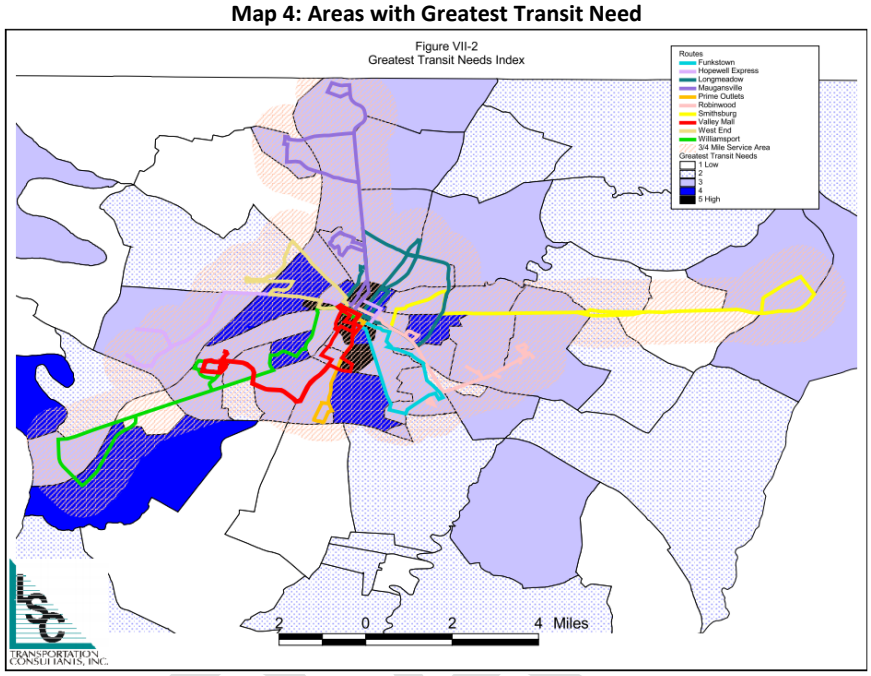
around activity centers, remains valuable objectives to strive for in the County's long-range land use planning and community design efforts.

C. County Transit Plans

i. Transit Development Plan

In 2010, the MPO completed a 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. The map below displays areas which have the greatest needs for transit. The areas with the highest need were heavily centered in Hagerstown, followed by Williamsport. Other areas of the County which currently have no transit service, such as western and southern Washington County, also showed great need. The transit needs assessment was done at the Census Tract and Block Group levels according to the following characteristics: zero-vehicle households, elderly population, disabled population, and below-poverty population.

Map 4: Areas with Greatest Transit Need



Source: Washington County Transit Development Plan (2010)

In addition to those areas identified in the Transit Development Plan, the MPO's LRTP also identifies 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.

ii. Human Services Transportation Plan

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.

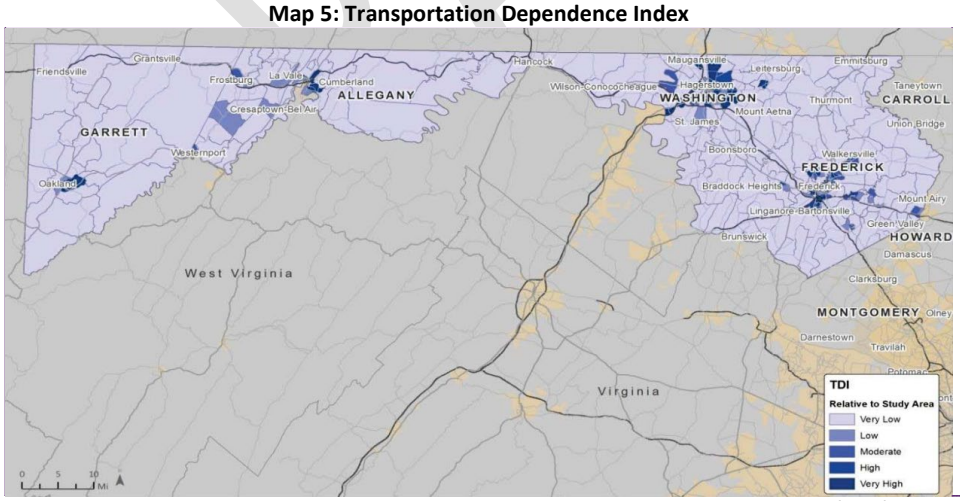
In 2015 a study was prepared for the Maryland Transit Administration to address human services transportation for the Western Maryland Counties of Allegany, Frederick, Garrett and Washington. The study identified the following needs for Washington County:

- 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.

Within the study's demographic analysis, areas with transportation needs are identified according to a transit dependence index (TDI) and the complementary transit dependence index percentage (TDIP). The TDI calculates transportation needs using U.S Census data measures for population density, autoless households, senior, youth and below-poverty populations. These factors are pulled from the block group level and ultimately result in a score ranging from very low to very high in relation to the service area's average. TDIP is a nearly identical measure to TDI, but it removes the population density factor to measure a percentage instead of an amount of vulnerability. Maps 5 and 6 show the TDI and TDIP for Western Maryland including Washington County.

Map 5: Transportation Dependence Index

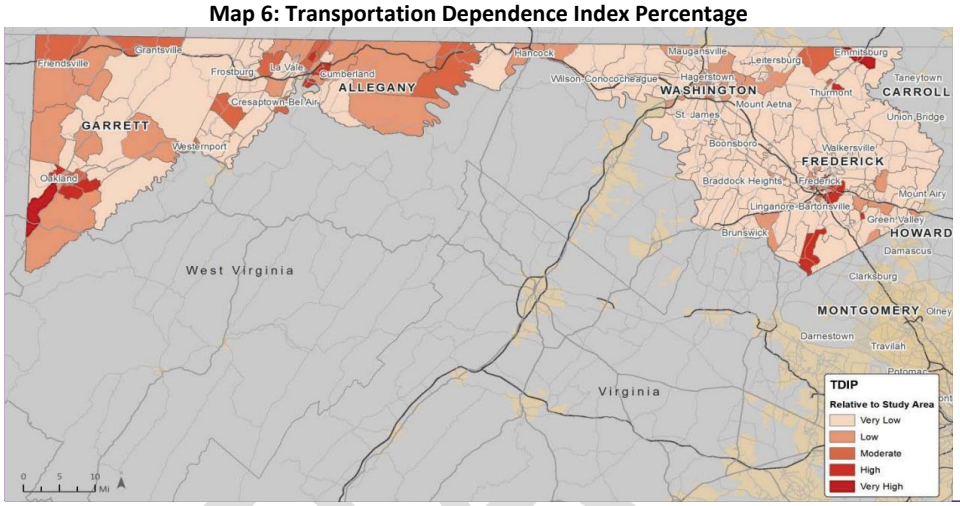


Source: Western Maryland Coordinated Public Transit-Human Services Transportation Plan (2015)

Commented [44]: check to see if state serves data out so we can customize map

According to the TDI measure shown in Map 5, transit needs for these populations is greatest within the Urban Growth Area around the City of Hagerstown, with additional areas of need found outside the UGA near Wilson-Conococheague and Chewsville.

Map 6: Transportation Dependence Index Percentage



Source: Western Maryland Coordinated Public Transit-Human Services Transportation Plan (2015)

Commented [45]: check to see if state serves out map so we can customize map

The TDIP displayed in Map 6 shows an overlap in need in some areas displayed in Map 5, but also indicates low to moderate need for transit services along the MD-64 corridor between Hagerstown and Smithsburg, around Maugansville, Hancock and Highfield-Cascade as well as in some of the newer subdivisions in the northeast UGA.

