

Washington County Transit Transit Development Plan

Fiscal Years 2021 - 2025

Final Report | November 2019



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Washington County Transit
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Maryland Department of Transportation
Maryland Transit Administration



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Chapter 1

Review of Existing Services

INTRODUCTION

Washington County Transit (WCT) operates all the public transportation services in Washington County; it provides service in the City of Hagerstown and surrounding areas within the Hagerstown Urbanized Area (Smithsburg, Maugansville, Williamsport, Funkstown, and Robinwood). WCT currently operates nine fixed routes, ADA complementary paratransit service, and the Job Opportunity Access Program (JOBS Shuttle) in cooperation with the Washington County Department of Social Services. WCT also provides ride assist vouchers for local sedan services through the Statewide Special Transportation Assistance Program (SSTAP). The total ridership for fiscal year 2018 was over 516,000.

The Transit Development Plan (TDP) guides the development of local transit services, and WCT is the focus of this review. In addition, other public and private transportation providers that serve the City of Hagerstown and provide connections to key destinations in Washington County will also be documented.

This chapter documents a comprehensive review of the existing services and will identify any service gaps and areas for improvement in the performance. The combined results of the existing service analysis and the needs analysis will serve as the basis for developing service and organizational recommendations.

This chapter is divided into the following sections:

- **Washington County Transit** – Description of the governance and organizational structure of WCT and an overview of existing services, including route profiles.
- **Funding and Fare Policy** – Identification of operating budget and funding sources and description of the fares available to passengers.
- **Service Performance Evaluation** – Performance analysis at the system and route levels, compared to the Maryland Department of Transportation Maryland Transit Administration (MDOT MTA) service standards.
- **Existing Facilities, Fleet, and Technology** – Overview of the WCT facilities, current vehicle fleet, and technology related to safety and security and passenger information.
- **Other Area Transportation Providers** – Identification of other transportation services that operate within Washington County.

GEOGRAPHY

Washington County is located in western Maryland and is bounded by Pennsylvania to the north, West Virginia and Allegany County to the west, Frederick County to the east and Northern Virginia to the south. Its western and southern border is defined by the winding Potomac River. The southernmost tip is at the confluence of the Potomac and Shenandoah Rivers. Washington County is one of three Maryland counties in Appalachia, recognized by the Appalachian Regional Commission.

The county has nine incorporated towns including Hagerstown (the county seat), Boonsboro, Clear Spring, Funkstown, Hancock, Keedysville, Sharpsburg, Smithsburg, and Williamsport. Hagerstown is located about 68 miles from Washington, D.C. and 74 miles from Baltimore.



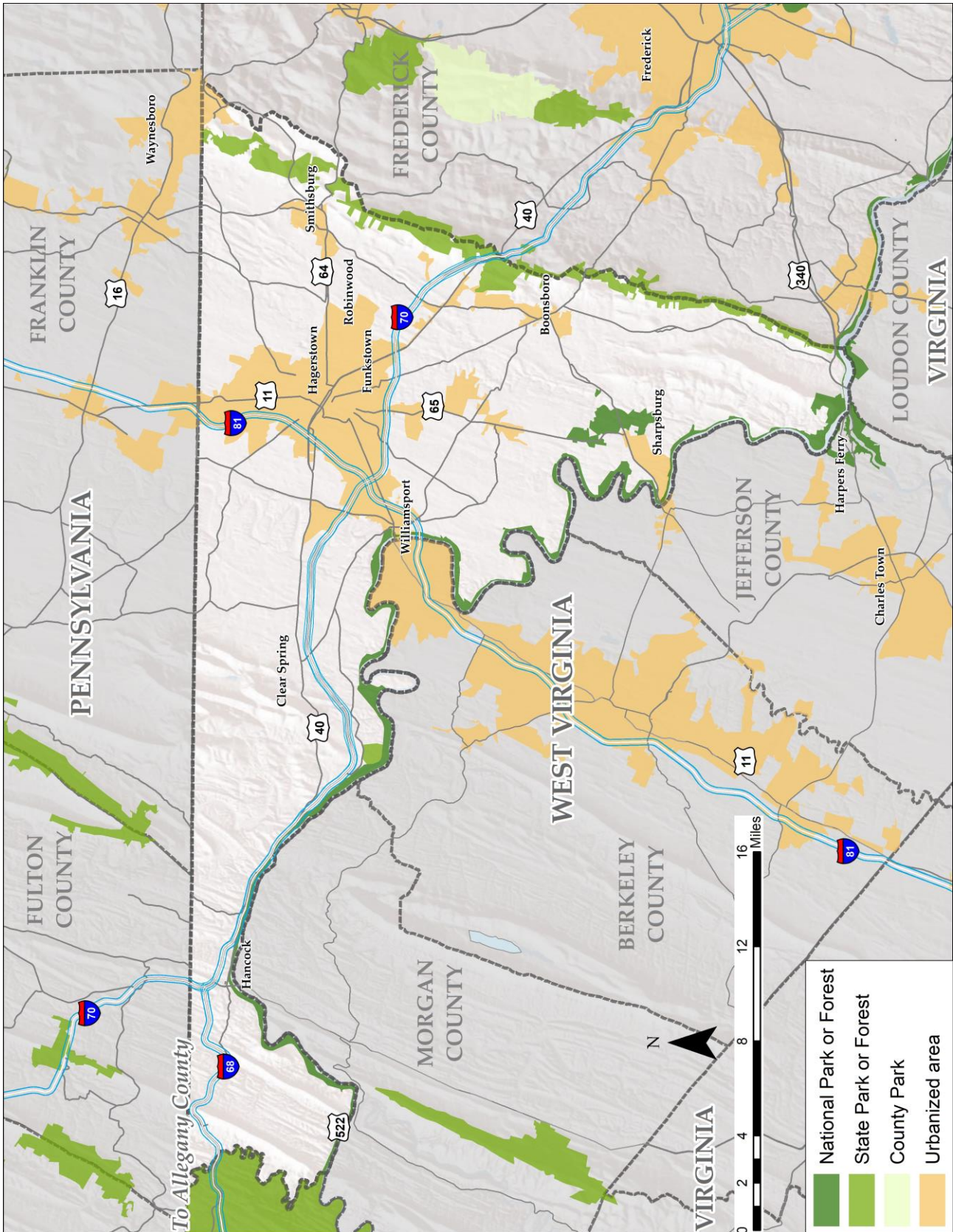
Figure 1-1: Washington County Seal

The county is characterized by its access to the Potomac River to the west and its location in the Hagerstown Valley, which is part of the Great Appalachian Valley. Hagerstown is almost completely bounded to the east by South Mountain State Park and to the west by Chesapeake and Ohio Canal Historic Park, which aligns with the Potomac River. In the north, Hagerstown Valley includes part of Franklin County, Pennsylvania.

The Hagerstown Urbanized Area, which covers Maryland, West Virginia, and Pennsylvania, is the major urban area in the county. The remainder of the county is largely rural. Interstate 70 runs east to west through the county, while Interstate 81 runs north to south from the town of Williamsport to Pennsylvania.

Hagerstown is the most populous city in the county with a Census estimated 2017 population of 40,306 people. The metropolitan area of Greater Hagerstown-Martinsburg was the most rapidly growing metropolitan area in Maryland and West Virginia from 2000-2010, growing 18.4%. The county includes part of the Hagerstown MD-WV-PA Urbanized Area, the Waynesboro PA-MD Urban Cluster, the Inwood WV Urban Cluster, and the Boonsboro, MD Urban Cluster. Washington County is a member of the Hagerstown/Eastern Panhandle Metropolitan Planning Organization (HEPMPO) which is the federally designated Metropolitan Planning Organization (MPO) for the region.

Figure I-2: Washington County Map



WASHINGTON COUNTY TRANSIT

Washington County Transit (WCT) operates all public transit in Washington County and runs the *County Commuter*. All WCT programs produced an annual ridership of over 516,000 riders in fiscal year 2018. An overview of WCT service is provided in Table I-1.



Figure I-3: WCT Transit Vehicle

Fixed-route bus service includes nine routes that originate in Hagerstown and serve Cavetown, Funkstown, Halfway, Long Meadow, Maugansville, Robinwood, Smithsburg, Valley Mall, Williamsport, and throughout the city of Hagerstown. Service is available Monday through Friday, 6:00 a.m. to 9:45 p.m. and Saturday, 7:45 a.m. to 9:45 p.m. Service is not available on Sunday and some major holidays.

Specialized transportation service is provided to those aged 60 and above and individuals with disabilities through a ride assist voucher program. To date, there are more than 200 paratransit clients and 350 ride assist voucher clients. This service is funded by the Statewide Transportation Assistance Program (SSTAP) and ADA Complementary Paratransit Service. Job seekers receive service through the Job Opportunity Access Program in cooperation with the Washington County Department of Social Services. Job Opportunity Bus Shuttles (JOBS) assist low-income households with transportation to and from work and childcare facilities.

Table I-1: Overview of WCT Services

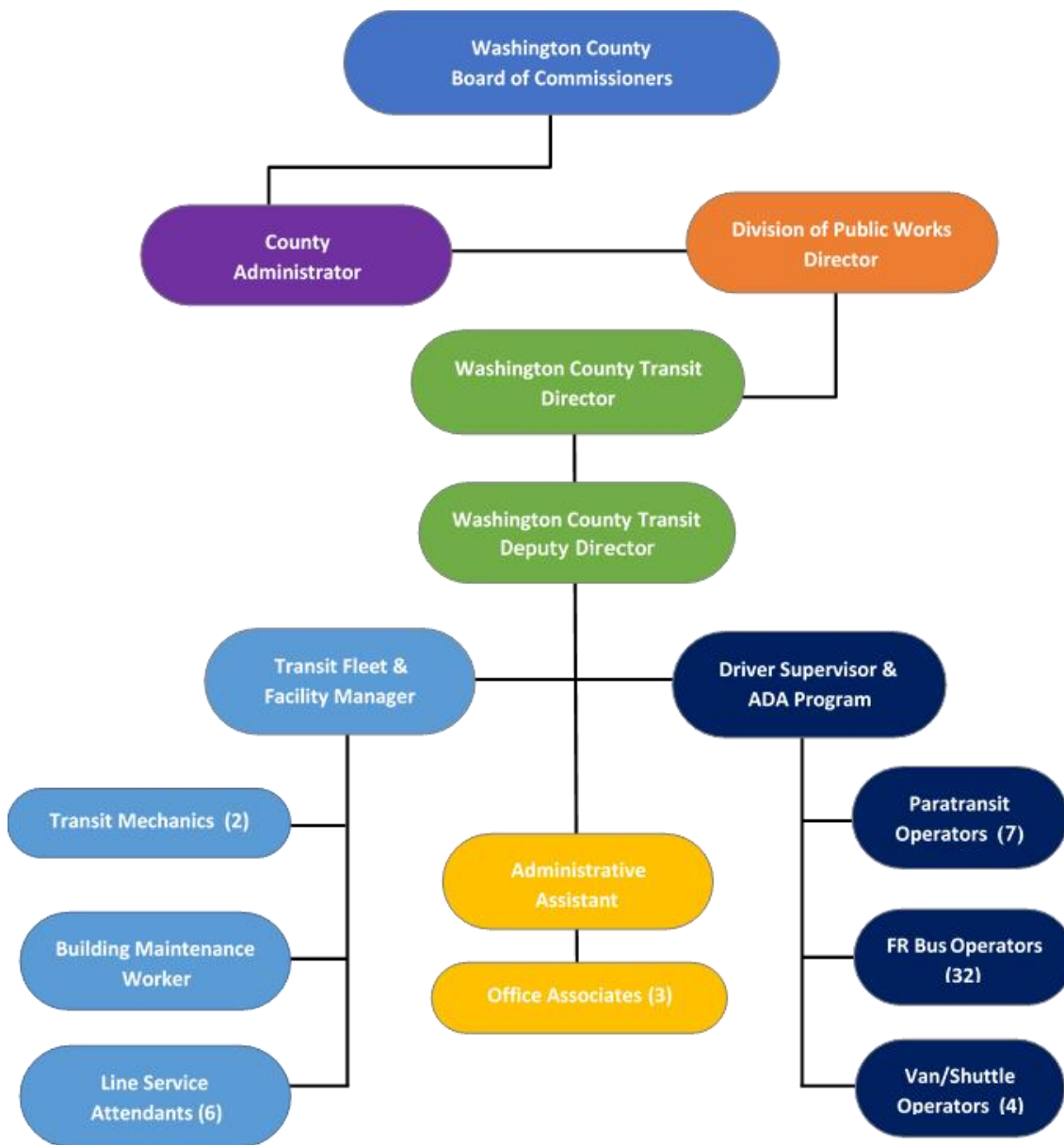
WCT Services	Weekday Service Span	Saturday Service Span	Areas Served
Fixed Route Services			
Valley Mall (#111, #112, #113)	8:15am – 9:45pm	8:45am – 9:45pm	Southern Hagerstown, Valley Mall
Long Meadow (#114, #116, #117)	6:45am – 8:45pm	8:15am – 8:45pm	Northern Hagerstown, YMCA
Robinwood (#221)	6:15am – 6:15pm	-	Community College, Meritus
Smithsburg (#222, #223)	7:15am – 6:15pm	7:45am – 6:45pm	Eastern Hagerstown, Smithsburg
Funkstown (#331)	6:15am – 6:45pm	8:15am – 6:45pm	Funkstown, Southern Hagerstown
West End (#333)	6:45am – 9:15pm	7:45am – 9:15pm	Walmart, Western Hagerstown
Williamsport (#441)	6:45am – 6:45pm	7:45am – 6:45pm	Valley Mall, Williamsport
Maugansville (#443)	6:15am – 6:45pm	8:45am – 5:45pm	Airport, Health Dept. Citi
Premium Outlets (#552)	7:15am – 7:15pm	9:15am – 7:15pm	MVA, Premium Outlets, Walmart
Demand Response Services			
ADA Paratransit	6:15am – 9:45pm	7:45am – 9:45pm	Within ¼ mile of fixed routes
JOBS Shuttle	Program Specific	Program Specific	Program Specific
SSTAP (Vouchers)	-	-	

Organization and Governance

WCT is operated under the county’s Division of Public Works. The Transit Director reports directly to the Division of Public Works Director and oversees a staff of 59 administrative, operations and maintenance staff. Figure 1-4 presents the organizational chart for WCT.

WCT and the Division of Public Works are governed by Washington County’s Board of Commissioners. The County’s Board of Commissioners is comprised of five elected members and is the legislative body that adopts the policy for the county, including transit service, fare policies and the budget for WCT.

Figure 1-4: Washington County Transit Organizational Chart



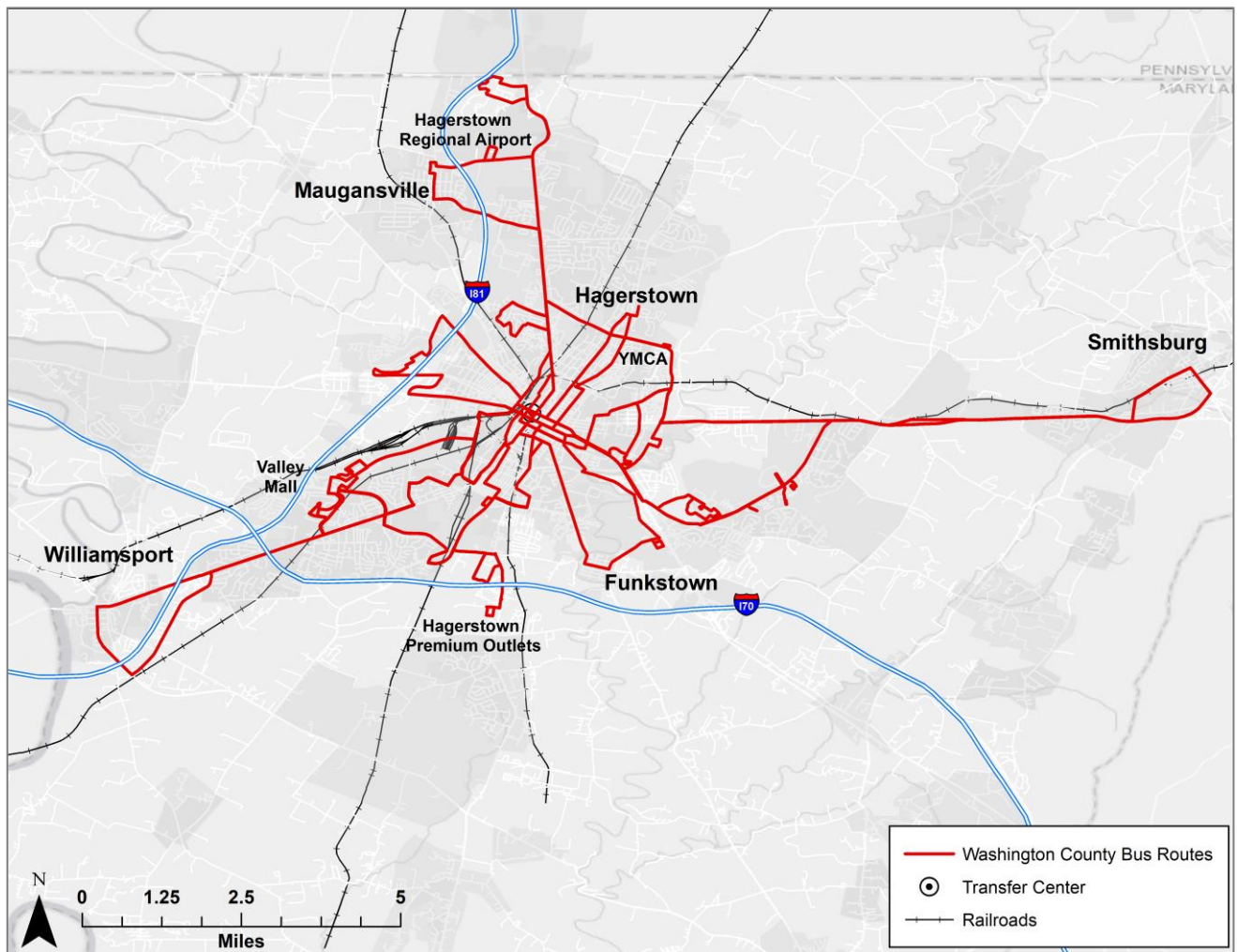
Fixed Route Service

WCT provides fixed route bus service primarily within the urbanized area of Washington County. The system operates nine interlined routes:

- Valley Mall
- Long Meadow
- Robinwood
- Smithsburg
- Funkstown
- West End
- Williamsport
- Maugansville
- Premium Outlets

The fixed route schedules begin at various times in the early morning and generally run every hour until the evening. Morning express service is provided for Valley Mall. A night run is provided for Valley Mall and Long Meadow.

Figure I-5: All Bus Routes in Washington County



FARE POLICY

Washington County Transit offers various pricing options. The base adult fare is \$1.25 per one-way trip. Persons ages 60 and older and individuals with disabilities (with the proper ID) are eligible for a peak fare of \$0.95 and off-peak fare of \$0.60. With a valid school ID, students are able to ride Washington County Transit for \$0.85. Children under the age of five are able to ride free.

WCT offers Ride Cards and Period Passes. The Ride Cards do not expire; when making a multi-card purchase, the card is discounted one dollar off the full price. Stored Ride Card fares are shown in Table 1-2.

The Period Passes allow for unlimited rides and are offered in three formats: 31-day, semi-annual and annual. Table 1-2 summarizes the different period pass options for WCT.

Table 1-2: Washington County Transit Fares

Fare Type	Cost	Stored Ride Card		Period Pass (Unlimited Rides)		
		20-Rides	Bulk Discount (must purchase 2+)	31-Days	Semi-Annual	Annual
Adult (ages 18-59)	\$1.25	\$24.00	\$23.00/each	\$50.00	\$250.00	\$450.00
Senior (ages 60+), Individuals with Disabilities, Medicare/Medicaid – <i>ID Required</i>	\$0.95 Peak* \$0.60 Off- Peak	\$18.00 Peak* \$17.00 Off-Peak	\$11.00 Peak*/each \$10.00 Off- Peak/each	\$38.00 Peak* \$23.00 Off- Peak	\$190.00 Peak* \$115.00 Off-Peak	\$342.00 Peak* \$207.00 Off-Peak
Students (ages 5-17) Students (ages 18+) – <i>ID Required</i>	\$0.85	\$16.00	\$15.00/each	\$34.00	\$170.00	\$306.00
Children (Under age 5) <i>Excludes Groups</i>	Free	Free	Free	Free	Free	Free

*Peak hours are 2:00pm to 7:00pm Monday through Friday
Source: Washington County Transit, website accessed April 2018

SERVICE PERFORMANCE EVALUATION

MDOT MTA applies performance standards to the Locally Operated Transit Systems (LOTS) to monitor the effectiveness and efficiency of each system's services. The performance standards are based on a composite of national peer agencies with similarly sized operations. Services are rated as "Successful," "Acceptable" or "Needs Review" based on how they perform in each of the operating measures.

These standards are used in determining whether new services requested by each system should be funded based on their potential for success. MDOT MTA current standards for rural transit service are shown in Table 1-3.

Table 1-3: MDOT MTA Performance Standards for Rural Transit Service

Performance Measure	Successful	Acceptable	Needs Review
Fixed Route Services			
Passenger Trips per Mile	> 1.25	0.75 – 1.25	< 0.75
Passenger Trips per Hour	> 16.0	12.0 – 16.0	< 12.0
Operating Cost per Passenger Trip	< \$4.07	\$4.07 – \$7.12	> \$7.12
Operating Cost per Mile	< \$4.07	\$4.07 – \$6.10	> \$6.10
Operating Cost per Hour	< \$66.11	\$66.11 – \$86.45	> \$86.45
Local Operating Revenue Ratio	> 55%	45% - 55%	< 45%
Farebox Recovery Ratio	> 20%	10 – 20%	< 10%
Demand Response Services			
Passenger Trips per Mile	> 0.20	0.10 – 0.20	< 0.10
Passenger Trips per Hour	> 3.0	1.5 – 3.0	< 1.5
Operating Cost per Passenger Trip	< \$20.34	\$20.34 – \$40.68	> \$40.68
Operating Cost per Mile	< \$3.56	\$3.56 – \$7.12	> \$7.12
Operating Cost per Hour	< \$61.02	\$61.02 – \$81.36	> \$81.36
Local Operating Revenue Ratio	> 60%	40% - 60%	< 40%
Farebox Recovery Ratio	> 12%	6 – 12%	< 6%

Source: MDOT MTA 2017 LOTS Manual, Attachment 3.F

System-wide Performance

Washington County Transit’s system-wide performance data for the fiscal year 2018 is shown in Table 1-4. The table highlights how each service aligns with MDOT MTA’s established performance standards. Of WCT’s nine fixed route services; Valley Mall, Long Meadow, Robinwood, West End, Funkstown, Williamsport, and Maugansville were within or above the “acceptable” range for each performance standard. Smithsburg and Premium Outlets fell below the “acceptable” standards in each performance measure outside of cost per mile and cost per hour.

In FY 2018, WCT’s ADA Paratransit service was “Successful” in cost per trip but fell below the “Acceptable” threshold in farebox recovery, trips per mile, and trips per hour. WCT’s JOBS Opportunity Shuttle service was below “Acceptable” in all measures except for cost per mile and cost per hour. However, the JOBS Opportunity Shuttle service underperformed in farebox recovery and cost per trip.

Table 1-4: Washington County Transit’s FY 2018 Performance Data

Route	Productivity		Cost Efficiency			
	Passenger Trips per Mile	Passenger Trips per Hour	Cost per Passenger Trip	Cost per Mile	Cost per Hour	Farebox Recovery Ratio
Fixed Route						
Valley Mall	1.18	18.30	\$3.58	\$4.22	\$65.59	15.8%
Long Meadow	1.04	14.33	\$4.35	\$4.54	\$62.34	12.9%
Robinwood	1.58	18.97	\$3.16	\$5.01	\$60.04	17.8%
Smithsburg	0.33	7.05	\$10.35	\$3.39	\$72.93	5.4%
Funkstown	1.39	20.68	\$3.09	\$4.30	\$63.91	18.2%
West End	2.97	39.13	\$1.57	\$4.68	\$61.62	35.8%
Williamsport	1.07	18.99	\$3.58	\$3.81	\$67.93	15.7%
Maugansville	0.81	13.73	\$4.86	\$3.95	\$66.66	11.9%
Premium Outlets	0.71	7.34	\$7.68	\$5.42	\$56.35	7.3%
Demand Response						
ADA Paratransit	0.25	3.29	\$18.70	\$4.71	\$61.57	6.7%
JOBS Opportunity Bus Shuttle	0.18	3.00	\$22.02	\$4.01	\$66.05	3.3%
SSTAP*			\$11.42			15.42%
System	0.96	14.29	\$4.48	\$4.29	\$64.04	13.2%

*SSTAP trips are provided by local sedan companies; trip data is unavailable

Operating Statistics

Table 1-5 shows the operating statistics for WCT's fixed route and demand response services. The Valley Mall, West End, and Williamsport routes accounted for over half of unlinked passenger trips within the system. In FY 2018, the Valley Mall route had the highest operating costs in addition to the largest share of WCT's ridership. The Smithsburg route had the lowest ridership share (2.1%) and operating costs (\$109,908).

Table 1-5: Washington County Transit's FY 2018 Operating Statistics

Route	Unlinked Passenger Trips	Service Supplied		Financials		Systemwide	
		Service Miles	Service Hours	Operating Cost	Farebox Revenue	Percent of Ridership	Percent of Operating Cost
Fixed Route							
Valley Mall	95,776	81,365	5,234	\$343,284	\$54,115	18.5%	13.9%
Long Meadow	49,251	47,137	3,436	\$214,188	\$27,700	10.0%	8.98%
Robinhood	57,823	36,501	3,048	\$182,994	\$32,651	11.2%	7.90%
Smithsburg	10,622	32,459	1,944	\$109,908	\$5,921	2.1%	4.5%
Funkstown	40,193	28,901	1,944	\$124,238	\$22,568	7.8%	5.3%
West End	83,073	27,971	2,123	\$130,829	\$46,870	16.1%	5.3%
Williamsport	68,954	64,671	3,631	\$246,670	\$38,646	13.3%	10.0%
Maugansville	48,961	60,127	3,567	\$237,771	\$28,221	9.4%	9.6%
Premium Outlets	15,661	22,200	2,134	\$120,243	\$8,820	3.0%	4.9%
Demand Response							
ADA Paratransit	15,694	62,317	4,766	\$293,461	\$19,734	3.0%	11.9%
JOBS Shuttle	9,958	54,736	3,320	\$219,272	\$7,255	1.9%	8.9%
SSTAP*	20,587	0	0	\$245,878	\$27,240	4.0%	10.0%
System	516,543	518,385	34,710	\$2,468,736	\$319,741	-	-

*SSTAP trips are provided by local sedan companies; trip data is unavailable

ROUTE PROFILES

The following section contains route profiles for each of WCT's routes, detailing the service area, service hours, productivity data, and major trip generators.

Valley Mall Routes

The Valley Mall route provides WCT riders access to the Valley Mall with three route options: Valley Mall, Valley Mall Express via Wesel, and Valley Mall Night Run. Regarding performance metrics, all of the routes have been combined and reported as the Valley Mall route. In FY 2017, Valley Mall saw "Successful" performance in passenger trips per hour, cost per hour, cost per mile, and cost per hour. Passenger trips per mile and the farebox recovery ratio were all within the "Acceptable" threshold. In FY 2018, cost per trip while still in the "Acceptable" threshold, did not meet the "Successful" standard as in FY 2017.

#111 - Valley Mall Route

The Valley Mall route alignment operates Monday through Saturday, 8:45 a.m. to 6:45 p.m., on one-hour headways. The route begins at the Transfer Center and takes Potomac Street, Maryland Avenue, Oak Ridge Drive, and Halfway Boulevard before reaching the Valley Mall food court area. Major destinations along the way include South End Shopping Center and Lowe's. Figure 1-6 displays the Valley Mall route alignment.

#112 – Valley Mall Express via Wesel

The Valley Mall Express via Wesel has a different alignment than the Valley Mall route. From the Transfer Center, this route travels down Burhans Boulevard and takes Wesel Boulevard, serving Lowe's and Sam's Club, before reaching Valley Mall. From Valley Mall, the route travels along Massey Boulevard, Halfway Boulevard, and Virginia Avenue, serving Noland Village, before heading back to the Transfer Center. The Valley Mall Express via Wesel has two runs during the weekday, from 8:15 a.m. to 8:45 a.m. and 9:15 p.m. to 9:45 p.m. On Saturdays, the route only operates a single trip from 9:15 p.m. to 9:45 p.m. The Valley Mall Express via Wesel is shown in Figure 1-7.

#113 - Valley Mall Night Run

The Valley Mall Night Run route has a similar alignment as the Valley Mall Express via Wesel route, but with different service hours. From the Transfer Center, the route uses Burhans Boulevard towards Noland Village. The Valley Mall Night Run operates from 6:15 p.m. to 6:55 p.m. and once again from 7:45 p.m. to 8:25 p.m. The Valley Mall Night Run is illustrated in Figure 1-7.

Figure 1-6: Valley Mall Route

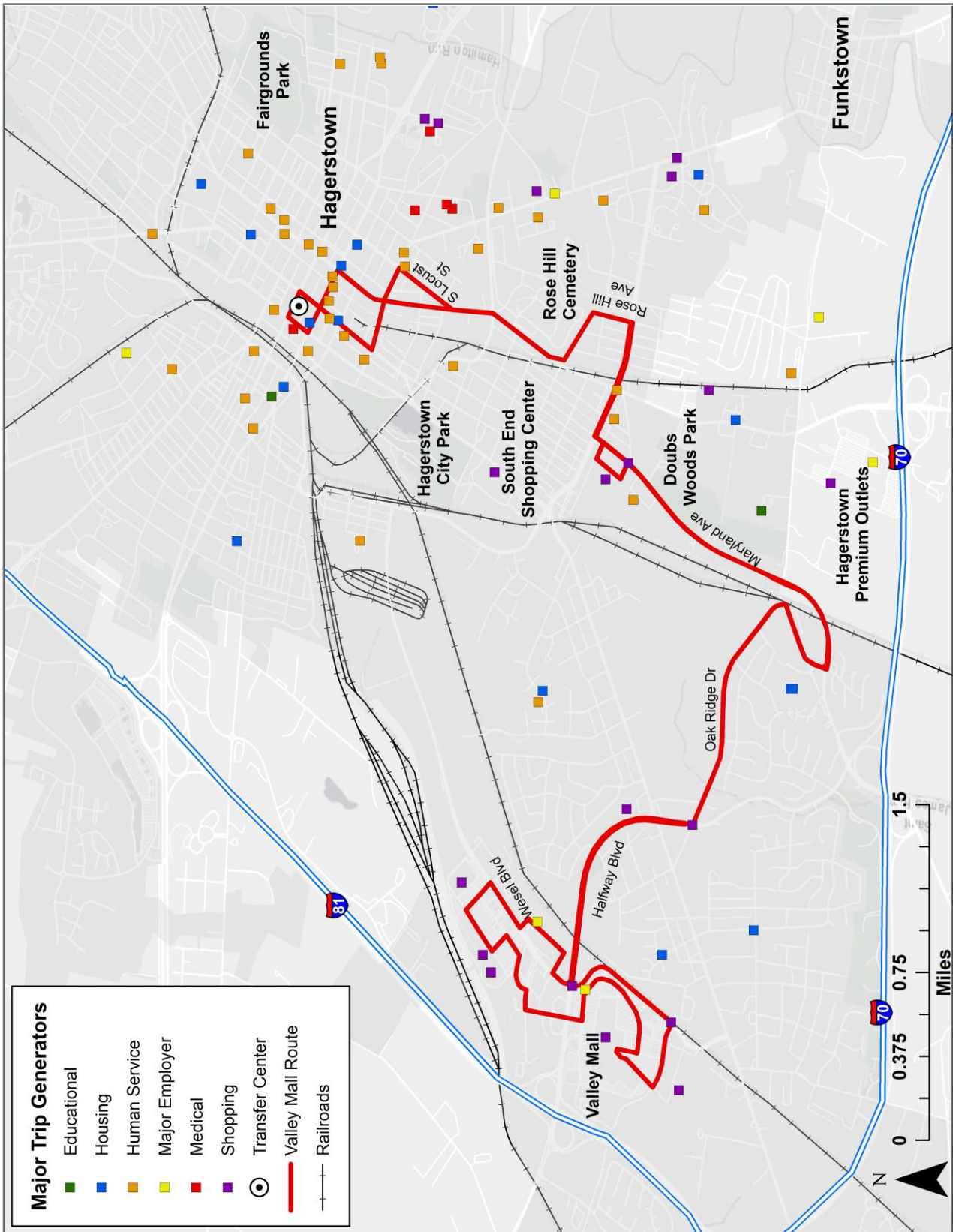
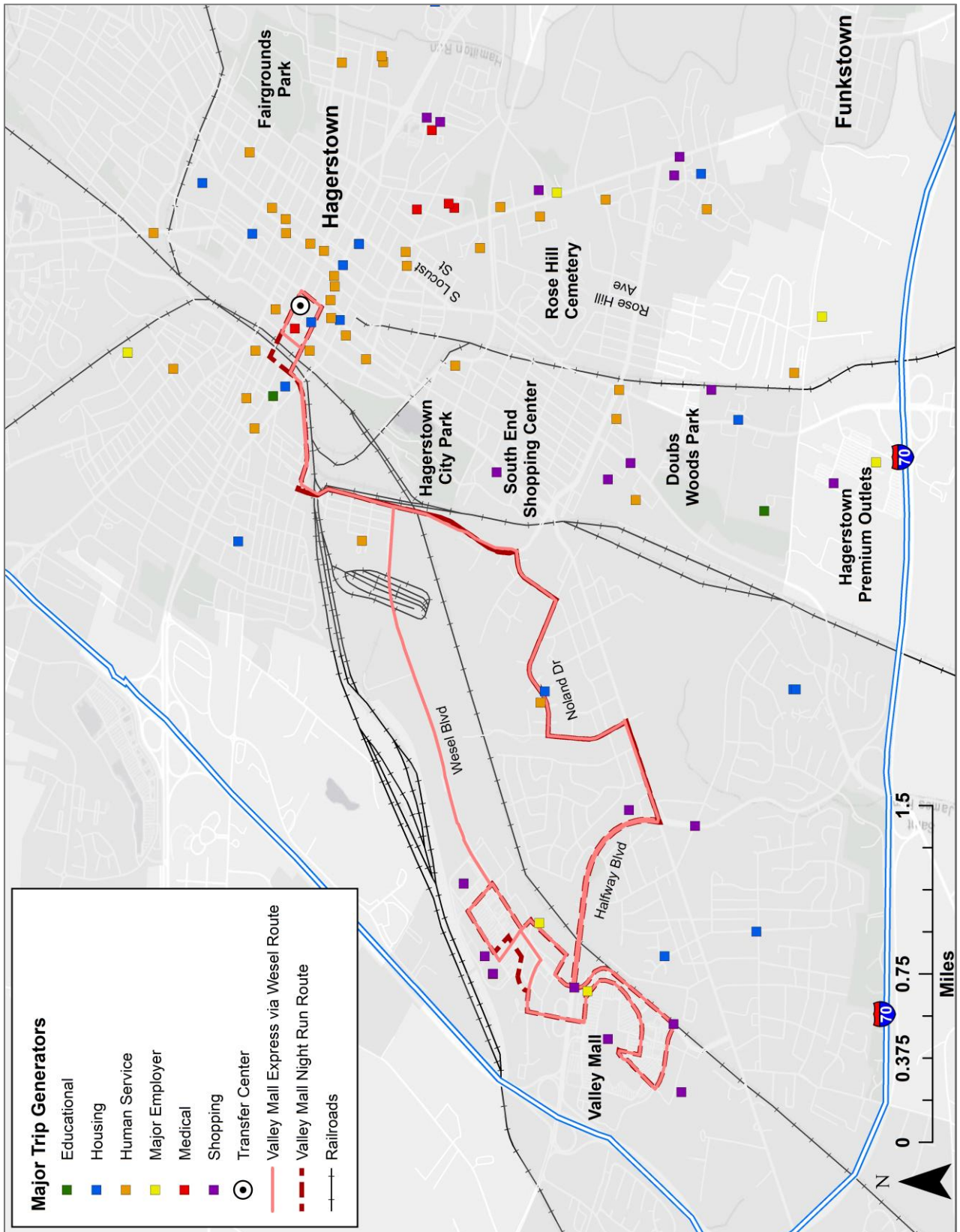


Figure 1-7: Valley Mall Express Via Wesel and Night Run Route



Long Meadow Routes

The Long Meadow route consists of three different iterations: the Long Meadow Night Run, Long Meadow via Locust, and Long Meadow via Eastern. While the Long Meadow Night Run and Long Meadow via Eastern routes share very similar alignments, their hours of operation are different. More details about each of the Long Meadow Routes are included in the following sections.

#114 - Long Meadow Night Run

The Long Meadow Night Run operates Monday through Saturday from 6:55 p.m. to 7:15 p.m. and again at 8:25 p.m. to 8:45 p.m. Beginning at the Transfer Center, the route travels along Washington and Locust Streets before stopping at the Fairground and Potomac Avenue stop. The route then proceeds along Potomac Avenue to the Y.M.C.A and the Meadow Shopping Center, eventually heading back to the Transfer Center, as shown in Figure 1-8.

