## WinFred

2045 METROPOLITAN TRANSPORTATION PLAN

Winchester-Frederick County Metropolitan Planning Organization WINCHESTER, VIRGINIA | NOVEMBER 2022

## Disclaimer

This document was prepared on behalf of the WinFred Metropolitan Planning Organization by the Northern Shenandoah Valley Regional Commission staff through a cooperative process involving the City of Winchester, County of Frederick, Town of Stephens City, Virginia Department of Transportation, Virginia Department of Rail and Public Transportation, Federal Highway Administration, and the Federal Transit Administration.

The preparation of this plan was financially aided through grants from the Federal Highway Administration, Federal Transit Administration, Virginia Department of Transportation and the Virginia Department of Rail and Public Transportation.

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## Glossary of acronyms

CLRP - Constrained Long Range Plan, a fiscally-constrained list of projects the MPO wishes to implement during the 20 -year planning horizon using anticipated funds. All CLRP projects must have an estimated cost and a funding source identified.

DRPT - Virginia Department of Rail and Public Transportation, the agency under the Virginia Secretary of Transportation which provides technical and financial assistance to Virginia's public transit.

FHWA - Federal Highway Administration, a branch of the US Department of Transportation that administers the federal-aid Highway Program, providing financial assistance to states to construct and improve highways, urban and rural roads, and bridges. FHWA administers federal laws and regulations related to metropolitan transportation planning.

FTA - Federal Transit Administration, a branch of the US Department of Transportation responsible for administering federal assistance for public transportation.

LRTP - Long Range Transportation Plan, also called the Metropolitan Transportation Plan (MTP).
MPA - Metropolitan Planning Area, the geographic area in which the metropolitan transportation planning process required by federal law must be carried out. The MPA must cover the entire urbanized area (UZA) plus adjacent areas expected to become developed within 20 years.

MPO - Metropolitan Planning Organization, a regional policy body required for urbanized areas with populations over 50,000 and designated by local officials and the governor of the state, responsible in cooperation with the state and other transportation providers for carrying out the metropolitan transportation planning requirements of federal highway and transit legislation.

MTP - Metropolitan Transportation Plan, sometimes called the LRTP, a regional plan developed and approved by the MPO serving as the defining vision for the region's transportation systems and services that includes all transportation projects and programs that the MPO realistically anticipates can be implemented over the next 20 years. MTPs must include a CLRP; and may include a Vision Plan, a list of all projects which the MPO desires to be implemented. Transportation projects must be included in the MTP and the TIP to receive federal funding.

TAC - Technical Advisory Committee, an advisory body to the MPO's Policy Board. The TAC works with MPO staff to formulate the UPWP and MTP and provides technical review and assistance on MPO planning studies as specified in the UPWP.

TIP - Transportation Improvement Program, a list of projects and programs that will be implemented over the next six years. Transportation projects must be included in the CLRP and the TIP to receive federal funding.

UPWP - Unified Planning Work Program, an annual work program and budget specifying all planning activities or tasks to be undertaken by the MPO during the fiscal year which begins July $1^{\text {st }}$ and ends the following June 30th.

UZA -- Urbanized Area, an area that contains a city of 50,000 or more population plus adjacent developed unincorporated areas as defined by the U.S. Census.

VDOT - Virginia Department of Transportation, the state agency responsible for statewide transportation facility planning, construction, and maintenance. VDOT is separate from DRPT.

## Introduction

Metropolitan Transportation Planning and the MPO
The activity of transportation is essential to the economic and social well-being of the nation. It is one of two primary means (communication being the other) by which individuals connect with society. It is so important that federal law has declared the planning for it to be in the national interest; and that the federal government supplies a large share of the funding for transportation infrastructure (through the states), as it has for decades.

Metropolitan transportation planning is the process of examining travel and transportation issues and identifying infrastructure and service needs in a metropolitan area. It includes an examination of population and travel patterns and trends, and an analysis of alternatives to accommodate projected future demands safely and efficiently while minimizing adverse impacts to communities and the environment. For metropolitan areas containing an urbanized core (as defined by the US Census Bureau) of 50,000 residents or more, Federal law assigns responsibility for transportation planning to a designated Metropolitan Planning Organization (MPO) comprised of local elected officials as well as state and federal transportation officials.