D. Planned Improvements

Washington County Transit has several planned initiatives related to public transit, including new paratransit software, improvements to its garage, formalizing bus stop locations and transfer points in several locations across their service area, and providing additional passenger amenities at transfer locations. The Valley Mall and the Hagerstown Park and Ride/Sharpsburg Pike Walmart are the intended locations for the new transfer points.

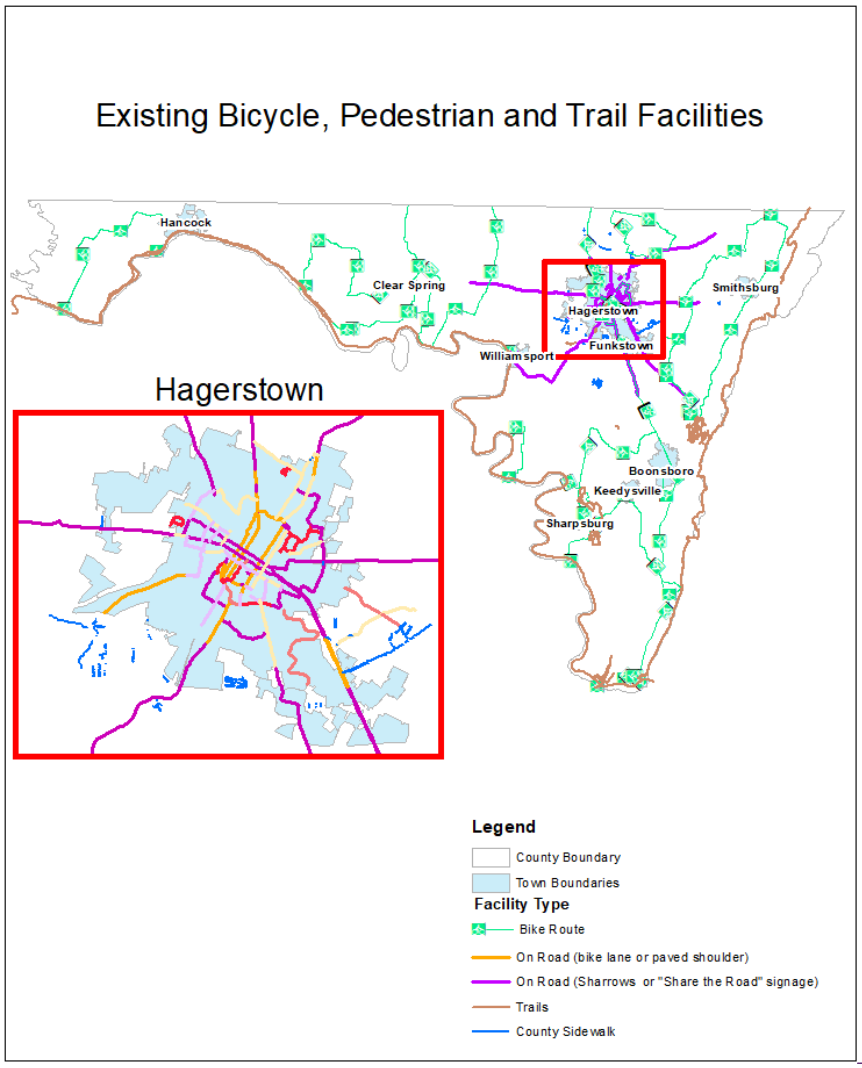
In addition to those areas already mentioned previously as being targeted for coverage, connection or level of service improvements, the MPO's LRTP also recommends a number of other enhancements to County transit services. These include improved weekday headway on the County Commuter's West End, Robinwood and Funkstown Routes, increased weekday operating hours for the Robinwood Route, and Sunday service for the Premium Outlets and Valley Mall routes. The Plan also advocates for a Regional Transit Service Study to examine strategies to provide intercity transit connections between Hagerstown, Martinsburg and Charles Town, including access to MARC stations.

VII. Bicycle, Pedestrian and Recreational Trail Facilities

A. Existing Network

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: Existing Bicycle, Pedestrian and Trail Facilities



Commented [46]: double check before public comment that routes don't need updated

i. 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. Bike 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. Bike Route 11** – signed multi-state bike route running north-south from the Washington County/Pennsylvania border to northwestern North Carolina.
- **Appalachian National Scenic Trail** – 41 miles, of its more than 2,000-mile length between Georgia to Maine, run along the County's eastern boundary.
- **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 Harper's Ferry, West Virginia. The C&O Canal Towpath connects with the Great Allegheny Passage Trail in Cumberland, Maryland, where it continues another 150 miles before terminating in Pittsburgh, Pennsylvania.

Source: National Park Service

- **Harpers Ferry National Historical Park, Antietam National Battlefield** - While primarily parks whose mission is focused on providing historic preservation and interpretation, Harpers Ferry and Antietam nevertheless 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.

ii. 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 network of State Parks found throughout Washington County. These facilities include:

- **Western Maryland Rail Trail**: The entirety of the present 23 mile off-road, converted rail trail occurs within Washington County between Fort Frederick State Park and Sideling Hill Ridge near Hancock. The trail is open to cyclists and pedestrians.

Source: Herald-Mail Media

- **On-Road 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. Exact mileage figures were not available in the GIS data obtained from the 2016 HEPMPO Regional Bicycle Plan.
- **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 signed hiking trails and connections to longer hiking and bicycling paths like the C&O Canal Towpath, Western Maryland Rail Trail, and the Appalachian Trail. Mountain biking is

allowed on the trails at Greenbrier State Park. Other State Wildlife and Natural Resource Management areas within the County also offer some hiking facilities.

iii. City of Hagerstown Bicycle and Pedestrian 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.[7] 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.

iv. 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 a 186-mile network comprised of eight recreational bicycle routes that provide an outstanding look at the scenic and historic nature of the local landscape. These routes are not currently signed, but a foldout map produced by the Hagerstown and Washington County Convention and Visitors Bureau displays the routes geographically and provides detailed directions and descriptions of each tour.

v. **Water Trails**

Commented [47]: Parks Dept. actively working on access points on antietam and concocheague and its in CIP.

[7] Michael Baker International, *Regional Bicycle Plan.* (Pittsburgh, PA: Michael Baker International), 2016, 8.

The County has partnered with the Maryland Department of Natural Resources to work with private property owners to provide access to waterways such as the Antietam and Conococheague Creeks. This partnership has been somewhat successful, but challenges remain in obtaining easements for access over private property. One success story has been the Kiwanis Park located within the City of Hagerstown. The Kiwanis Club donated land adjacent to the Antietam Creek and installed an access ramp for access to the waterway and to provide other recreational opportunities.