#116 - Long Meadow via Locust

The Long Meadow via Locust route has a routing very similar to the Long Meadow Night Run. However, instead of traveling along Eastern Boulevard and serving the Y.M.C.A., the Long Meadow via Locust route continues on Potomac Ave to Conamar Drive and provides service to Johns Hopkins Medical Center, as shown in Figure 1-8. The Long Meadow via Locust route operates Monday through Saturday. During the weekday, the hours are from 6:45 a.m. to 6:15 p.m., providing service every hour. On Saturdays, the service runs from 9:45 a.m. to 6:15 p.m.

#117 – Long Meadow via Eastern

The Long Meadow via Eastern route operates in a loop, with Washington Street, Dual Highway, Eastern Boulevard North, Northern Avenue, and Burhans Boulevard being the major roads of travel. Major destinations along this route are multiple medical offices, the Longmeadow Shopping Center, the Y.M.C.A., Western Maryland Hospital Center, and North Hagerstown High School, as shown in Figure 1-9. Long Meadow via Eastern operates Monday through Saturday. On weekdays, service runs from 7:15 a.m. until 5:45 p.m., and on Saturdays, service starts at 8:15 a.m. and ends at 5:45 p.m.

Figure I-8: Long Meadow Night Run and via Locust

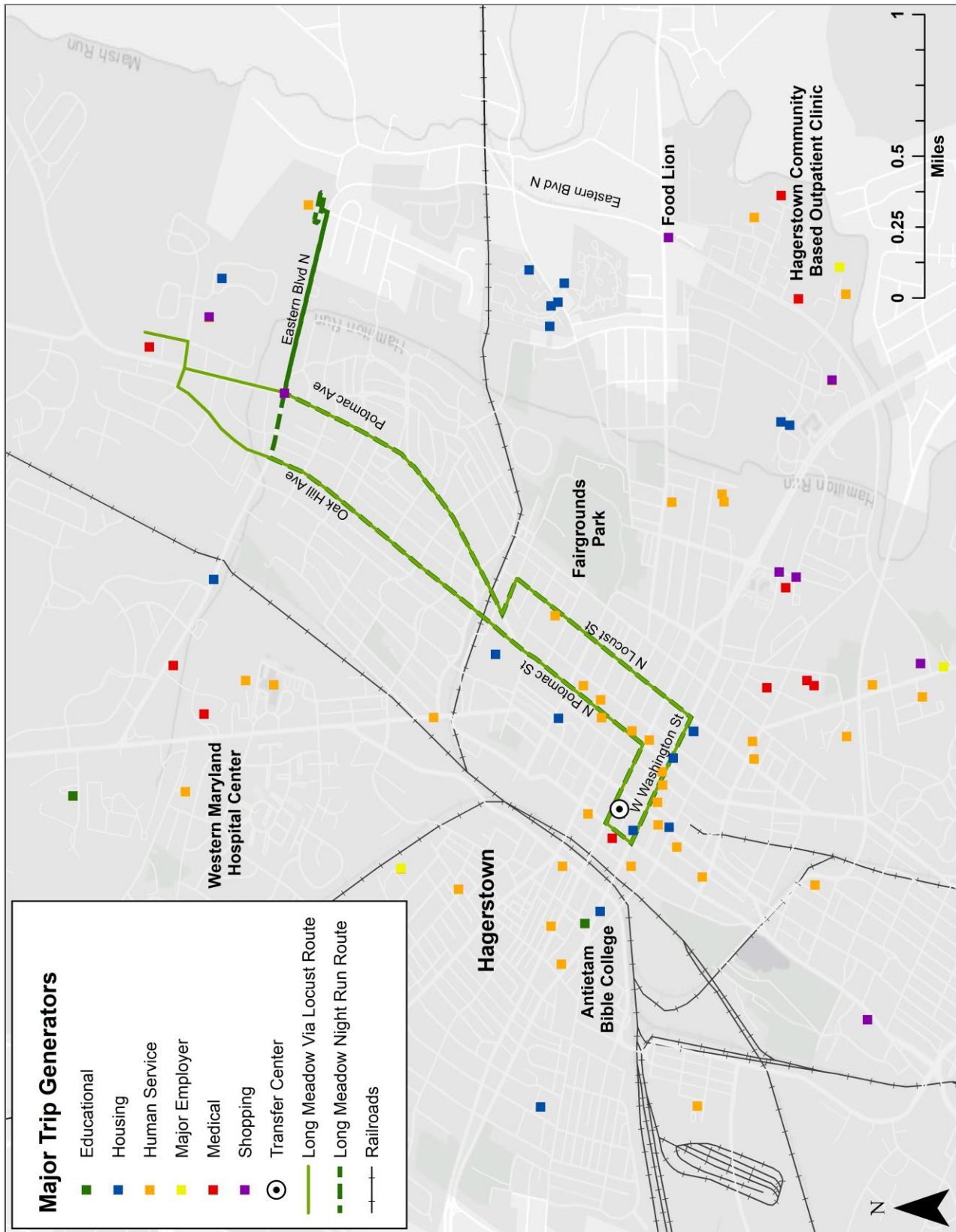
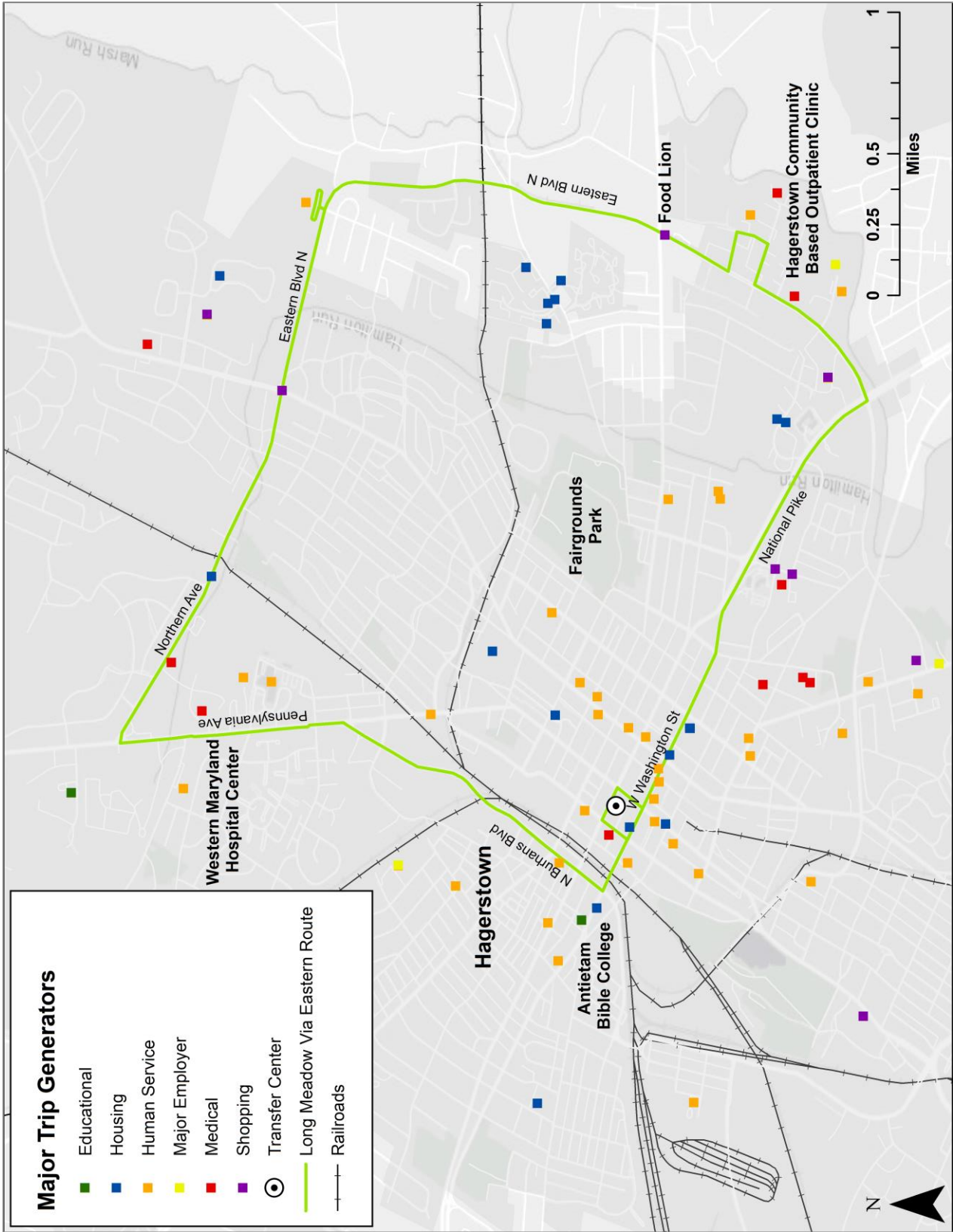


Figure 1-9: Long Meadow via Eastern



#221 – Robinwood Route

The Robinwood route serves major destinations such as Brandywine Apartments, Hagerstown Community College, Meritus Health Center, and Weis Markets. It operates hourly from 6:15 a.m. to 6:15 p.m. In FY 2018, the route produced some of the best performance measures in the system, meeting the “Successful” threshold for passenger trips per mile and hour, and cost per trip and hour. It met the “Acceptable” threshold in cost per mile and farebox recovery. The Robinwood Route is shown in Figure I-10.

Smithsburg Routes

The Smithsburg route is one of WCT’s least productive and cost-effective routes. Performance metrics show that ridership on the Smithsburg route has decreased from FY 2017 to FY 2018. The Smithsburg route is underperforming in every productivity and cost-effective measure. The Smithsburg route offers two schedules, one on weekdays and one on Saturdays, with slightly different alignments. More details on the two schedules are below.

#222 – Smithsburg Weekday Route

The Smithsburg Weekday route operates Monday through Friday from 7:15 a.m. to 6:15 p.m. Starting at the Transfer Center, the Smithsburg Weekday bus travels outbound primarily along Jefferson Boulevard, providing access to the Town of Smithsburg, as shown in Figure I-11.

#223 – Smithsburg Saturday

The Smithsburg Saturday route serves many of the same destinations as the Smithsburg Weekday route. However, it also provides service to Meritus Health and Stonecroft Apartments before proceeding to Smithsburg, as shown in Figure I-11. It operates from 7:45 a.m. to 6:45 p.m.

#331 – Funkstown Route

The Funkstown route provides service to the Town of Funkstown, which is located south of Hagerstown, shown in Figure I-12. It operates Monday through Friday 6:15 a.m. to 6:45 p.m. and Saturday from 8:15 a.m. to 6:45 p.m. In FY 2018, the Funkstown route was “Successful” in passenger trips per hour and cost per passenger trip, while it met the “Acceptable” threshold in passenger trips per mile, cost per mile, cost per hour, and farebox recovery ratio. As of the third quarter of FY 2018, the Funkstown route has continued to be productive and cost-effective.

Figure 1-10: Robinwood Route Profile

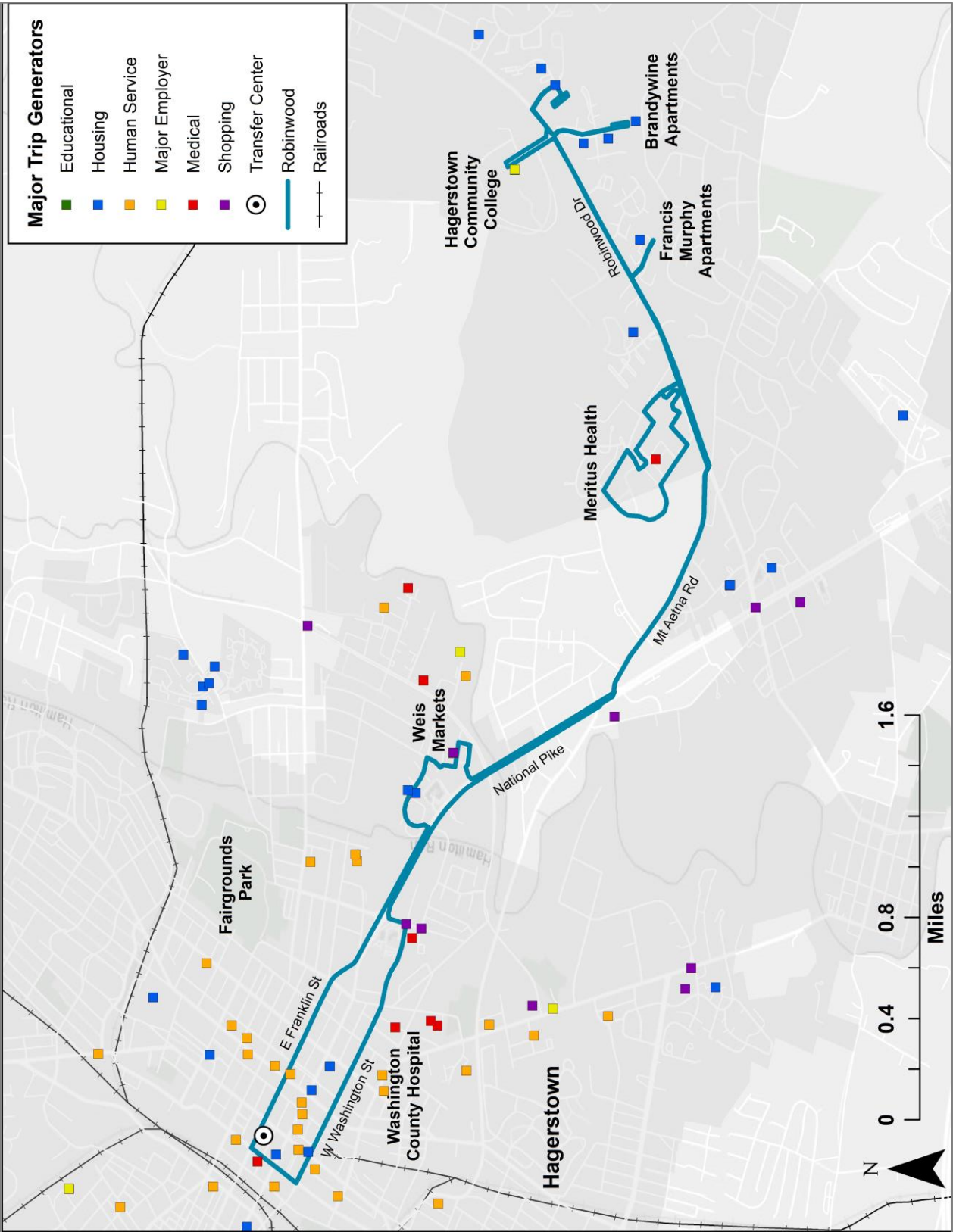


Figure I-II: Smithsburg Weekday and Saturday Route Profiles

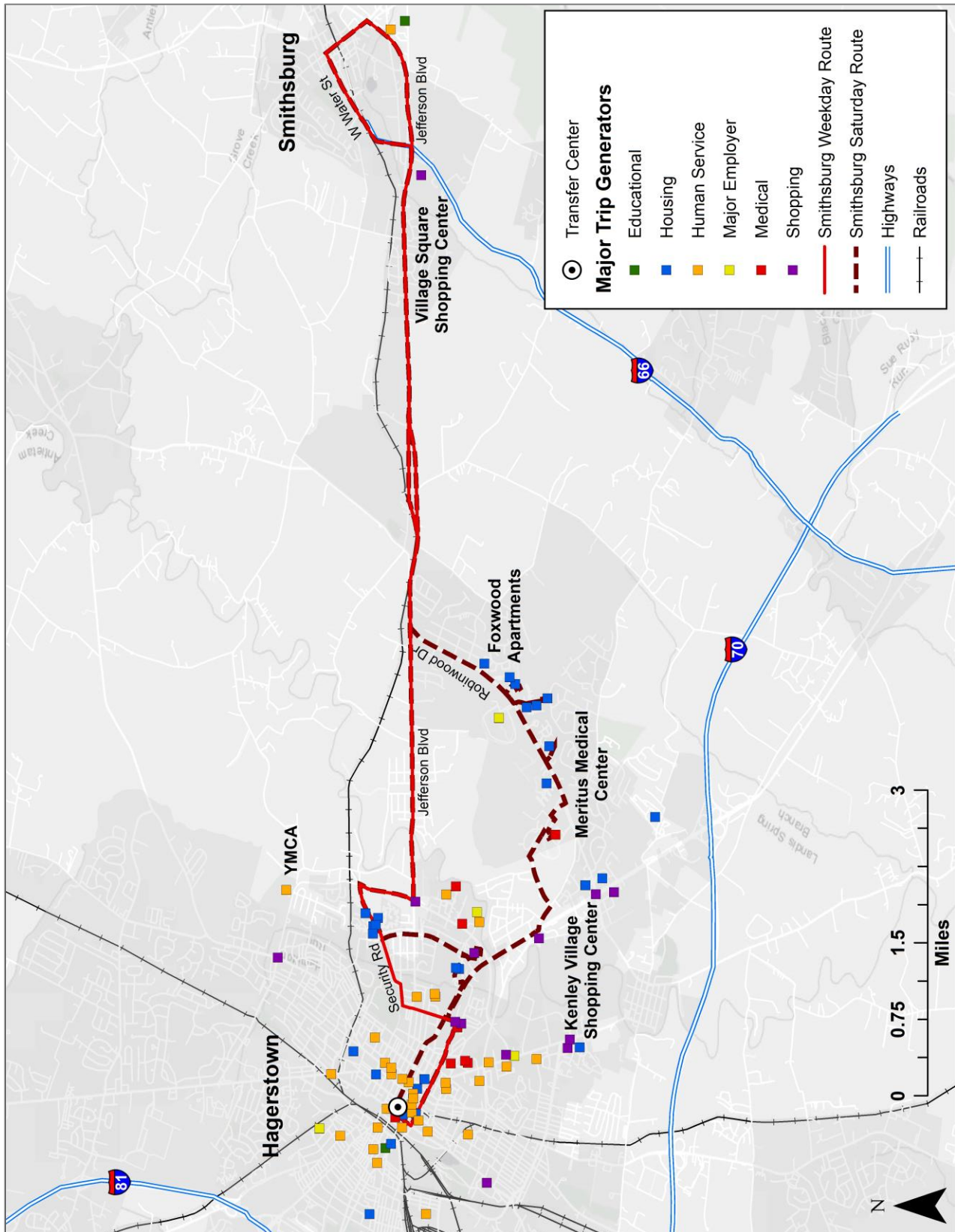
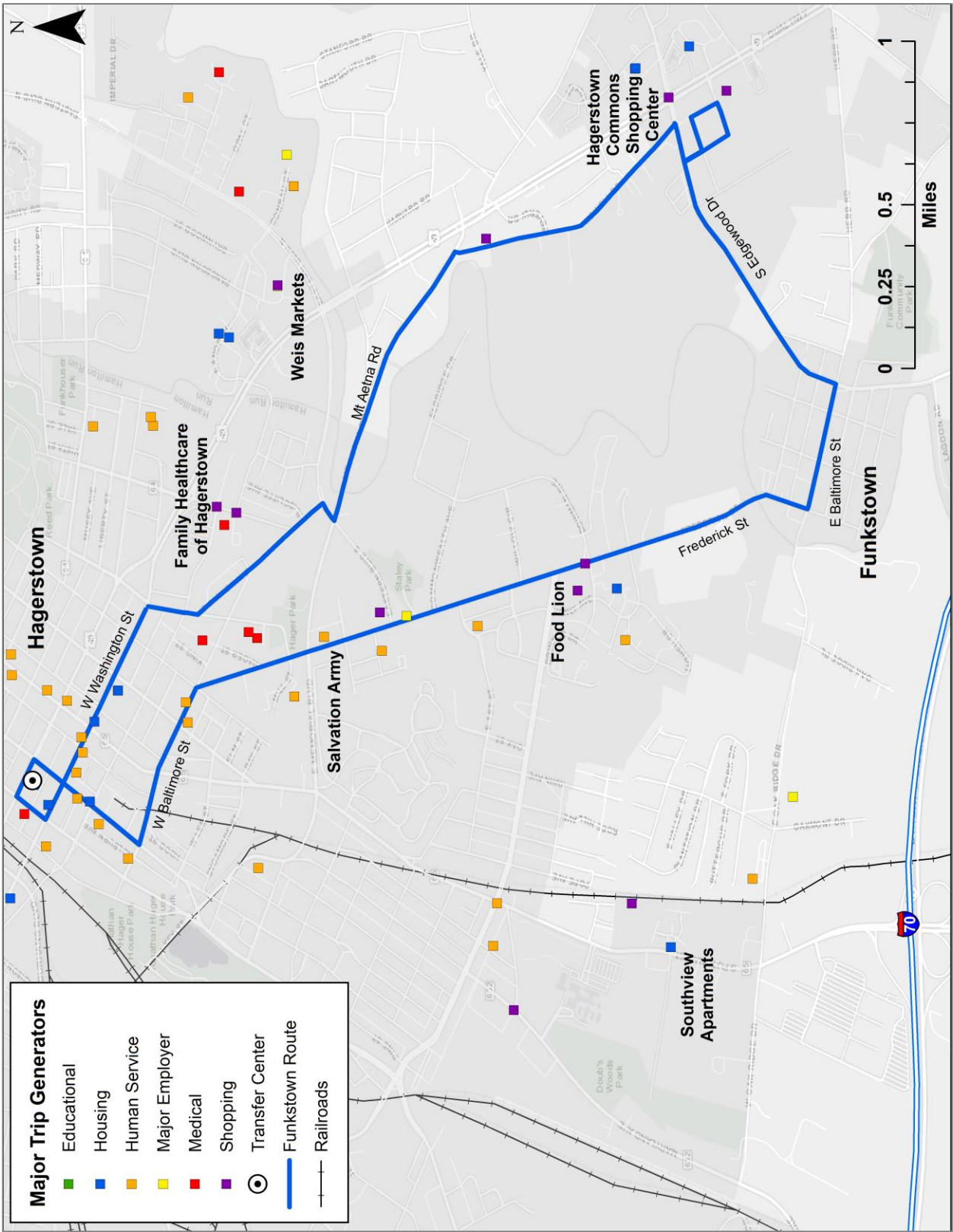


Figure 1-12: Funkstown Route Profile



#333 – West End Route

The West End route is one of WCT’s busiest and most productive routes. In FY 2017, it had the second highest number of unlinked passenger trips. In FY 2018, it had the second highest number of passenger trips, despite a slight decrease from FY2017. The decline in passenger trips could be attributed to the opening of the new Walmart, which is served by the Premium Outlets route. The West End route had “Successful” measures in passenger trips per mile and passenger trips per hour in FY 2018. It is also a cost-effective route, meeting the “Successful” threshold in cost per passenger trips, cost per hour, and farebox recovery in FY 2018. It is the only route that has met the “Successful” standard in its farebox recovery ratio. The West End route runs from 6:45 a.m. until 9:15 p.m., and 7:45 a.m. to 9:15 p.m. on Saturdays and makes five stops. Figure 1-13 illustrates the West End route.

#441 – Williamsport Route

The Williamsport route travels outbound from the Transfer Center along Walnut Street, Virginia Avenue, and Burhans Boulevard, serving Noland Village and Valley Mall before proceeding to Williamsport. It operates Monday through Friday from 6:45 a.m. to 6:45 p.m. and 7:45 a.m. to 6:45 p.m. on Saturdays. The Williamsport route operates on one-hour headways. In FY 2018, the Williamsport route had the third highest number of passenger trips. The Williamsport route is detailed in Figure 1-14.

#443 – Maugansville Route

The Maugansville route provides access to the census-designated place of Maugansville located just north of Hagerstown. The route travels along Pennsylvania Avenue, serving the health department, Goodwill, Hagerstown Regional Airport, and Hamilton Park. In FY 2017, the Maugansville passenger trips per mile were 0.72, which is below the “Acceptable” threshold. However, as of the third quarter FY 2018, passenger trips per mile improved to meet the “Acceptable” standard. The Maugansville Route is depicted in Figure 1-15.

Figure I-13: West End Route Profile

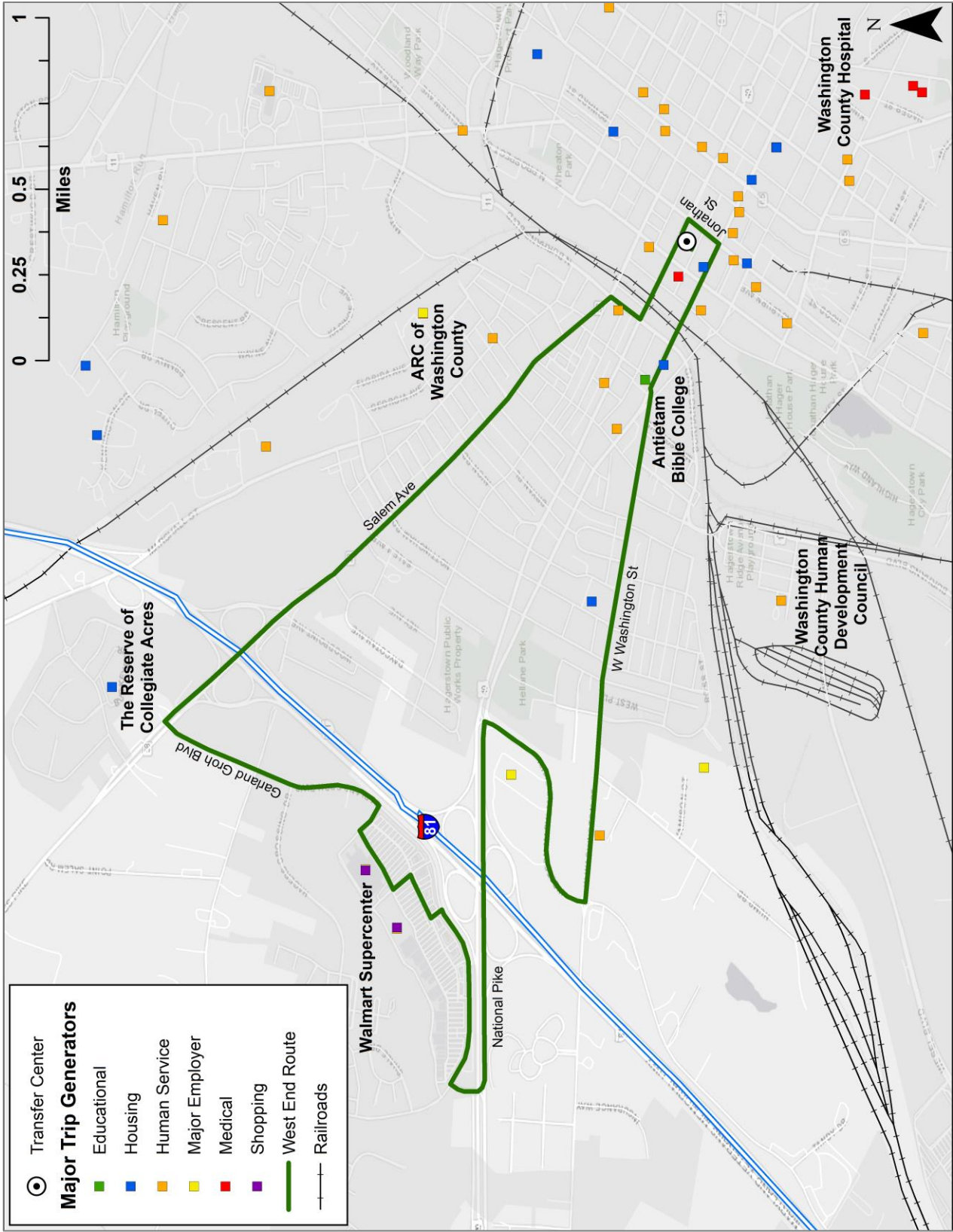


Figure I-14: Williamsport Route Profile

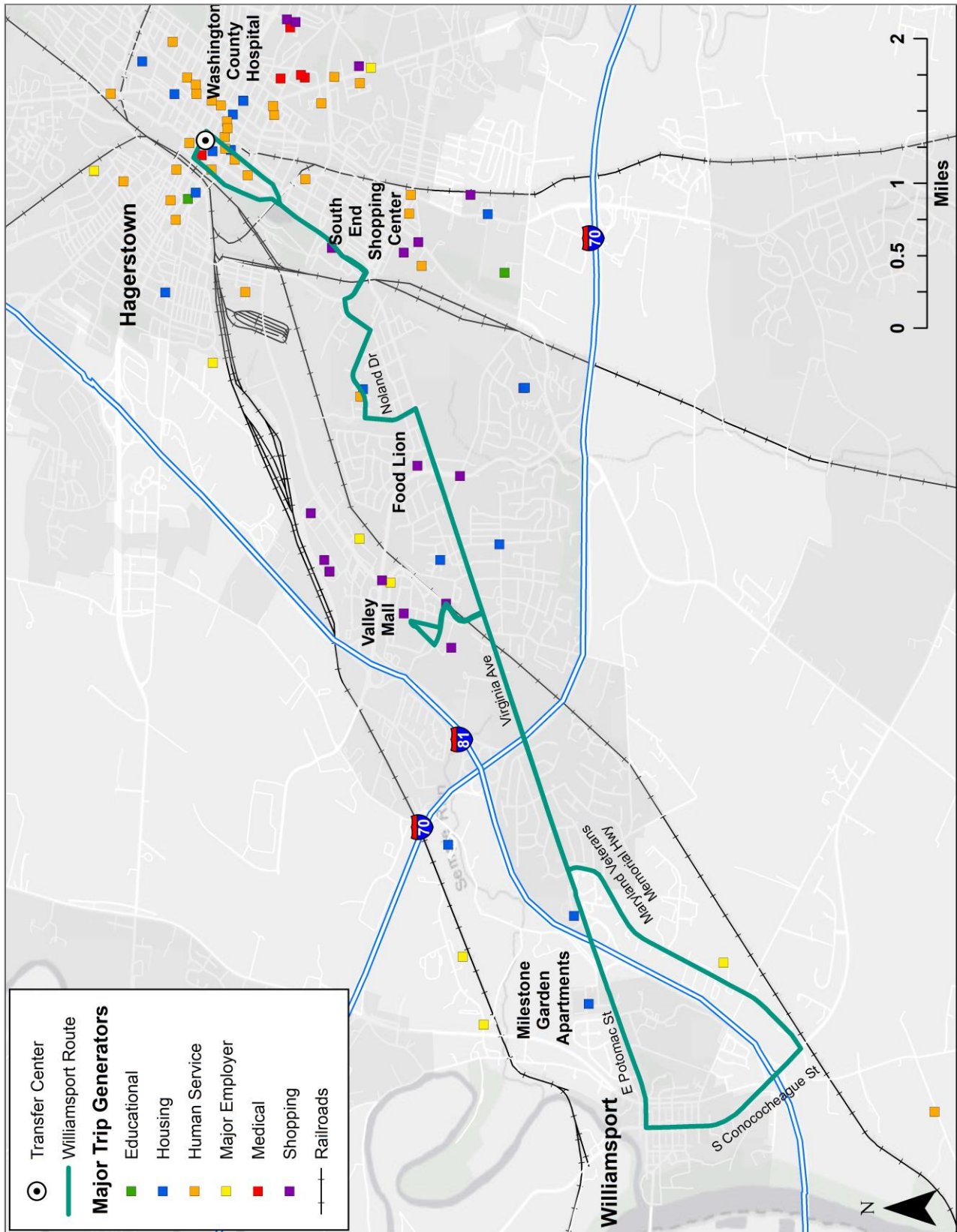
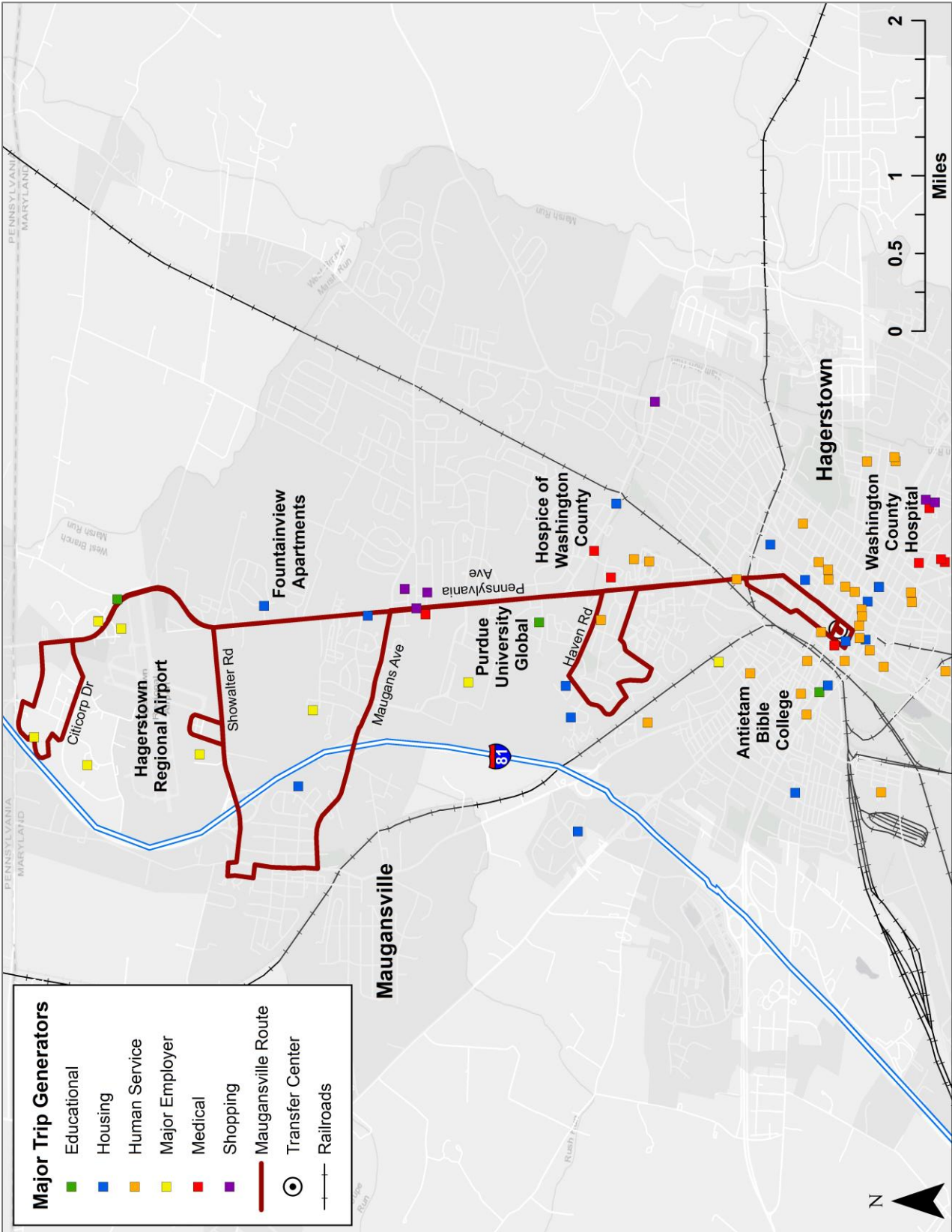


Figure 1-15: The Maugansville Route Profile



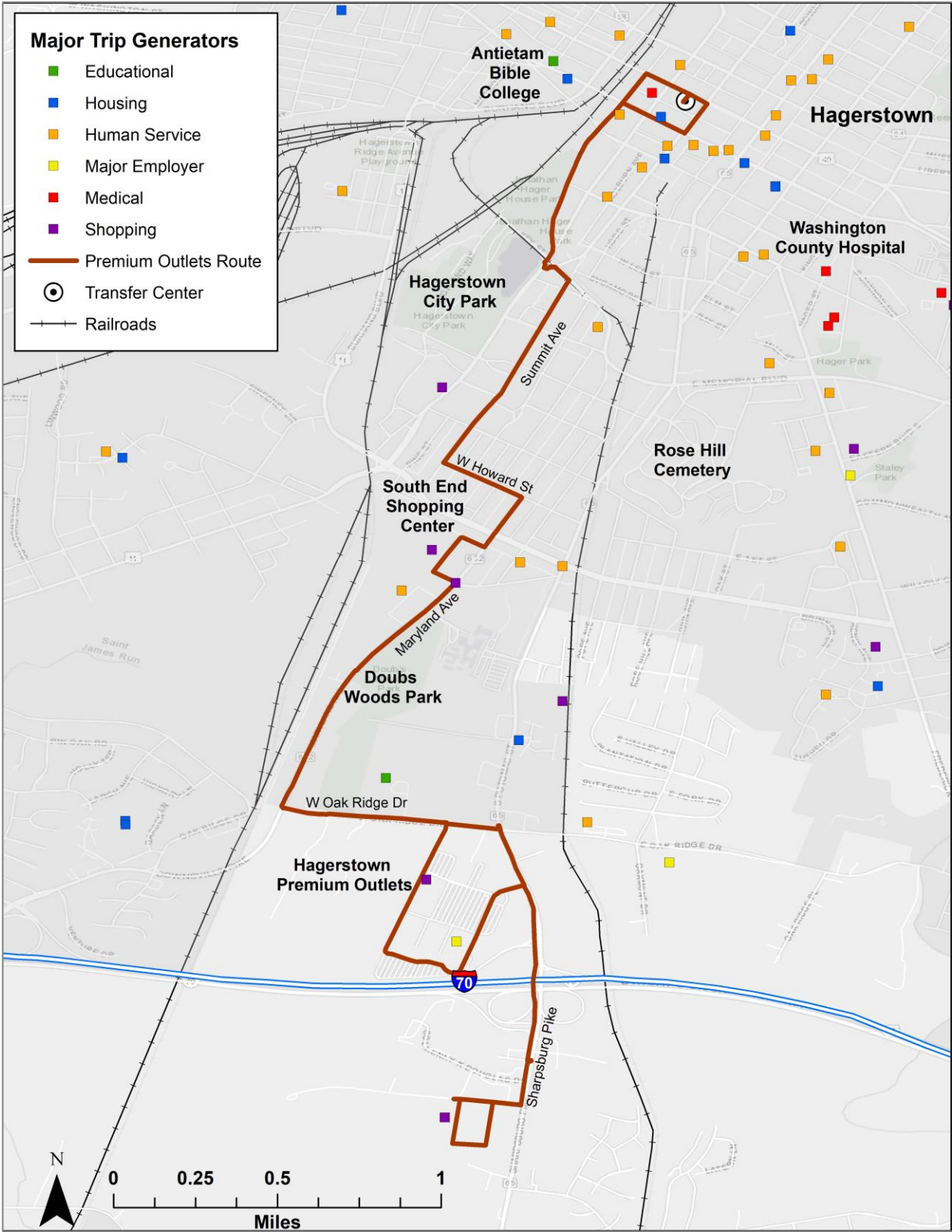
#552 – Premium Outlets Route

The Premium Outlets route is one of WCT’s least productive routes. In FY 2017, and the first three quarters of FY 2018, the route did not meet the “Acceptable” standard for passenger trips per mile and passenger trips per hour. The cost per passenger trip and farebox recovery ratio also fell below the “Acceptable” threshold. As of the third quarter FY 2018, the Premium Outlets route improved in cost per hour to reach the “Successful” threshold.