The Winchester-Frederick County (WinFred) MPO is responsible for conducting a continuing, comprehensive and coordinated (3-C) transportation planning process for the Winchester metropolitan area in accordance with Section 134, Title 23, and Section 5303, Title 49, United States Code, and the joint metropolitan planning regulations of the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

The MPO was established in 2003 through a Memorandum of Understanding (MOU) between the Secretary of Transportation for the Commonwealth of Virginia and the localities in the urbanized area including the City of Winchester, the Town of Stephens City, and Frederick County.

The MPO is governed by a Policy Board comprised of elected officials from each locality and representatives from the Virginia departments of transportation (VDOT) and rail and public transportation (DRPT), and FHWA. See page ii for the board roster. Typically meeting monthly, the Policy Board is responsible for making all the official decisions of the MPO.

The Policy Board is advised on technical matters by a Technical Advisory Committee (TAC) comprised of planners, engineers and other transportation experts employed by the member localities and state and federal partners. See page iii for the committee roster. The TAC typically meets monthly.

Members of the public are welcome to attend meetings of the Policy Board and TAC.
The Northern Shenandoah Valley Regional Commission (NSVRC) staffs and manages the MPO, providing project management, technical, clerical and administrative support. The Commission's Executive Director serves as the MPO's Secretary-Treasurer.

The Policy Board directs the work of the MPO staff through a Unified Planning Work Program (UPWP) adopted annually.

## Federal transportation planning framework

The WinFred MPO must follow the federally mandated transportation planning process culminating in the production of three key documents:

1. The Unified Planning Work Program (UPWP) specifies MPO planning activities for the coming year; updated annually.
2. The Transportation Improvement Program (TIP) identifies transportation projects to be funded within the next six years; updated every four years.
3. The Metropolitan Transportation Plan (MTP) defines long-range transportation needs and identifies a fiscally constrained list of projects to be eligible for inclusion in the TIP. Through the MTP, the MPO establishes its priorities for the investment of federal transportation dollars. Reviewed and updated every five years to confirm its validity and its consistency with the most current forecasts and trends in population, employment, land use, travel, congestion, and economic activity, the MTP must cover at least a 20-year planning horizon.

## Purpose of this plan

As WinFred MPO's Metropolitan Transportation Plan for the year 2045, this document sets forth the goals, objectives, strategies, and actions required to develop and maintain an efficient, equitable, multimodal system for the transportation of people and goods throughout greater Winchester in a manner that will enhance the economic, social, and environmental qualities of the community. This MTP supersedes the WinFred MPO 2040 Transportation Plan Update adopted May 2017.

This plan addresses 10 federally mandated planning factors through the consideration of long- and short-range strategies and actions which

1. Support the economic vitality of the United States, the States, nonmetropolitan areas, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency;
2. Increase the safety of the transportation system for motorized and non-motorized users;
3. Increase the security of the transportation system for motorized and non-motorized users;
4. Increase the accessibility and mobility of people and freight;
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight;
7. Promote efficient system management and operation;
8. Emphasize the preservation of the existing transportation system;
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
10. Enhance travel and tourism.

These factors are addressed throughout the plan, beginning with the plan goals and objectives, and inventory of existing conditions. This plan comprehensively identifies strategies in current and relevant state, regional and local plans including plans for goods movement, rail transportation, public transportation, bicycle and pedestrian mobility, and travel demand management.

## Required elements

In accordance with Federal law, this plan contains the following elements:

- Identification of transportation facilities that should function as an integrated metropolitan transportation system;
- Performance measures and targets;
- A system performance report;
- A discussion of potential environmental mitigation activities;
- A financial plan that demonstrates how the adopted plan can be implemented;
- Operational and management strategies to improve the performance of existing facilities;
- Capital investment and other strategies to preserve the system and provide for future needs; and
- A discussion of transportation and transit enhancement activities including public and private intercity bus service.

Federal law requires states and MPOs to take a performance-based approach to transportation planning and decision-making which includes the establishment of goals, measures of progress, and targets (outcomes) for the performance of the transportation system, and the periodic tracking of progress toward those outcomes.