B. Transportation Design Concepts – Bicycle, Pedestrian and Trails

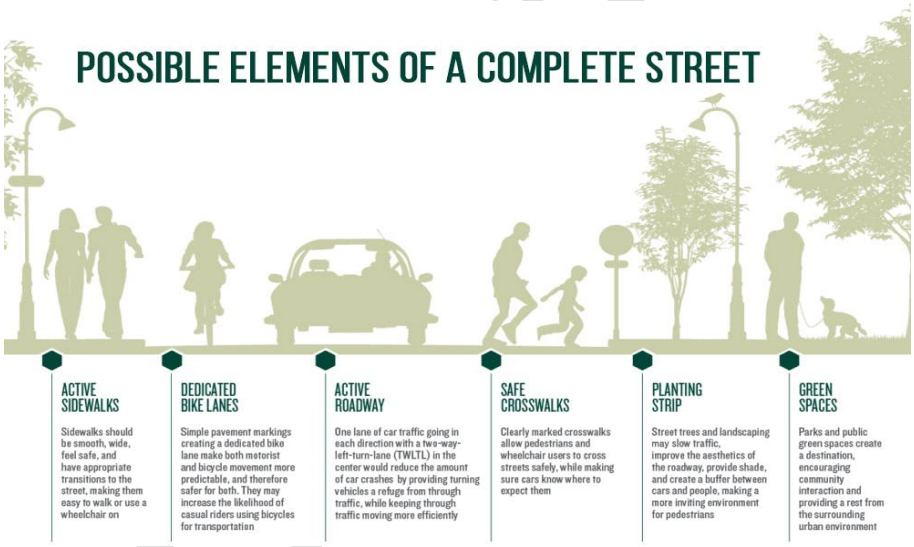
i. Complete Streets

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 all ages, abilities and modes of transportation. Once adopted by local bodies, a Complete Streets policy requires applicable transportation planning entities to design and operate the entire right-of-way to facilitate the safe use of its streets for all users. Complete Streets inherently looks to broaden the focus of transportation planning and design beyond the provision of automobile mobility to a wider consideration of the quality of life facilitated by transportation facilities in a community context.

As a policy that accounts for local context, there is not a singular design for a Complete Street. The infrastructural elements comprising a Complete Street in a rural area 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 MPO adopted a Complete Streets Policy in 2018 to integrate Complete Streets principles into the planning, design and construction of new facilities and in the retrofitting of existing roadways. It has incorporated Complete Streets principles into its LRTP. The following image provides a sample depiction of a Complete Street:



Source: Town of Parker, Colorado

ii. Bicycle, Pedestrian and Recreational Trail Facility Types

The appropriate type of bicycle, pedestrian or trail facility typically depends on a variety of factors, particularly the context in which the facility is being designed as well as the larger planning objectives such as user safety or modal switching. Modern road, street or trail design offers facility types which meet the full spectrum of transportation planning objectives.

1. Bicycle Facility Types

SHA has produced the guidance document *Bicycle Policy & Design Guidelines* to provide uniform criteria for bicycle facilities along all State roads. The publication incorporates national guidelines, standards and best practices for use by State and local governments and is consistent with the manual produced by The American Association of State Highway Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities*. Maryland's design guide contains definitions for each of the typical bicycle facilities deployed on roads throughout the State.

Common Types of Bicycle Facilities

Source: Montgomery County Bicycle Planning Guidance

Commented [48]: city pics?

The figure above shows the most common on-street and off-street bicycle facilities, arranging them according to the amount of separation from adjacent vehicle traffic, from least to most. Below a brief glossary taken primarily from the Maryland Bicycle Policy and Design Guidelines manual defines each basic type and notes the corresponding image above in parentheses, where applicable.

- **Bikeway** – General term denoting any trail, path, part of a highway, surfaced or smooth shoulder or any other travel way specifically signed, marked, or otherwise designated for bicycle travel. Bikeways include bike lanes, shared lanes, shared-use paths, trails, and bike routes.

- **Bike Route** – A system of bikeways connecting two or more points that is deemed most desirable for bicycling. A bike route is designated with guide signs, pavement markings, maps or other means. A bike route may include any of the various types of bikeways or a combination thereof. An example of bike route signage is shown at left.

- **Shared Lane (Image 2A)** – A roadway lane which is open to both bicycle and motor vehicle travel, without assigned space for each. Specific pavement markings and/or signs (such as that seen at left) may be used to provide positive guidance for drivers and bicyclists allowing them to share the same lane.
- **Bike Lane (Image 2B)** – Any portion of a roadway or shoulder which has been designated for single directional flow and includes pavement markings for the preferential or exclusive use of bicyclists.
- **Buffered Bike Lanes (Image 2C)** – Conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motorized vehicle travel and/or parking lane. Separation is made by lane markings, not a physical barrier.
- **Cycle Tracks (Image 2D)** – Exclusive bikeways that are at street level and use a variety of methods for physical separation from motorized vehicle traffic and pedestrians. A one-way cycle track may be combined with a parking lane or other barrier (such as plastic bollards, a raised median or planters) between the cycle track and motor vehicle travel lane. Cycle tracks should be placed adjacent to the curb. Cycle tracks combine the user experience of a separated path with the on-street infrastructure of a bike lane.

- **Shared-Use Path (Image 2E)** – A paved or unpaved bikeway outside the motor vehicle travel way and physically separated from motorized vehicular traffic by an open space, curb, curb and gutter, or barrier and either within the highway right-of-way or within an independent alignment. Shared-use paths are open to use by pedestrians and other authorized non-motorized users. A shared-use path typically allows two-way travel and is therefore wider than an on-road bikeway. Recreational trails and Greenways fall largely within this category of bike facility, differing only in the setting where they are constructed (rural or natural areas instead of urban) and sometimes in the materials used (unpaved instead of paved).

- **Paved Shoulder** – Where a roadway right-of-way offers enough width, a paved shoulder accommodates bicycle traffic without the need to dedicate a portion of the vehicle travel lane to bicycles. These facilities are most commonly applied along roads traveling through rural areas.

The bicycle facilities described above represent some of the most common types in use, but others, such as bicycle boulevards and a variety of intersection or lane treatments and traffic signals exist to provide greater recognition of bicyclists as being equal users of road space. Metrics such as traffic volume, traffic speed, setting (urban or rural), cost, road width and other measures help to determine what type of bicycle facility can be accommodated on different roadway classifications. The chart below gives a general idea of what facility may be appropriate under these varied travel conditions.

Table 6: Characteristics of Bicycle Facility Types

Facility Type	Traffic Volume	Traffic Speed	Setting	Cost	Preferred Width
Shared Lane	Low	Low	Urban/Rural	Low	14ft. +
Marked Shared Lane	Low	Low	Urban	Medium	14ft. +
Paved Shoulder	Low-High	Low-High	Rural	Medium	4ft. +
Bicycle Lane	Low-High	Low-High	Urban/Rural	Medium	6ft.
Bicycle Boulevard	Low	Low	Urban	High	Varies
Cycle Track	Low-High	Low-High	Urban	High	6ft. +
Shared Use Path	N/A	N/A	Urban/Rural	Medium-High	10ft. +

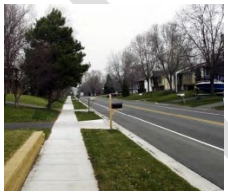
Source: Memphis MPO 2014 Regional Bicycle and Pedestrian Plan

Bike Pump and Repair Station

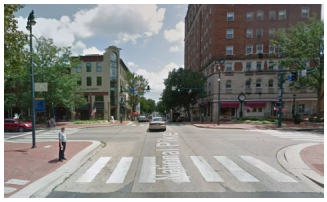
- **End-of-Trip Facilities** – These are amenities designed to remove additional barriers that prevent people from choosing to travel by bike. Bicycle parking is the most common end-of-trip facility, but additional facilities include locker rooms, showers, bicycle lockers, bike pump and repair stations and many others.

2. Pedestrian Facility Types

In contrast to bicycle facility types, which tend to require a greater degree of context sensitive design to meet the needs of users, pedestrian facilities tend to be somewhat less specialized and are also more familiar to the general public.