Despite the increase in trips from FY 2017 to FY 2018, the Premium Outlets route is one of the lowest performing routes. In FY 2017, it underperformed in passenger trips per mile and passenger trips per hour. In terms of cost efficiency, the Premium Outlets route also underperformed in cost per passenger trip. The farebox recovery ratio was also below the “Acceptable” standard. As of the third quarter in FY 2018, the Premium Outlets route continues to underperform in these same performance categories.

The Premium Outlets route operates Monday through Friday from 7:15 a.m. to 7:15 p.m. on one-hour headways and Saturdays from 9:15 a.m. to 7:15 p.m. In FY 2017, the Premium Outlets route had the lowest number of passenger trips. In October 2017, WCT began service on the Premium Outlets route to the new Walmart. Since the implementation of service to the new Walmart, the number of unlinked passenger trips as of third quarter FY2018 has almost doubled, as compared to the previous year. Figure 1-16 displays the Premium Outlets route.

Figure I-16: Premium Outlets Route Profile



STOP ACTIVITY

On Saturday, May 5, 2018, and Friday, May 11, 2018, KFH Group staff conducted ridership counts on the Long Meadow, Premium Outlets, Smithsburg, and West End routes. KFH team members rode each route for the entire span of service and noted the boardings and alighting at each stop. KFH Group staff then summed the boarding and alighting data and calculated the total activity at each stop.

Long Meadow Stop Activity

Total activity derived from ridership counts conducted on Saturday, May 5, 2018, is represented in Figure 1-17. The Transfer Center had the total stop activity in comparison to the rest of the stops on the route. Besides the Transfer Center, the YMCA had the most stop activity followed by Leitersburg Shopping Center. Table 1-6 shows the top 5 stops with the highest activity on the Saturday counts were conducted. Leitersburg Shopping Center had the largest numbers of boardings while the YMCA had the most alightings (excluding the Transfer Center).

As expected, the Transfer Center had the most stop activity on Friday. However, the total activity at the Transfer Center decreased from the previous Saturday. Leitersburg Shopping Center and the YMCA had the second and third most stop activity on Friday.

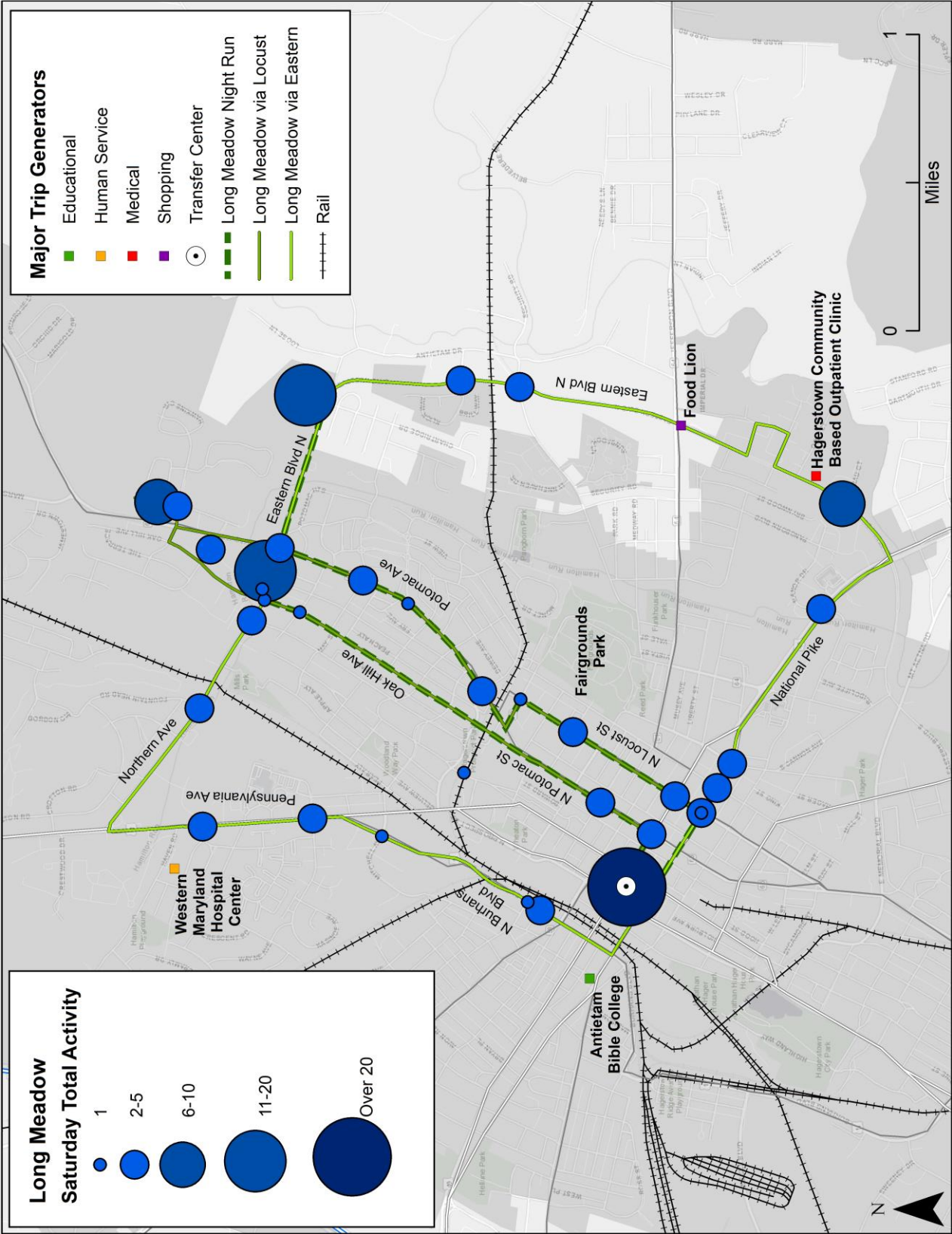
Table 1-6: Long Meadow Top 5 Stop Activity, Saturday, May 5, 2018

Stops	On	Off	Total Activity
Transfer Center	50	51	101
YMCA	7	11	18
Leitersburg Shopping Center	8	6	14
Eastern Boulevard N & Conrad Court	3	6	9
Conamar Drive (Cul-de-sac)	1	5	6

Table 1-7: Long Meadow Top 5 Stop Activity, Friday, May 11, 2018

Stops	On	Off	Total Activity
Transfer Center	68	21	89
Leitersburg Shopping Center	8	8	16
YMCA	6	7	13
Conamar Drive & Cortland Drive	5	7	12
Potomac Avenue & E Magnolia Avenue	4	4	8

Figure I-17 Long Meadow Stop Activity, Saturday, May 5, 2018



Premium Outlets Stop Activity

Figure 1-19 shows the total activity for the Premium Outlets route on Saturday, May 5, 2018, while Table 1-8 shows the top five stops with the highest total activity. As the map shows, the Transfer Center had the highest total activity, but Walmart and South End Shopping Center had relatively high stop activity as well. Detailed in Table 1-8, the majority of passenger boarding occurred at the Transfer Center followed by the South End Shopping Center and Walmart. Walmart had the largest number of people alighting.

Table 1-8: Premium Outlets Top 5 Stop Activity, Saturday, May 5, 2018

Stop	Number of Boardings	Number of Alightings	Total Activity
Transfer Center	33	21	54
Col Henry K Douglas Drive & Walmart Drive (Walmart)	16	22	38
South End Shopping Center	20	8	28
W Oak Ridge Drive & Premium Outlets Boulevard (Premium Outlets)	4	9	13
S Walnut Street & W Antietam Street	0	6	6

Figure 1-20 illustrates the total stop activity for the Premium Outlets route on Friday, May 11, 2018. Overall, there was more stop activity on Friday than the previous Saturday. The Transfer Center, Walmart, and South End Shopping Center again had the most stop activity. Excluding the Transfer Center, Walmart had the highest number of passenger boarding and the largest number of passenger's alightings. The South End Shopping Center stop saw a decrease in total stop activity on Friday as opposed to the previous Saturday. It appears that riders tend to travel to the South End Shopping Center more on Saturday. Table 1-9 includes the top five stops with the highest total activity on the Premium Outlets route.

Table 1-9: Premium Outlets Top 5 Stop Activity, Friday, May 11, 2018

Stop	Number of Boardings	Number of Alightings	Total Activity
Transfer Center	41	27	68
Col Henry K Douglas Drive & Walmart Drive (Walmart)	14	27	41
South End Shopping Center	11	9	20
W Oak Ridge Drive & Premium Outlets Boulevard (Premium Outlets)	5	8	13
W Memorial Boulevard & Submit Avenue	3	0	3

Figure I-19: Premium Outlets Stop Activity, Saturday, May 5, 2018

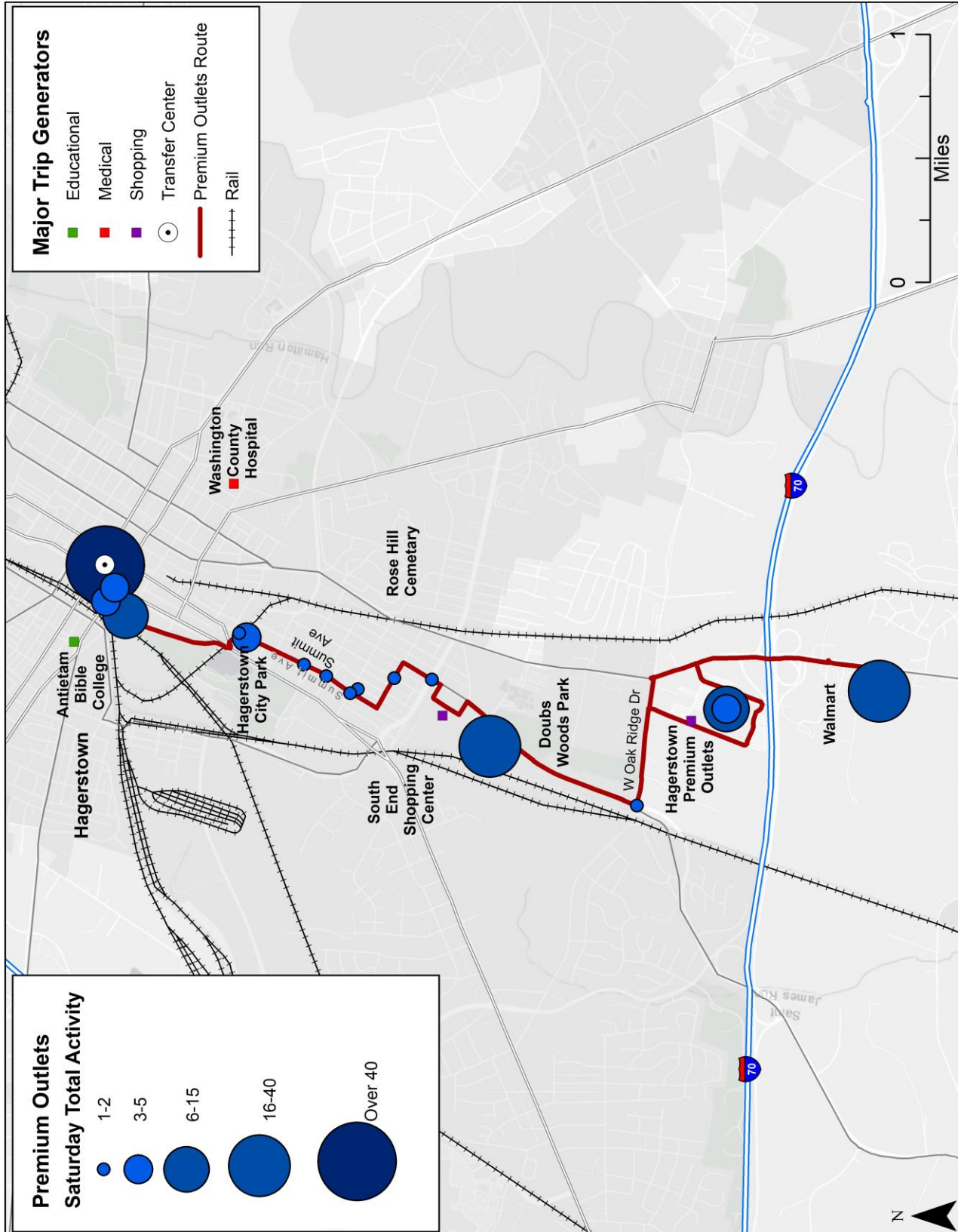
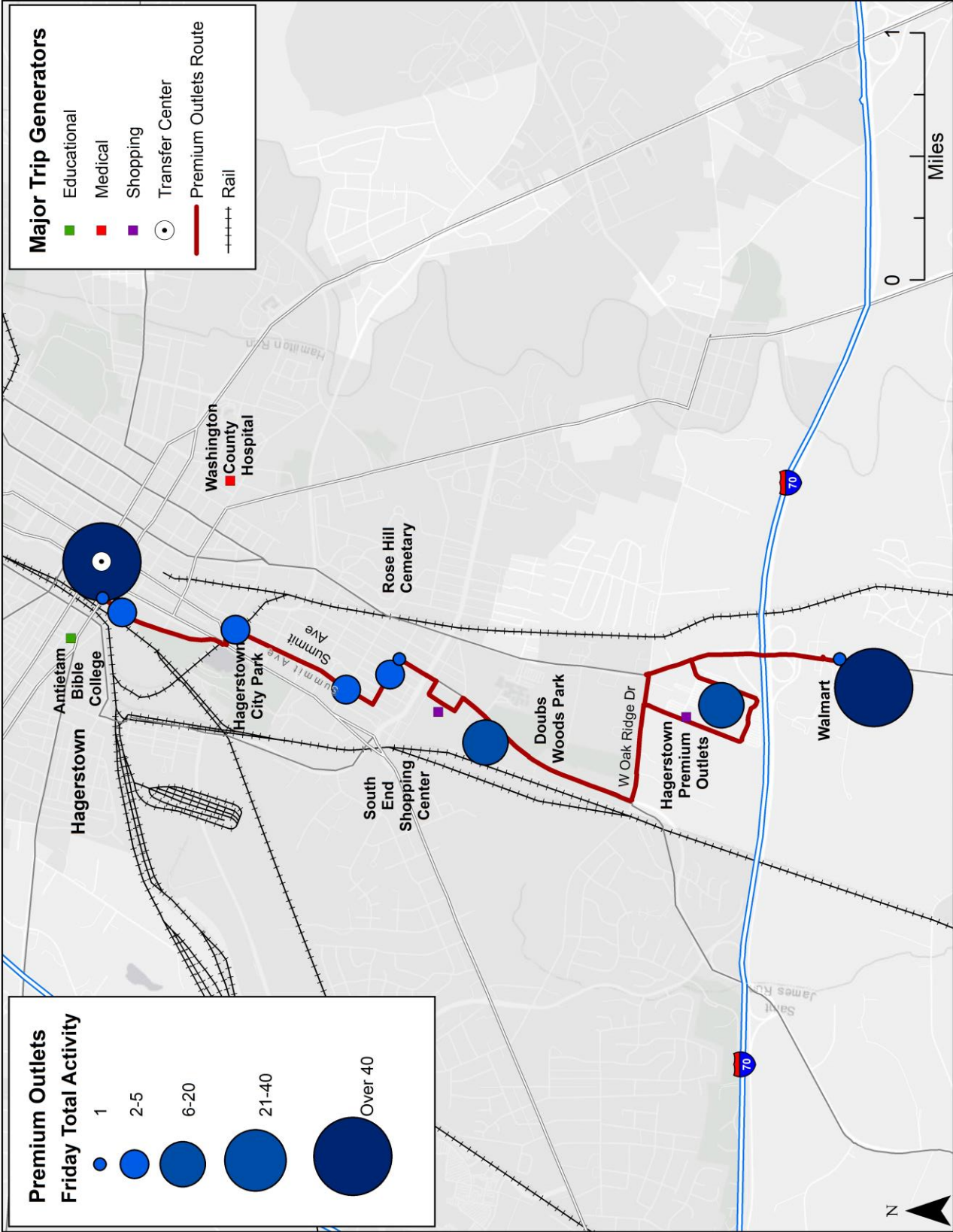


Figure 1-20: Premium Outlets Stop Activity, Friday, May 5, 2018



Smithsburg Route

On the Saturday that passenger counts were conducted, it was found that the Transfer Center had the most activity, followed by Francis Murphy Senior Apartments and Meritus Health Center. Excluding the Transfer Center, Francis Murphy Senior Apartments had the largest number of passengers boardings. Figure 1-21 depicts the total stop activity for the Smithsburg route on Saturday, May 5, 2018.

Table 1-10: Smithsburg Top 5 Total Stop Activity, Saturday, May 5, 2018

Stop	Number of Boardings	Number of Alightings	Total Activity
Transfer Center	17	4	21
Francis Murphy Senior Apartments	5	4	9
Meritus- Robinwood Medical Centers	2	3	5
Kings Crest Boulevard & Stonecroft Court (Stonecroft Apartments)	2	2	4
S Main Street & Grove Lane	3	1	4

Overall the Smithsburg route experienced a decrease in total activity on all of its stops on Friday in comparison to the previous Saturday. The Transfer Center had the most activity followed by the Senior Center. Figure 1-22 illustrates the total stop activity on Friday.

Table 1-11 Smithsburg Top 5 Total Stop Activity, Friday, May 11, 2018

Stop	Number of Boardings	Number of Alightings	Total Activity
Transfer Center	5	7	12
Senior Center	1	2	3
E Antietam Street & S Mulberry Street	1	1	2
Jefferson Boulevard & Robinwood Drive	2	0	2
S Cleveland Avenue & E Antietam Street	0	2	2

Figure 1-21: Smithsburg Total Stop Activity, Saturday, May 5, 2018

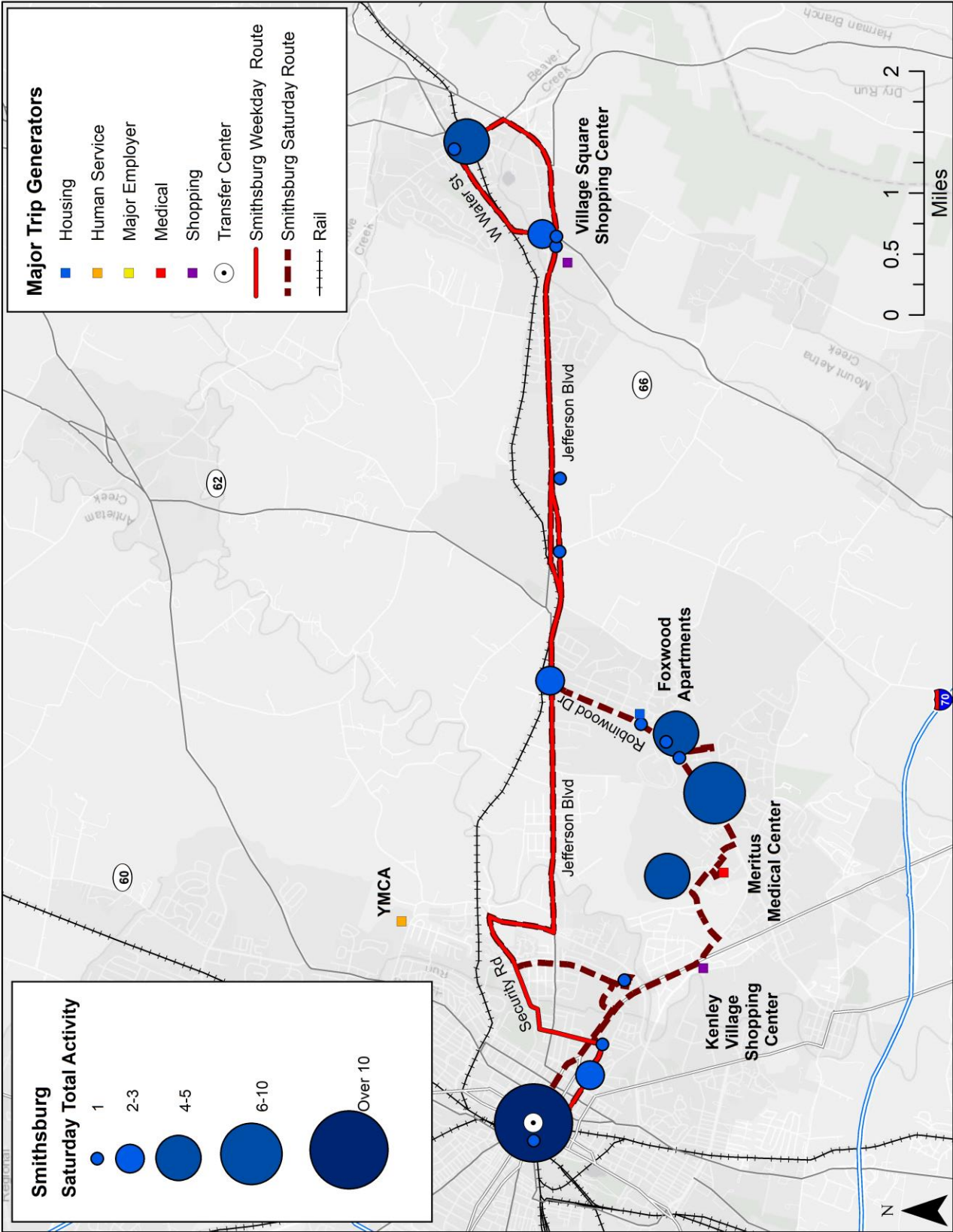
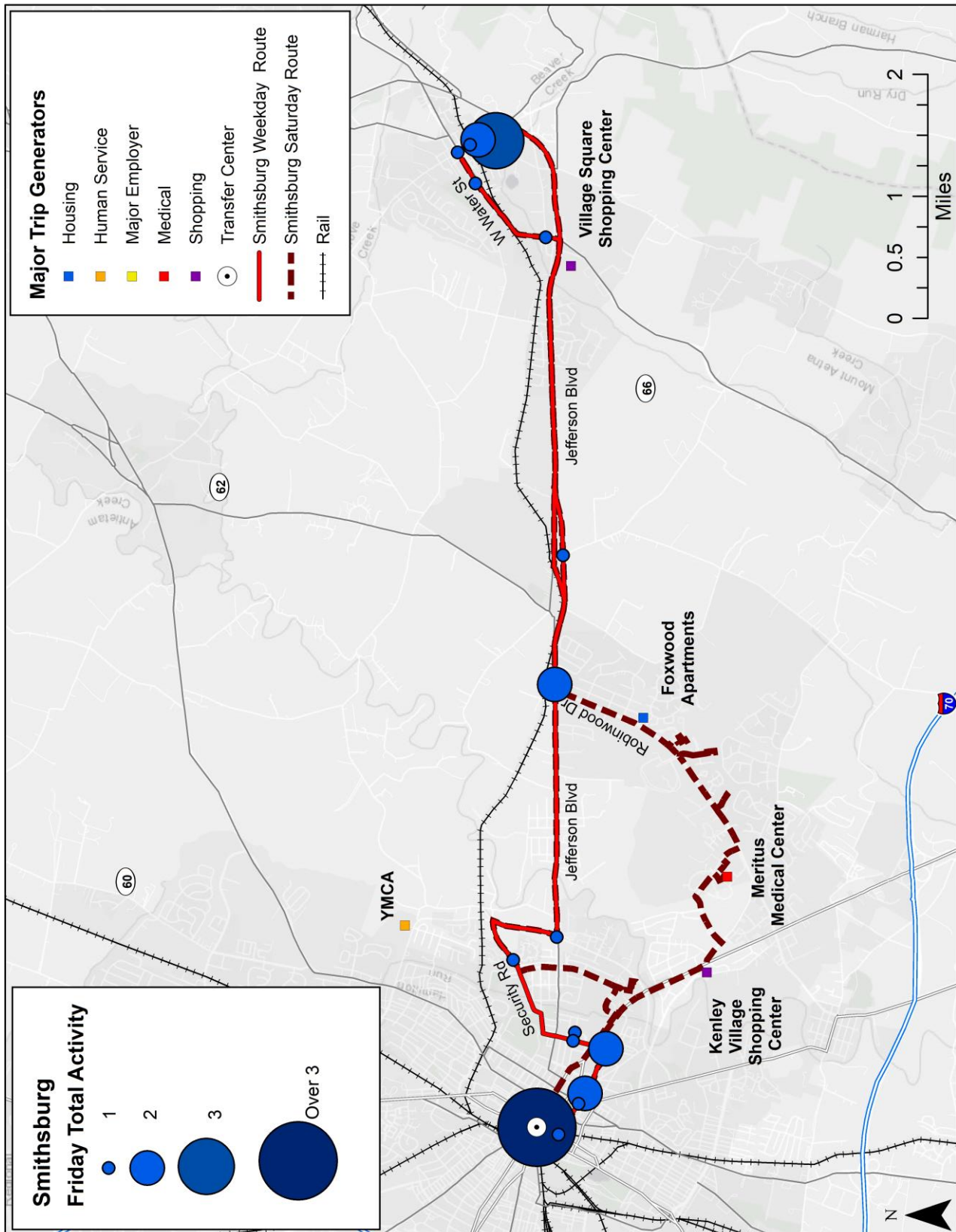


Figure I-22: Smithsburg Total Stop Activity, Friday, May 11, 2018



West End Stop Activity

Figure 1-23 illustrates the total Saturday stop activity for the West End route. The Transfer Center and Walmart were the most active stops during the ridership count period. As Table 1-12 indicates, the Transfer Center and Walmart had the largest number of passenger boardings and the Transfer Center had only one more alighting than Walmart.

Table 1-12: West End Top 5 Total Stop Activity, Saturday, May 5, 2018

Stop	Number of Boardings	Number of Alightings	Total Activity
Transfer Center	73	88	161
Walmart	73	87	160
Salem Ave & Central Avenue	9	12	21
Salem Ave & Mitchell Avenue	4	13	17
W Washington St & Buena Vista Ave (Washington County Transit Office)	8	5	13

Total activity decreased from the previous Saturday to the Friday ridership counts. The Transfer Center and Walmart were still the most active stops. However, Walmart had the highest number of alightings whereas the Transfer Center had the most passenger boardings. This indicates that Walmart is a major destination for riders on the Friday. The total activity for Friday is shown in Figure 1-24.

Table 1-13 West End Top 5 Total Stop Activity, Friday, May 11, 2018

Stop	Number of Boardings	Number of Alightings	Total Activity
Transfer Center	123	20	143
Walmart	55	74	129
Garland Groh Blvd (Parking Lot)	7	9	16
Western Maryland Pkwy (Parkway Neuroscience & Spine Institute)	6	7	13
W Washington St & Buena Vista Ave (Washington County Transit Office)	4	8	12

Figure I-23: West End Total Stop Activity, Saturday, May 5, 2018

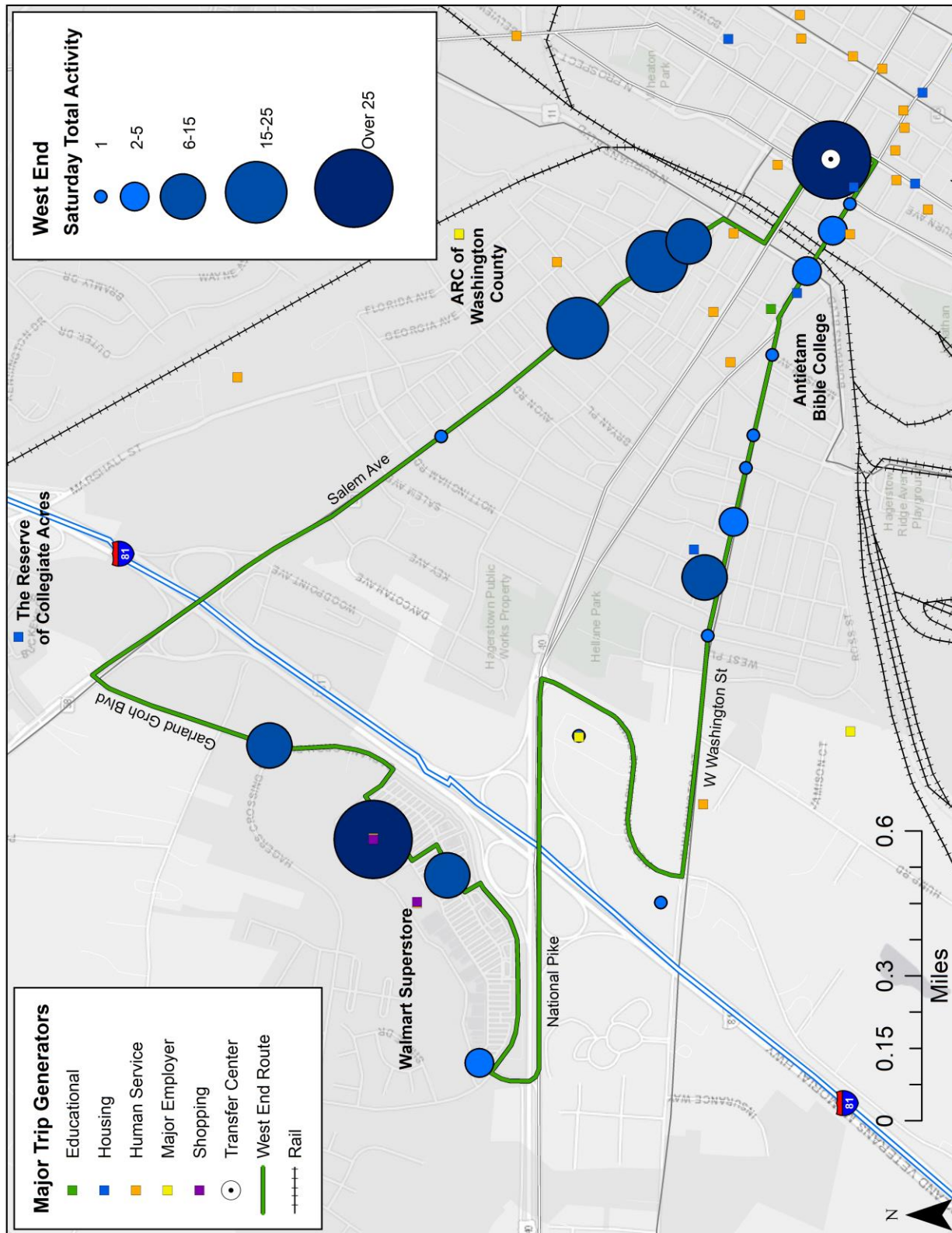
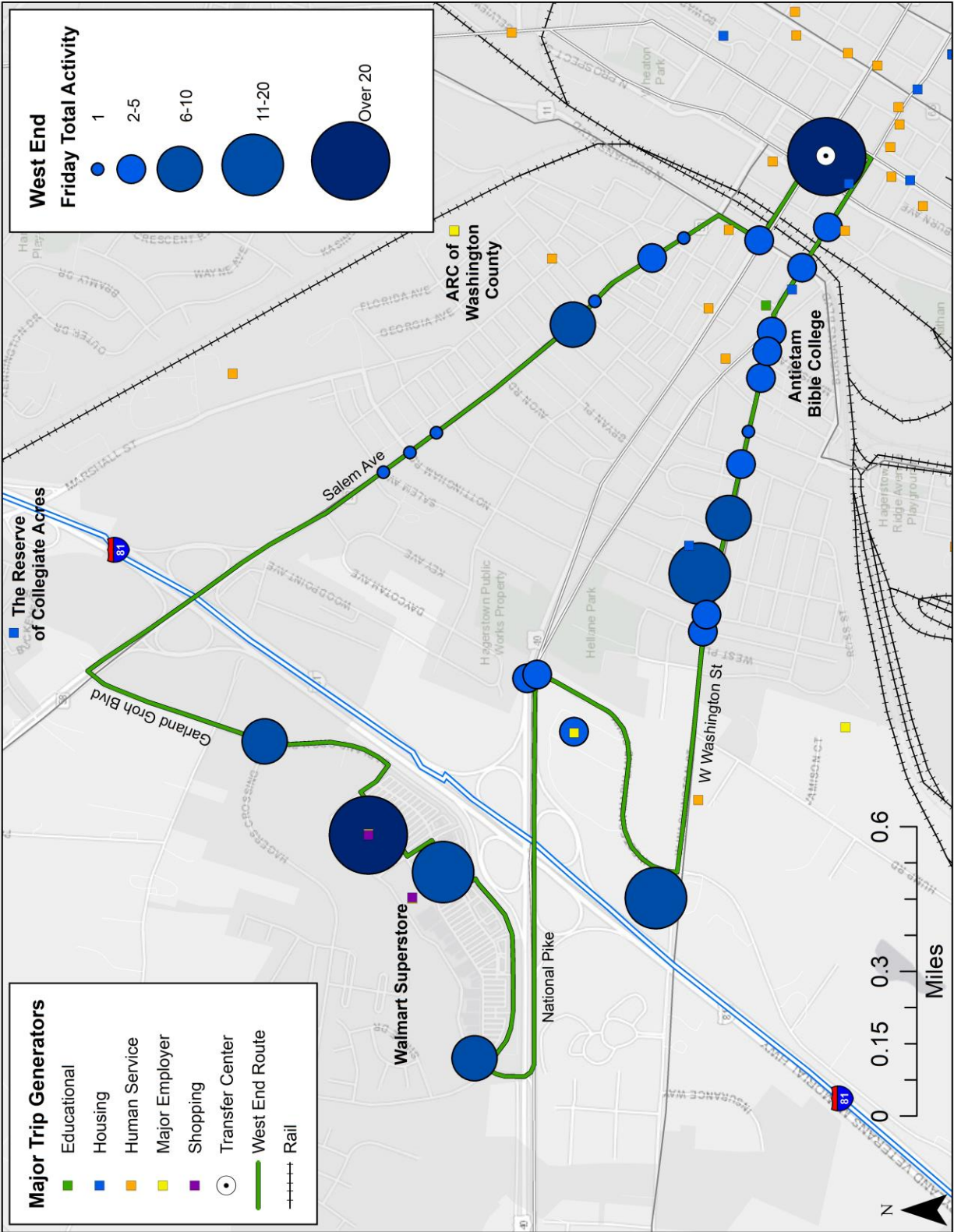


Figure 1-24: West End Total Stop Activity, Friday, May 11, 2018



EXISTING FACILITIES AND FLEET

Existing Facilities

Washington County Transit's administrative office and vehicle maintenance/storage facility is located at 1000 West Washington Street in Hagerstown. The building provides administrative offices, conference rooms, indoor vehicle storage, a full-service vehicle maintenance facility, and a bus wash bay. Given current service levels, the facility has adequate capacity for the foreseeable future.

Figure I-25: Washington County Transit Administrative and Vehicle Maintenance Facility



The WCT Transfer Center is located at 123 West Franklin Street in downtown Hagerstown. The facility is the central hub for each of WCT's routes. Buses arrive at the center every 30 or 60-minutes, depending upon the route, to allow transfers to other WCT routes. The facility provides covered seating, garbage bins, and an automated fare machine for waiting passengers. For WCT drivers the facility boasts a break room as well as a restroom for drivers.

Figure I-26: Washington County Transit Transfer Center



Fleet

Shown in Table 1-14, WCT's fleet consists of 17 revenue vehicles and four support vehicles. The majority of the fleet is made up of medium-duty International buses with a small contingent of light-duty Ford buses used for demand response service. A WCT medium-duty bus is shown in Figure 1-27.