State and MPO goals must support national transportation goals regarding safety, state of repair, congestion reduction, reliability, freight movement and economic vitality, environmental sustainability, and expedited project delivery. States must establish safety performance targets annually; MPOs must approve their own, which must align with the state's, within 180 days following the approval of the state's performance targets.

Central to the plan is a list of future transportation facilities and modifications recommended to be built with available funding. This list, which may include transit, pedestrian and bicycle facilities in addition to new roads and roadway expansions, is called the "Constrained Long Range Plan" (CLRP) because the total cost of the projects is constrained by expected available funds. VDOT estimates the future cost of each proposed project and the amount of funds expected to be available to implement those projects.

## Metropolitan Planning Area

Transportation planning processes are required to be organized and directed for all urbanized areas (UZAs) having a population of 50,000 or greater, as delineated by the U.S. Census Bureau. MPOs are established for a metropolitan planning area (MPA) that must contain, at a minimum, the Census Bureau delineated UZA and adjacent areas expected to become urbanized in the next 20 years. An MPO, its planning boundaries and membership and voting structure are established and designated by agreement between local officials and the Governor (23 CFR 450.310).

The WinFred MPO planning area consists of the City of Winchester, the Town of Stephens City, the Urbanized Area of Frederick County, and the area of Frederick County projected to be urbanized by the year 2045 (see Figure 1 on following page).

As reported by FHWA for 2010, the WinFred MPO Urbanized Area population was 78,440 and it encompasses a land area of approximately 103 sq. miles.

Figure 1: WinFred MPO Planning Area


## 1 Policy, goals, objectives

The transportation planning process is more than merely listing future highway and transit projects. Any successful planning effort rests on a foundation of a clearly stated vision, goals and objectives. Together, the vison, goals and objectives are a description and declaration of the desired future characteristics of the transportation system - and serve to guide in the identification of strategies and definition of projects. They address the operational outcomes of the planning process which are meaningful to users - the services delivered and their desired quality - rather than outputs, for example the funds expended, miles of roadway built, or projects completed.

The following vision, goals, and objectives serve to guide the development of the 2045 Metropolitan Transportation Plan. The goals are identical to those of the state as set forth in the statewide transportation plan, VTrans, reaffirmed by the Commonwealth Transportation Board in December 2021. They are compatible with federal transportation policy and align with locality goals.

### 1.1 Vision (Policy)

It is the policy of the WinFred MPO and its member jurisdictions to strive for a multi-modal transportation system that is planned, designed, operated and maintained to provide

- safe, efficient, fiscally sustainable access
- to economic and community life
- for all, regardless of one's ability, desire or opportunity to drive - while preserving and enhancing environmental quality and community character.


### 1.2 Goals and objectives

## Goal: Economic Competitiveness and Prosperity

Objective: Reduce the amount of travel that takes place in severe congestion
Objective: Reduce the number and severity of freight bottlenecks
Objective: Improve reliability on key corridors for all modes
Goal: Accessible and Connected Places
Objective: Reduce average peak-period travel times
Objective: Reduce average daily trip lengths
Objective: Increase accessibility to jobs via transit, walking and driving
Goal: Safety for All Users
Objective: Reduce the number and rate of motorized fatalities and severe injuries

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Objective: Reduce the number of non-motorized fatalities and severe injuries

## Goal: Proactive System Management

Objective: Improve the condition of all bridges based on deck area
Objective: Increase the lane miles of pavement in good or fair condition
Objective: Increase percent of transit vehicles and facilities in good or fair condition
Goal: Healthy communities and Sustainable Transportation Communities
Objective: Reduce per-capita vehicle miles traveled
Objective: Reduce transportation-related emissions
Objective: Increase the number of bicycling and walking trips

## 2 <br> Population and employment

Growth in population and employment will create new demands on the transportation system. During the 2010s the Winchester metropolitan area added 13,592 residents -- a growth rate of 13 percent, second only to Northern Virginia ( 13.4 percent) among Virginia's 11 metros, and significantly higher than the third fastest growing metro, Charlottesville (10.4 percent). ${ }^{1}$

As for the future, forecasts of population and employment vary among reputable sources. The estimates and projections selected as planning assumptions for this MTP, and their sources, are described below.