- **Sidewalk** – Physically separated from travel lanes but within the public right-of-way, sidewalks can include a variety of paving materials such as concrete or brick that are appropriate to the neighborhood context. The buffer between the sidewalk and the travel lane is generally wider on roads with high traffic speeds or volumes.
- **Crosswalk** – Indicates the optimal or preferred location for pedestrians to safely cross the street while also correctly positioning motor vehicles at controlled intersections. A variety of striping patterns and pavement treatments are employed along busy roadways



to provide enhanced pedestrian recognition. Crosswalks are often augmented by *pedestrian signals* at each end of the street crossing which provide visual and/or verbal instructions on when users can safely enter the street.

- **Curb Ramps** – To meet the needs of individuals with disabilities, mobility impairments or people pushing mobile objects (like strollers), curb ramps provide a seamless transition between the sidewalk and the road. Treatments on the ramp's surface provide warning and resistance to pedestrians entering the roadway to alert them that they are entering the vehicular lane. Curb ramps comply with the requirements of the Americans with Disabilities Act.

- **Intersection Improvements** – On roadways where marked crosswalks aren't adequate to the task of altering motorists to the presence of pedestrians (such as where there are high levels of pedestrian or vehicle traffic) other design measures may be taken. These may include median or island refuges, curb extensions and other strategies which reduce crossing distances and provide visual cues to drivers. Traffic calming measures such as roundabouts or traffic circles also fall under the general heading of intersection improvements which provide benefits to pedestrians.

Traffic Circle

- **Amenities** – Additional streetscape improvements such as benches, wayfinding signs, streetlights, trees and landscaping help to encourage increased pedestrian activity in similar fashion to end-of-trip bicycle facilities by providing comfort, convenience, and security.

iii. Bicycle Facility Design Considerations

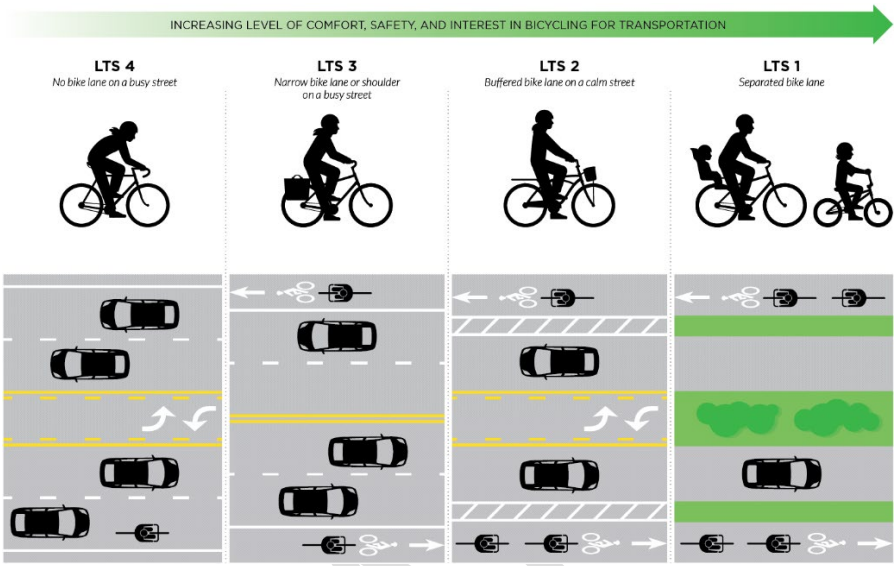
1. Bicycle Facility Design and Rider Level of Comfort

While the physical context is integral in planning the appropriate type of bicycle facility for a particular location, the comfort of an individual bicyclist can vary widely depending on his or her subjective perception of their traveling conditions. It therefore follows logically that measuring the adequacy of bicycle infrastructure to provide both safety and comfort to bicyclists who possess widely different levels of experience cycling in different conditions can be a significant challenge.

The traditional measure used nationally to quantify the adequacy of bicycle facilities is Bicycle Level of Comfort or Bicycle Level of Service (BLOC, BLOS). These measures are used by both MDOT and the MPO to assess bicycle conditions on State and local roadways in their planning efforts. BLOC assesses conditions on roadway segments based on roadway characteristics such as outside travel lane width, shoulder or bike lane width, speed limit, traffic volume, truck volume, pavement condition and the presence of medians or on-street parking. The segment is then assigned a letter grade of A-F, with A grade representing the highest level of comfort and F offering the lowest level of rider comfort.

As noted in both MDOT's 2014 Bicycle and Pedestrian Master Plan and the Plan's 2019 update, this measure has limitations in offering a true assessment of bicycle facility adequacy in meeting the needs of users to feel safe and comfortable. Specifically, as noted in the 2014 Plan, BLOC fails to adequately account for rider experience in assigning letter grades as it assumes cyclists are already comfortable riding on the street and doesn't account for conditions offered by off-street or separated facilities (e.g. – multi-use paths, cycle tracks, etc.) that may be preferred by less confident bicyclists.

In order to better account for both the safety and comfort of bicyclists in the planning and design of bicycle infrastructure, BLOC is either replaced or supplemented by the Level of Traffic Stress (LTS) measure. LTS includes inputs that both overlap and expand upon BLOC, including posted or observed speed limit, presence and width of bikeways, intersection control, proximity to motor vehicle parking, blockage of the bikeway by motor vehicles, traffic volumes and truck route designation, and gaps in the bikeway network. Road segments are then given a rating between 1 and 4, with a segment graded 1 being the lowest stress and 4 as the most stressful bicycling environment. A sample depiction of the differing environments corresponding to these numerical grades is shown below.

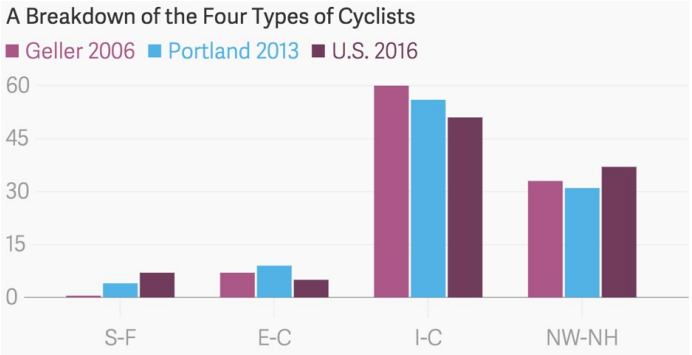


Source: Alta Planning + Design

The scoring system and philosophy embedded in LTS relates to academic research on bicyclist comfort, particularly the "Four Types of Cyclists" characterization developed by City of Portland, Oregon Bicycle Coordinator Roger Geller beginning in 2006. Geller came up with a typology that classifies cyclists into four categories depending on their comfort level bicycling in different environments and not necessarily just by their current bicycling behavior. These categories include "Strong and Fearless," "Enthused and Confident," "Interested but Concerned" and "No Way No How." As one might expect, "Strong and Fearless" represents the most confident group cycling in any conditions while "No Way No How" represents the least confident.

The value of these comfort measures lies in understanding what groups to target for their potential to switch some daily trips from motorized to active transportation modes such as bicycling or walking. Geller estimated that Portland cyclists fell into these four categories at the following percentages: Strong and Fearless (less than 1%), Enthused and Confident (7%),

Interested but Concerned (60%), Now Way No How (33%).[8] Subsequent research by Portland State University largely validated these figures nationally as can be seen in the table below:



Source: CityLab "The 4 Types of Cyclists You'll Meet on U.S. City Streets"

The group within this typology of greatest interest to transportation planners is the "Interested but Concerned" group because they are both the most numerous and most amenable to potentially diverting some trips to non-motorized modes of transportation. "Interested but Concerned" cyclists already engage in some utilitarian bicycling but are often deterred from expanding their participation further by having to share the road with cars. Therefore, improvements in bicycle infrastructure that provides dedicated space to cyclists has the potential to attract significant numbers of new riders.