Figure 1-27: WCT Medium-Duty Bus



Table 1-14: Washington County Transit Vehicle Fleet

Fleet No.	Type	Year	Make	VIN	Seating (A/WC)	Mileage	Route Type
Revenue Vehicles							
701	Medium Duty	2007	International	1HVBTAFM57W501869	17/2	221,626	Fixed Route
702	Medium Duty	2007	International	1HVBTAFM17W501870	17/2	241,554	Fixed Route
703	Medium Duty	2007	International	1HVBTAFM37W501871	17/2	229,129	Fixed Route
704	Medium Duty	2007	International	1HVBTAFM57W501872	17/2	241,167	Fixed Route
705	Medium Duty	2007	International	1HVBTAFM97W501874	17/2	227,900	Fixed Route
706	Medium Duty	2007	International	1HVBTAFM27W501876	17/2	246,722	Fixed Route
707	Medium Duty	2007	International	1HVBTAFM47W501877	17/2	224,444	Fixed Route
709	Medium Duty	2007	International	1HVBTAFMX7W501883	17/2	215,662	Fixed Route
710	Medium Duty	2010	International	1HVBTSKM9AH255559	17/2	208,596	Fixed Route
711	Medium Duty	2010	International	1HVBTSKM9AH255562	17/2	196,480	Fixed Route
713	Medium Duty	2014	International	5WEASAAN8FH517732	18/2	81,564	Fixed Route
714	Medium Duty	2014	International	5WEASAANXFH517733	18/2	81,002	Fixed Route
503	Light Duty	2009	Ford	1FDEE35P09DA155791	4/3	168,050	Dem. Resp.
504	Light Duty	2009	Ford	1FDEE35P39DA37723	4/3	148,893	Dem. Resp.
505	Light Duty	2015	Ford	1GB3G2BL7F1184484	4/3	48,505	Dem. Resp.
203	Acc. Van	2016	Ford	1FBZX2XV9GKA26497	10/0	54,649	Dem. Resp.
204	Acc. Van	2016	Ford	1FBAX2XVOGKA26498	10/0	52,662	Dem. Resp.
Non-Revenue Vehicles							
S-2	Support Van	2010	Dodge	2D4RN4DE4AR487445	5/0	25,724	N/A
T-1	Staff Vehicle	2005	Chevy	1GCHK24255E300213	5/0	18,735	N/A

OTHER AREA TRANSIT PROVIDERS

It is important to understand the transportation market in the Washington County region and identify areas for collaboration and/or expansion. This section provides a detailed discussion of the existing transportation providers serving Washington County, excluding Washington County Transit. First, the Maryland Transit Administration is discussed and then several of the larger human service, non-profit and government agencies are described. The Washington County Community Action Council, supported financially by local and state agencies and Washington County Transit, implements several extensive transportation programs.

MDOT MTA Commuter Bus

MDOT MTA offers commuter bus service from Hagerstown to the Shady Grove Metro Station with select trips continuing to the Rock Spring Business Park in Northern Bethesda. The Hagerstown-Shady Grove/Rock Spring (505) route starts in the Motor Vehicle Administration (MDOT MVA) park and ride lot in Hagerstown. The 505 Route then travels to the Shady Grove Metro Station via the Meyersville Park and Ride, where there are connections with the WMATA Metro Red Line and other regional providers. Seven of the daily 18 trips then continue to the Rock Spring Business Park. The trip is 90 minutes one-way; service starts in Hagerstown at 4:05 a.m. and ends in Hagerstown at 8:21 p.m. The service runs Monday through Friday, operating to accommodate commuters. Fares are based on zones and cost between \$3.40 and \$5.75 for a one-way trip. Ten-trip tickets and monthly passes, as well as reduced fares for those aged 65 and above and individuals with disabilities, are also available. This service allows Washington County residents access to employment in Montgomery County and the District of Columbia.

Human Service Transportation

There are several agencies that provide transportation for their clients and the populations that they serve—older adults, people with disabilities, children, and people with low incomes. A majority of the subsidized human services and employment transportation is provided through the Washington County Community Action Council. There are several other non-profit and government agencies serving Washington County residents that provide or support transportation to the populations and amenities that they support. The main agencies that support human service transportation in Washington County are described below.

Washington County Community Action Council, Inc.

The Washington County Community Action Council provides a little over 100,000 rides a year through its Community Action Transit (CAT) program, which started in 2009. They offer three types of transportation services: the Hopewell Express, transportation to day programs

and medical transportation. CAT operates 13 wheelchair accessible passenger buses (that carry 16 to 20 people) and one van. They typically use the van for longer medical trips to Baltimore and Washington, D.C. The Hopewell Express typically uses three to four buses to operate.

Out of the three types of transportation services, the Hopewell Express has the most riders, with approximately 67,000 in the fiscal year 2018. This service provides free rides for low-income workers from downtown Hagerstown to employment centers in the Hopewell Road corridor. The service runs hourly, Monday through Friday for 20 hours a day to accommodate shift and overnight work schedules. The county Department of Health and Human Services pays half the operating cost and MTA matches the other half.

CAT's fixed route day program services transport clients who are older and/or have a disability to and from adult day centers as well as Baltimore/Washington DC hospitals. In 2017, CAT provided almost 36,000 rides to adult day centers. Adult day agencies contract with CAT and pay for half of the operating costs. MTA matches the other half of the finding.

CAT also provides about 5,000 trips to medical services. While MTA funds 50% of the operating costs, the agency supports the remaining cost by providing Ride Assist Vouchers to eligible riders. Riders who do not meet the qualifications for vouchers are asked to pay a fare. CAT charges \$16 an hour and \$1 a mile for rides to medical appointments.

The Transportation Subcommittee of the Washington County Disabilities Advisory Committee supports the CAT and hopes to achieve a more coordinated human service transportation network in the county. CAT focuses on serving people with disabilities, older adults and low-income populations by offering rides to transportation, medical appointments and human services—such as adult day programs.

The ARC of Washington County

Fostering community involvement, independence and dignity for more than 900 people with developmental disabilities in western Maryland, The ARC of Washington County strives to improve the quality of life for all people with disabilities. Founded in 1952, the ARC focuses on services for people with developmental disabilities of all ages and abilities and offer the following services:

- Adult residential services
- Child residential services
- Personal support services
- Individual and family support services
- Intensive behavior management programs
- Stepping Stones
- Day habilitation
- Supported employment
- Medical Day
- Community learning services

The ARC provides transportation services for day, residential, employment, and community-based services and children's programs. They use Section 5310 vehicles for fixed route transportation and also provide other types of transportation for their clients individually or in small groups. They provide these transportation services with approximately 225 vehicles.

Easterseals Adult Day Services-Hagerstown

Similar to The Arc of Washington County, Easterseals is a non-profit agency serving people with disabilities of all ages. The Easterseals Adult Day Services in Hagerstown provides clinical services, engaging daily activities, transportation, field trips, and nutritious meals for older adults and adults with disabilities. They have approximately five vehicles for transporting clients to their services.

Washington County Commission on Aging

Located in Hagerstown, the Washington County Commission on Aging is the Area Agency on Aging for Washington County. In addition to older adults, they also serve people of all ages with disabilities. They provide support and services to help residents of Washington County continue to live independently in their homes. In addition to running a senior center, the Washington County Commission on Aging provides guardianship assistance, small-group home housing subsidies, Medicaid waivers, senior health insurance, benefits screening, ombudsman services, and nutrition and wellness services.

Washington County Department of Social Services

The Washington County Department of Social Services, in Hagerstown, provides adult, child and family services to help residents of Washington County live independently in their own homes. They serve older adults and people with disabilities. Transportation is one of the services they provide, including bus vouchers and contracting for transportation services to aid people with low incomes in accessing social and health services.

Washington County Health Department

The Washington County Health Department provides health-related services to the residents of Washington County. The Washington County Health Department houses the Division of Behavioral Health, providing mental health services and support. They fund transportation services for individuals on medical assistance. For example, the Washington County Health Department contracts with the Community Action Council for transportation through the Job Opportunity Bus Shuttle, County Commuter, and Hopewell Express.

Chapter 2

Review of Transit Needs

INTRODUCTION

This chapter provides an updated assessment of transit needs in the Washington County transit service area based on demographics and land use, commuting patterns, stakeholder and community input, and a review of recent transportation and planning studies. These inputs helped the study team identify geographic areas and population segments with high transit needs and to examine whether WCT's existing services are meeting those needs.

Input collected through stakeholder interviews and public surveys identified the top transit improvements desired by riders and by potential transit users. Recent studies were reviewed to identify transit related issues and recommendations. Combined with the review of existing services, the study team's evaluation of transit needs from various angles helped identify the top issues and opportunities for WCT to address in the TDP service and organizational alternatives.

DEMOGRAPHICS REVIEW

The study team analyzed current and future population trends WCT's service area, which includes the demographics of population groups that often depend on transportation options beyond an automobile. Data sources for this analysis included the U.S. Census Bureau's 2010 Census and the 2011-2015 American Community Survey (ACS) five-year estimates. The demographic analysis was conducted at the census block group level, which is the smallest geographic unit for which ACS data is available.

The study area includes the City of Hagerstown and Washington County. For some block groups, potential transit need may be concentrated around specific trip generators, even though the entire block group appears to have high needs. Thus it is important to consider land uses and stakeholder and public input (i.e. ridership surveys, community surveys, and stakeholder interviews), in identifying areas with potential transit needs or markets.

Population Trends

Table 2-1 shows the U.S. Census population counts for the City of Hagerstown, Washington County, and the State of Maryland for comparison. The data shows that the region has experienced population growth over the past couple of decades. Since the 1990 Census, the population of Washington County increased by 21%, a rapid growth rate for the region.

Table 2-1: Historical Population

Place	1990	2000	2010	1990-2000 Percent Change	2000-2010 Percent Change	1990-2010 Percent Change
City of Hagerstown	35,445	36,687	39,662	3.5%	8.1%	11.9%
Washington County	121,393	131,923	147,430	8.7%	11.8%	21.4%
Maryland	4,780,753	5,296,486	5,773,552	10.8%	9.0%	20.8%

Source: U.S. Census

As shown in Table 2-2, the most recent American Community Survey (ACS) data indicates that the population has slightly increased since the 2010 Census.

Table 2-2: Recent Population Trends

Place	2010	2017	2010-2017 Percent Change
City of Hagerstown	39,662	40,306	1.6%
Washington County	147,430	150,578	2.1%
Maryland	5,773,552	6,052,177	4.8%

Source: U.S. Census, American Community Survey

Table 2-3 and Table 2-4 show that the population in Washington County is projected to increase steadily and at a rate higher than Western Maryland counties. The projected growth rate is also consistently higher than the state rate and mirrors the growth rate of Frederick County by 2025.

Table 2-3: Total Projected Population in Western Maryland Counties

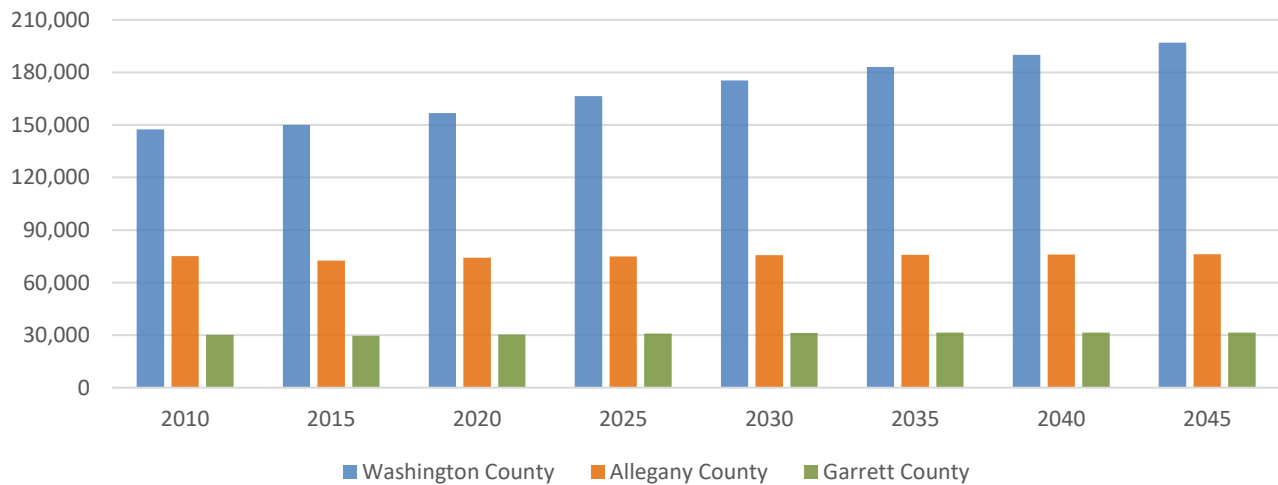
Place	2010	2015	2020	2025	2030	2035	2040	2045
Washington County	147,430	150,000	156,800	166,450	175,400	183,100	189,950	197,050
Allegany County	75,087	72,650	74,150	74,900	75,650	75,900	76,050	76,200
Garrett County	30,097	29,600	30,300	30,900	31,250	31,400	31,450	31,500
Frederick County	233,385	245,600	260,800	288,700	303,600	319,350	332,150	344,150
Maryland	5,773,552	5,988,400	6,141,900	6,336,500	6,518,750	6,676,900	6,834,500	6,968,700

Source: Maryland Department of Planning, Projections and State Data Center, 2019

Table 2-4: Projected Growth Rates in Western Maryland Counties

Place	2000 – 2010	2010 – 2015	2015 – 2020	2020 – 2025	2025 – 2030	2030 – 2035	2035 – 2040	2040 – 2045
Washington County	1.12%	0.35%	0.89%	1.2%	1.05%	0.86%	0.74%	0.74%
Allegany County	0.02%	-0.66%	0.41%	0.2%	0.2%	0.07%	0.04%	0.04%
Garrett County	0.08%	-0.33%	0.47%	0.39%	0.23%	0.1%	.03%	.03%
Frederick County	1.8%	1.03%	1.21%	2.05%	1.01%	1.02%	0.79%	0.71%
Maryland	0.87%	0.73%	0.51%	0.63%	0.57%	0.48%	0.47%	0.39%

Projection Source: Maryland Department of Planning, Projections and State Data Center, 2019

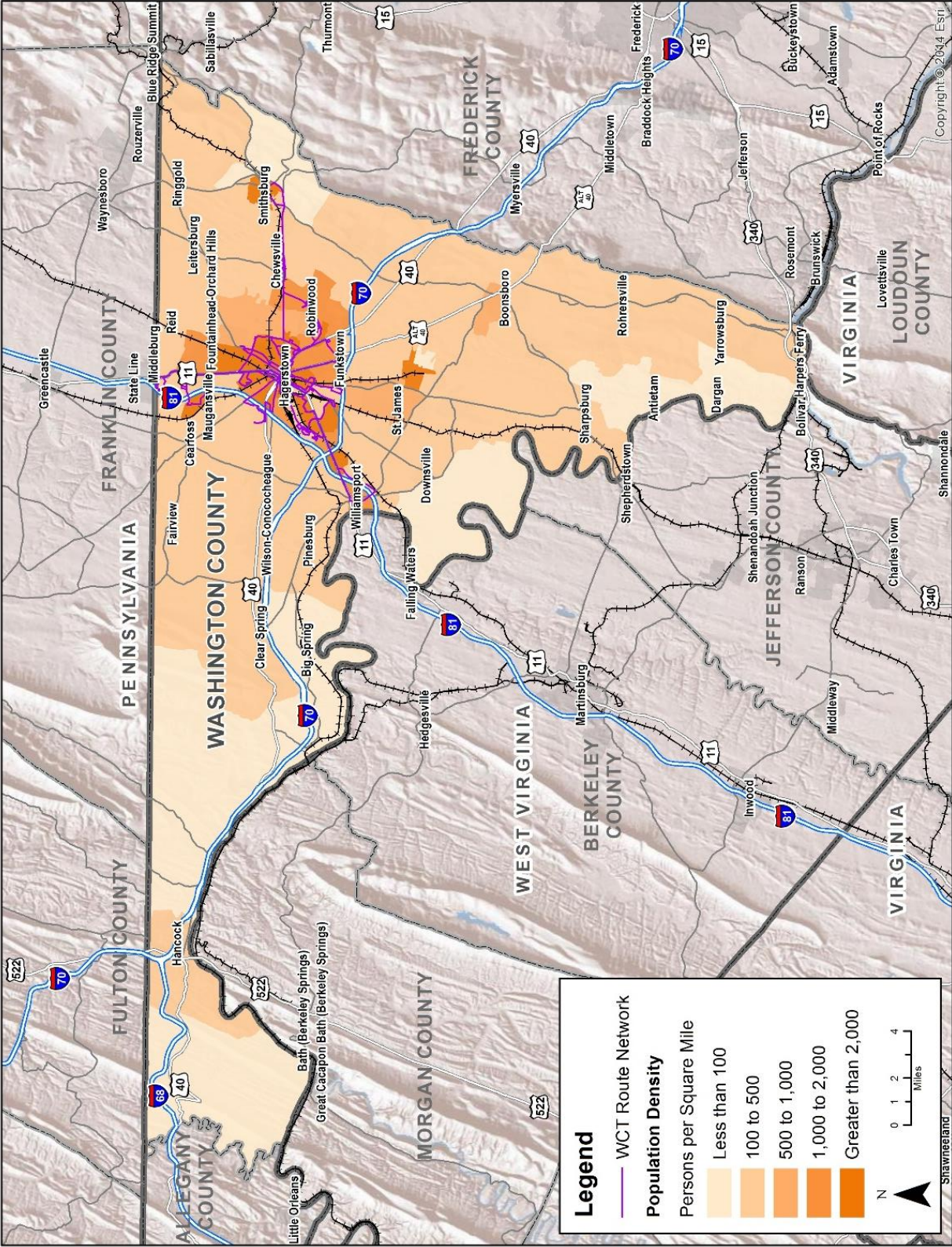
Figure 2-1: Population Projection in Western Maryland Counties 2010 - 2045

Population Density

A determinate for the type of public transportation that is feasible in an area is population density. Typically, an area with a density greater than 2,000 persons per square mile will be able to sustain a daily fixed route bus service. Areas with higher population densities generally can support and often warrant higher frequency transit service. Areas with lower population densities below 2,000 persons per square mile may be better suited for deviated fixed route, flex schedule, or dial-a-ride service.

Figure 2-2 shows the population density at the census block group level and WCT's fixed route service. WCT already serves the high-density areas of Washington County, largely concentrated around the City of Hagerstown and the surrounding towns.

Figure 2-2: Population Density



Transit Dependent Populations

When defining public transportation needs it is important to identify the relative size and location of populations that are more likely to depend on transit service. Transit dependent populations may include individuals who do not have access to a personal vehicle or may be unable to drive due to age or income status. The Transit Dependence Index provides a relative measurement based on the study area's average for each demographic characteristic.

Transit Dependence Index

The Transit Dependence Index (TDI) is an aggregate measure that utilizes recent data from the ACS five-year estimates and the decennial Census to display relative concentrations of transit dependent populations. Five factors make up the TDI calculation:

- Population density (persons per square mile)
- Autoless households
- Elderly population
- Youth population
- Below poverty population

For each factor, individual block groups were classified according to the prevalence of the vulnerable population relative to the study area average. The factors were then put into the TDI equation to determine the relative transit dependence of each block group (low, elevated, moderate, high, or very high). The TDI highlights the areas with the greatest potential transit needs based on population density and significant numbers of populations that typically rely on public transportation. While some block groups show low need, they may include major destinations that should be served by transit. Persons with disabilities were not included in the TDI; this population was examined separately in the needs analysis. Figure 2-3 provides the results of the TDI analysis. The areas of highest need are located in and around Hagerstown, including Robinwood, Smithsburg, and Williamsport. The areas with low need based on the TDI are areas with transit dependent populations at lower densities.

Transit Dependence Index Percentage

The Transit Dependence Index Percentage (TDIP) provides a complementary analysis of the TDI measure. It is nearly identical to the TDI measure with the exception of the population density factor. The TDIP measures the degree rather than the amount of vulnerability and captures areas that have a significant percentage of potentially transit dependent populations, regardless of density. A composite score for transit need is calculated based on the percentages of the vulnerable populations in each block group, which is categorized following the TDI's five tiers, from very low to very high. Shown in Figure 2-4, the results of the TDIP analysis revealed a few additional areas with low to moderate potential transit need: the areas around Cearfoss and Hancock.

Figure 2-3: Transit Dependence Index

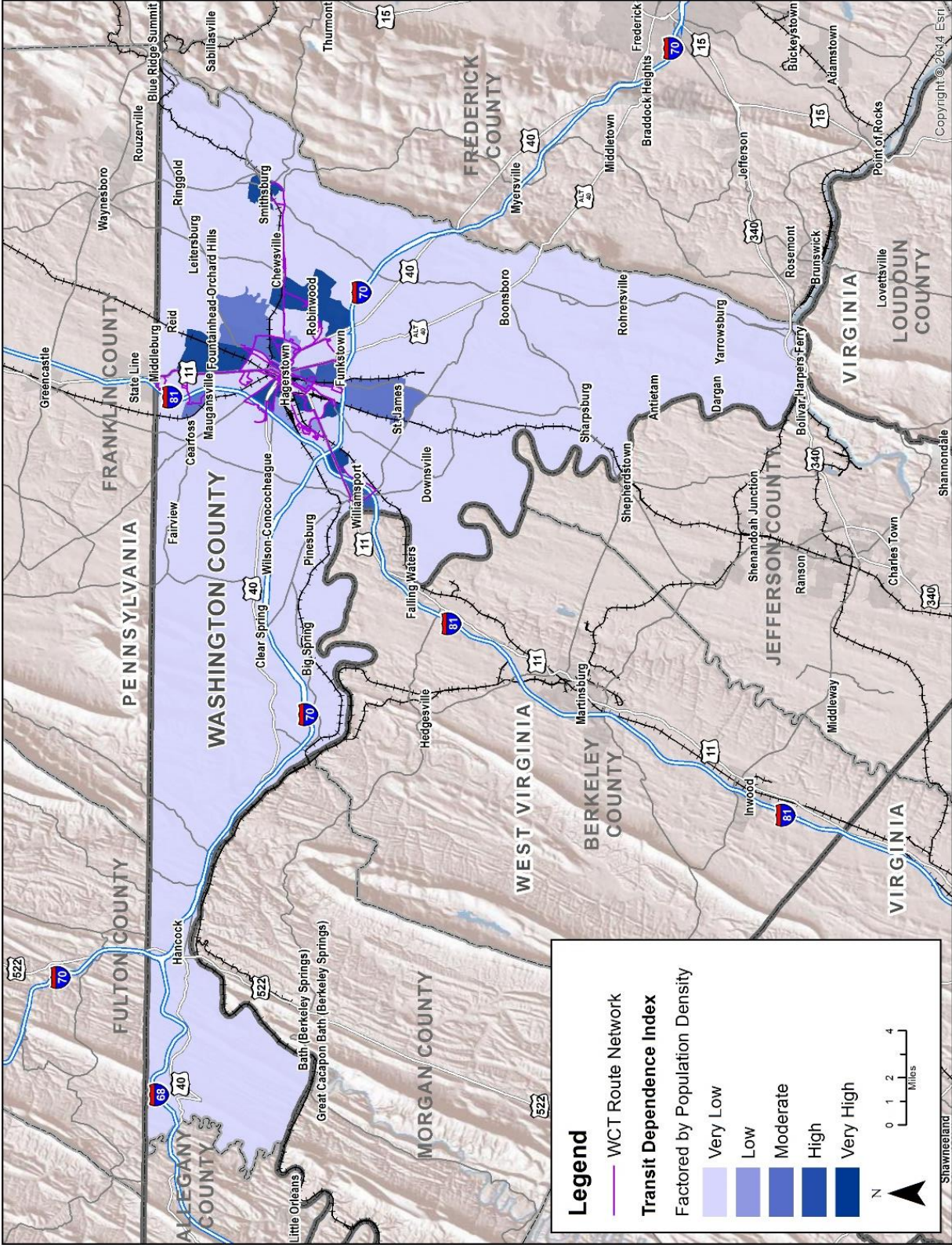
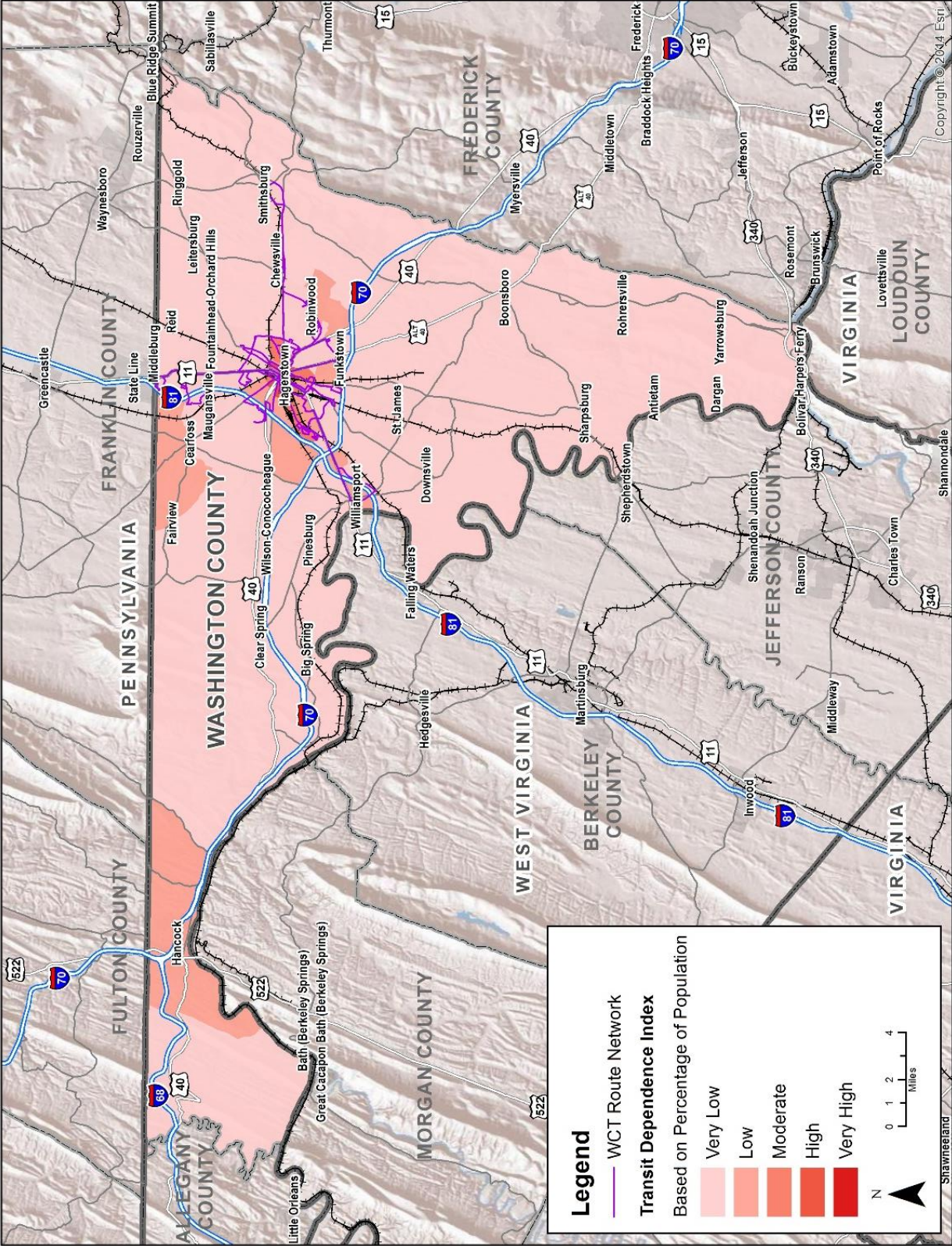


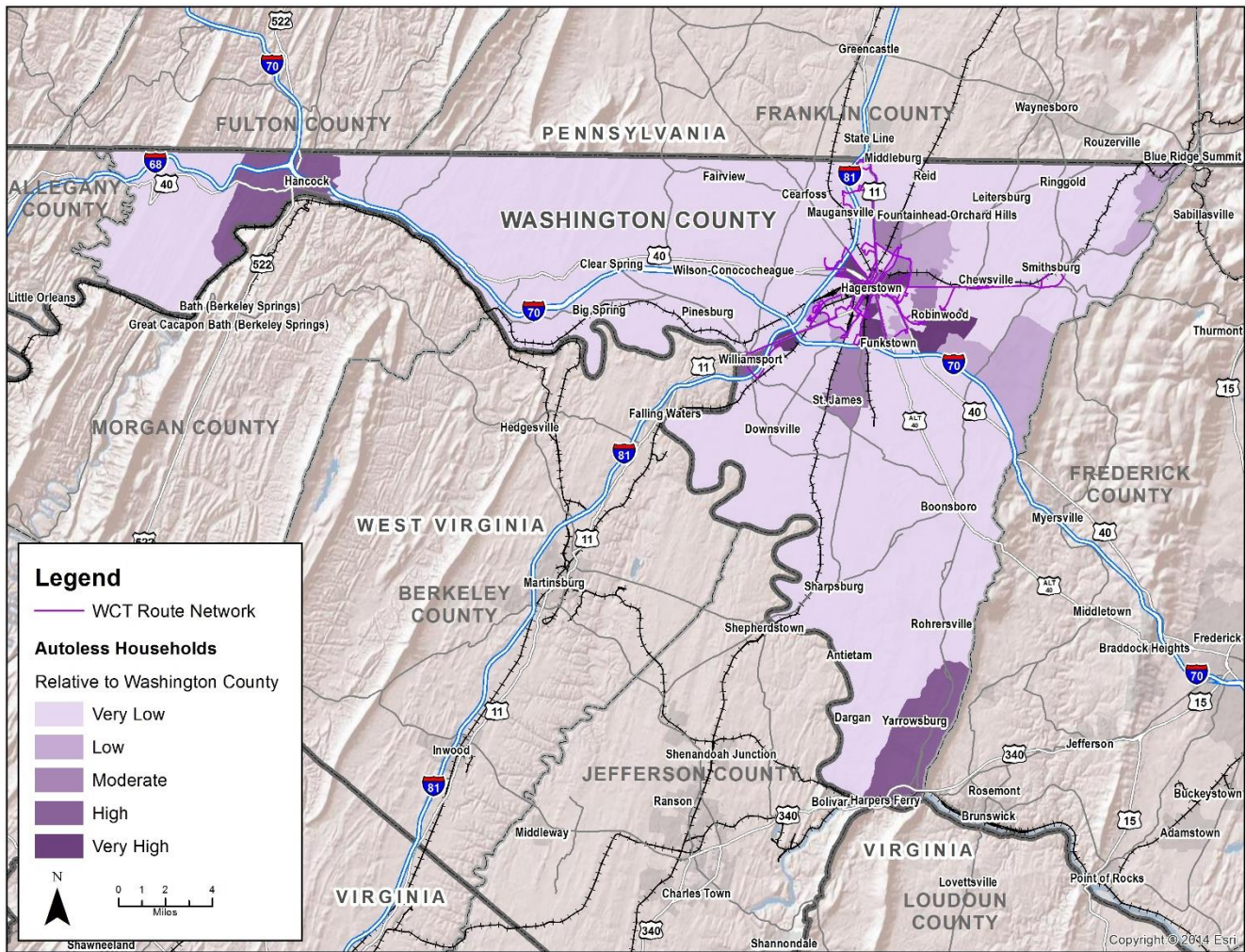
Figure 2-4: Transit Dependence Index Percentage



Autoless Households

Households without access to a personal vehicle are often more reliant on the mobility offered by public transit. Identifying the size and location of this population is important because some key community destinations are located at distances too far for non-motorized travel. Figure 2-5 illustrates relative transit need based on the number of autoless households. There are two census blocks that are categorized as having a very high need for public transit due to a lack of personal vehicle ownership that are not connected to the current WCT route network.

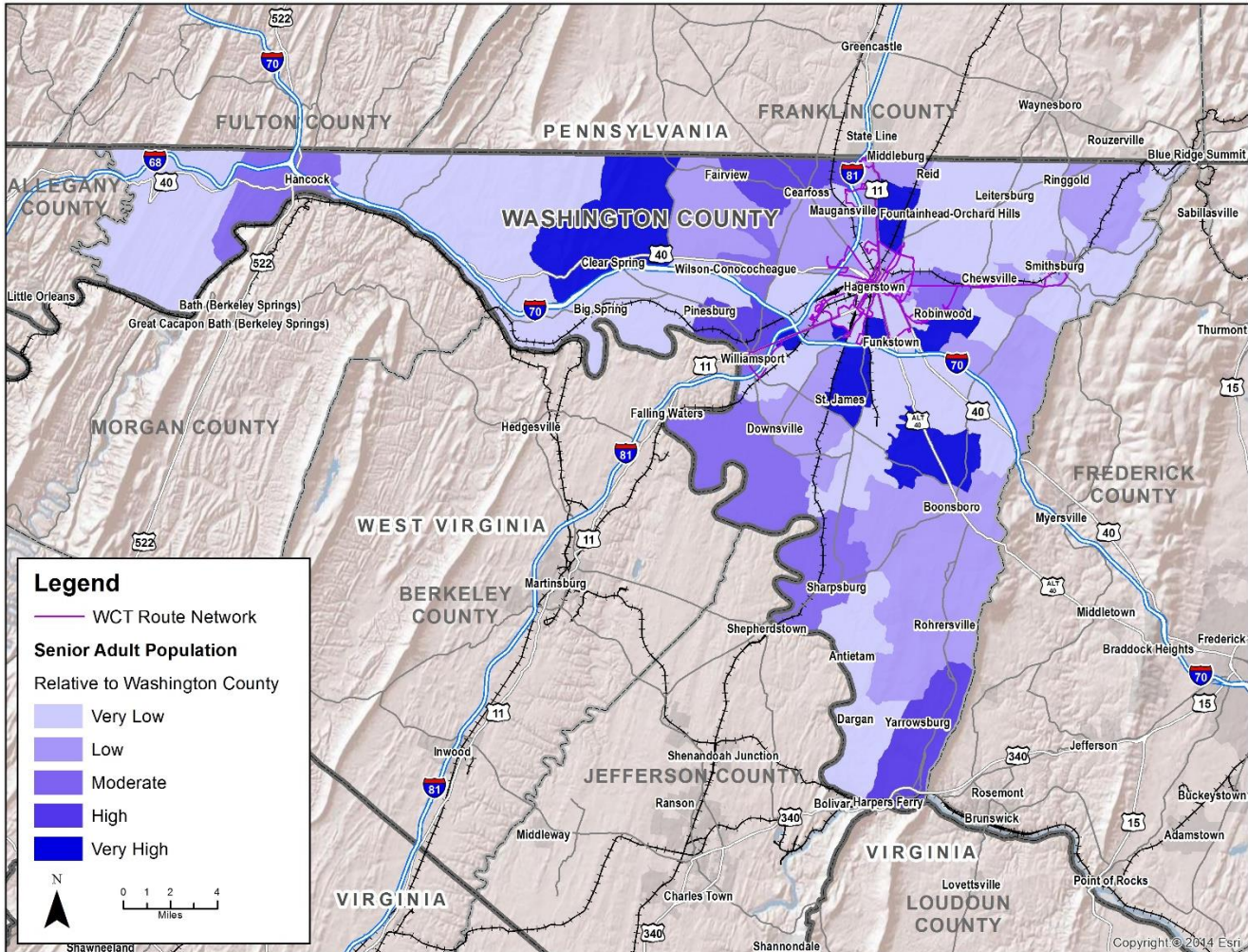
Figure 2-5: Autoless Households Relative to Study Area



Older Adult Population

Individuals ages 65 and older may begin to scale back their use of personal vehicles and rely more on public transportation compared to those in younger age brackets. Figure 2-6 shows the older adult population in the study area, indicating three block groups with “Very High” older adult populations and one with a “High” number of older adults.

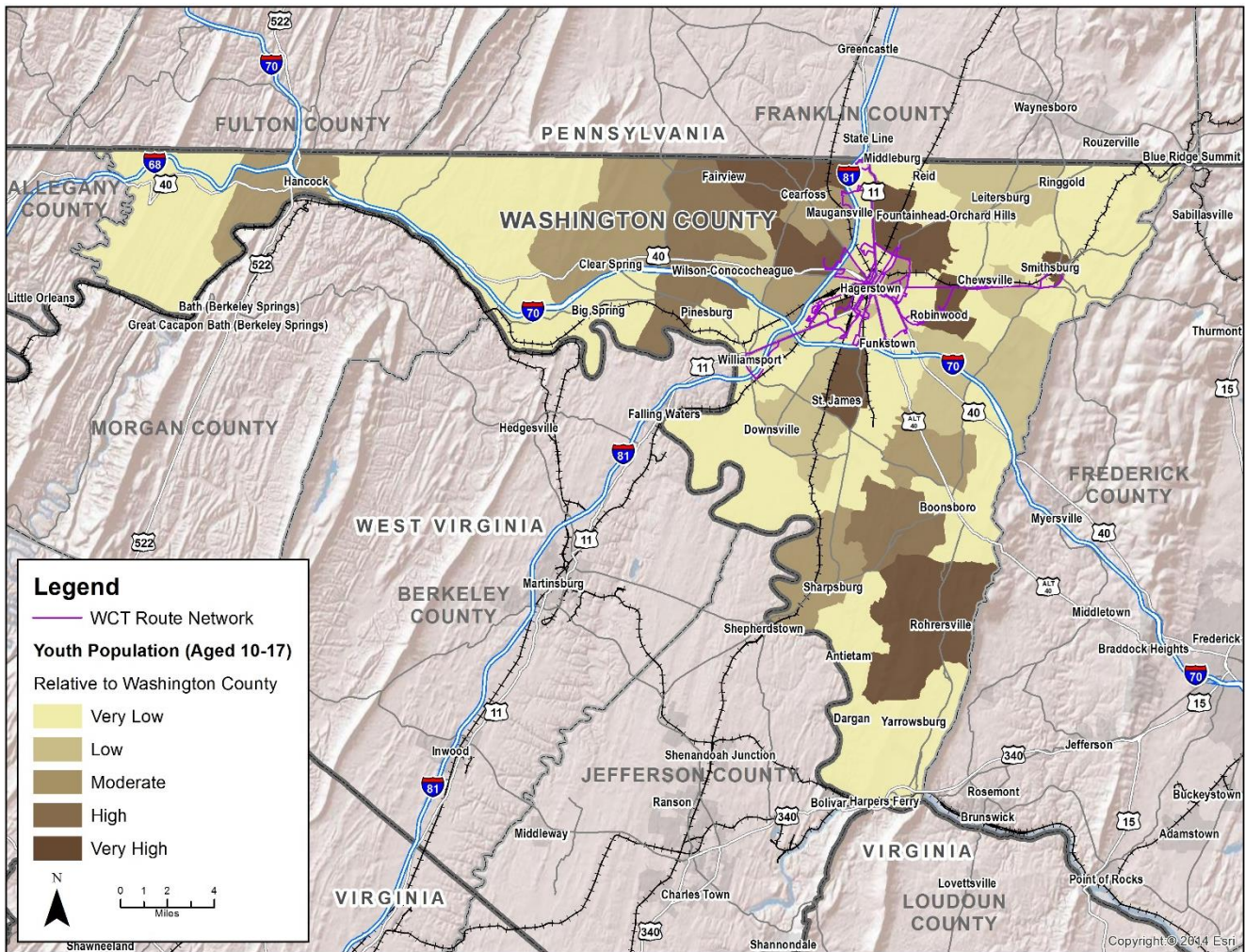
Figure 2-6: Older Adult Population Relative to Study Area



Youth Population

Public transportation can be an important mobility option for youths and teenagers, ages 10 to 17, who cannot drive or are just starting to drive but may not have an automobile available. In Rohrsersville, located in the southern portion of Washington County, it seems that the WCT Route Network does not reach this census block. However, the census block has a very high level of youths, which suggests that this population is lacking access to public transportation options.