Base Year (2020) population: 118,100 (Weldon Cooper Center, July 1, 2020 estimate).
Horizon Year (2045) population: 154,494 (Woods \& Poole Economics combined forecasts for Winchester and Frederick County); 157,527 (Weldon Cooper Center projection)

Base Year employment: 66,700 (Bureau of Labor Statistics, total non-farm employment, Winchester VA-WV MSA, March 2020 - the last month reflective of the pre-pandemic labor market).

Horizon Year employment: 105,296 (Woods \& Poole Economics forecast).
Figure 2: Population and employment, current and forecast


[^0]
## 3 The regional transportation network

This chapter identifies and describes existing transportation facilities that should function as an integrated metropolitan transportation system, with emphasis on facilities that serve important national and regional functions.

### 3.1 Roadways

The major highway routes serving the WinFred Metropolitan Planning Area (MPA) include Interstate 81, US routes 11, 17, 50 and 522, and Virginia routes 7, 37 and 277. Each of these routes is briefly described below.

Interstate 81 is a north-south limited-access highway running 855 miles from the Canadian border in New York State to Interstate 40 in eastern Tennessee, largely following the Appalachian Mountains. Lying to the west of the east coast urban centers, the route is heavily used by truckers as a bypass to the more heavily congested Interstate 95 ; trucks comprise about one quarter of vehicle traffic on I-81 through the MPA. The nearest cities along the interstate are Hagerstown, Maryland, 43 miles north; and Harrisonburg, Virginia, 71 miles south. Just south of the MPA, I-81 connects with I-66 to Northern Virginia and Washington, D.C. Locally the highway opened in 1964. Eight interchanges (exits 302, 307, $310,313,315,317,321$ and 323 ) provide access within the MPA.

US 11, a north-south primary route stretching from the Canadian border in New York state to the Louisiana Gulf Coast, closely parallels I-81 along the Interstate's length. Within the MPA the route runs through downtown Winchester and the MPA's principal industrial areas north and south of the City; and intersects I-81 on Winchester's north side. Outside of the City of Winchester, the road is typically one lane by direction with a two-way left turn lane in the middle. North of the City the road is called Martinsburg Pike; south, Valley Pike. Within the City, US 11 follows portions of Valley Avenue, Cameron Street and Loudoun Street.

US 50 is an east-west primary route spanning the continent from the Atlantic Ocean at Ocean City, Maryland, to California's Central Valley. Mostly a four-lane divided highway outside of Winchester, the highway connects the MPA with Hampshire County, West Virginia as Northwestern Pike; to the east it runs concurrently with US 17 as Millwood Pike. Through the City the route follows Millwood Avenue and portions of Cork, Braddock, West Boscawen and Amherst streets.

US 522 is a 300-mile north-south primary route through Virginia, West Virginia, Maryland and Pennsylvania, connecting Winchester with Front Royal and Berkeley Springs. Within the County the road is mostly a four-lane divided highway. Known as North Frederick Pike, the section northwest of the City is part of the National Highway System, linking the MPA with Pittsburgh and the Midwest. As Front Royal Pike south of the City, the route provides direct access to the Virginia Inland Port. Within the City of Winchester, US 522 follows portions of Fairmont Avenue, Commercial Street, Cameron Street and Millwood Avenue.

US $\mathbf{1 7}$ has its northern terminus in downtown Winchester; its southern end lies in Punta Gorda, Florida. Southeast of the City the route runs concurrently with US 50 as a four-lane divided highway known as Millwood Pike. Within the City the route follows Millwood Avenue and South Cameron Street, ending at Cork Street.

MPO

VA 7 runs from downtown Winchester southeast through the Northern Virginia suburbs to Alexandria. Part of the National Highway System, the route follows Piccadilly Street, National Avenue and Berryville Avenue before entering the County as the four-lane, divided Berryville Pike.

VA 37 is a four-lane limited access highway serving as a western bypass of Winchester for through-travel between points south from I-81 to West Virginia, Maryland and Pennsylvania via US Routes 50 and 522. The highway provides direct access to Winchester Medical Center, the region's trauma center and largest employer.

VA 277, Fairfax Pike, connects US 11 and I-81 in Stephens City with US 522 and US 340 at Double Tollgate in Clarke County through a rapidly developing area of Frederick County.