State and local transportation planning entities are aware of the academic research surrounding bicyclist comfort and have been integrating its principles into long range planning for some time. MDOT, for example, has acknowledged the limitations of the BLOC measure and

[8] Roger Geller, *Four Types of Cyclists.* (Portland, OR: Portland Department of Transportation), 2006, 3.

is actively developing its own LTS system to better quantify cyclist comfort in planning and designing bicycle facilities.

2. The Five "E's" and "Bicycle Friendly" Awards

While brick and mortar efforts like improved bicycle infrastructure go a long way to encourage modal shifting, additional "soft" policies are also needed in the push to encourage wider participation in active transportation modes. A highly useful framework for understanding how to incorporate these soft policies into wider efforts to promote greater bicycle and pedestrian travel is the "5 E's." Advocacy organizations such as The League of American Bicyclists or the Safe Routes to School Partnership promote this multi-pronged strategy to advance safe bicycling and/or walking on their respective websites. The Five "E's" stand for: engineering, education, encouragement, enforcement, and evaluation. More recently, many advocacy groups have added equity as the "6th E."

The first "E," engineering, refers largely to the physical construction of bicycle or pedestrian specific infrastructure which alters the built environment to be more safe and friendly to these users, using the types of facilities previously described. Education involves giving people of all ages and abilities the skills and confidence to ride through bicycle and pedestrian safety training and other methods. Encouragement differs from education in that it is more event or program focused. Walk or Bike to School (or work) Days, bikeshare systems, and recreational or competitive events which generate enthusiasm around engaging in these modes of travel would be examples of encouragement activities. Enforcement ensures safe roads for all users through the work of law enforcement, citizen safety groups (neighborhood watch, crossing guards) and others to ensure that traffic laws are obeyed and community awareness is increased. Evaluation

refers to the efforts required to quantify existing conditions for bicyclists and pedestrians and then measure progress towards goal achievement. Efforts like bike or pedestrian counts, quantifying return on capital investments or identifying crash reduction trends are examples of evaluation methods.

Equity, the unofficial 6th "E," is essentially the unstated, underlying objective of the framework as a whole. It involves providing transportation choices by removing barriers and ensuring universal access by focusing attention on providing transportation options where they are most needed. Equity is a more elusive metric to quantify, which is perhaps in part why less attention has been paid to it in bicycle and pedestrian promotion. It is an important consideration however, because a comprehensive bicycle and pedestrian network is really only comprehensive when it ensures that all users can access the benefits and opportunities provided by the transportation system equally.

There are other supportive approaches to attempting a multi-pronged effort towards bicycle and pedestrian promotion, but the 5 E's provides a useful framework for judging how much progress has been made towards this goal. The League of American Bicyclists has developed a "Bicycle Friendly" designation for communities, businesses, and universities which provides an excellent self-initiated effort for these entities to strive for. Interested parties work to complete an extensive application and questionnaire which encompasses each of the aspects 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 the "Bicycle Friendly" designation is not available for counties, it could still be an excellent way for towns, cities, universities and businesses to pursue the award and improve conditions for bicyclists through individual initiative. The City of Hagerstown recently achieved Bronze level certification as a Bicycle Friendly Community in 2014. The 5 E's approach is an outstanding way to promote inter-jurisdictional cooperation by involving many actors 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. State and local transportation plans already refer to many of these soft policies promoting transportation mode shifting.

iv. Safe Routes to Schools

As with bicycling, there are many methods used to evaluate the "Walkability" of a community such as Walkscore (which measures proximity to key destinations), Pedestrian Level of Service analysis, Accessibility analysis (for individuals with disabilities or other mobility impairments) and many more. Nationally, one of the most widely recognized programs for promoting pedestrian travel is the Safe Routes to School (SRS) program. SRS uses the 5 E's framework to promote walking and bicycling among school-aged children and their parents in grades K-8 to improve safety conditions around schools and encourage more physical activity. Federal grant money, administered by SHA, can be awarded to local jurisdictions with 20% matching funds who are looking to make these improvements and encourage modal shifting around school-generated trips. Projects generally occur within 2 miles of a school.

C. Current County Bicycle and Pedestrian Regulations

Design guidelines for sidewalks, crosswalks, and block lengths are specified within Washington County's 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."[9] Certain zoning districts, such as Residential, Multi-family or Planned Business, also require "a cohesive and comprehensive network of pedestrian paths" providing access to "dwellings, parking areas, recreation amenities, community buildings, auxiliary or recreational vehicle parking areas, solid waste disposal, mailboxes, and on-site public transportation stops."[10]

Washington County's Zoning Ordinance also specifies requirements for bicycle parking and pedestrian access in Article 22. At least 1 bicycle parking space is required for facilities with more than 50 parking spaces for vehicles, with a maximum of 25 bicycle parking spaces, racks or lockers required for any one facility. 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.

D. Funding Opportunities

Numerous sources exist for local jurisdictions to apply for Federal or State funds to help plan, design and build bicycle and pedestrian projects throughout the State. Discretionary grant programs administered by MDOT include the Transportation Alternatives Program, Maryland Bikeways Program, Recreational Trails Program and Maryland Highway Safety Office Grant.

[9] Washington County Subdivision Ordinance, 52.
[10] Washington County Zoning Ordinance, 99.

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.

The City of Hagerstown and Town of Williamsport have recently received significant grant funding from the Maryland Bikeways and Federal Lands Access Program to support bicycle infrastructure improvements