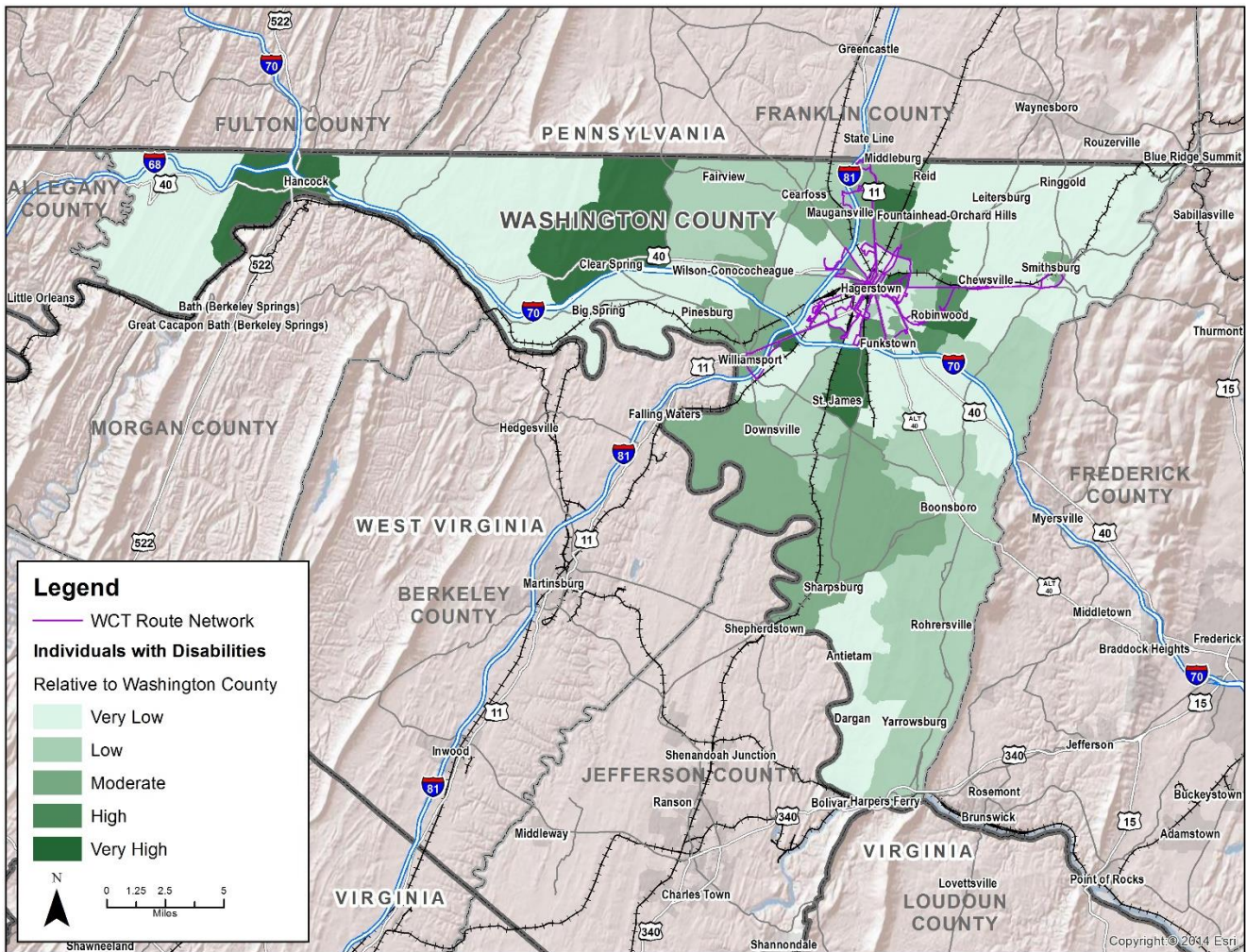
Figure 2-7: Youth Population Relative to Study Area



Individuals with Disabilities

Persons who have disabilities that prevent them from or make it difficult to own and operate a personal vehicle often rely on public transit for their transportation needs. Figure 2-8 portrays potential transit need based on the number of individuals with disabilities (ages 16 and older). It is evident that the census block located near Hancock and another near Clear Springs both have very high number of individuals with disabilities that are not connected to the WCT route network.

Figure 2-8: Individuals with Disabilities Relative to Study Area



Title VI Analysis

Title VI of the Civil Rights Act of 1964 prohibits discrimination by race, color or national origin in programs and activities receiving federal subsidies; this includes agencies providing public transportation services such as WCT. The following section examines the minority and below poverty populations in the service area and summarizes the prevalence of residents with limited English proficiency.

Minority Population

In accordance with Title VI of the Civil Rights Act, it is important to ensure that proposed alterations to existing public transportation services do not negatively impact areas with a higher than average concentration of racial and ethnic minorities. To determine whether an alteration would have an adverse impact it is necessary first to understand where concentrations of minority individuals reside. Figure 2-9 provides a map of the service area showing the census block groups that have minority populations above or below the service area average of 16.3%.

Low Income Population

This socioeconomic group represents individuals who earn less than the federal poverty level. These individuals face financial hardships that may make owning and providing the necessary maintenance of a personal vehicle difficult. For this segment of the population, public transportation may be the more economical choice. Figure 2-10 provides a map that shows the census block groups according to whether the poverty rate is above or below the study area average of 12.1%.

Figure 2-9: Minority Population Relative to Study Area

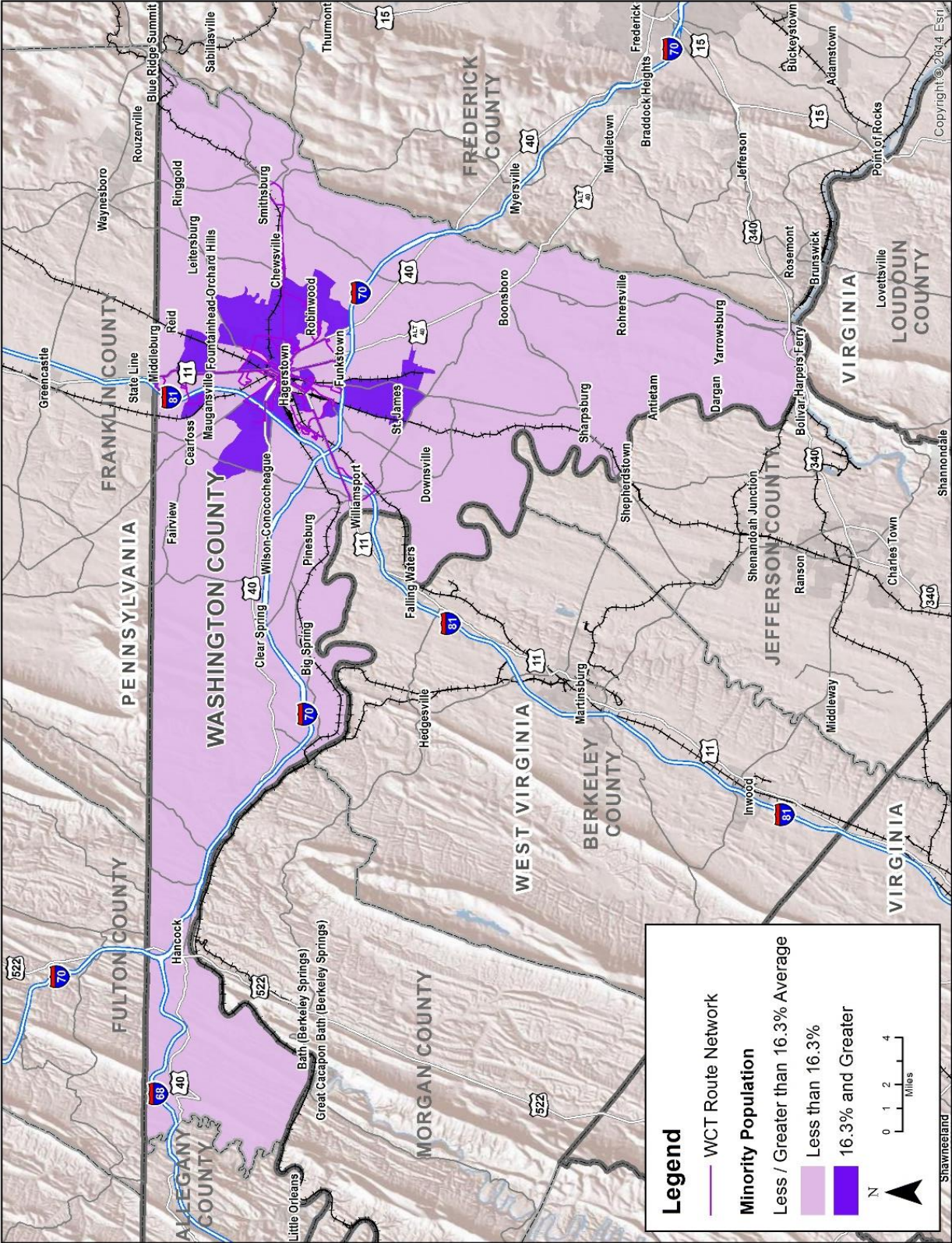
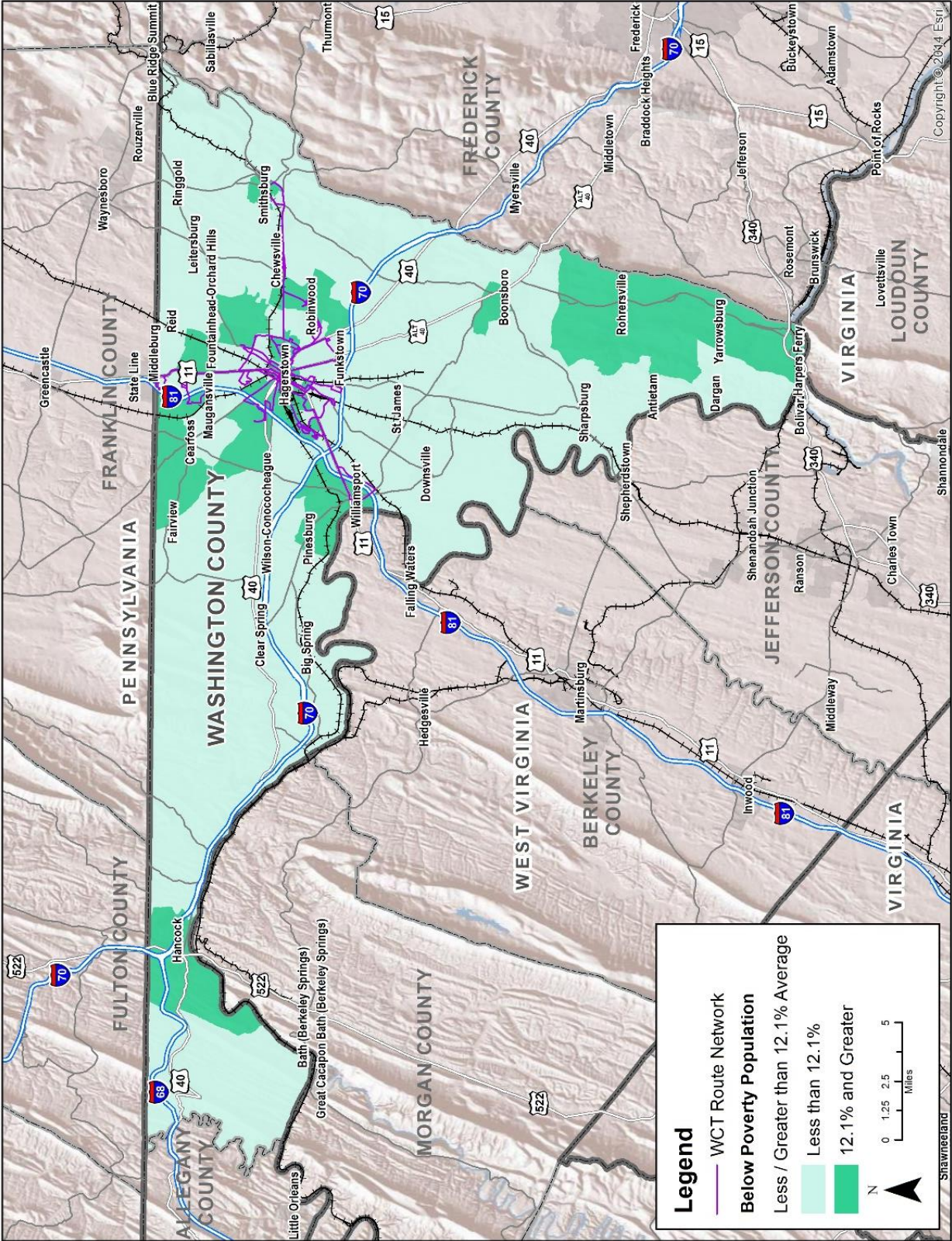


Figure 2-10: Below Poverty Population Relative to Study Area



Limited English Proficiency (LEP)

In addition to providing public transportation to individuals of diverse socioeconomic backgrounds, it is also important to realize the variety of languages spoken by area residents so that public information can be provided in other languages if needed. According to the 2011-2015 ACS five-year estimates, about 3,058 residents in the service area speak English less than “Very Well” and are considered to have limited English proficiency. Table 2-5 provides the LEP data for the service area including the top languages spoken by LEP individuals.

Spanish is the most common language of the LEP population, spoken by over 3% of the total population. Of the Spanish speaking population, approximately 1,484 residents do not speak English “Very Well,” and are considered to have limited English proficiency.

Table 2-5: Limited English Proficiency in WCT Service Area

Washington County Transit Service Area	Number	Percent
Total Population (Age 5+)	140,528	--
Total LEP Population	9,879	7.03%
Top 10 Languages Spoken by LEP Populations	Number	Percent
Spanish or Spanish Creole	4,475	3.18%
<i>Speak English “very well”</i>	2,991	2.13%
<i>Speak English less than “very well”</i>	1,484	1.06%
German	684	0.49%
French (incl. Patois, Cajun)	676	0.48%
Russian	435	0.31%
Urdu	385	0.27%
Chinese	364	0.26%
Tagalog	347	0.25%
Korean	301	0.21%
African languages	256	0.18%
Other Asian languages	237	0.17%
Arabic	225	0.16%
Vietnamese	196	0.14%
Other Indo-European languages	182	0.13%
French Creole	156	0.11%
Italian	125	0.09%
Portuguese or Portuguese Creole	112	0.08%
Other Indic languages	108	0.08%
All others (less than 100 speakers)	615	0.44%

Source: 2011-2015 ACS Five-Year Estimates, Table B16001.

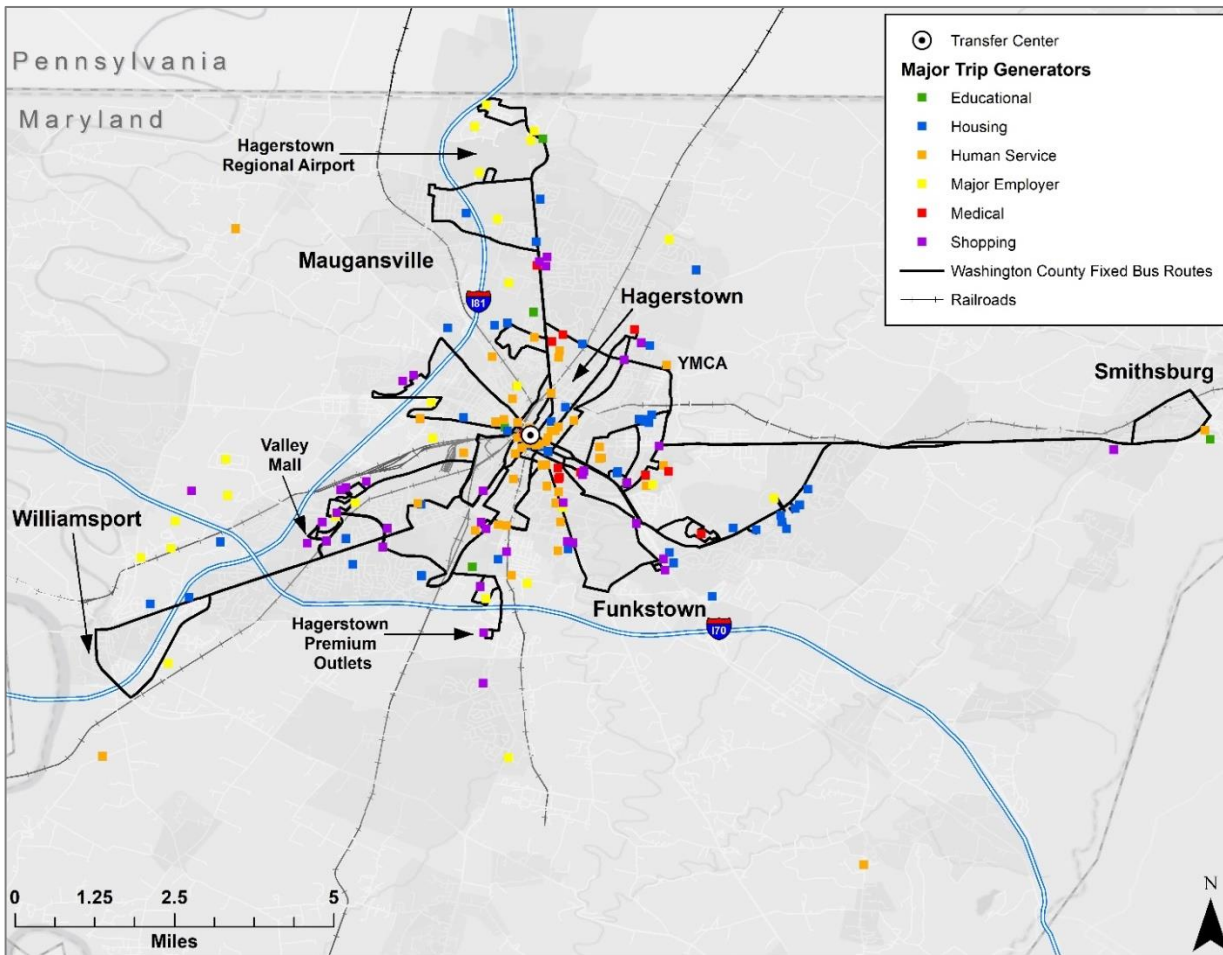
LAND USE PROFILE

Identifying land uses and major trip generators in the study area complements the above demographic analysis by indicating where transit services may be most needed. Trip generators attract transit demand and include common origins and destinations such as:

- High-density housing
- Major employers
- Medical facilities
- Educational facilities
- Non-profits
- Governmental agencies
- Shopping centers

Figure 2-II illustrates the locations of the major trip generators in the study area.

Figure 2-II: Major Trip Generators



REGIONAL TRAVEL PATTERNS

The study team examined several data sources to identify regional travel patterns to and from Washington County that may be candidates for new or improved transit services. The data sources varied in the geographic level of data available and the types of trips captured. Each data source was analyzed individually, but the findings contribute to the overall picture of regional travel trends to and from the WCT service area.

The following data sources helped identify regional travel patterns to and from Washington County:

- **U.S. Census Bureau’s 2011-2015 ACS five-year estimates.** This data on employment locations and means of transportation to work for workers ages 16 and older.
- **U.S. Census Bureau’s Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics.** This provides job data for workers ages 14 and older (data available for cities, towns, and census designated places).

ACS Five-Year Estimates

According to ACS five-year estimates, most workers who live in Washington County also work in the county and drive alone to work using a personal vehicle. Just over one-percent of Washington County workers use public transportation as their primary means of transportation to work. Table 2-6 provides an overview of Washington County workers’ employment locations and transport mode to work.

LEHD Origin-Destination Employment Statistics Data

The Census Bureau’s *Longitudinal Employer–Household Dynamics (LEHD) Origin-Destination Employment Statistics* provides job data for workers ages 14 and older, including the connections between employment and residential locations. According to 2015 LEHD data, Hagerstown and Frederick are in the top three major work destinations for workers living in Washington County.

Table 2-7 provides the top ten work destinations of workers who live in Washington County and the top ten origins from which workers employed in Washington County reside. The data indicates that 19% of employees work in Hagerstown. The second-largest city where employees work is Frederick (in Frederick County) at 6% and the third-largest city is Robinwood at 4%. Two-percent of employees work in Baltimore, MD while 1% work in Washington, D.C.

Regarding where county-based employees reside, 15% reside in Hagerstown. The next highest places of residence are Halfway (4%), Robinwood (2%), Fountainhead-Orchard Mills (2%), Frederick (2%) and Waynesboro borough, PA (1%).

Table 2-6: Journey to Work Patterns

Place of Residence:	Washington County		State of Maryland	
Workers 16 Years and Older	65,935		2,942,352	
Location of Employment	Count	Percent	Count	Percent
In State of Residence	58,109	88.1%	2,440,032	82.9%
In County of Residence	43,517	66.0%	1,567,359	53.3%
Outside County of Residence	14,592	22.1%	872,673	29.7%
Outside State of Residence	7,826	11.9%	502,320	17.1%
Means of Transportation to Work	Count	Percent	Count	Percent
Car, Truck, or Van - drove alone	53,351	80.9%	2,167,448	73.7%
Car, Truck, or Van - carpooled	6,531	9.9%	278,234	9.5%
Public Transportation	760	1.2%	265,615	9.0%
Walked	1,396	2.1%	70,705	2.4%
Taxicab, motorcycle, bicycle, other	709	1.1%	36,750	1.2%
Worked at Home	3,188	4.8%	123,600	4.2%

Source: 2011-2015 ACS Five-Year Estimates, Table B08130.

Table 2-7: Top Commute Patterns To/From Washington County

Where Washington County Residents are Employed			Where Washington County Workers Reside		
Place	Count	Percent	Place	Count	Percent
Hagerstown, MD	12,820	19.3%	Hagerstown, MD	10,107	15.0%
Frederick, MD	4,162	6.3%	Halfway, MD	2,971	4.4%
Robinwood, MD	2,425	3.6%	Robinwood, MD	1,471	2.2%
Halfway, MD	1,897	2.9%	Fountainhead-Orchard Hills, MD	1,424	2.1%
Fountainhead-Orchard Hills, MD	1,791	2.7%	Frederick, MD	1,293	1.9%
Ballenger Creek, MD	1,648	2.5%	Waynesboro borough, PA	890	1.3%
Baltimore, MD	1,306	2.0%	Maugansville, MD	800	1.2%
Rockville, MD	816	1.2%	St. James, MD	713	1.1%
Washington, DC	694	1.0%	Wilson-Conococheague, MD	650	1.0%
Gaithersburg, MD	647	1.0%	Baltimore, MD	648	1.0%
Columbia, MD	628	0.9%	Paramount-Long Meadow, MD	647	1.0%
Williamsport, MD	622	0.9%	Martinsburg, WV	629	0.9%
Boonsboro, MD	594	0.9%	Boonsboro, MD	623	0.9%
Maugansville, MD	550	0.8%	Williamsport, MD	599	0.9%
Chambersburg borough, PA	490	0.7%	Smithsburg, MD	595	0.9%

PUBLIC INPUT

Stakeholder Interviews

As part of the public outreach process, the TDP study team identified and contacted eleven stakeholders asking them to complete a questionnaire about the transportation needs of the populations they represent. Stakeholders included public service agencies, city and town representatives, human service agencies and non-profits in Washington County. A complete list of the stakeholders contacted is below:

- **Washington County Community Action Council**
- **City of Hagerstown**
- Washington County Health Department
- **Washington County Department of Social Services**
- Washington County Department of Business Development
- **The Arc of Washington County**
- Bester Community of Hope
- **Neighborhoods First**
- **Washington County Commission on Aging, Inc.**
- **Town of Boonsboro**
- Hagerstown Community College

The stakeholders in the list above in **bold** responded to our requests for information about transportation needs in Washington County. Stakeholders were contacted multiple ways, in person, email and on the phone, and supplied with a stakeholder guide to solicit information about transit needs from them.

Stakeholders for the Washington County TDP reported that the public is aware of the services provided by Washington County Transit and that there is public and institutional support for these services. There were no issues reported with the current services or the conditions of the busses and bus stops. Stakeholders all agreed that WCT's services and amenities were satisfactory.

The main concern was expanding the service area and hours. Most of the comments were about unmet needs. The stakeholders would like to see more areas in Washington County served and additional service hours. In addition to getting to work, stakeholders commented that people use Washington County Transit to run errands and shop. When asked about the limitations and reasons that people may not use WCT, the stakeholders reported that the service area and schedule limit the use of WCT.

Two of the stakeholders reported that there were areas that people needed public transportation services that are not currently served. For example, one stakeholder asked if

Washington County Transit could expand its services to include routes to outlying areas such as Clear Springs, Hancock, and Cascade, maybe even for just a few days a week.

The Washington County Commission on Aging (WCCOA) commented that the Maryland Department of Planning projects that the number of older adults age 60 and older in Washington County will increase from 2015 to 2030 by 43.65%. Ultimately, by the year 2030, the projected number of persons 60 and older will represent over 26% of the total County population. Within that age range, ages 80-84 are the fastest growing cohort, projected to increase by 136% by the year 2040. Further complicating the issue, according to the Maryland Department of Aging, over 8% of Washington County's older adult population in the year 2013 resided in poverty.

As the number of older adults in Washington County continues to exponentially grow for the next 15 to 20 years, the WCCOA believes it is critical for agencies and organizations providing services to this demographic to strategically plan for anticipated service needs.

WCCOA would like to see more transit services specifically addressing the needs of older adults and individuals with disabilities regardless of age, especially as they relate to that demographic residing in rural areas of the County. For instance, to the WCCOA's knowledge, there are no transit services offered in the southern part of the County, including Boonsboro, Keedysville, Sharpsburg, and the surrounding areas.

Moreover, providing direct pickup and more express routes, to the extent possible, would provide better access for older adults and people with disabilities.

Some of the stakeholders indicated that they were interested in partnering with Washington County Transit and other organizations to improve transportation for underserved populations. The Arc of Washington commented that they have approximately 225 vehicles and they provide transportation for day, residential, employment, community-based services, and children's programs. They have 5310 vehicles for fixed route transportation and provide other types of transportation in small groups and individual rides. The Arc of Washington

Comments regarding service expansion

- **"Having routes in all areas with expanded operating times within Washington County would provide better access to employment."**
- **"Operations are currently well run, WCT just needs to *expand area and hours*."**
- **"We need a *wider scope of routes* within Washington County. *Better hours, evening and weekend operation*."**
- **"The current routes are *limited* within Washington County. Hours of operation are limited too. The amount of time to get from one location to another *can be extremely long*."**
- **One stakeholder suggested that Washington County Transit provide *more on-demand transportation* to cover rural areas and people who have difficulty riding the fixed routes.**
- **Another stakeholder wished that *Greyhound's services* would come back and that there were more travel options for (long distance) out of county trips.**

indicated that they were open to partnering with other organizations around transportation. However, they stated that they are limited by insurance liability and they asked for guidance on a way around this barrier.

The Washington County Community Action Council already has a relationship with WCT. They too mentioned their willingness to collaborate and improve transportation services in the county. The Washington County Community Action Council is dedicated to the people they serve and are invested in continuing to provide those services for the people who depend on them.

One specific comment on the location of a bus stop was provided through the stakeholder interview process. The commenter said that the bus stop between the Motor Vehicle Association and the new Walmart is too far from Walmart for people to walk to it, especially when they have children, are carrying the items they purchased, or a disability that makes it difficult for them to walk. Bus riders have been asking if a stop location could be added at the door of the Walmart.

Rider Survey

An important task for the TDP was to gather opinions from system users concerning WCT's current fixed route services, as well as to develop a passenger profile. With input from WCT's staff, an onboard survey was prepared for these purposes. On May 25, 2018, surveys were distributed onboard WCT vehicles. A table was also set up outside of WCT's transfer center so that riders could return or fill out surveys. A 4-Ride bus pass was given to each rider that completed and returned the survey. A total of 302 surveys were collected.

Service Improvements

The first question asked survey participants to choose the top three service improvements they would like WCT to implement. Sunday service (68%), more evening service (48%), and more bus stop amenities such as signs, benches, and shelters (46%) were identified as the top three service improvements. However, the fourth top choice was more frequent service (43%). Figure 2-12 identifies the top three choices for service improvements.

WCT's riders are split on whether they would pay a higher fare for service improvements. A very slight majority (50.2%) of survey participants noted that they would be willing to pay a higher fare for service improvements (see Figure 2-13). For those who are willing to pay for service improvements, a majority would pay between \$1.50 and \$2.00 for those improvements.

Figure 2-12: Top Three Service Improvements

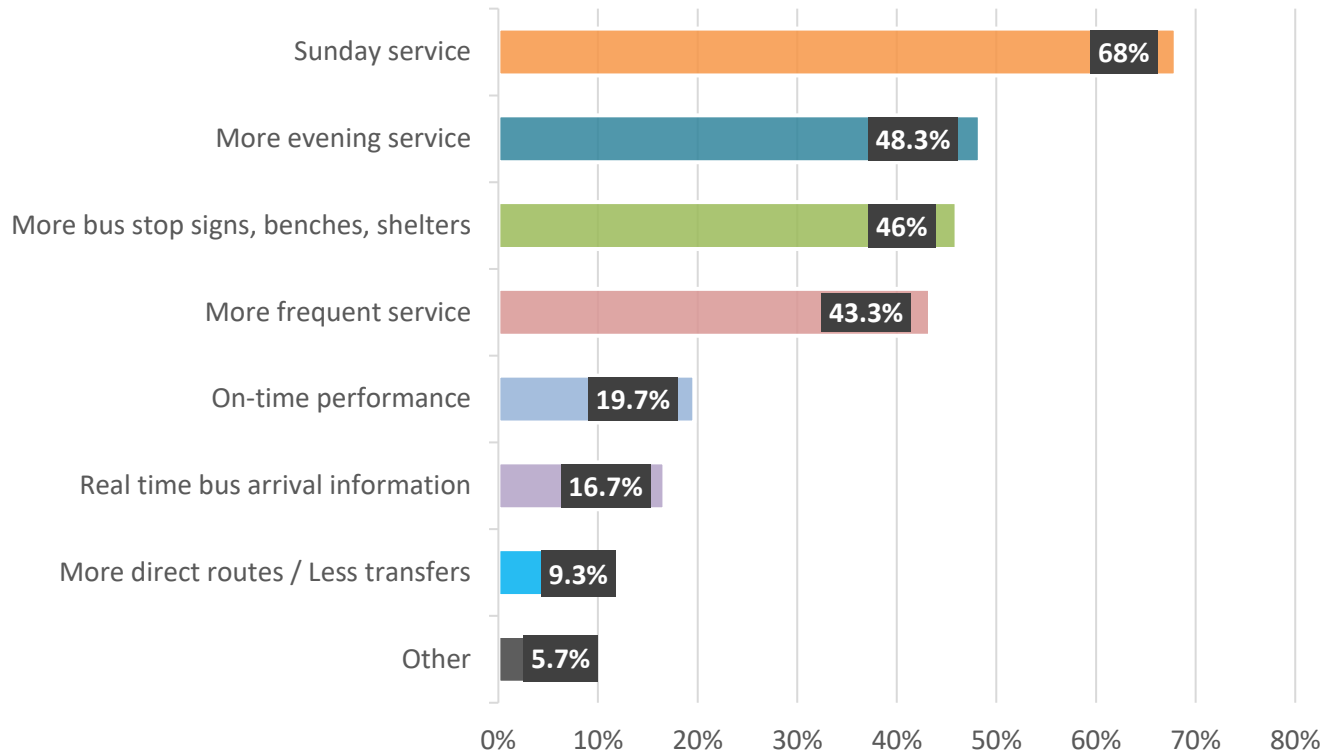
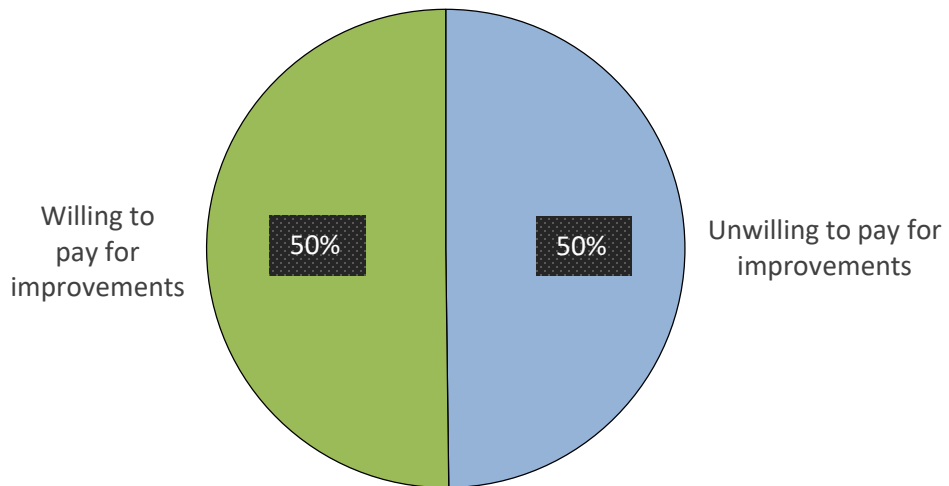


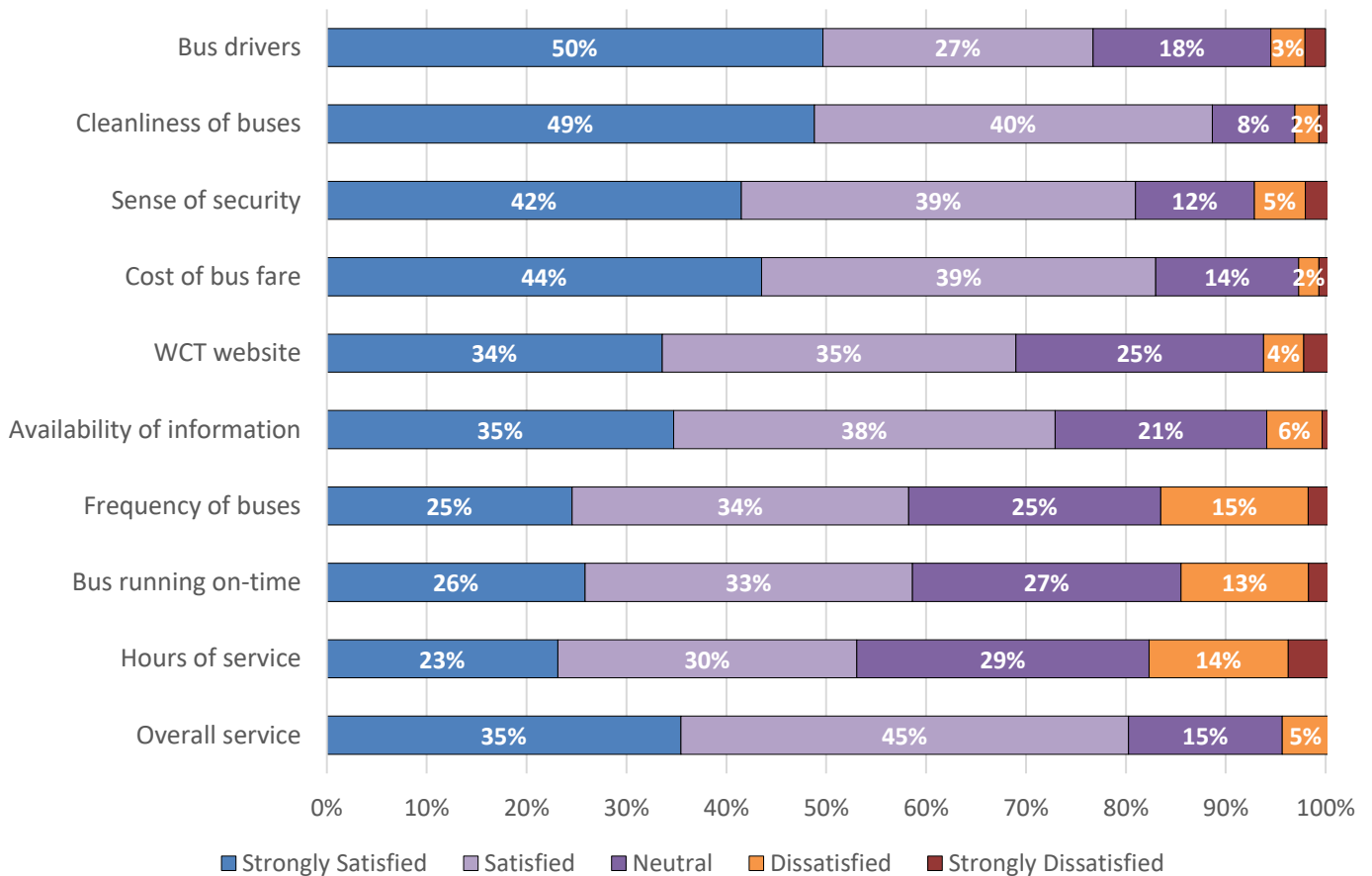
Figure 2-13: Riders' Willingness to Pay for Washington County Transit Service Improvements



Satisfaction with WCT's Services

Figure 2-14 shows the level of rider satisfaction based on various aspects of WCT service. Overall, WCT's riders are satisfied with WCT's service (45%) and 35% indicated they were strongly satisfied with WCT's overall service. In terms of specific aspects of service, most participants were strongly satisfied with the bus drivers (50%) and the cleanliness of buses (49%). Riders reported being strongly dissatisfied the most with the hours of service (5%) and the WCT website (3%).