## National Highway System

The National Highway System (NHS) consists of roadways important to the nation's economy, defense, and mobility. Developed by the U.S. Department of Transportation (DOT) in cooperation with the states, local officials, and MPOs, the NHS includes the following subsystems of roadways (note that a specific highway route may be on more than one subsystem):

- Interstates: The Eisenhower Interstate System of highways.
- Other Principal Arterials: Highways which provide access between an arterial and a major port, airport, public transportation facility, or other intermodal transportation facility.
- Strategic Highway Network (STRAHNET): A network of highways which are important to the nation's strategic defense policy and which provide defense access, continuity and emergency capabilities for defense purposes.
- Major Strategic Highway Network Connectors: Highways which provide access between major military installations and highways which are part of the STRAHNET.
- Intermodal Connectors: These highways provide access between major intermodal facilities and the other four subsystems making up the National Highway System.

A map of the NHS within the MPA is presented as Figure 3 on the following page.

## National Highway Freight Network

The Fixing America's Surface Transportation Act (FAST Act) of 2015 established a National Highway Freight Network (NHFN) to strategically direct Federal resources and policies toward improved performance of highway portions of the U.S. freight transportation system.

A network of highways most critical to the U.S. freight transportation system as determined by measurable and objective national data the NHFN designates as the Primary Highway Freight System (PHFS). $1-81$ is part of the PHFS along its length within the planning area and the state; $1-66$, just south of the planning area, is so designated between its junctions with I-81 and I-495.

Figure 3 The National Highway System, WinFred MPO


## Functional classification of roadways

Functional classification is the process by which streets and highways are grouped into classes according to the character of traffic service - local versus long-distance - they are intended to provide. There are four primary functional classifications: Interstates and other freeways, arterials, collectors, and local streets. Arterials and collectors are further stratified into major and minor sub-categories. Table 1 below describes the levels of mobility and land access afforded by the four primary classifications. Table 2 displays the total centerline mileage within the planning area for each functional classification. Figure 4 on the following page illustrates the regional road network by functional classification.

Table 1: Roadway Functional Classification roles

| Roadway Functional Classification | Mobility | Land Access |
| :---: | :---: | :---: |
| Interstates \& other freeways | Very high | None |
| Arterials | High | Low |
| Collectors | Moderate | Moderate |
| Local streets | Low | High |

Table 2: Centerline miles by roadway functional classification within WinFred MPO

| Roadway Functional Classification | Centerline <br> miles | Percent <br> of total |
| :---: | :---: | :---: |
| Interstate | 18.8 | $3.3 \%$ |
| Other Freewayor Expressway | 9.1 | $1.6 \%$ |
| Other Freewayor Expressway Ramp | 1.7 | $0.3 \%$ |
| Other Principal Arterial | 28.0 | $4.9 \%$ |
| Minor Arterial | 27.7 | $4.8 \%$ |
| Major Collector | 59.0 | $10.3 \%$ |
| Minor Collector | 12.1 | $2.1 \%$ |
| Local | 418.5 | $72.8 \%$ |
| TOTAL | 574.8 |  |

Figure 4: Roadways by Functional Classification


### 3.2 Public transportation facilities

Winchester Transit (WinTran) operates fixed-route bus and paratransit service throughout the City of Winchester. Designated bus stops are located at intersections throughout the City and all buses are equipped with wheelchair lifts for individuals with mobility impairments, and with front-mounted bicycle racks which can accommodate two bikes at a time.

WinTran's buses serve residential areas, shopping and commercial developments, medical facilities, and the downtown core of the city along eight loop routes between 6:00 a.m. and 8:00 p.m. on weekdays and between 9:00 a.m. and 5:00 p.m. on Saturdays. Five of the eight routes operate on 70-minute headways in a "pulse" system in which all lines converge at a central point (Boscawen Street between Kent and Cameron streets) at the same time to facilitate transfers without waiting, which are free. Two bus routes provide limited service into the County, operating on 140-minute headways on weekdays between 6:00 a.m. and 6:00 p.m. Three routes are in operation at any given time. WinTran's trolley service operates Mondays, Wednesdays and Fridays 8 a.m. to 6 p.m. and on Saturday 10 a.m. to 4 p.m. to take passengers primarily to dining and shopping attractions in Winchester.