E. Planned Improvements

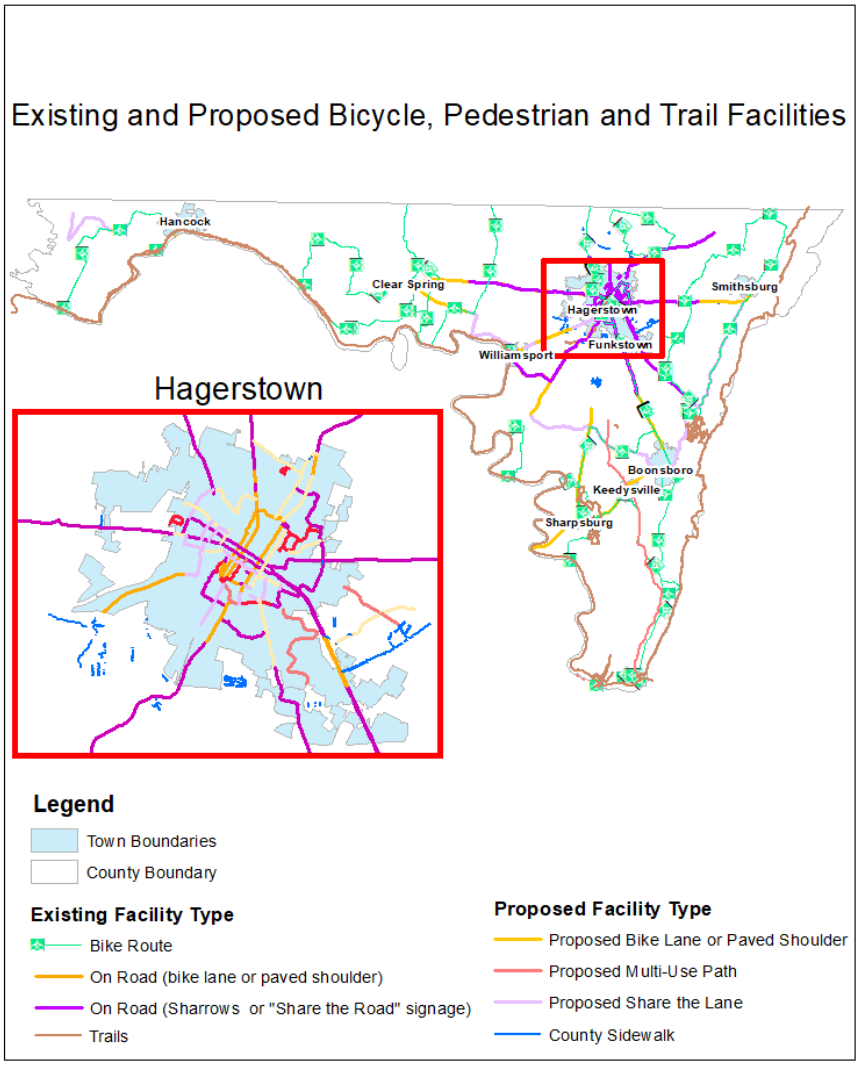
Data within the MPO's Regional Bicycle Plan illuminates proposed bicycle facility improvements in Washington County. Outside of the City of Hagerstown, these improvements include bicycle facilities which largely complete the connections between the City and the towns which encircle it, such as Smithsburg, Williamsport, Boonsboro and Clear Spring. Generally, the MPO's plan dedicates space on State highways for bicycles with a widely paved shoulder and/or proposes "Share the Road" signs to alert motorists to the presence of cyclists on these roads. A table describes these new facilities below, followed by a map which includes both HEPMPO and City of Hagerstown improvements.

HEPMPO 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: Hagerstown/Eastern Panhandle Metropolitan Planning Organization Regional Bicycle Plan (2016)

Map 8: Washington County Existing and Proposed Bicycle Facilities



The MPO also intends to target Pennsylvania Avenue in Hagerstown for a Pedestrian Road Safety Audit (PRSA) to build upon one conducted for US 40 Dual Highway in Hagerstown in 2015.

The PRSA goal is to target selected State Highway corridors with a history of high pedestrian fatalities and severe injuries for analysis and recommended improvement.

The creation of a new 24-mile multi-use path between Hagerstown and the C&O Canal at Weverton along an abandoned CSX rail line has been given consideration in State and local parks planning for some time. The proposed multi-use path, known as the Civil War Railroad/Weverton Roxbury Corridor Rail Trail, would provide a significant north-south linkage for active transportation between the Urban Growth Area and rural lands in the County while providing a connection to many existing long-distance trails found along our boundaries. Additional study and public input are needed to advance the project to a point of feasibility.

Improvements to sidewalks and other pedestrian facilities to meet compliance with the Americans with Disabilities Act, such as the installation of curb ramps, are a regular part of Washington County's Capital Budget.

VIII. Goods Movement

A. Overview/Economic Impact

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 goods throughout large portions of the United States. This is increasingly true with continued changes in patterns of commerce that have led consumers to expect on-time delivery from online retail outlets such as Amazon and many others. These heightened consumer expectations for near-instantaneous delivery of goods and services has made the role of hub communities and their associated transportation infrastructure even more important as links in the global network of freight movement. Long range planning to ensure that the County has adequate transportation

infrastructure and associated facilities to support its role in this interconnected network is therefore essential.

The MPO's LRTP, pulling from data collected by the Brookings Institute, notes that $25.3 billion of annual trade flows through the HEPMPO area, including both imports and exports. In terms of economic value, the region's largest commodity exports are machinery/tools, mixed freight and chemicals/plastics. Electronics, transportation equipment and energy products comprise the region's largest trade imports. The New York, NY-NJ-PA, Washington DC-VA-MD-WV and non-metropolitan areas of Pennsylvania comprise the top regional trading partners for this area.

B. Trucking

A substantial amount of goods are transported to and from Washington County along its major roads, including I-81, I-70, I-68, U.S. 40 and U.S. 11. Recent federal legislation has weighted available fiscal resources toward serving the movement of goods along these critical corridors, as well the connecting routes that help support them. Connecting routes such as Halfway Boulevard from Hopewell Road to I-70, MD-63 from I-70 to Elliott Parkway and Oak Ridge Drive and MD-65 from Village Ridge Drive to Colonel Henry K. Douglas Drive have all been designated as Critical Urban Freight Corridors in Washington County by the Interstate Council.

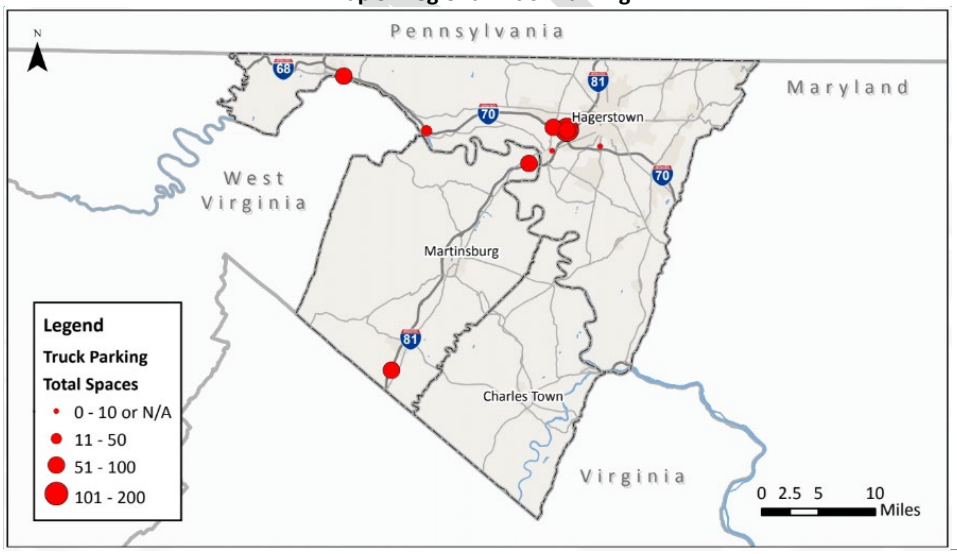
Commented [49]: something isn't quite right here

Commented [50]: Taken from MPO LRTP page 71

The Federal Highway Administration's Freight Analysis Framework is anticipating significant growth in regional daily truck traffic by 2045. Within Washington County, this Analysis forecasts an increase of 7,000 to 10,000 daily trucks along the primary highway routes such as I-81 and I-70. The growth in the number of these trips will make it essential that additional truck parking is added within the County to facilitate growing demand. The challenge in local land use

planning, when adding new truck facilities, is to ensure that impacts on adjacent residential areas from noise, emissions and other associated byproducts are mitigated to the greatest extent possible through buffering, setbacks, site design and other regulatory methods to ensure that they can be compatible with other land uses in the immediate vicinity. Currently, 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 wider accommodation across notable portions of the County. The map below displays parking lots that offer truck parking in the metropolitan region.

Map 9: Regional Truck Parking



Commented [51]: This will need updated, there's at least one new on in WV along 81 and I think the Love's up at the airport might need added?