Figure 2-14: Level of WCT Rider Satisfaction



Trip Information

The Valley Mall (30%) and West End (29%) routes were the most utilized routes on the day the surveys were administered. Figure 2-15 shows which route survey participants took on the day of the survey.

Figure 2-15: Bus Route Taking for Trip

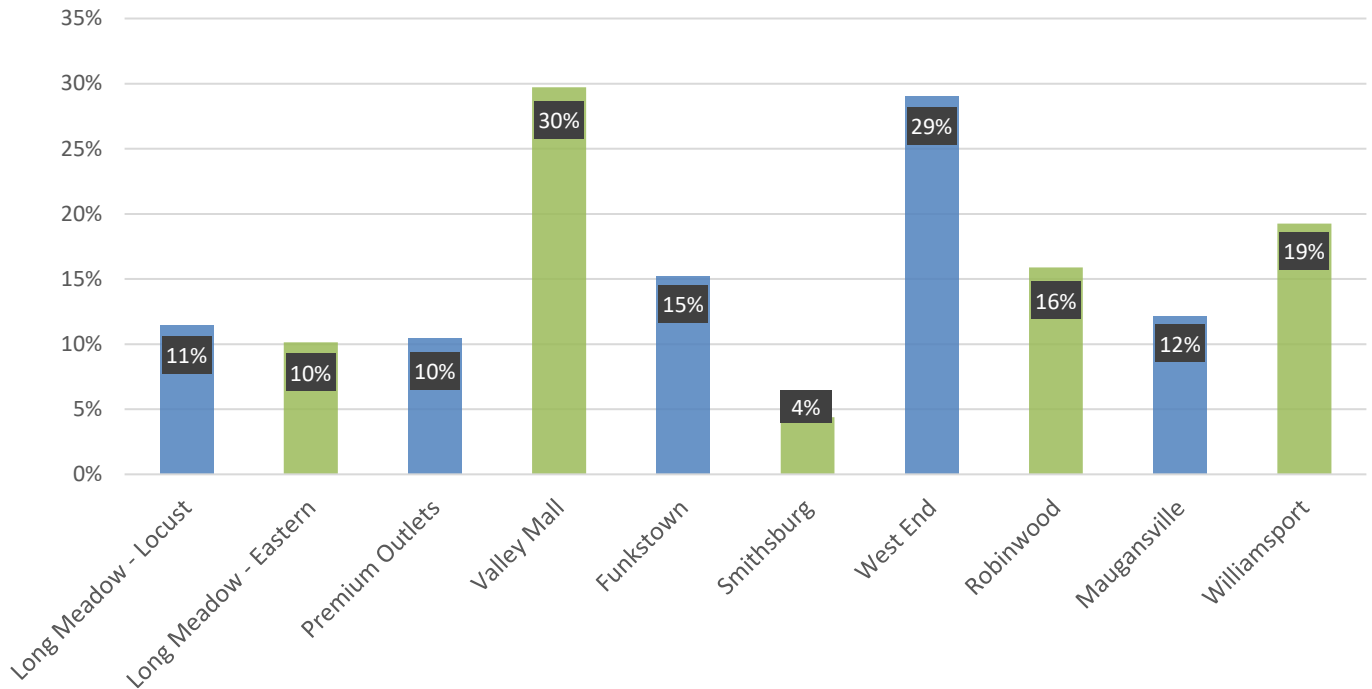
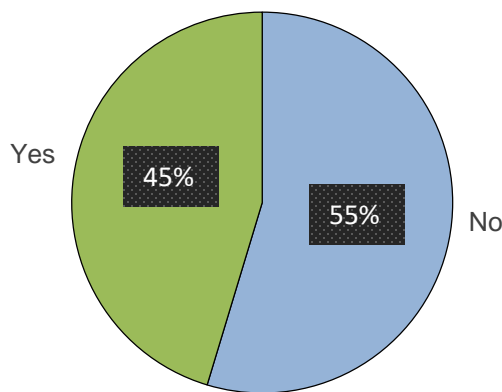


Figure 2-16 shows that a slight majority of riders did not have to transfer to another bus to complete their trip (55%).

Figure 2-16: Trip Transfer



Unserved Areas

The survey asked participants if there were destinations or areas that they need to go but that WCT does not serve. Only one-fourth of the participants indicated there were areas they needed to go that WCT does not serve. These unserved areas are:

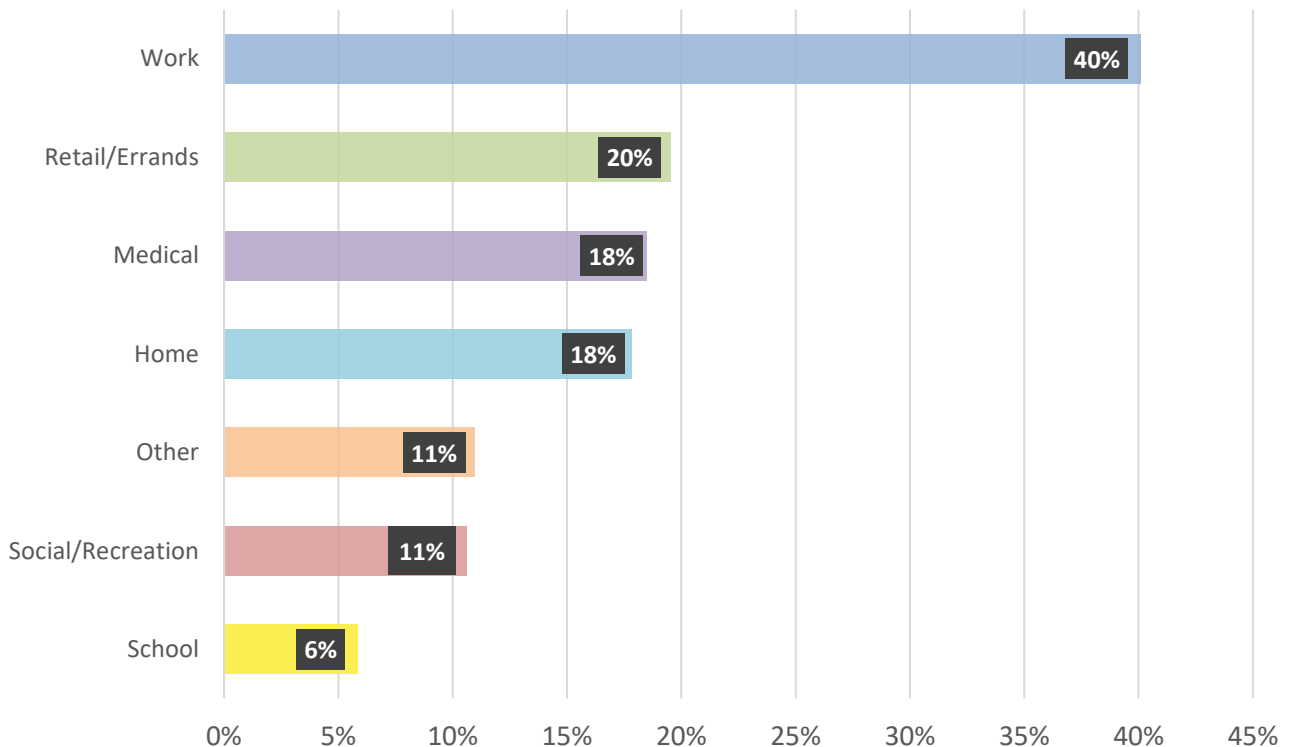
- Boonsboro
- Frederick
- Martinsburg, WV
- Leitersburg
- Gaithersburg
- Everly Rd
- Closer to the new Walmart
- Volvo Hagerstown

Of those areas mentioned, Boonsboro, Frederick, Martinsburg, and Leitersburg were the top places mentioned that respondents would like to go.

Trip Purpose

A majority of survey participants indicated the purpose of their trip was for work (40%). School was cited the least as trip purpose (6%). Figure 2-17 shows the trip purposes for riders' trips. For those that indicated other purposes, shopping was indicated as the trip purpose.

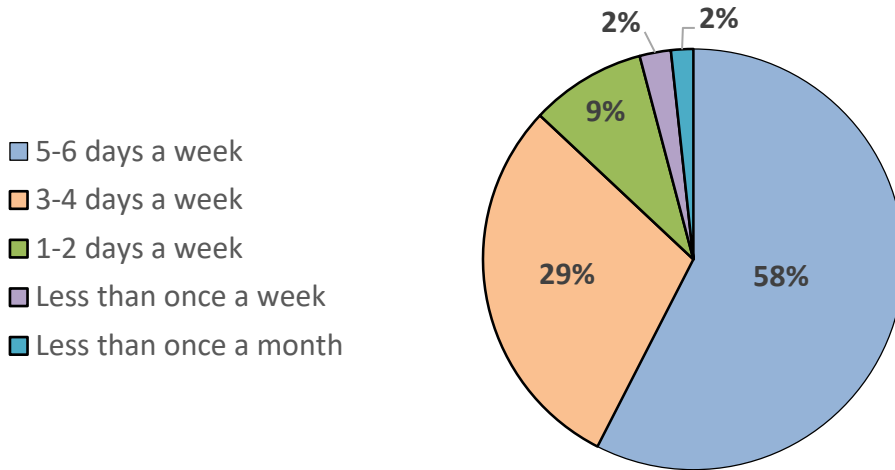
Figure 2-17: Trip Purpose



Trip Behavior

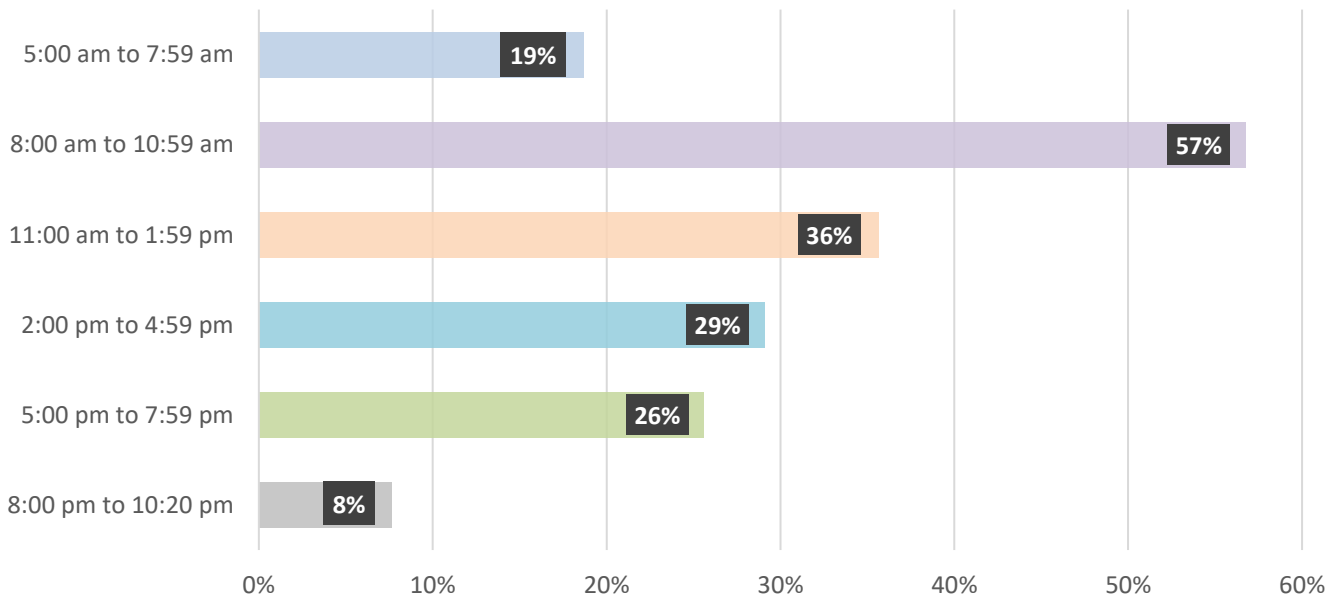
Figure 2-18 shows that WCT riders tend to use WCT frequently. On average, a majority of survey participants indicated they use WCT at least five to six days a week (58%) or at least three to four days a week (29%).

Figure 2-18: Frequency of Use



The most popular times of day that riders typically use WCT service is between 8:00 a.m. and 10:59 a.m. (57%); followed by 11:00 a.m. to 1:59 p.m. (36%). The least likely time that riders use WCT is between 8:00 p.m. and 10:20 p.m. (8%), and between 5:00 a.m. and 7:59 a.m. (19%).

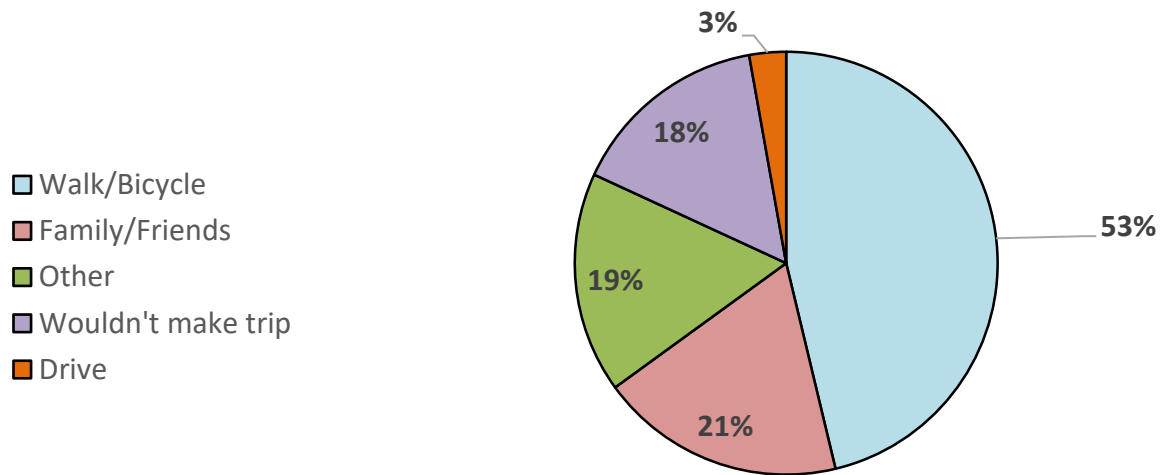
Figure 2-19: Most Popular Times to Ride



Travel Alternatives

The survey asked participants to identify how they would have made their trip if they were unable to take the bus. Almost 53% of respondents indicated they would have walked or biked if unable to use the bus. The next highest travel alternative was getting a ride from family or friends (21%). Nineteen percent of respondents indicated “other” when asked how they would make their trip if they were not taking the bus. For those who indicated “other,” using a cab/taxi/Uber/Lyft was the dominate answer.

Figure 2-20: Trip Alternatives



Rider Profile

One of the objectives of the rider survey was to gain a better understanding of WCT riders. The survey asked multiple demographic questions to identify the characteristics of WCT riders, which in turn can be used to help improve WCT service for its riders.

Table 2-8 shows that the majority of survey participants live in a Hagerstown zip code (21740 and 21742). Eighty-five percent of riders reported living within the 21740 zip code.

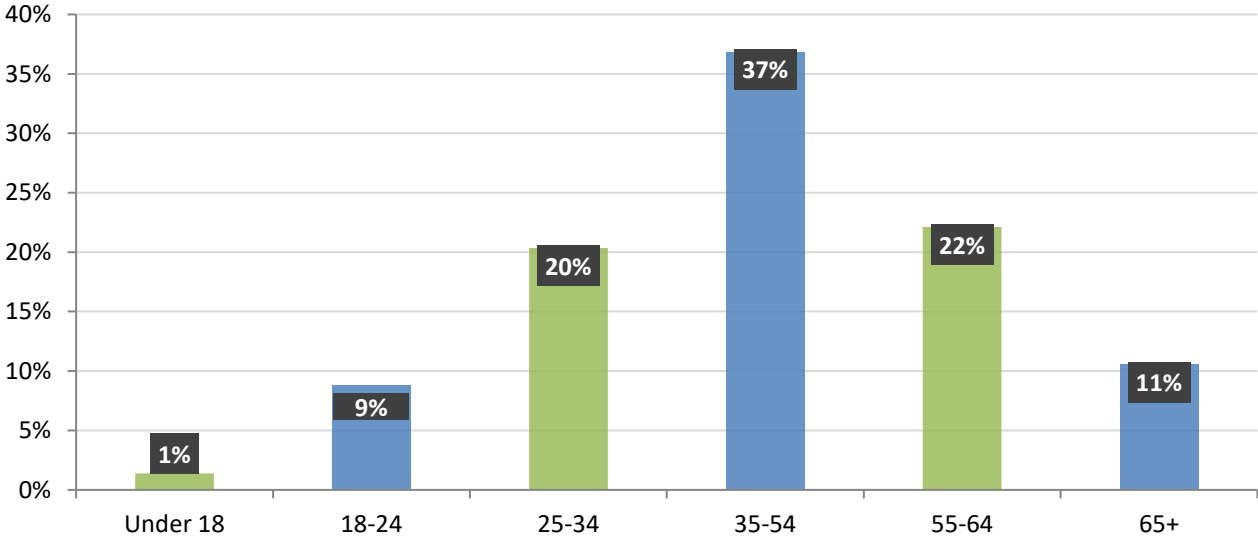
Table 2-8: Rider Zip Codes

Zip Code	Number of Responses	Percent of Responses
21740	214	85%
21742	18	7%
21795	7	3%
21734	4	2%
21741	2	1%
21782	2	1%
25427	2	1%
21711	1	0%
21746	1	0%

Rider Demographics

The senior adult population comprises a little over 10% and youths comprise 9% of the riders that completed the survey. However, as Figure 2-21 illustrates, the majority of riders are between the ages of 35 and 54 (37%).

Figure 2-21: Age of Washington County Transit Riders



The racial makeup of WCT rider survey participants is predominately White/Caucasian (60%) and African American/Black (34%). Only 5% of riders consider themselves Hispanic or Latino. Figure 2-22 identifies the survey participant’s race and Figure 2-23 identifies if they are of Hispanic or Latino origin.

Figure 2-22: Washington County Transit Rider Race

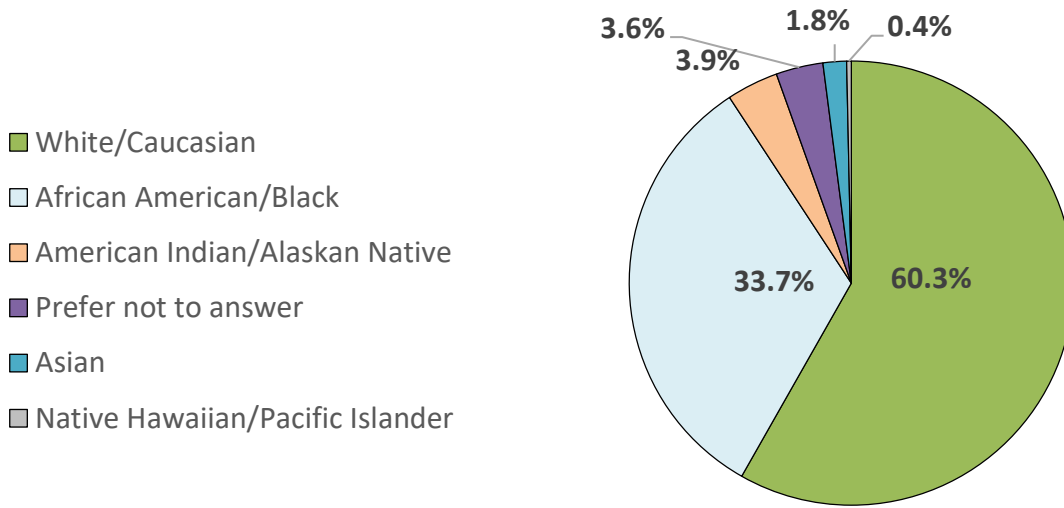
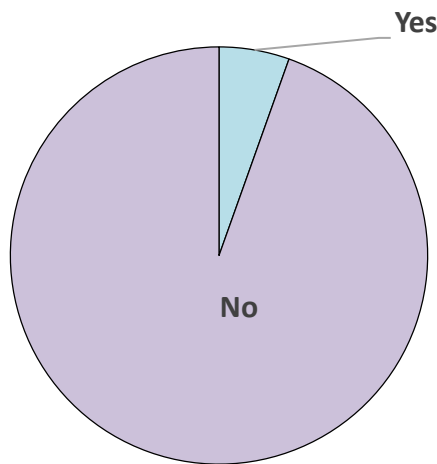
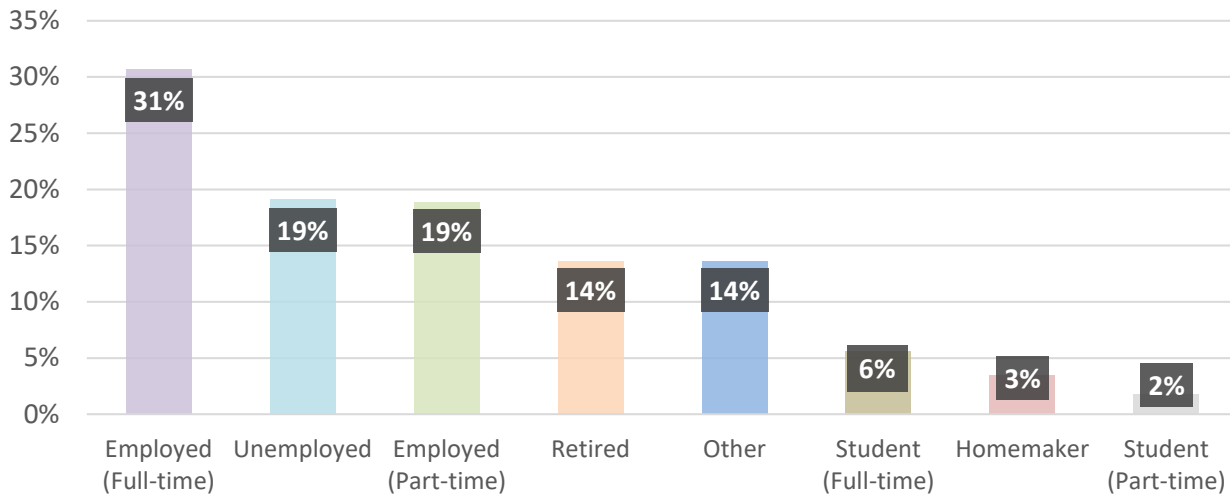


Figure 2-23: Are you of Hispanic/Latino origin?



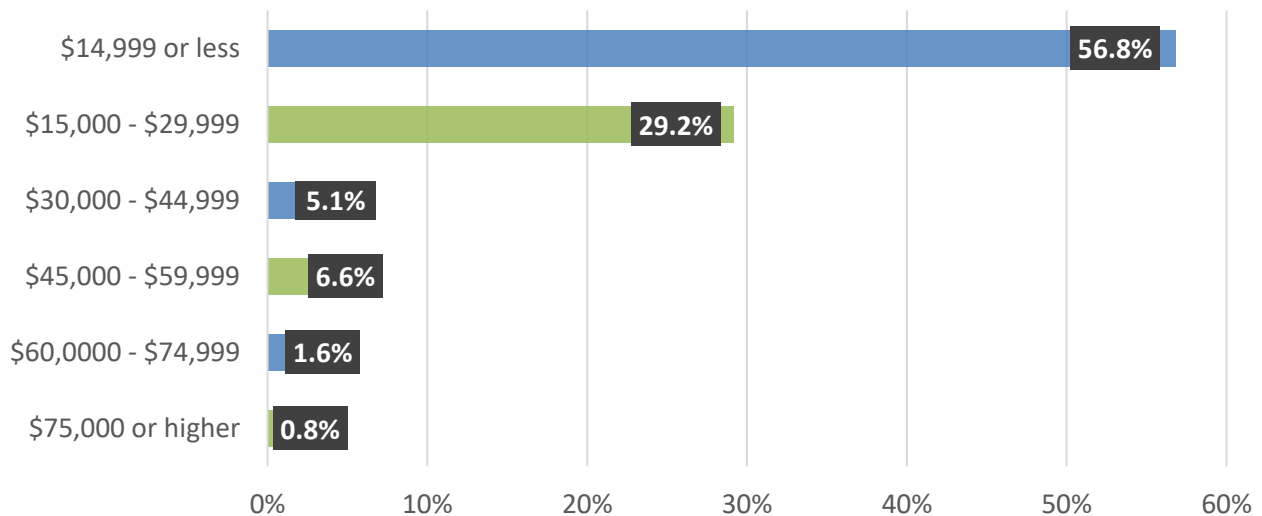
The survey asked participants to identify their employment status and their annual household income. According to the results, 30% of WCT riders are employed full-time. Approximately 7% of survey participants are students including full and part-time status. Almost 20% of survey participants reported being unemployed. Figure 2-24 shows the employment status of WCT riders.

Figure 2-24: Washington County Transit Rider Employment Status



The survey shows that a majority of riders make less than \$30,000 in annual household income (86%). According to the survey, over half of the survey participants reported a household income of \$14,999 or less (57%). Figure 2-25 shows the annual household income of WCT riders.

Figure 2-25: Annual Household Income



Household Size

The rider survey asked participants to state the number of people that live in their household including themselves. According to the survey, WCT riders typically live in one to three-person households. Some respondents noted they lived in a shelter, which could account for the larger sized households. Table 2-9 shows the self-reported household size of WCT rider survey participants.

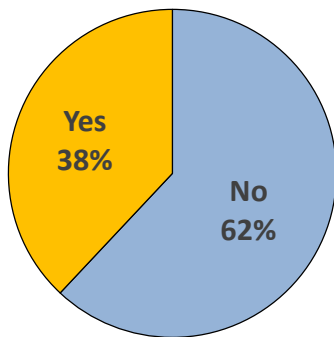
Table 2-9: Household Size of WCT Riders

Household Size	Percent
1	37%
2	27%
3	16%
4	7%
5	8%
6	4%
7	0.4%
8	0.4%
9	0.4%
11	0.4%
12	0.4%
30	0.4%

Driver's License

A slight majority of WCT riders (62%) reported not having a valid driver's license (Figure 2-26).

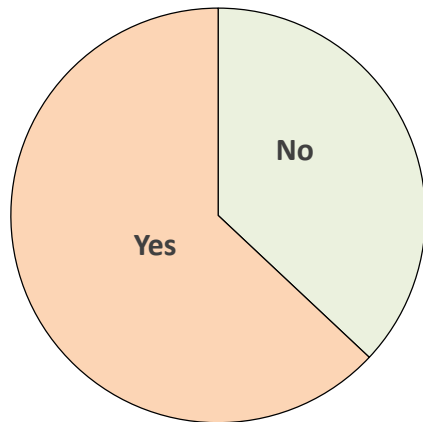
Figure 2-26: Do you have a driver's license?



Technology

As Figure 2-27 shows, a slight majority of survey participants have an internet enabled “smart” phone.

Figure 2-27: Do you have access to an internet-enabled smartphone?



Additional Comments

The last part of the survey contained a comments section where participants were given the opportunity to address any issues or items they believed were not addressed in the survey or if they wanted to elaborate on any issues that were covered. There were 70 comments. The comments have been summarized below.

Amenities

- Designated bus stops
- Better seats
- Bigger buses
- Happy with cameras on buses
- Cleaner buses

Customer Service

Thirty out of the 79 comments received pertained to riders’ customer service experiences and interactions with WCT drivers. A majority of riders had positive things to say about WCT. There were several comments that identified positive interactions with specific drivers. Below are some of the comments that reflect positive customer service experiences from WCT riders.

- “Keep up the good work”
- “Great Job”
- “Thank you”
- “This is a well-organized bus service and I enjoy the service”

There were a few comments that indicated opportunities for improving customer service which are noted below.

- “Be more professional”
- “Most of the drivers are nice, not all of them”

Service

Out of the 79 comments, 31 were service-related comments. Some participants gave specific service improvements they would like to see while other comments were more general. The comments have been summarized below:

- Dissatisfaction with service cut to the mall
- More runs to Smithsburg
- Later service to the new Walmart
- Later service
- Earlier service
- Sunday service
- More buses that serve Walmart
- More West End buses
- Transfer in route rather than at transfer center
- Increase frequency to Noland Dr. in the evenings
- Service to Gaithersburg
- Part of the state line to West Virginia
- Funkstown bus leaves 10 to 20 minutes late on evenings
- Bus never on time
- Missed connections at the transfer center

Other

Though most of the comments were related to the amenities, customer service, and overall service, there were other notable comments that should be considered. A couple of riders commented they would like more security at the transfer center. A few comments indicated that riders do not know where the bus stops are, or they believe that where the driver stops the bus is unsafe.

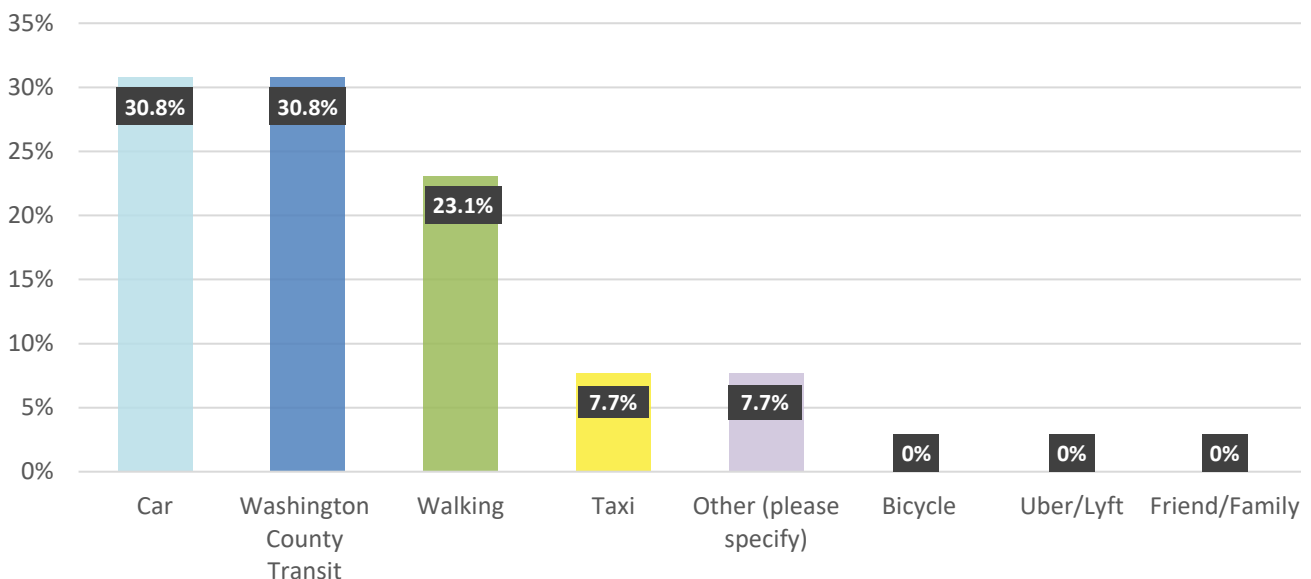
Community Survey

As part of the public outreach efforts, we asked stakeholders to distribute a public survey in both an online and paper format. The survey collected information about the respondent's personal transportation habits, their experience with Washington County Transit, their transportation needs, and demographic information. Surveys were distributed to the following agencies and they distributed the surveys to their networks.

- Washington County Free Library
- Washington County Community Action Council
- Washington County Health Department
- Washington County Department of Social Services
- Washington County Department of Business Development
- The Arc of Washington County
- Bester Community of Hope
- Neighborhoods First
- Washington County Commission on Aging
- Town of Boonsboro
- Hagerstown Community College

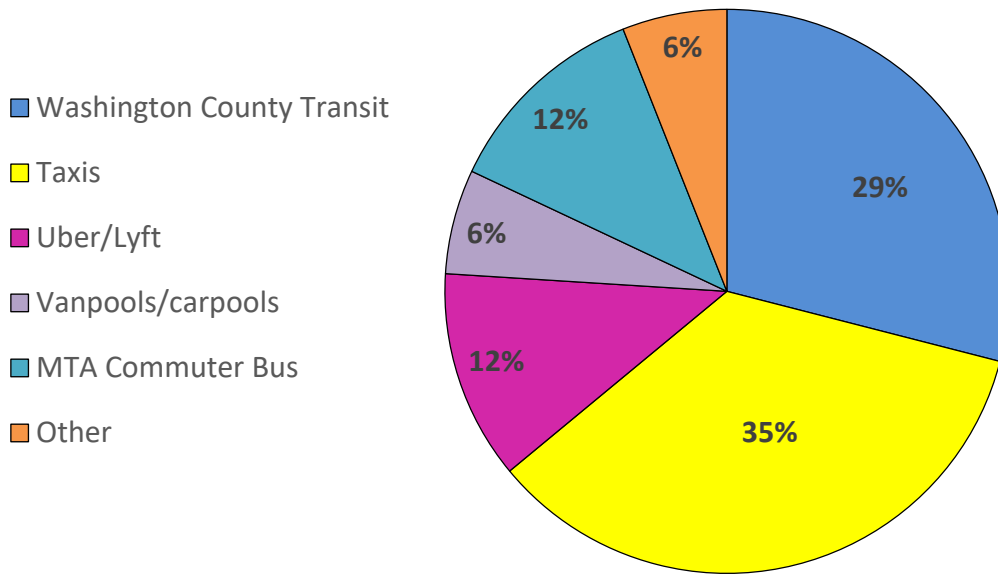
Thirteen valid survey responses were collected during the month of May. This section provides a summary and analyses of the survey results. About one-third of the respondents reported that their primary transportation mode was a car, another third reported that Washington County Transit was their primary transportation mode. The third highest primary transportation mode selected was walking at 23%. Figure 2-28 displays the primary mode of transportation.

Figure 2-28: Primary Transportation Modes



Most of the respondents (70%) are aware of Washington County Transit Services and half reported that they use WCT's service. Figure 2-29 represents the types of transportation services that respondents reported using. Respondents were asked to select all that applied.

Figure 2-29: Types of Transportation Used



When asked how frequently they use public transportation, 17% said 5-6 days a week, 17% said 3-4 days a week, 17% said 1-2 days a week, 25% said less than once a week, 16% said less than once a month, and 8% said not applicable. Less than half of the survey respondents (44%) said that WCT “needs improving,” 33% said WCT’s services were good, and 22% said that WCT’s services were excellent.

When asked if there were destinations that were not served by WCT that participants needed to go, 50% selected “No;” there were no places they needed to go that were not served by WCT. Seventeen percent answered “Yes,” and 30% skipped the question. Respondents indicated that they would like WCT to serve these places:

- Winchester
- Closer to the Washington County Detention Center
- Boonsboro

When asked about improvements, respondents suggested that having WCT service hours on Sundays, more frequent service and longer service hours would be the top requested improvements.

Eight of the survey respondents were from the Hagerstown 21740 zip code area. Two respondents reported being from the 21742-zip code area, northeast of Hagerstown. One respondent was from the 21713-zip code area around Boonsboro and one respondent was from the 21766-zip code area out in the northwest part of the county.

While 62% of the respondents reported having a driver's license, more than half (62%) of the survey respondents reported that they did not have a car to use on a regular basis. The majority of the survey respondents (62%) reported being between the ages of 25 to 49. Fifteen percent reported being 65 or older, 15% reported their age as 50 to 64, and 8% reported being 18 TO 24 years old. Fifty-four percent of the survey respondents were unemployed, 23% were employed full-time, 15% were retired, and 8% were part-time students. Most respondents (77%) reported their annual income at \$15,000 or less and 85% were Caucasian/White. All the respondents reported speaking English as their primary language. One respondent reported that they spoke German at home and that they do not speak English.

Two survey respondents wrote in the following comments on the survey:

- “Thanks for the transportation that is now! 😊”
- “Bus passes are difficult for disabled people to get and they stopped offering the monthly vouchers.”

REVIEW OF RECENT PLANS AND STUDIES

Part of the needs analysis included reviewing recent plans and studies that have addressed transportation needs and land use in Washington County. This section provides a summary of relevant plans and studies including the challenges, goals, and recommendations related to transportation and transit. The study team reviewed the following plans:

- visionHagerstown 2035 Comprehensive Plan (2018)
- Direction 2045 Long Range Transportation Plan (2018)
- Washington County Comprehensive Plan (2002)
- Washington County Transit Development Plan (2010)

visionHagerstown 2035 Comprehensive Plan (2018)

The Hagerstown Planning Commission completed the visionHagerstown 2035 Comprehensive Plan in 2018 in an update of the 2008 Comprehensive Plan. The transportation chapter promotes the recommendations of the Hagerstown-Eastern Panhandle Metropolitan Planning Organization (HEPMPO) Long Range Transportation Plan as well as includes additional recommended transportation improvements.