WinTran's eight routes include:

- Berryville Avenue;
- Valley Avenue;
- Northside -- Westminster Canterbury branch
- Northside -- Salvation Army branch;
- Apple Blossom Mall;
- Amherst Street;
- South Loudoun; and
- Trolley

A map of these routes is presented as Figure 5 on the following page.
On-demand paratransit service also is offered for those individuals with a temporary or permanent disability that would not allow them to take advantage of regular route service.

Fares have been suspended through June 30, 2023.
In 2014 WinTran commissioned a performance review of the bus system, evaluating employment and population coverage and cost of several route and schedule alternatives. Recommended improvements include:

1. bi-directional service on each route;
2. shortened headways; and
3. a restructured Trolley service focused on Downtown with six-day service and reduced headways.

Figure 5: Bus routes


## Human services transportation

Well Tran is a demand-response service sponsored by the Shenandoah Area Agency on Aging (SAAA), providing transportation for seniors and adults with disabilities for medical/dental (nonemergency), shopping, and other trips. Service is available weekdays 8 a.m. - 5 p.m.; riders must call at least three working days in advance. Individuals eligible for Medicaid transportation are not eligible for medical rides with Well Tran, but are eligible for transportation for other purposes. There is a charge for this service, but discounts are provided according to income.

SAAA Senior Center Transportation provides transportation for seniors to and from its seven active living centers in the region.

Northwestern Community Services Board provides curb-to-curb and door-to-door transportation services to adults and children affected by emotional/behavioral disorders, mental illness, substance abuse, or developmental disabilities for specific individual appointments and some recreational, evening, and weekend trips.

Heart Havens provides transportation for adults with disabilities from its group home in Winchester.
Faith in Action provides transportation services for senior, frail, and chronically ill residents through an interagency coalition of volunteers from local congregations. Trips are provided primarily to medical facilities and shopping centers using volunteers' personal vehicles (approximately 50 ).

Grafton provides transportation for participants in the nonprofit's programs for children and adults with autism, intellectual and cognitive disabilities, psychiatric conditions, and developmental disorders.

Logisticare provides transportation to medical appointments for Medicaid and Medicare eligible recipients throughout Virginia.

NW Works provides transportation for its clients (adults with disabilities) from its center in Winchester to work sites.

Access Independence provides travel training for clients to use Well Tran and Winchester Transit; and coordinates transportation for clients through SAAA and Logisticare.

### 3.3 Non-motorized transportation facilities

The types of infrastructure which facilitate trips by foot or bicycle include:
Sidewalks. Typically built by developers and maintained by property owners, sidewalks may also be installed by localities or VDOT where there are gaps in the network. Although sidewalks are intended for pedestrian use only, bicyclists often use them if they perceive that bicycling on the adjacent roadway is unsafe. As stated in its 2013 Sidewalk Master Plan, the City of Winchester maintains approximately 605,000 linear feet ( 115 miles) of sidewalks. A sidewalk inventory for Stephens City was performed as part of the 2014 MPO Bicycle and Pedestrian Master Plan update.

Crosswalks. Crosswalks exist wherever a pedestrian path intersects with a roadway, regardless of whether the crosswalk is marked. Signs, pavement markings, pedestrian signals and properly designed accessibility features facilitate safe crossing. The 2014 Bicycle and Pedestrian Master Plan Update
included evaluations of 31 intersections for operations and conditions from the pedestrian and bicyclist perspectives.

Multi-use trails, shared by bicyclists and pedestrians, are wider (typically $10^{\prime}$ ) and straighter than sidewalks to accommodate bicyclists' higher speeds. Driveway intersections are few or none. Pavement is typically asphalt, and may be marked with a centerline and edge lines. Paths may be located within the right of way of an adjacent road or on an independent alignment.

- In the County, trails exist adjacent to some commercial and residential developments, built by developers at the County's request; a network of paths will form as gaps are closed with new development.
- The City's multi-use trails include the 0.7-mile Abrams Creek Trail, portions of the Green Circle Trail, and a path on the north side of East Cork Street fronting Daniel Morgan Middle School between Rifleman Lane and Purcell Avenue.