C. Rail

While Washington County does not currently offer passenger rail service, railroads move freight extensively through the County as they travel on to deliver goods to markets in the Mid-

Atlantic, Northeast, Midwest and Southeastern portions of the Country. CSX and Norfolk Southern own and operate most of the rail corridors in the region. CSX primarily transports goods east-west between the Beltway region and northwest Ohio through Pittsburgh, while Norfolk Southern has lines which parallel I-81 that run between the Southeast and Harrisburg, Pennsylvania before hitting destinations further afield. Winchester and Western also operates a short line railroad from Gore, Virginia to Hagerstown, Maryland.

In 2012, an intermodal facility was built just over the State line in Franklin County, Pennsylvania near I-81 through a public-private partnership. Intermodal facilities help efficiently connect different modes of transportation in the movement of goods from different locations in order to reduce direct material handling during transfers, lower shipping costs, reduce congestion on roadways, and decrease carbon emissions throughout the supply chain. This facility now serves as a significant gateway for the movement of freight throughout the Mid-Atlantic region, helping to divert significant numbers of long-haul trucks off congested roads and directing materials onto trains.

D. Planned Improvements

The MPO intends to conduct a regional freight study focusing on the identification of freight needs, trends and issues, high freight growth areas, federal and state planning initiatives, regional commodity flows, and FAST Act performance measures. The study hopes to provide industry insight and foster collaboration among stakeholder groups in order to develop strategies to meet regional needs.

At the County level, the extension of Halfway Blvd from its current terminus at New Gate Boulevard in Hopewell Valley to MD-63 has received both Federal and local funding as an

alternate access for truck traffic coming off of I-70 and I-81 to service businesses in the industrial area. Once completed, the extension of this road should provide both congestion relief on these roads and generate further economic development in and around Hopewell Valley.

Within the next ten years, the County also has more than $2 million budgeted for safety improvements to railroad crossings in numerous locations based on a priority ranking system .

IX. Airport

Commented [52]: This section modified from similar content in Community Facilities chapter

Source: Hagerstown Regional Airport

Hagerstown Regional Airport provides the region with daily commercial air service while also being accessible to several other major multi-modal transportation facilities. Currently, Allegiant Airlines offers year-round flights to Orlando/Sanford, Florida and seasonal service to St. Petersburg/Clearwater, Florida and Myrtle Beach, South Carolina. The airport is also the centerpiece of a major office/industrial park with an Enterprise Zone designation. Through commercial and private aviation services, direct and associated employment growth and other positive contributions, the airport is a significant contributor to business and economic

development in and around Washington County. A 2015 study by the Maryland Aviation Administration found that Hagerstown Regional Airport (HGR) was second in business revenue and income impact among Maryland's 35 public use airports. HGR generated $108.9 million in business revenue and collected $8.4 million in state and local taxes. The business activity generated by the airport helped to employ 1,500 people and bring in 79.6 million in total personal income.[11]

Until October 2019, daily commercial air service was also provided by Southern Airways to Pittsburgh and Baltimore Washington International Airports. At that time, the United States Department of Transportation announced the termination of the Essential Air Service (EAS) Waiver eligibility for Hagerstown, MD due to a contended failure to meet FY 2018 reporting requirements, immediately ending service by Southern Airways. The Airport has appealed that decision at the U.S. Court of Appeals in Washington D.C. and believes it is now meeting reporting requirements for the current fiscal year. The court had not ruled on the petition at the time of writing. It's likely that Southern Airways will resume daily service if the EAS Waiver is restored.

Commented [53]: Just highlighting so this can be updated, hopefully, with good news

A. Planned Improvements

An extension of the runway over U.S. 11 was completed in 2007, enabling future growth in passenger and business travel to the Airport and making it capable of handling up to 727 aircraft. In addition, a $6 million terminal expansion to increase holding room capacity for additional passengers is expected to be completed by 2021. Significant additional investment is planned

[11] Martin Associates with Landrum and Brown. *The Economic Impacts of Public Use Airports in Maryland.* (Baltimore, MD: Maryland Aviation Administration)2015, 9.

for improvements or maintenance of airport facilities, infrastructure as well as for land acquisition in the County's 10-year capital budgeting process.

X. Sample Recommendations

A. Roads

i. Seek diverse funding sources to plan, design and construct priority projects identified in the Capital Budgeting Process.

ii. Accurately project needed capacity improvements in accordance with population growth, development needs, health and safety issues, and anticipated improvements in transportation technology.

iii. Road design and capacity should correlate with road function and road classification while accounting for current and projected level of service.

iv. 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.

v. Consider formally adopting a Complete Streets Policy for County roads to ensure that multi-modal transportation options are routinely considered as a part of all new or retrofitted road projects, or during road resurfacing.

vi. Take steps to ensure right-of-way preservation to enable the realization of long-term plans for road development in the County.

vii. Encourage multi-modal interparcel 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.

viii. Create 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.

ix. Transportation investments within rural areas should focus on safety improvements to existing facilities and avoidance of sensitive resource lands rather than adding to capacity. Transportation facilities in rural areas should also minimize impacts on agricultural land targeted for permanent retention in Priority Preservation Areas.

x. 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.

xi. Employ diverse transportation demand management strategies to reduce demand on major transportation routes and limit the negative effects of traffic congestion. Target major employers and large residential developments for ridesharing or transit incentives.

Commented [54]: This should be a shared goal with the historic section, already commented that before but wanted to note it again and make sure its in the historic goals as well!

xii. Review whether traffic studies for impacts on County roads from new development adequately account for projected impacts on a given road segment's current LOS under present regulations.

xiii. Where possible, design road projects to minimize new impervious surface cover to meet regulations related to water quality and SWM.

xiv. Consider the potential opportunities, effects and land use implications of emerging transportation technologies such as on-demand ridesharing, connected and autonomous vehicles, alternative fuel vehicles in comprehensive planning and capital investments.

B. Transit

i. Implement the recommendations of the MPO's Transit Development Plan.

ii. Implement the recommendations of the MPO's Human Service Transportation Plan. Evaluate whether additional accommodation is needed to support transportation for special needs groups such as people with disabilities, low-incomes and seniors.

iii. 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.

iv. Identify opportunities to create a dedicated local funding stream for the County Commuter to reduce general fund expenditures for transit and

pursue all available cost-sharing resources with federal, state and local entities and jurisdictions.

v. Consider the feasibility of expanding County Commuter hours of operation, particularly to include at least limited service hours on Sundays.

vi. 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.

vii. Provide transit service to within a reasonable travel distance by non-motorized means to all major subdivisions and major non-residential developments in the Urban Growth Area.

viii. 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.

ix. Analyze existing transit routes for their potential 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.

x. Look for opportunities to increase the number of park and ride lots and/or spaces to promote ridesharing.

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

xii. Work with major employers to incentivize ridesharing and transit usage to discourage commuting by single-occupancy vehicles.

C. Bicycle, Pedestrian and Trails

- Implement the recommendations of the HEPMPO Regional Bicycle Plan.
- Consider creating a Bicycle and Pedestrian Plan specifically for County roadways. The plan would identify gaps in the network and prioritizes improvements based upon public safety concerns and opportunities to encourage modal switching and reduce traffic congestion.
- **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.
        - This could be through dedicating an existing portion of the money currently directed for roads to bike/ped improvements if there's adequate funds or by creating a new adequacy requirement for Bike/Ped facilities.
        - An alternative might be to divert a portion of Excise Tax funds used for roads to bike/ped projects.