Challenges or Issues	Objectives	Recommendations
<ul style="list-style-type: none"> •Transportation network improvements are needed for continual safe and efficient movement of people and goods throughout the Hagerstown. •Incomplete road segments in the Medium-Range Growth Area. •The existing road network needs to be updated to adapt to future traffic in Hagerstown. •Hagerstown needs additional alternatives to automobile travel. 	<ul style="list-style-type: none"> •Hagerstown transportation network will meet the needs of residents , businesses, and vistors. •Transportation projects complement growth managment goals. •Long-distance traffic will be directed to travel around the city using major highways as oppesed to traveling through the city. 	<ul style="list-style-type: none"> •Complete the recommendations outlined in the Long Range Transportation Plan •Promote alternatives to automobile travel that includes expansion of County Commuter system, incorporate pedestrian infrasture as part of new development, and establish bicycle routes. •Maintain and develop new park-and-ride lots as needed to promote ride-sharing.

Direction 2045 Long Range Transportation Plan (2018)

The Hagerstown/Eastern Panhandle Metropolitan Planning Organization recently completed the *Direction 2045 Long Range Transportation Plan*. The plan includes a public transit section that provides an overview of services, a transit need and gap analysis, and recommendations for new or improved services.

Challenges or Issues	Objectives	Recommendations
<ul style="list-style-type: none"> • Peak period connection gaps exist between Hagerstown and the surrounding communities of Boonsboro, Clear Spring, and Sharpsburg Pike. • All-day service gap exists along MD Route 65 south of Hagerstown. 	<ul style="list-style-type: none"> • Procure new paratransit software. • Facility improvements to the bus garage. • Bus stop initiative to formalize bus stop locations at major destinations and improvement amenities. • "Mini-hub" initiative to formalize transfer points outside of the main transit center in downtown Hagerstown. 	<ul style="list-style-type: none"> • Extend Premium Outlets Route to the new Walmart (complete). • Implement new route connecting Martinsburg and Hagerstown. • Implement connecting services to Boonsboro and Clear Spring. • Improve headways on the West End, Funkstown, and Robinwood Routes. • Add Sunday service to the Premium Outlets and Valley Mall Routes.

Washington County Comprehensive Plan (2002)

Washington County is in the early stages of development on their 2040 Comprehensive Plan. The existing comprehensive plan, completed in 2002, is somewhat dated – one of the key long-range recommendations was the construction of the downtown transit center which has since been completed. However, the plan still provides insights for the development of this TDP through recommendations that have not been implemented to date.

Challenges or Issues	Objectives	Recommendations
<ul style="list-style-type: none"> • Provide a multi-modal transportation system that meets the mobility needs of the citizens of Washington County. • Provide a multi-modal transportation system that links the urban and town growth areas, and accomodating inter-regional travel through Washington County. 	<ul style="list-style-type: none"> • Provide appropriately scaled public transportation services in the rural-agricultural areas of the county. • Improve public transportation in the the urban areas of the county. 	<ul style="list-style-type: none"> • Increase the frequency of transit service and expand hours of operation to better accommodate employment trips. • Enhance service quality by providing improved passenger amenities such as bus shelters and schedule information. • Consideration of expanding services and hours, including adding Sunday service. • Consideration of service to Boonsboro, Sharpsburg, and Clear Spring.

Washington County Transit Development Plan (2010)

The previous Washington County TDP was completed in 2010. As an update to the previous plan, this TDP is informed by the previous plan through each chapter and section. As a basic summary review, the key takeaways from the previous plan are outlined below.

Challenges or Issues	Objectives	Recommendations
<ul style="list-style-type: none"> • Projections indicate a 30% increase in transit demand from 2010 to 2030. • There is a need for increased access to public transit in rural areas. • There is a need for cross-county and out-of-county travel. 	<ul style="list-style-type: none"> • Maintain existing ridership while attracting new riders. • Provide for the economic sustainability of the transit system. • Provide high-quality, customer-oriented service. • Provide efficient, effective, and safe services. • Promote the transit service. 	<ul style="list-style-type: none"> • Introduction of feeder routes to shopping centers. • Operate all urban routes with 30-minute headways during peak hours. • Expansions of the Longmeadow and Prime Outlets Routes. • Addition of three transfer points. • Procurement of computerized dispatching system. • Linking paratransit with the fixed route system to increase efficiency.

Chapter 3

Alternatives

INTRODUCTION

This chapter provides a range of alternatives for Washington County Transit (WCT) to consider for the five-year planning horizon that this plan encompasses. Some of the concepts presented in this chapter were generated through the planning process while others were generated through WCT's ongoing strategic planning efforts.

This document is based on the demonstrated needs and planning processes outlined in the previous two chapters; they include an evaluation of existing services, analysis of needs based on quantitative and qualitative data, information gained from rider outreach, and input from key stakeholders and community members.

This chapter is divided into the following sections:

- **Fixed Route Service Alternatives** – A set of proposals that specifically aims to modify each existing route to update schedules and optimize routes. These proposals are designed to be cost-neutral and implemented in the short-term.
- **Fixed Route Service Expansion** – Increased bus frequency and hours, these proposals set the stage for future growth within the county.
- **Innovations in On-Demand Service** – As the senior population grows, demand response will need to grow in step. Jurisdictions across the country are beginning to explore the use of on-demand, e-hailing transit options.
- **Technology Enhancements** – Reviews the potential for utilizing emerging technologies in service provision and planning.
- **Staffing** – Review of adequate staffing levels and industry standards.
- **Marketing** – A key strategy for attracting new riders and expanding service, multiple marketing strategies are proposed to increase WCT's visibility in the region.

FIXED ROUTE SERVICE ALTERNATIVES

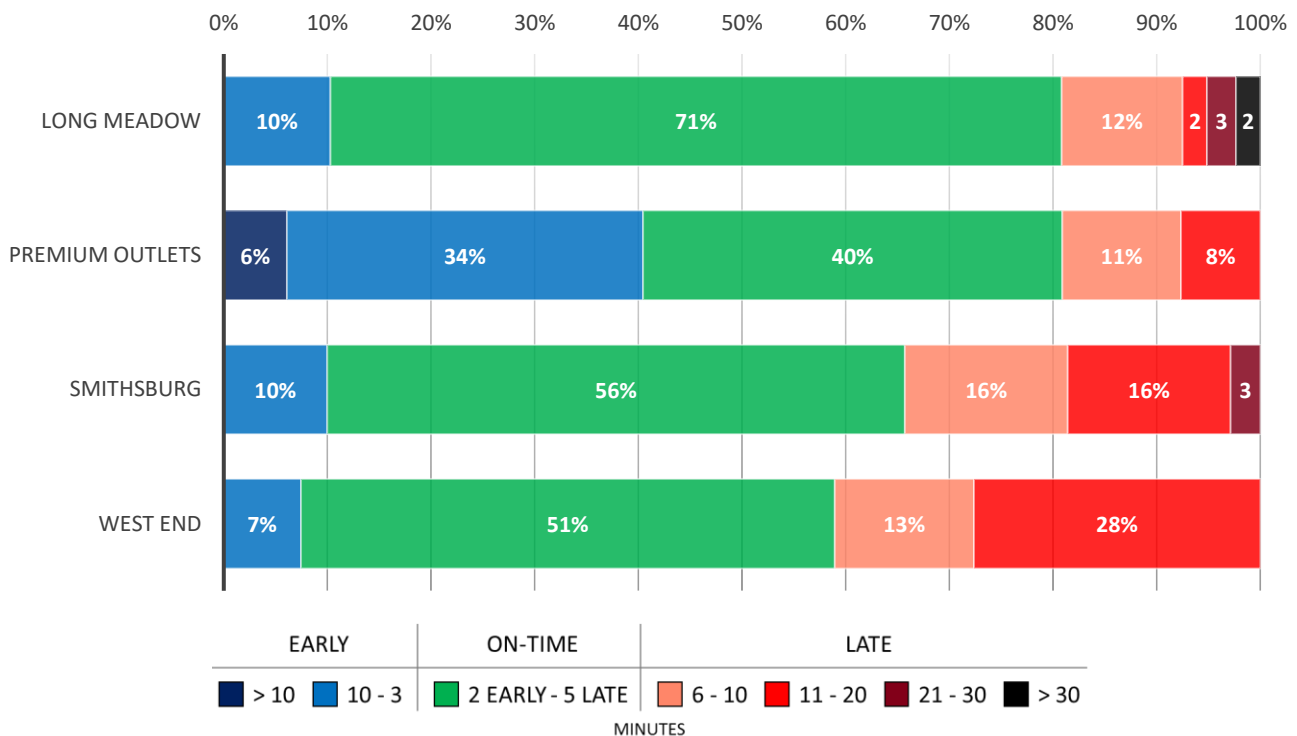
Strategies to Enhance On-Time Performance

As noted in the review of existing services, on-time performance is one of the major issues that WCT faces. It has been voiced by riders, drivers, and witnessed during field observations. The issue can be contributed to three main culprits, including increased traffic congestion, ridership growth, and the extension of routes to serve new destinations.

WCT previously faced on-time performance issues and employed a system of interlining specific bus routes to enhance running times. For example, a bus will complete the West End Route (which runs on-time 51% of the time – see Figure 3-1) and then perform the Premium Outlets Route (which runs on-time 40% of the time). By running these routes back-to-back, the bus will generally make-up any delays experienced on the West End Route and avoid compounding delays throughout the day.

To better understand the on-time performance issue, ride checks were completed for two full-service days (a Friday and Saturday) in May 2018. Shown in Figure 3-1, the ride checks were performed on four routes that exhibited below-average on-time performance.

Figure 3-1: On-Time Performance for Under-Performing Routes



Source: KFH Group Ridechecks, Data Combined from May 5 (Saturday) and May 11 (Friday), 2018

There are multiple remedies for on-time performance issues. The following provides the general context for potential solutions to the issues currently faced by WCT. With input from WCT staff, one or more of these solutions will be applied and detailed in the transit services plan.

Interlining Routes

The first potential solution is one that WCT is currently employing. Interlining routes that typically run early with ones that run late is an easy solution to balance on-time performance issues. Interlining enables the system to run smoothly during the service day without the risk of compounding delays that could lead to ripple effects throughout the system. However, this solution does not directly address the issues that are causing delays on some routes. Moving forward, WCT's interlining system should be tweaked to ensure efficiency while additional efforts are employed to directly address on-time performance issues.

Change the Existing Route

Another alternative is to change the existing route alignment to decrease the time needed to complete each run. This is a proven approach and marginal gains could be achieved; however, WCT's current route alignments are direct. Further streamlining service would likely eliminate transit service to key destinations which would decrease ridership and add a layer of inconvenience for regular riders.

Modify the Existing Schedule

If it is too difficult to complete the route in the scheduled time, one solution is to change the schedule to reflect real-world running times. This solution is perhaps the easiest and most efficient to implement in the short-term; however, inconsistent running times can lead to long layovers at the Transfer Center. Hourly and 30-minute routes have long been a hallmark of the system, adding 10-minutes to a route would throw off the transfers that occur every 30-minutes. This solution could prove beneficial for 30-minute routes facing performance issues; transitioning to hourly service would conform with the existing transfer system. For example, the West End Route, a 30-minute route that routinely faces delays due to traffic congestion and ridership demands could be scheduled for 60-minutes. This would enhance on-time performance and allow for route extensions to unserved destinations and future developments.

Add a Bus to the Route

The costliest, but the simplest solution is to add an additional bus to the existing route. While this option is the most cost-prohibitive of any method, an additional bus could increase service frequency while also ensuring on-time reliability. While not currently recommended, this should remain an option as service grows in the future.

Boonsboro to Hagerstown Route

Interest in a fixed route from Boonsboro to Hagerstown has been expressed by stakeholders throughout the TDP process. Most of the demand for the route is coming from Boonsboro, where residents have expressed a desire for a public transit link to the hospital, outlet mall, and other Hagerstown area destinations. The route planning process revealed that there are three potential alignments of roughly equal time and distance between Boonsboro and Hagerstown. As a result, three distinct routing options have been proposed:

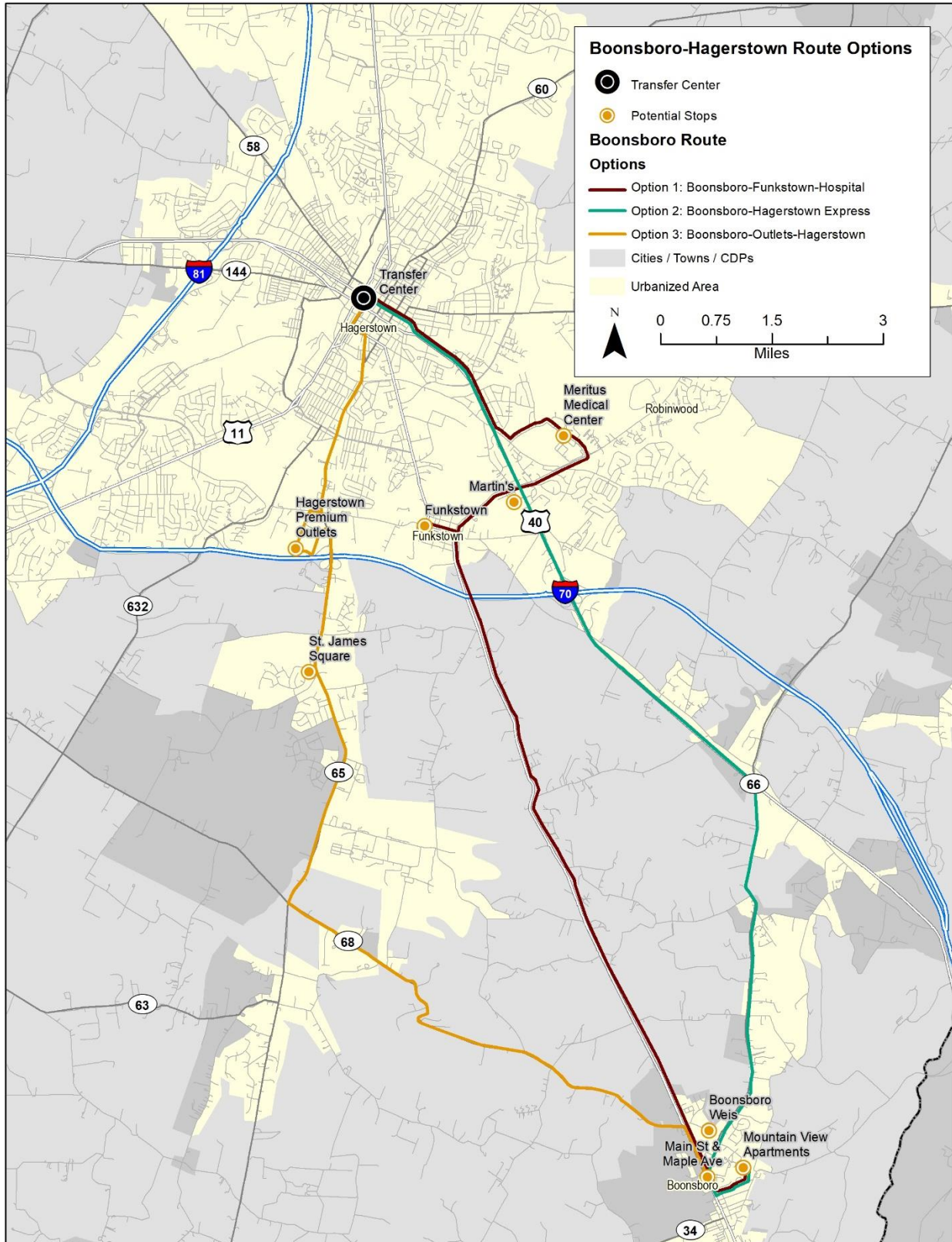
- **Option 1:** Boonsboro to Funkstown to Meritus Medical to Hagerstown
- **Option 2:** Boonsboro to Hagerstown express service
- **Option 3:** Boonsboro to Premium Outlets to Hagerstown

Options 1 and 3 travel outside of Hagerstown’s urbanized area, but all three options travel through lower density areas with low transit demand. If more direct routing is desired, the express service (option 2) could be accomplished within 30-minutes one-way, or an hourly round-trip. While also dependent upon the desired stops within Boonsboro, the additional intermediate stops shown in options 1 and 2 would add approximately 15-minutes of running time for a 45-minute one-way trip. Adding Boonsboro to WCT’s fixed route services would also require the expansion of paratransit service so that it can serve Boonsboro.

On the following page, Figure 3-2 maps out the three route options and denotes potential stops, including:

Advantages	Disadvantages
<ul style="list-style-type: none"> • Provides a reliable source of transportation for the residents of Boonsboro. • Connects Boonsboro to the greater regional bus network (MDOT MTA Commuter Bus and Bay Runner in Hagerstown). 	<ul style="list-style-type: none"> • The new route will increase operating costs. • There are few intermediate stops between Boonsboro and Hagerstown. • Requires expansion of ADA Paratransit service. • Will likely require an expansion vehicle.
Cost Estimates	Ridership Impacts
<ul style="list-style-type: none"> • Option 1: \$132,126 in annual operating costs (5 daily trips / 5 days per week @ \$64.04 per hour-FY18 avg. hourly cost) plus paratransit • Option 2: \$83,100 (assumes one-hour round trip) • Option 3: \$132,126. • Expansion of ADA Paratransit will likely double the cost • \$300,000 for expansion vehicle. 	<ul style="list-style-type: none"> • Option 1: 27,900 annual trips (based on FY18 avg. trips per hour) • Option 2: 18,600 annual trips. • Option 3: 27,900 annual trips. • Trip demand is untested; ridership will likely be lower than the estimates based on the system-wide average.

Figure 3-2: Boonsboro to Hagerstown Proposed Routes



Incorporation of Hopewell Express into WCT

The Washington County Community Action Council’s Community Action Transit (CAT) operates multiple transportation services for the elderly, low-income individuals, and individuals with disabilities. The only fixed-route they provide is the Hopewell Express, which provides service from downtown Hagerstown to employment centers along the Hopewell Road corridor, including Tractor Supply Co., FedEx Distribution Center, Staples, and other major employers. This service is currently free for Hopewell Road workers, but securing adequate operating funding has been a challenge for CAT.

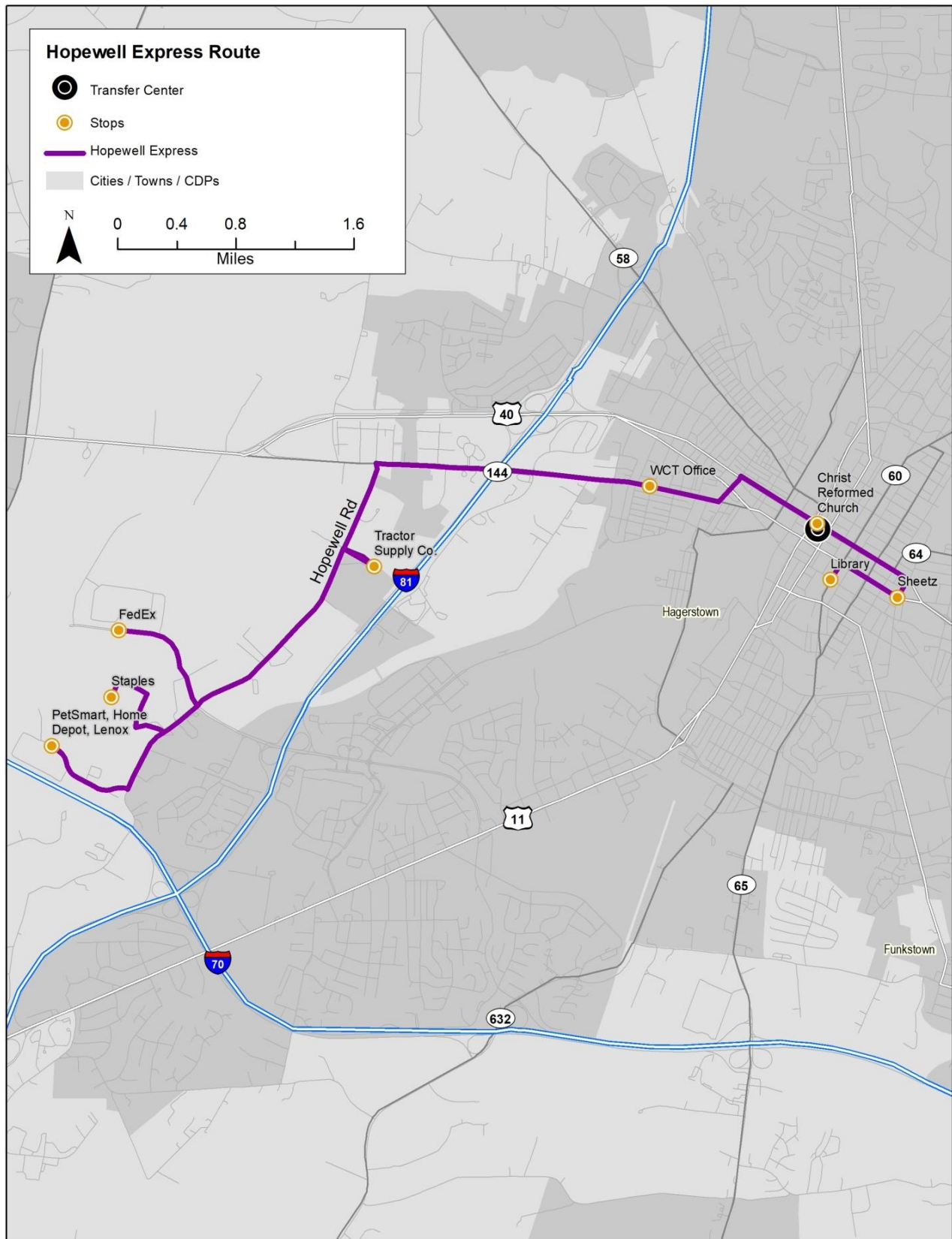
Given the uncertain future of the Hopewell Express and its important connection to regional employment centers, this proposal recommends that:

- WCT incorporates the Hopewell Express into its menu of fixed route services.
- The route’s schedule is slightly tweaked to ensure coordination with WCT services.
- The service is opened to the general public, in order to comply with federal guidelines.

As previously stated, CAT provides the Hopewell Express service for free, if WCT were to take over the service, riders may be required to pay a fare (WCT base fare is \$1.25 one way). Though the introduction of fares may decrease ridership, it will provide revenue and allow for increased farebox recovery. Figure 3-3 shows the current Hopewell Express route and its associated stops.

Advantages	Disadvantages
<ul style="list-style-type: none"> • Preserves an important connection to regional employment centers. • Opening the service to the public and marketing it as a WCT route could generate additional ridership. 	<ul style="list-style-type: none"> • Integrating this route into WCT’s service will increase operating costs. • Introducing fares will likely decrease existing ridership. • Will likely require an expansion vehicle.
Cost Estimates	Ridership Impacts
<ul style="list-style-type: none"> • \$166,500 in annual operating costs (10 daily trips / 5 days per week @ \$64.04 per hour-FY18 avg. hourly cost). • \$300,000 for expansion vehicle. 	<ul style="list-style-type: none"> • 37,200 annual trips – based on FY18 average trips per hour. • Ridership may decline due to fare increases. • General public service and marketing could increase ridership.

Figure 3-3: Hopewell Express



Introduce Sunday Service

The rider survey, conducted in May 2018, revealed that the top desired enhancement among riders is the introduction of Sunday service (see Figure 3-4). While this enhancement is not financially feasible at this time, efforts should be made to show responsiveness to customer requests.

WCT currently operates Saturday service, a limited version of regular weekday service where the Robinwood Route is

suspended and the number of daily trips on other routes are reduced. Introducing this limited service on Sundays would increase mobility and generate additional ridership.

This proposed alternative would:

- Add Sunday service to the following routes: Funkstown, Long Meadow, Maugansville, Premium Outlets, Smithsburg, Valley Mall, West End, and Williamsport.
- Use Saturday schedules as the basis for Sunday service.

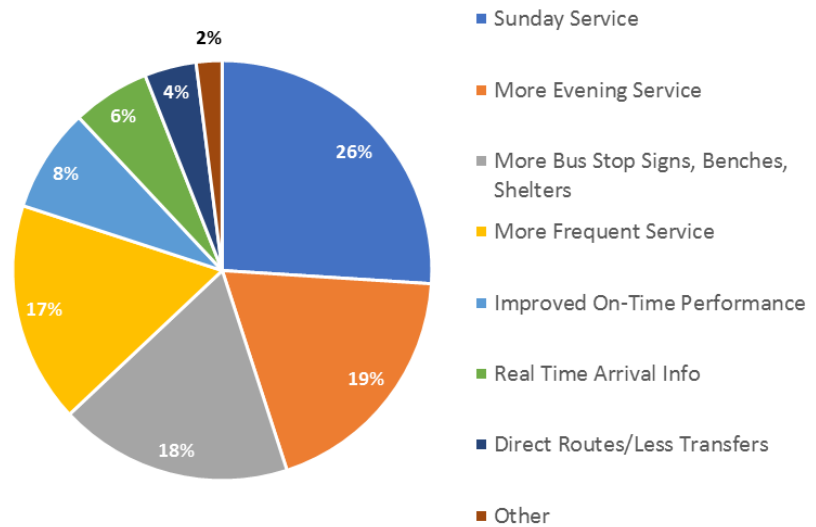


Figure 3-4: Rider's Most Desired Service Enhancement

Advantages	Disadvantages
<ul style="list-style-type: none"> • Additional service days would attract additional and new riders. • Allows residents and shift works to consider transit as a more viable mobility option on Sundays. 	<ul style="list-style-type: none"> • Expanding service to Sundays will increase operating costs and could require additional drivers and vehicles. • Sunday service is typically less productive than weekday and Saturday service.
Cost Estimates	Ridership Impacts
<ul style="list-style-type: none"> • Annual operating costs for Sunday service, mirrored after Saturday service, would cost roughly \$331,800. • Various associated administrative costs for the creation of new schedule materials and increased preventative maintenance costs. 	<ul style="list-style-type: none"> • Approximately 65,000 additional annual trips, would be generated based on average hourly trip data. • The estimated additional trips are likely inflated as Sunday service typically garners roughly 50% of the ridership of a typical weekday.

INNOVATIONS IN ON-DEMAND SERVICE

The number of individuals that make up the 65 and above age group is expected to grow tremendously in the coming years. In Washington County, the number of residents age 65 and above is expected to grow by 50% in 2035 (see Figure 3-5), whereas the overall population is expected to grow by roughly 30%. In FY 2018, over 20,000 trips were funded using the SSTAP

program. As the senior population continues to increase, SSTAP and other demand response services should be responsive to the increased ridership.

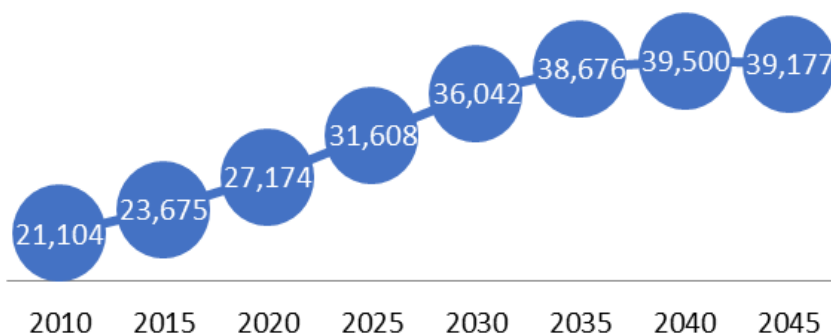


Figure 3-5: Projected Population Growth in the 65 and Above Age Group

Source: U.S. Census and Maryland Department of Planning

To offset increased demand for these services, traditional methods of managing ridership growth may be employed – adding additional vehicles/drivers or placing restrictions on trip purpose, service days, or service areas. However, other local jurisdictions are beginning to examine the feasibility of utilizing on-demand, e-hailing services to meet this demand without excessive costs and trip constraints.

During the past decade, large urban areas have been inundated by privately operated e-hailing services; including Uber, Lyft, Via, Chariot, etc. (also known as Transportation Network Companies/TNCs). These services are complementing existing transportation networks and adding to the menu of shared-use services. More recently, e-hailing services have started to serve lower-density communities, supplementing demand response and deviated fixed route bus service. In response to increasing demand and cost, unproductive service, and poor service quality, public transit operators are adapting their service models to include e-hailing as a component of their service operations. Implementing a micro-transit service in Washington County would require WCT to develop a service zone and service delivery model (phone app, tech partnership), acquire funding, and create a fare structure. The following section outlines the steps necessary to establish an e-hailing or micro-transit service.

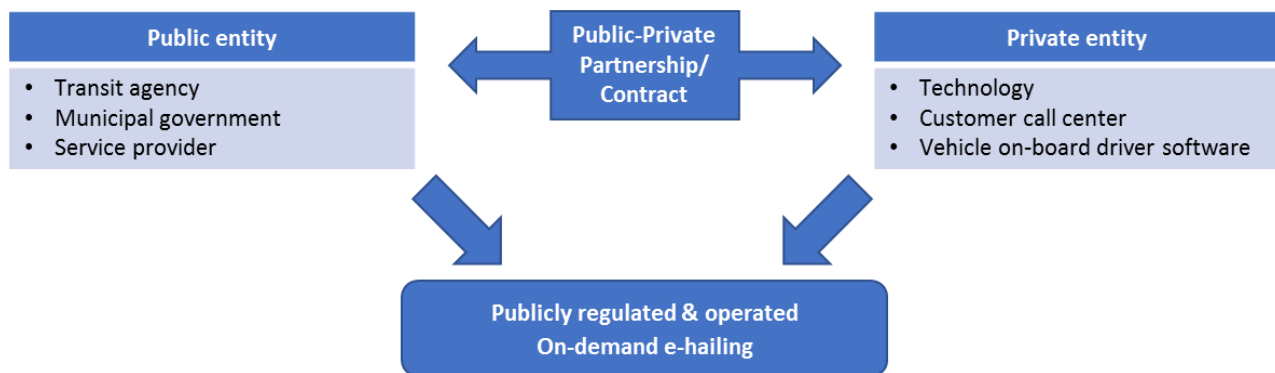
Identify the Service Delivery Model

The first steps in implementing micro-transit include developing a private-public partnership with a technology company, building a technological platform (smartphone app), and identifying a service provider. These components can take several different forms; some of the possibilities are described below.

Publicly Regulated and Operated/Tech-Based Company Partnership

This first model encompasses a public transit agency partnership with a tech-based company. As a part of the partnership, the tech company develops and supplies the vehicle GPS software for bus drivers. In addition, the transit agency works with the company to develop a user smartphone app. The app allows passengers to plan, reserve, pay and track an on-demand vehicle to their curb (some customers may be required to walk up to two-blocks). With this model, the transit agency is able to use its existing fleet of buses that are ADA compliant (wheelchair accessible). The existing fleet can be retrofitted with the turn-by-turn software that transmits passenger’s approximate pick-up and drop-off location information in real-time. WCT is in the process of implementing RouteMatch turn-by-turn tracking software, which could be utilized for this Figure 3-6 provides a diagram of the model with the potential advantages and disadvantages listed below.

Figure 3-6: Diagram of On-Demand Publicly Operated and Tech-Based Company Partnership Model

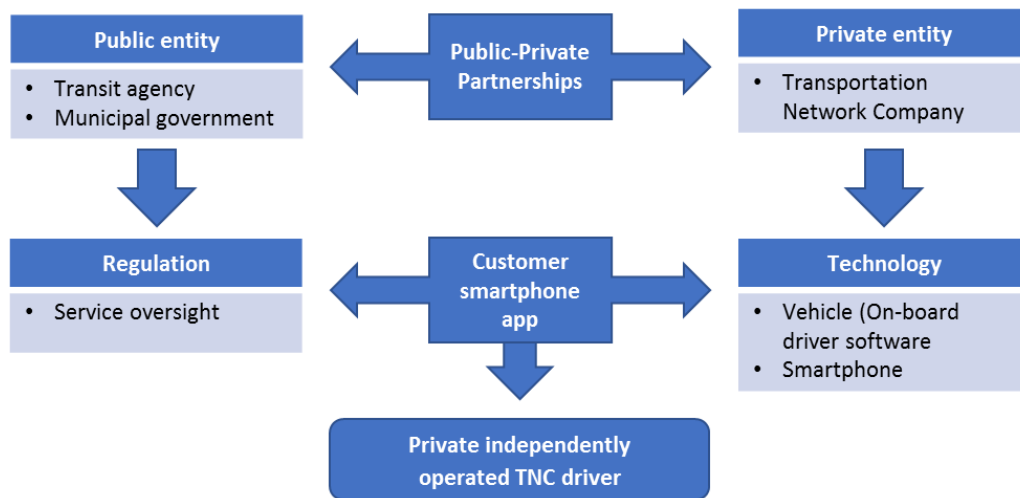


Potential Advantage	Potential Disadvantage
<ul style="list-style-type: none"> ▪ On-demand, e-hailing service for the general public ▪ Increased service levels (on-demand) for ADA paratransit ambulatory customers ▪ Expanded service catchment area ▪ Replacement of low-productivity routes and increased performance ▪ Reduced operating cost ▪ Uses existing fleet and drivers (drivers are ADA paratransit certified) ▪ All vehicles are ADA (wheelchair) accessible 	<ul style="list-style-type: none"> ▪ Cost - procurement of new technology ▪ Cost - train bus operators on new technology ▪ If demand outpaces supply, has the potential to increase agency cost

Publicly Regulated and Tech-Based Mobility Company Operated

Similar to the first model, this model also entails the public transit agency developing a partnership with a tech-based company. The difference is the transit provider regulates the service, and the tech-based company supplies the service. As part of the partnership, the transit agency enters into a contractual service delivery agreement with a taxi company (with e-hailing capabilities) or TNC. The agreement identifies a geo-fenced zoned (GFZ), plus the designated and/or virtual bus stops for the service area parameters. The program allows transit agency customers to use the taxi company or TNCs smartphone app to request and pay for their trip, in which the transit agency subsidizes a portion of the ride. Transit providers are experimenting with two types of pick-up/drop-off models. One permits passengers to travel anywhere via the taxi or TNC within the defined GFZ. This model is primarily geared towards ADA ambulatory passengers. The second model permits customers to travel via taxi or TNC to/from designated transit facilities (bus stops/transit centers/park & rides) within the designated GFZ. Figure 3-7 provides a diagram of the model with the potential advantages and disadvantages presented below.

Figure 3-7: Diagram of On-Demand Publicly Regulated and TNC Operated Model

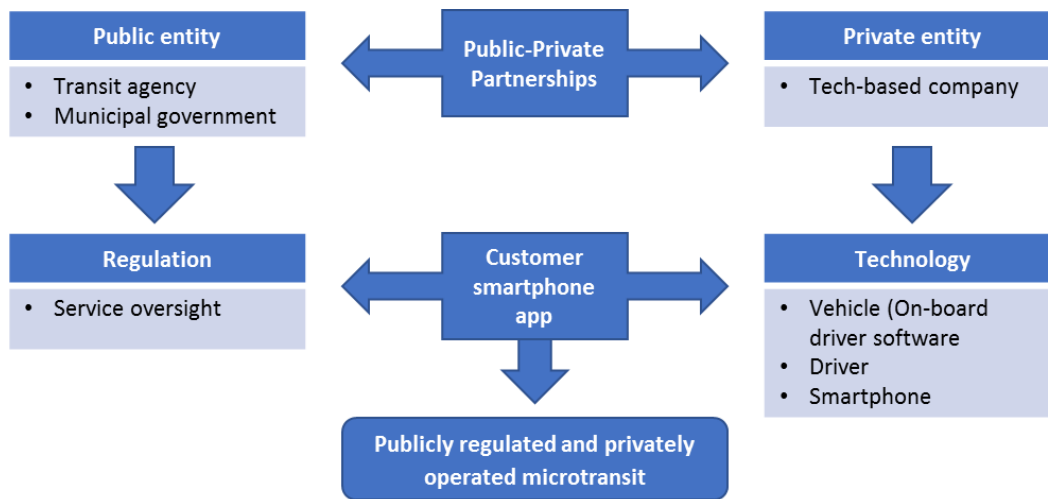


Potential Advantage	Potential Disadvantage
<ul style="list-style-type: none"> On-demand, e-hailing service for the general public Expand service catchment area (first mile-last mile connections) Increase service levels (on-demand) for ADA paratransit ambulatory customers Alleviate demand from traditional services Reduce operating cost and enhance system productivity No increase in technology procurement cost 	<ul style="list-style-type: none"> Limited vehicles may be available for ADA paratransit vehicles Ensuring private companies adhere to federal regulations Obtaining ridership and performance data from private companies Ensuring TNCs pick-up/drop-off passengers within the defined GFZ If demand outpaces supply, has the potential to increase the agency cost

Publicly Regulated and TNC Operated

The latest publicly regulated on-demand e-hailing model has many of the characteristics as the prior models. However, this model is municipal government based and operated by a tech-based mobility company. As part of the government agency’s partnership with the tech-based company, a geo-fenced zone (GFZ) is identified permitting the general public to e-hail an on-demand vehicle to/from designated and/or virtual bus stops within the defined GFZ. This service has become known as micro-transit. Below, Figure 3-8 provides a diagram of the micro-transit model with potential advantages and disadvantages.