- Within residential areas, APFO requirements could be limited to major subdivisions in accordance with policies for school capacity. For other land uses, the requirements could be limited to major developments (square foot threshold?).
- Sample policy (St. Mary's County)
  - *All new residential developments zoned at less than 1 acre lots, all commercial developments, and all areas where curb and gutter is proposed and the main access of all residential subdivisions should include sidewalks.*
- 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.

- Identify street and intersection locations (ex- Pedestrian Road Safety Audits) where a high number of crashes between bicyclists and motor vehicles, or pedestrians and motor vehicles occur and target for the provision of traffic calming measures, 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.
- Require or 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

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

o 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 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.

- **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 cities. The use of utility corridors is also being explored by some jurisdictions.
  - Solicit town "wish lists" for dedicated bicycle and/or pedestrian facilities on County roads for inclusion in capital budgeting.
- **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 and wayfinding for the County designated bicycle route network to promote active transportation and tourism in rural areas.

- **Natural Areas (Parks, Trails, Greenways, other preserved land)**
  - Identify opportunities to make bicycle and pedestrian facility connections between preserved lands with public access and adjacent towns that serve as gateways to these recreational resources where they are currently absent by multi-use paths and other facility types.
    - Connections such as these help facilitate heritage and recreational tourism spurring local and regional economic development.
    - Program Open Space funds could be applied for to achieve projects such as these.
  - Support feasibility study and gain public input on the creation of the Travis Allen Memorial Civil War Railroad/Weverton Roxbury Corridor Rail Trail, as identified in Maryland's Land Preservation and Recreation Plan (2014-2018) to link the Urban Growth Area with existing long-distance multi-use paths and promote increased active transportation.
  - Incorporate walking or bicycling trails into the development of all new parks to promote lifelong fitness. Trail development in existing parks with unused recreational space should also be considered.

- Create incentives for private landowners to reserve ROW space for greenways and trails, particularly along floodplains or other undevelopable land.

- **Other**
  - Design bicycle facilities to accommodate the safety and comfort needs of novice cyclists providing dedicated space where feasible.
  - Ensure ROW space is allocated for non-motorized transportation means in roadway design and land acquisition.
  - 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, and Evaluation mechanisms in addition to Engineering improvements (The 5 E's Model).
    - Many examples are noted in the HEPMPO Regional Bicycle Plan and the City of Hagerstown Bicycle Master Plan Update
    - Encourage and assist Towns and businesses in the pursuit of "Bicycle Friendly" certification through the League of American Bicyclists
  - Continue ADA compliance with sidewalk and other transportation system improvements, particularly at intersections.

- Apply for grant funding to create new or retrofitted bicycle and pedestrian facilities, particularly from State grant programs that create sidewalks or bicycle infrastructure along state highways.
- Pursue diverse funding sources to create "signature" dedicated bicycle and pedestrian facilities that provide context sensitive solutions in places of need (ex-cycle track, buffered bike lane, shared-use path).
- To prevent bicycle theft, amend language in the Zoning Ordinance for bicycle parking to stipulate that *recommended racks should support two points of contact, allowing the frame and at least one wheel to be locked to the rack*.
- Continue to expand access to water trails along Antietam and Conococheague Creeks

2002 Comp Plan Bike/Ped Recommendations (from MPO Bike/Ped Plan)

Facility	Type	Segment
Robinwood Dr.	Sidewalk Improvements	Medical Center to MD 64
Halfway Blvd.	Sidewalk Improvements	Massey Blvd. to MD 632
Mt. Aetna Rd.	Sidewalk Improvements	US 40 to Black Rock Golf Course
Maryland Ave.	Sidewalk Improvements	Wilson Blvd. to Doubs Woods Park
Pennsylvania Ave.	Sidewalk Improvements	Fountaindale Elementary School to Maugans Ave
Long Meadow Rd.	Sidewalk Improvements	Pennsylvania Ave to Paramount Elementary School
MD 60	Sidewalk Improvements	Long Meadow Shopping Center to Marsh Pike
Dual Highway	Sidewalk Improvements	Cannon Ave. to Edgewood Dr.
Wesel Blvd.	Sidewalk Improvements	Halfway Blvd. to Burhans Blvd.
MD 65	Sidewalk Improvements	Poffenberger Rd. to Wilson Blvd.
Jefferson Blvd	Sidewalk Improvements	Eastern Blvd. to Chewsville
Edgewood Drive	Sidewalk Improvements	Dual Highway to Alt. 40 (Funkstown)
Maugans Ave.	Sidewalk Improvements	Maugansville Rd. to Long Meadow Rd.
Maugansville Rd.	Sidewalk Improvements	Reiff Church Rd. to Maugans Meadows subdivision
Salem Rd.	Sidewalk Improvements	Maugansville Rd. to Garden Spot
Marsh Pike	Sidewalk Improvements	MD 60 to Spring Valley Dr.
Hebb Rd.	Sidewalk Improvements	Beaver Creek Rd to Funkstown
MD 632	Sidewalk Improvements	Garden Ln. to Halfway Blvd.
Eastern Blvd.	Sidewalk Improvements	Mt. Aetna Rd. to MD 60
US 40	Bicycle Route Improvements	Hagerstown to Clear Spring
MD 58	Bicycle Route Improvements	Hagerstown to Cearfoss
MD 60	Bicycle Route Improvements	Marsh Pike to Leitersburg
US 40 Alt	Bicycle Route Improvements	Funkstown to Cool Hollow Rd
MD 632	Bicycle Route Improvements	Hagerstown to MD 68
MD 68	Bicycle Route Improvements	MD 632 to Williamsport
Abandoned or low traffic railroad Right-of-ways	Rails to Trails/ Rails with Trails	Countywide

Commented [55]: this is the first mention of this? Was this a major comment factor? I mean it makes sense but I was surprised to read this here

Commented [56]: I couldn't tell you which plan it cam from anymore, but it was a specific recommendation to deter bicycle theft.

Commented [57]: Review previous comp plan recommendations; are they still relevant

D. Goods Movement

i. Encourage goods to be transported by rail to the maximum practical extent to preserve road capacity on arterial routes and improve safety.

ii. 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.

iii. Assess existing conditions and future needs for the trucking industry to promote efficient freight transport and to enable long term planning for associated impacts to County infrastructure and resources.

iv. Identify locations for new intermodal facilities to meet growing demand and leverage the County's geographical position in the global supply chain.

v. 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.

vi. Consider designating quiet zones for residential areas within Urban or Town Growth Areas adjacent to truck parking facilities and along railroad lines. The enforcement of these zones could be achieved by the creation of a noise mitigation ordinance, or zoning mechanisms like increased setbacks or site design techniques like landscaping, noise barriers, etc.

E. Airport

i. Support efforts to restore and maintain commercial flight service from Hagerstown to major regional airports to ensure that airline travel for business and commuting purposes remains viable in the County.

ii. Pursue the location of businesses within the Airport Overlay Zone that are compatible with and support airport operations and adjacent industries.

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

F. Other

i. Continue submitting an annual Priority Letter to the State to define the highest transportation needs for Washington County and enable the possibility of obtaining funding resources.

ii. Flesh out standards for street tree plantings, including stocking rates, survival rates, bonding and long-term care and maintenance responsibilities in order to solidify this as a mitigation technique for forest conservation in urbanized areas.

iii. Consider alternative fuels or more fuel-efficient options for new County vehicles to minimize air quality impacts and reduce energy costs.

iv. Evaluate adequacy of evacuation plans and routes in the event of severe whether or a catastrophic event.