Figure 3-8: Diagram of On-Demand Publicly Regulated and Mobility Company Operated Model



Potential Advantage	Potential Disadvantage
<ul style="list-style-type: none"> ▪ On-demand, e-hailing service for the general public ▪ Increase service levels (on-demand) for ADA paratransit ambulatory customers ▪ All vehicles are ADA (wheelchair) accessible ▪ Alleviate demand from traditional services ▪ Replacement of low productive routes ▪ Reduce operating cost and enhance system productivity ▪ No increase in technology procurement cost 	<ul style="list-style-type: none"> ▪ Train drivers on federal ADA paratransit requirements ▪ Customers may be unable to pay cash while boarding the vehicle ▪ If demand outpaces supply, has the potential to increase the agency cost

Develop a Geo-Fenced Zone

Public transit providers utilize e-hailing service to fill gaps in coverage and alleviate some of the first-mile-last-mile issues that fixed route service presents. To better fill these gaps, transit providers need to develop a geo-fenced zone (GFZ) to provide the service where it is most necessary. A GFZ helps organize the service so that it serves the areas that most need it. Some considerations when creating a GFZ include:

- **Employment Density:** Micro-transit is often used for employment trips, areas with higher amounts of jobs should be considered for the GFZ.
- **Land Use Pattern:** Lower density areas where fixed-route service is less productive can be better served by micro-transit.

Budgeting and Funding

Since micro-transit and e-hailing by public transit providers is a new concept, there is a limited amount of budget information available. FTA funding has been made available for innovative transit solutions, including the FTA's Integrated Mobility Innovation (IMI) Demonstration program. More information about this program can be found at <https://www.transit.dot.gov/IMI>.

The funding provided by these programs can help offset the costs of:

- Obtaining equipment
- Acquiring or developing software and hardware interfaces to implement the service
- Operating the service

Develop a Fare Structure

Micro-transit is a unique service that may require a different fare structure than fixed-route or ADA paratransit. The service could be provided at the same cost as fixed route service (\$1.25), but that could have a negative effect on fixed route ridership due to the on-demand convenience of e-hailing. Because of this, a premium fare may be required. Past studies indicate that service should not be greater than 50% of the current base fare.

CAPITAL ENHANCEMENTS

WCT has placed an emphasis on providing top-quality transit service for customers. To enhance the user experience, the following capital enhancements are proposed to streamline the fare payment and trip planning process and enhance infrastructure at bus stops.

Smartphone Fare Payment App

The TDP process revealed interest in the creation of a smartphone app to help transit riders utilize WCT services. The app would allow riders to pre-pay fares and period passes (weekly, monthly, etc.) and seamless free transfers across the system. The rider survey revealed that customers desired more real-time transit information. Using data from WCT's transit software, this information would be incorporated into the smartphone app and allow riders to receive arrival updates in real-time. This would also provide fare coordination opportunities with other area transit providers and private transportation providers like Uber, Lyft and other TNCs. App development and implementation can cost anywhere between \$20,000-\$140,000, depending on the hardware/software being used and functionality. Some fare payment app developers supply free hardware and take a percentage of fares purchased through their app as their revenue requiring a minimal upfront investment.

All WCT fixed route vehicles are equipped with electronic fareboxes, but they are currently only used to process fares purchased on WCT farecards. To further utilize the electronic fareboxes, they should be interoperable with the smartphone app. This would allow customers to simply scan their smartphone at the farebox to board the bus.

When utilizing smartphone technology and electronic fareboxes, equity concerns should also be addressed.

Not every rider will own a smartphone or have access to a bank account that would be needed to utilize the app. While electronic fareboxes will accept cash fare payments, offering discounted fare types or passes exclusively through the smart app would amount to inequity against riders without a smartphone and/or are unbanked. If special fares or passes are available through the smartphone app they should also be available for all riders.

Potential Advantage
<ul style="list-style-type: none"> Allows riders to pre-purchases passes Streamlines onboard fare payment Reduces time spent counting and managing cash fares Gives riders real-time transit information Valuable for transit service planning Ensures accurate reporting
Potential Disadvantage
<ul style="list-style-type: none"> Procurement and ongoing maintenance costs Would not be advantageous to all riders, approximately 63% of riders have a smartphone according to the May 2018 rider survey
Cost Estimate
<ul style="list-style-type: none"> \$20,000 - \$140,000 App development
Ridership Impact
<ul style="list-style-type: none"> Providing easier and more efficient methods to pay fares will encourage additional ridership When the data generated is used effectively, these tools can provide the basis for better route and schedule design leading to increased ridership

Enhance Bus Stop Amenities and Accessibility

WCT provides a range of passenger amenities (shelters, benches and trash receptacles) at a number of its approximately 200 signed bus stops. Eighteen percent of riders want more shelters, benches, and other amenities at stops. Bus stop amenities are currently located at WCT stops with the highest ridership. The Transfer Center in Hagerstown (Figure 3-9) includes a kiosk, ticketing boxes, and several other high-level amenities. Six percent of riders surveyed desired real-time transit information; this issue could be addressed by installing a real-time arrivals display at the Transfer Center.

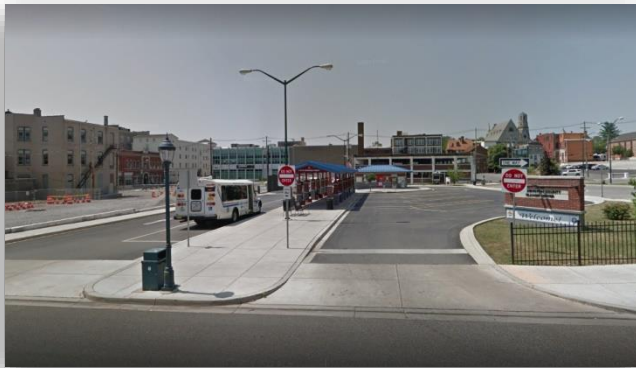


Figure 3-9: Hagerstown Transfer Center

Source: maps.google.com

While passenger amenities should be placed using specific guidelines, accessible pathways to bus stops should be the standard system-wide. Additionally, during onboard observations, riders routinely crossed streets that did not feature accessible or safe crossing zones or sidewalks and boarded the bus at stops that did not have signs. Improving access to bus stops will require a long-term coordinated effort by WCT and local jurisdictions. The Vision Hagerstown 2035 Comprehensive Plan identified a need for alternatives to automobile travel, updating stop amenities and pathways would be a major step in improving alternative transportation. New amenities should be placed based on stops with high average daily ridership, or at unique locations that warrant them.

Potential Advantage
<ul style="list-style-type: none"> ▪ Easier accessibility to stops; especially for those aged 65 and above and individuals with disabilities ▪ Enhances the overall image of the transit system ▪ Added comfort and convenience for riders
Potential Disadvantage
<ul style="list-style-type: none"> ▪ Costs for purchasing and installation ▪ Requires maintenance ▪ Requires coordination with landowners and local jurisdictions
Cost Estimate
<ul style="list-style-type: none"> ▪ Shelter: \$5,000 to \$10,000 ▪ Bench: \$1,000 to \$1,500 ▪ Trash Can: \$800 to \$1,200 ▪ Bus Stop Sign: \$100-\$200
Ridership Impact
<ul style="list-style-type: none"> ▪ Enhances service for riders, especially those aged 65 and above and individuals with disabilities ▪ Encourages ridership by improving visibility but likely not a significant increase



Figure 3-10: Meritus Medical Center

STAFFING

WCT is currently dealing with staffing gaps that have led to a lack of road supervisors, dispatchers, and an un-staffed downtown transfer center. To enhance road supervision and provide a safe environment for customers at the transfer center, additional staff is needed. Every transit system has unique staffing needs, the following sections outline suggested staffing levels.

Administrative Staffing

Generally, administrative salaries should total somewhere between 15% and 20% of the total operating budget. With WCT's FY 2018 operating budget of \$2,478,736 that would result in a range of \$371,810 to \$495,747. In FY 2018, WCT spent \$469,068 in administrative salaries and fringe benefits for the Director and three staff members. Generally speaking, that would fall in line with other peer transit agencies.

Operations Staffing

Operations staffing levels are highly dependent upon the service being provided. WCT's lack of road supervisors is a critical concern and those positions should be filled immediately. Similarly sized systems typically employ two or three road supervisors to ensure the full-service day is covered and to allow for employee leave. Road supervisors should be stationed at the transfer center to effectively fulfill two staffing needs at once.

WCT is also lacking a dedicated dispatcher. Other employees are currently filling this role but this is also a critical position that should be filled. Similarly sized transit agencies typically employ two or three dispatchers as well. However, comparable peer transit agencies operate large demand response programs that consume much of the dispatcher's time. Since WCT only provides ADA complementary paratransit and outsources SSTAP trips to local taxi companies, one or two dispatchers could effectively fill this role.

Maintenance Technician Staffing

Based on *TCRP Report 184: Maintenance Technician Staffing Levels for Modern Public Transit Fleets*, determining the number of suggested maintenance staff can be done through multiple variables including vehicle miles, vehicle hours, and the total number of vehicles.

In WCT's case, the three metrics produced the following results:

- **Vehicle Miles:** 0.04 technicians per 10,000 miles @ 518,385 miles = 2.07 technicians
- **Vehicle Hours:** 0.06 technicians per 1,000 hours @ 34,710 hours = 2.08 technicians
- **Total Vehicles:** 0.15 technicians per vehicle x 19 revenue vehicles = 2.85 technicians

The proposed staffing alternative specifically recommends:

- Budgeting for and hiring at least two road supervisors.
- Budgeting for and hiring at least one dedicated dispatcher.
- Documenting the need for any additional staff.

Advantages	Disadvantages
<ul style="list-style-type: none"> • Additional staff would ease the strain on current staff members that are filling multiple roles. • Staffing the downtown transfer center will increase safety for waiting passengers and drivers. 	<ul style="list-style-type: none"> • The only disadvantage is the additional salaries.
Cost Estimates	Ridership Impacts
<ul style="list-style-type: none"> • \$55,000 estimated salary for an experience road supervisor. • \$35,000 estimated annual salary for an experienced dispatcher. • Hiring two road supervisors and one dispatcher would add an additional \$145,000 to the annual budget. 	<ul style="list-style-type: none"> • Difficult to estimate ridership impacts if there are any. • Staffing the transfer center will enhance safety and enhance the rider experience.

MARKETING

WCT could pursue marketing assistance from a private firm that specializes in public transit marketing to assist with some or all of the marketing efforts. A comprehensive effort to address marketing and enhance public information for the county should be coordinated with other area transportation providers like CAT. This would involve WCT taking the lead in revising and improving transit information and resources, which would include the transit services of WCT as well as CAT, and hire a specialty firm to develop the revisions and materials.

However, as a second option, WCT can also pursue marketing and public information efforts focusing on the services that operate only in the county. For this approach, we suggest the county contract for professional marketing assistance for the following tasks:

- Develop enhanced schedules and maps for its fixed routes, specifically a comprehensive ride guide or route booklet.
- Developing a unique and easy to use website that distinguishes WCT from other county services; and including a link on all marketing materials.

A third and lower cost option could make incremental enhancements and use the RTAP Marketing Transit Toolkit at <http://nationalrtap.org/marketingtoolkit/> which includes resources for building marketing materials. These include templates for creating rider brochures, bus stop signs, news releases, etc. It also includes copyright-free images that can be used as well as copyright-free examples of graphics. The toolkit also includes template utilities such as a Microsoft Excel Schedule Maker template and instructions for customizing templates in Microsoft Publisher. This option would rely on local resources to re-brand the county's transit system.

Costs for professional marketing assistance will vary on the tasks that are requested. Costs for assistance developing a new ride guide and website would be around \$40,000 depending on the level of effort needed for any new branding.

Advantages	Disadvantages
<ul style="list-style-type: none"> • Promotes WCT's services within the community. • Greater visibility can lead to increased ridership, future partnerships, and possible funding opportunities. • Provides a comprehensive list of services 	<ul style="list-style-type: none"> • Cost is the only disadvantage. • It would require additional administrative time.
Cost Estimates	Ridership Impacts
<ul style="list-style-type: none"> • Around \$40,000 for a professional marketing campaign. • In-house marketing would be substantially cheaper, mainly requiring administrative time. 	<ul style="list-style-type: none"> • Additional marketing will enhance ridership. • Difficult to estimate the impact, but will lead to marginal increases in ridership.

SUMMARY OF ALTERNATIVES

Table 3-1 provides a summary of the alternatives including a brief description and estimated cost implications.

Table 3-1: Summary of Alternatives

Alternative	Description	Estimated Additional Costs		
		Annual Operating	Administrative	Capital
Fixed Route Service Alternatives				
Strategies to Enhance On-Time Performance	Slight realignments and/or schedule overhaul	None	Driver training and schedule redesign/expansion option could require additional drivers	None
Fixed Route Service Expansion				
Boonsboro to Hagerstown Route	Provide WCT service to Hagerstown for Boonsboro residents.	Dependent upon routing, \$132,126	Additional drivers, training and schedule redesign	\$300,000 (New Vehicle)
Incorporation of Hopewell Express into WCT	Take service over from CAT to alleviate funding constraints	\$166,500	Additional drivers, training and schedule redesign	\$300,000 (New Vehicle)
Introduce Sunday Service	Provide Saturday's limited service on Sunday	\$331,800	Additional drivers, training and schedule redesign	Increased Preventative Maintenance
Innovations in On-Demand Service				
Publicly Regulated and Operated/Private Partnership	Partnership to provide system with software and hardware	Contract Specific	Training	Could require additional vehicles
Publicly Regulated/Transportation Network Company Operated	Contract with private provider to subsidize transit trips	Contract Specific	Oversight	None
Publicly Regulated/Tech-Based Mobility Company Operated	Contract with private provider to operate transit-like service	Contract Specific	Oversight	None
Capital Enhancements				
Smartphone Fare Payment App	Streamlines fare payment and allows trip planning	Potential subscription costs	Procurement and training	\$140,000 for development and implementation
Enhance Bus Stop Amenities and Accessibility	Locating new bus stop amenities and promoting accessible pathways	None	Coordination efforts	Variable

Alternative	Description	Estimated Additional Costs		
		Annual Operating	Administrative	Capital
Staffing				
Hire 2 Road Supervisors and 1 Dispatcher	Fill staffing gaps and provide coverage for the transfer center	\$55,000 – Supervisor \$35,000 – Dispatcher \$145,000 Total	Training and Oversight	None
Marketing				
Marketing Campaign	Pursue marketing assistance from a firm or launch an in-house campaign	Cost Neutral to \$40,000	Oversight and Implementation	None

Chapter 4

Transit Service Plan

INTRODUCTION

This five-year service plan is the culmination of the TDP planning process. This plan was derived through a thorough evaluation of existing services (Chapter 1), a comprehensive demographic review (Chapter 2), and a complete review of service alternatives (Chapter 3). WCT staff, local stakeholders, and MDOT MTA representatives provided guidance and direction throughout the planning process.

The estimated costs provided in this chapter are based on projected hourly operating costs and previous capital expenditures. Depending on the timing and implementation choices, costs may differ due to inflation, variable market costs, or technological innovations.

All proposed services are conceptual in nature and will require operational planning to determine exact routing, stop locations, and timetables.

The service plan is divided into the following sections:

- **Service Plan** – Brief narratives on the proposed improvements, broken into short, mid and long-term implementation timeframes.
- **Title VI Analysis** – Overview of Title VI implications in regard to proposed improvements.
- **Conceptual Financial Operating Plan** – Estimated operating costs for FY 2021 to FY 2025, based on existing operating costs and estimated operating costs from proposed improvements.
- **Conceptual Financial Capital Plan** – Estimated capital costs for FY 2021 to FY2025, based on data from WCT’s Annual Transportation Plan and estimated capital needs from the service plan.
- **Summary Overview** – Brief review of the proposed improvements.

SERVICE PLAN

The service plan is organized into three phases: short, mid and long-term. Each of the improvements proposed in this service plan was derived from the review of service and organizational alternatives in Chapter 3. Brief descriptions of the proposed improvements are provided in this section; however, additional details can be found in Chapter 3.

Short-Term Improvements

The short-term improvements proposed for FY 2021 are listed below and followed by a brief summary of each improvement.

- Enhance On-Time Performance
- Enhanced Marketing Initiative

Enhance On-time Performance

This improvement aims to resolve on-time performance with some routes that were identified during the TDP process. The current solution to these issues is interlining bus routes so that routes that normally arrive early to the Transfer Station can then begin running routes that often arrive late. The two routes with the most interlining are the early-arriving Premium Outlets route and the late-arriving West End route. This improvement will develop a plan to address on-time performance issues and ensure that buses are more reliable.

Outside of interlining, there are various activities and strategies that can be undertaken or adopted to increase on-time performance; including modifying the route alignment, changing the schedule, or adding an additional bus to the route. These strategies can offer more effective long-term solutions to improve on-time performance.

Improvement Highlights

- Addresses the most pressing issue for WCT riders
- Increases trust between the transit system and riders by better adhering to schedules
- Solving a route's on-time performance issues could yield increased ridership

Enhanced Marketing Initiative

It is recommended that WCT pursue an enhanced marketing initiative to promote its transit services within the county. For this initiative, it is recommended that WCT hire a professional marketing firm to assist with these efforts. If the goal of the marketing initiative is to publicize all transit services offered in the county, WCT should coordinate with other area providers (like CAT) to create these materials. The most critical marketing need for WCT is

the development of enhanced schedules and maps for fixed routes, specifically a comprehensive ride guide or route booklet.

A potential lower cost option is conducting the marketing campaign internally or through a partnership with Washington County. There are multiple online guides for conducting marketing campaigns, including the National Rural Transportation Assistance Program's (RTAP) Marketing Transit Toolkit. The toolkit includes templates and materials to create brochures, news releases, and other marketing materials.

Highlights

- Promoting transit services will improve community awareness and perception
- Greater community visibility can lead to increased ridership and local partnerships
- In-house marketing campaigns are low cost, versus \$20,000+ for professional services

Mid-Term Improvements

The mid-term improvements are proposed for implementation in FY 2022 to FY 2023; they are listed below and are followed by a brief description.

- Additional Transit Staff
- Hopewell Express

Additional Transit Staff

WCT has recently dealt with staffing gaps that have put undue stress on road supervisors, administrative staff, and dispatchers while leaving the downtown transfer center un-staffed. It is recommended that WCT increase its staffing to include two road supervisors and one dedicated dispatcher. The TDP examined national standards for transit agency staffing, but every agency is unique. WCT should document additional staffing needs beyond these recommendations to determine the need for additional staff.

Highlights

- Road supervisors and a dedicated dispatcher are the most urgent need.
- A dedicated dispatcher will relieve the current workload of administrative staff.
- The need for additional staff beyond these recommendations should be documented.

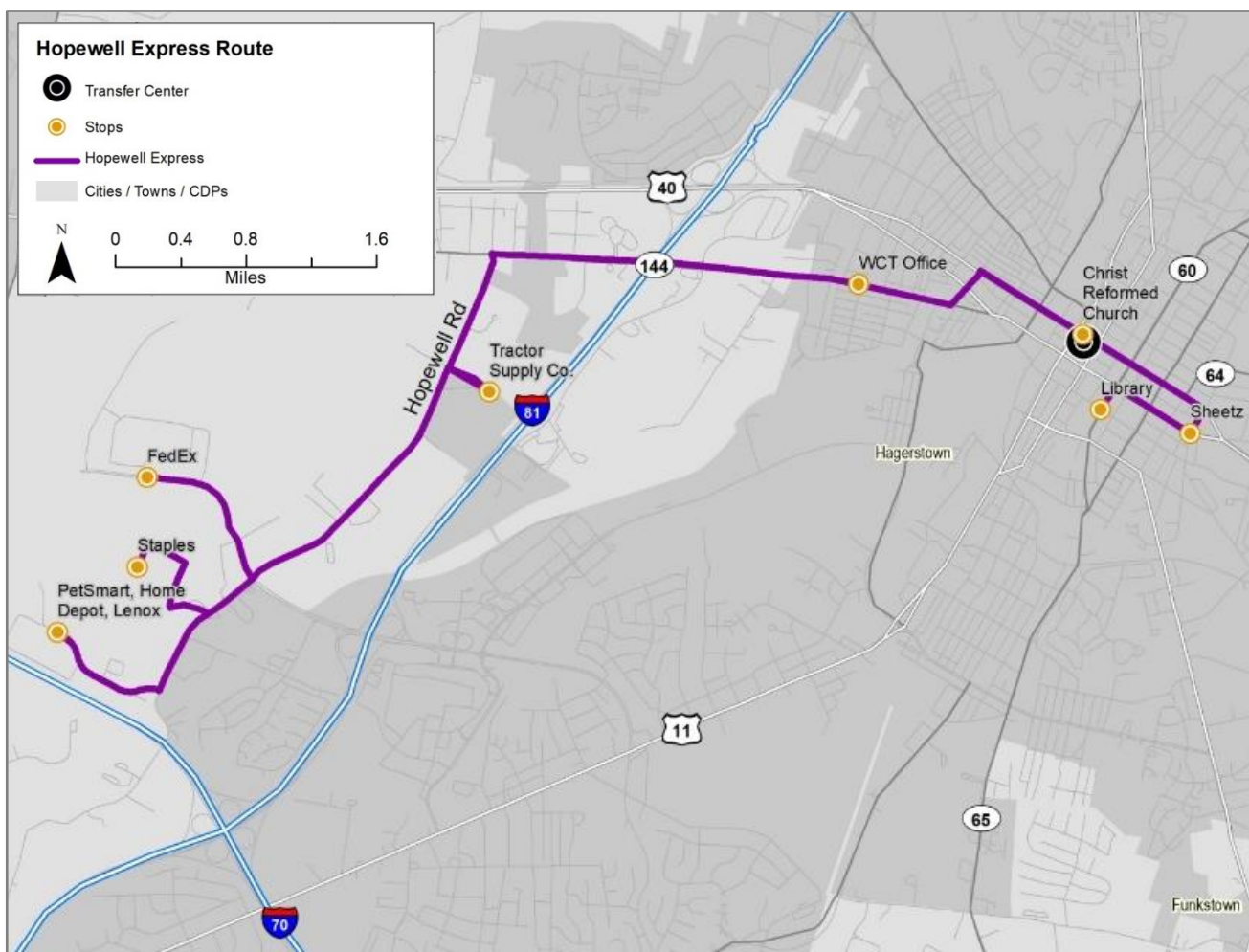
Incorporate Hopewell Express into WCT

The Washington County Community Action Council's Community Action Transit (CAT) currently operates the Hopewell Express: a 24 hour a day service that provides employment transportation to shift workers at major employment centers along Hopewell Road. Currently, the service is provided at no charge to workers, but securing adequate operating funding for the service has at times been difficult for CAT. This improvement would be implemented only if CAT is unsuccessful in generating the funding required to operate the service.

Highlights

- Incorporating this service would relieve CAT of some financial burden.
- WCT would need to open the service to the general public to comply with regulations.
- Ridership may decrease with the introduction of fares.
- Service hours may be shortened to reduce operating costs.

Figure 4-1: Hopewell Express



Long-Term Improvements

The long-term improvements, proposed for implementation in FY 2024 to FY 2025, are listed below and are followed by a brief narrative for each improvement.

- Develop Smartphone Payment App
- Introduce Sunday Service
- Boonsboro to Hagerstown Route
- System-wide Evening Service

Develop Smartphone Payment App

Harnessing the power of mobile technologies is an important step for WCT to take in order to market services and accelerate the speed at which information is transmitted to riders and the general public. One way to increase the presence of mobile technologies in WCT services is to develop a smartphone payment app. These applications have become increasingly popular nationwide and are usually developed in tandem with the transit system's respective transit software provider. Currently, all WCT fixed route vehicles are equipped with electronic fareboxes but are only used to process fares purchased on WCT farecards.

Highlights

- Potential partnership with transit software provider should be considered.
- Provides easy and quick access to transit information to customers.
- Equity concerns posed by the mobile app must be addressed.

Introduce Sunday Service

The rider survey indicated that the most desired service improvement is the provision of transit services on Sundays. WCT currently operates service on Saturday, and this recommendation would mirror Saturday schedules to provide Sunday service on every fixed route except Robinwood.

While this improvement is costly (approximately \$331,800 in annual operating costs), it is still the most desired service improvement for WCT riders. Providing this service would provide employment and social/recreation transportation to those who use it most.

Highlights

- Responds to the results of the rider survey.
- At this moment, it is prohibitively expensive.
- Provides greater mobility for social/recreation trips in addition to employment trips.

Boonsboro to Hagerstown Route

Boonsboro-based residents and elected officials have expressed interest in a route that would connect the town to the administrative and economic center of Washington County. Boonsboro is part of Hagerstown's urbanized area, but several of the routes to Hagerstown would require operating transit services outside of the urbanized area. Currently, the Boonsboro route could take the form of one of the following three options:

- **Option 1:** Boonsboro to Funkstown to Meritus Medical to Hagerstown
- **Option 2:** Boonsboro to Hagerstown express service
- **Option 3:** Boonsboro to Premium Outlets to Hagerstown

Options 1 and 3 travel outside of Hagerstown's urbanized area and all of the options are routed through low-density areas that have low transit demand. Currently, each option would take 30-45 minutes to complete a one-way trip. This proposal should also consider opportunities to connect to the residents in the rural southern areas of the county.

Highlights

- Provides connection to Hagerstown from the furthest reaches of the urbanized area
- Currently at very preliminary planning stages
- Route expansion will also require ADA Paratransit expansion
- May briefly operate outside of the urbanized area

System-wide Evening Service

Additional evening service was the second most requested service enhancement on the rider survey. Currently, on weekdays, WCT routes end their service day at varying times ranging from 6:15 p.m. to 9:45 p.m. WCT has been responsive to requests for evening service, with evening trips provided on the Long Meadow, Valley Mall, and West End routes for evening employment and shopping trips. Additionally, the need for evening service to Hagerstown Community College (HCC) has been identified as an emerging need. The Robinwood and Smithsburg routes, which serve HCC, currently end their service day at 6:15 p.m., long before evening classes are released. Extending service into the evening, system-wide, will require three additional weekday hours on the Robinwood, Smithsburg, Funkstown, Williamsport, and Maugansville routes; and two additional weekday hours on the Premium Outlets Route.

Highlights

- Responds to community and rider requests for extended evening service.
- Provides greater evening mobility for residents outside of central Hagerstown.
- Enhances access to employment, higher-level education, medical facilities, and shopping opportunities for residents without dependable transportation.

TITLE VI ANALYSIS

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color or national origin. Public transportation providers have the ability and responsibility to enhance the social and economic quality of life for residents within their communities. Public transportation providers must ensure that service changes do not disproportionately impact below poverty or minority populations.

WCT is not required to formally evaluate its service and fare changes under Title VI due to FTA established thresholds regarding the UZA population (200,000 or more) and the number of vehicles used in peak service (50 or more). However, WCT still considers the impacts of proposed changes based on the distribution of Washington County's minorities and below poverty populations. The Title VI Demographic Analysis in Tech Memo 2 includes maps that illustrate distribution of protected population groups.

Overall, minority and below poverty individuals stand to benefit for the proposed service changes, as do all Washington County residents. However, as these proposals are implemented, WCT should continue its monitoring and evaluation efforts to ensure that protected populations do not experience adverse or disproportionate impacts.

CONCEPTUAL FINANCIAL PLAN FOR OPERATING

WCT develops an annual grant application for MDOT MTA that includes operating and capital grant programs. This grant application must be approved by the county each year. Maryland's transit program combines available federal and state funds to provide local assistance; the allocation to the various localities is not strictly formula driven. Therefore, any estimate for the amount of grant funding available to Washington County is somewhat speculative. The amounts for local, state, and federal shares of the total operating budget in Table 4-1 are based on the shares in the 2020 ATP transportation award. This TDP's five-year operating plan serves an important role in MDOT MTA's annual process of reviewing grant applications; typically, the projects proposed in a county's annual grant application must have been identified in the TDP in order to receive funding.

Table 4-1: Conceptual Financial Plan for Operating

Proposed Operation Requests	Fiscal Year				
	2021	2022	2023	2024	2025
Proposed Future Projects					
Baseline Operating Cost with Inflation†	\$2,289,544	\$2,358,230	\$2,428,977	\$2,501,846	\$2,576,902
Enhance On-time Performance	\$0	\$0	\$0	\$0	\$0
Enhanced Marketing Initiative	\$0	\$0	\$0	\$0	\$0
Additional Transit Staff		\$0	\$0	\$0	\$0
Hopewell Express				\$191,227	\$196,964
Smartphone Payment App				\$0	\$0
Introduce Sunday Service				\$362,567	\$373,444
Boonsboro to Hagerstown Route				\$93,350	\$96,150
System-wide Evening Service					\$269,060
Introduce Sunday Service					\$373,444
New Operating Expenses	\$0	\$0	\$0	\$647,144	\$1,309,062
Total Proposed Transit Operating Expenses†	\$2,289,544	\$2,358,230	\$2,428,977	\$3,148,990	\$3,885,964
Anticipated Funding Sources for Operating					
Federal					
Section 5307	\$974,374	\$1,003,605	\$1,033,714	\$1,340,134	\$1,653,772
Total Federal Funding	\$974,374	\$1,003,605	\$1,033,714	\$1,340,134	\$1,653,772
State					
Section 5307	\$324,792	\$334,535	\$344,572	\$446,712	\$551,258
SSTAP	\$143,680	\$147,991	\$152,431	\$197,615	\$243,864
Total State Funding	\$468,472	\$482,526	\$497,002	\$644,327	\$795,122
Local					
Section 5307	\$816,625	\$841,123	\$866,357	\$1,123,168	\$1,386,029
SSTAP	\$30,073	\$30,975	\$31,904	\$41,361	\$51,041
Total Local Funding	\$846,697	\$872,098	\$898,261	\$1,164,530	\$1,826,553
Farebox and Other Revenue	\$391,400	\$403,142	\$415,236	\$427,693	\$440,524
Total Projected/Proposed Operating Revenues	\$2,680,944	\$2,761,372	\$2,844,213	\$3,576,684	\$4,715,970

Source: WCT Annual Transportation Plan, 2020

Note: Assumes funding ratios remain consistent

†Annual inflation factor of 3%

CONCEPTUAL FINANCIAL PLAN FOR CAPITAL

The capital plan provides the basis for maintaining, replacing, and expanding the capital infrastructure needed to maintain WCT's current level of service and to implement the TDP's operating plan. The capital plan consists of a vehicle replacement plan and any other capital expenses.

Useful Life Standards

Useful life standards are developed by MDOT MTA based on vehicle manufacturer's designated life-cycle and the results of independent FTA testing. If vehicles are allowed to exceed their useful life they may become much more susceptible to break-downs which may result in increased operating costs and a decrease in service reliability. MDOT MTA's vehicle useful life policy, shown in Table 4-2, is provided in the Locally Operated Transit System Program Manual.

Table 4-2: MDOT MTA's Vehicle Useful Life Policy

Vehicle Classification	Useful Life	
	Years	Miles
Revenue Specialized Vehicles <i>(Accessible Minivans, Vans, Accessible Taxicabs & Sedans)</i>	4	100,000
Light Duty Small Bus <i>(25' to 35')</i>	5	150,000
Medium Duty Bus <i>(25' to 35')</i>	7	200,000
Heavy Duty Bus <i>(Medium Size, 30' to 35')</i>	10	350,000
Heavy Duty Bus <i>(Large Size, Over 35')</i>	12	500,000
Non-Revenue Specialized/Fleet Support Vehicles <i>(Pick-Up trucks, Utility Vehicles & Sedans)</i>	10	200,000

Source: MDOT MTA, Locally Operated Transit System (LOTS) Program Manual, April 2017, Rev. 3 01.2019

Vehicle Plan – Baseline Estimate

WCT operates a variety of vehicles including vans, light-duty buses, and medium-duty buses. MDOT MTA's useful life policy was applied to the existing fleet to develop an estimate of the capital needs needed to maintain current service levels for the next five years. Table 4-3 is a complete listing of WCT's existing vehicle inventory.

Table 4-3: WCT's Revenue Vehicle Inventory

Fleet No.	Type	Year	Make	VIN	Seating (A/WC)	Mileage	Route Type
Revenue Vehicles							
701	Medium Duty	2007	International	1HVBTA57W501869	17/2	221,626	Fixed Route
702	Medium Duty	2007	International	1HVBTA17W501870	17/2	241,554	Fixed Route
703	Medium Duty	2007	International	1HVBTA37W501871	17/2	229,129	Fixed Route
704	Medium Duty	2007	International	1HVBTA57W501872	17/2	241,167	Fixed Route
705	Medium Duty	2007	International	1HVBTA97W501874	17/2	227,900	Fixed Route
706	Medium Duty	2007	International	1HVBTA27W501876	17/2	246,722	Fixed Route
707	Medium Duty	2007	International	1HVBTA47W501877	17/2	224,444	Fixed Route
709	Medium Duty	2007	International	1HVBTA7W501883	17/2	215,662	Fixed Route
710	Medium Duty	2010	International	1HVBTSKM9AH255559	17/2	208,596	Fixed Route
711	Medium Duty	2010	International	1HVBTSKM9AH255562	17/2	196,480	Fixed Route
713	Medium Duty	2014	International	5WEASAAN8FH517732	18/2	81,564	Fixed Route
714	Medium Duty	2014	International	5WEASAANXFH517733	18/2	81,002	Fixed Route
503	Light Duty	2009	Ford	1FDEE35P09DA155791	4/3	168,050	Dem. Resp.
504	Light Duty	2009	Ford	1FDEE35P39DA37723	4/3	148,893	Dem. Resp.
505	Light Duty	2015	Ford	1GB3G2BL7F1184484	4/3	48,505	Dem. Resp.
203	Acc. Van	2016	Ford	1FBZX2XV9GKA26497	10/0	54,649	Dem. Resp.
204	Acc. Van	2016	Ford	1FBAX2XVOGKA26498	10/0	52,662	Dem. Resp.
Non-Revenue Vehicles							
S-2	Support Van	2010	Dodge	2D4RN4DE4AR487445	5/0	25,724	N/A
T-1	Staff Vehicle	2005	Chevy	1GCHK24255E300213	5/0	18,735	N/A

Financial Plan for Capital

Table 4-4 provides a financial plan for vehicle replacement and expansion. The financial plan is based on the vehicle replacement needs identified in the baseline estimate, beginning with FY 2021. The financial plan incorporates WCT's proposed replacement schedule and the expansion vehicles required for the successful implementation of the service plan. To meet the vehicle requirements of the service plan one expansion vehicle will be needed to operate the Boonsboro route; that vehicle is programmed under FY 2024.

Table 4-4: Conceptual Financial Plan for Capital

Projected Vehicle Requests	Fiscal Year				
	2021	2022	2023	2024	2025
Replacement Vehicles					
Medium Duty - Under 30'	-	2	-	-	-
Small Cutaway Bus	1	-	1	1	-
Total	1	2	1	1	0
Expansion Vehicles					
Medium Duty - Under 30'	-	-	-	-	-
Small Cutaway Bus	-	-	-	1	-
Total	0	0	0	1	0
Projected Vehicle Costs†					
Replacement	\$81,115	\$528,081	\$86,055	\$88,637	\$0
Expansion	\$0	\$0	\$0	\$337,653	\$0
Total	\$81,115	\$528,081	\$86,055	\$426,290	\$0
Anticipated Funding Sources					
Federal	\$64,892	\$422,465	\$68,844	\$341,032	\$0
State	\$8,112	\$52,808	\$8,606	\$42,629	\$0
Local	\$8,112	\$52,808	\$8,606	\$42,629	\$0
Total Projected Funding	\$81,115	\$528,081	\$86,055	\$426,290	\$0

Source: WCT Annual Transportation Plan, 2020

Note: Assumes funding ratios remain consistent

†Annual inflation factor of 3%

Other Capital Expenses

Presented in Table 4-5 is the financial plan for other capital expenses. Chief among these is preventative maintenance, which is projected to increase by roughly 3% annually. Other expenses include staff computers, facility maintenance, and bus stop amenities.

Table 4-5: Conceptual Financial Plan for Other Capital Equipment

Other Projected Capital Requests	Fiscal Year				
	2021	2022	2023	2024	2025
Proposed Future Projects					
Preventative Maintenance (PTP)†	\$350,000	\$360,500	\$371,315	\$382,454	\$393,928
Computers	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628
Facility Maintenance	\$20,000	\$20,600	\$21,218	\$21,855	\$22,510
Enhanced Bus Stop Passenger Amenities	\$15,000	\$15,450	\$15,914	\$16,391	\$16,883
Total	\$390,000	\$401,700	\$413,751	\$426,164	\$438,948
Anticipated Funding Sources					
Federal	\$312,000	\$321,360	\$331,001	\$340,931	\$351,159
State	\$39,000	\$40,170	\$41,375	\$42,616	\$43,895
Local	\$39,000	\$40,170	\$41,375	\$42,616	\$43,895
Total Projected Funding	\$390,000	\$401,700	\$413,751	\$426,164	\$438,948

Source: WCT Annual Transportation Plan, 2020

Note: Assumes funding ratios remain consistent

†Annual inflation factor of 3%

SUMMARY OVERVIEW

This TDP presents recommendations for transit improvements in Washington County that:

- Improve overall transit service through enhancements in route frequency and expanded service hours.
- Meet the county and regional travel needs for work, school, medical services, and personal business.
- Provide transit infrastructure improvements to support continued growth in transit services.
- Generate local support and broaden financial support for transit.

The TDP aims to improve services within the confines of the county's transit operating budget. Many recommendations may be implemented through cost-neutral changes in transit policy and practices. New services and improvements that require additional funding were developed to address issues identified during the review of needs; they are dependent on the future availability of new or additional funding.

With uncertain budgets and non-guaranteed financial resources, it is important to remember that public transportation can contribute to the local and regional economy by providing a way for residents to get to work and school, access necessary medical services, and support local businesses.