Bikeways are facilities designed and designated for bicycling within roadways, channelizing or separating bikes from motor traffic, or guiding bicyclists along a route which avoids motor traffic. These include bike lanes: standard 4-6' lane in each direction, depending on conditions; buffered (by a gore or striped zone); or separated (by flexible posts, curbs, planters or parking lane). In locations where the road is not wide enough to accommodate bike lanes, shared lane markings may be employed to inform bicyclists and motorists that bicyclists are intended road users.

- Portions of Valley Avenue (US 11) have standard bike lanes.

Below is a comprehensive list of bicycle and pedestrian accommodations developed by VDOT:

## BICYCLE ACCOMMODATIONS

- Paving unpaved roads
- Providing paved shoulders that have been striped and are at least 2 feet in width, preferably 4 feet in width
- Paving wide outside lanes, at least 14 feet in width
- Designating bicycle lanes, at least 4 feet in width of ridable surface
- Providing shared use paths 10 feet wide
- Providing striping for bicycle lanes and shoulders
- Maintenance activities that include shoulder widening
- Providing Sharrows (shared lane markings)
- Providing signage indicating bicycle facilities/ use (Share the Road, Bicycle Route, USBRs)
- Bicycle racks (fixed and bus racks) and lockers
- Installing bicycle height railings 54" high
- Providing lighting along bicycle facilities.
- Replacement of drainage grates with bicycle friendly grates and adjustment of grade for utility covers.
- Removal of obstructions from bicycle facilities
- Providing fencing on structures
- Maintenance activities that include debris and snow removal from shoulders and bicycle facilities


## PEDESTRIAN ACCOMMODATIONS

- Providing a paved shoulder at least 4 feet wide for occasional use in rural settings only
- Providing asphalt or concrete sidewalks at least 5 feet in width
- Providing shared use paths 10 feet wide
- Providing curb cuts and ramps that meet ADA standards
- Providing pedestrian refuge islands (6 feet wide, minimum) at intersections and roundabouts
- Providing median island cut-throughs
- Providing appropriately striped crosswalks
- Providing pedestrian signals- walk/ don't walk, countdown, and push buttons
- Providing "bulb-outs" at intersections and other traffic calming methods
- Providing warning flashers or Rectangular Rapid Flashing Beacons (RRFBs) at crosswalks
- Providing Pedestrian Hybrid Beacons
- Providing signage (yield to pedestrian in crosswalk, pedestrian crossing warning signs, etc.)
- Providing pedestrian railing 54" high
- Providing fencing on structures
- Providing pedestrian shelters (at transit stops, park and ride lots)
- Providing lighting along pedestrian facilities
- Removal of obstructions from sidewalks
- Replacement of drainage grates with ADA acceptable grates and adjustment of grade for utility

Bus shelters and amenities are considered pedestrian facilities. In 2013 the Northern Shenandoah Valley Regional Commission inventoried amenities and conditions at each of the 156 WinTran bus stops. Nine had shelters including two shelters at the downtown Boscawen Street transfer center.

The Winchester Green Circle is a 6.3-mile bicycling and walking circuit linking neighborhoods and points of interest including Wilkins Lake, Shenandoah University, the Apple Blossom Mall, Abrams Creek Wetlands Preserve, Museum of the Shenandoah Valley, Winchester Medical Center, Old Town Winchester, Shawnee Springs Preserve and Jim Barnett Park. The route consists of multi-use trail, onstreet bike route, and sidewalk. The route is illustrated in Figure 6 on the following page.

Figure 6: Winchester Green Circle Trail


### 3.4 Intermodal connectors

There are no designated NHS intermodal connectors within the planning area; however, the state has designated intermodal corridors, described below, which bear on project programming. Also described in this section are park and ride lots; railroads (freight and passenger); a freight intermodal facility; and the region's airport.

## Corridors of Statewide Significance

Virginia House Bill 2019, adopted in 2009, required the Virginia Multimodal Transportation Plan (VMTP) 2025 to set forth an assessment of needs for all "Corridors of Statewide Significance" (CoSS) considering all modes of travel. The CoSS was officially defined as "An integrated, multimodal network of transportation facilities that connect major centers of activity within and through the Commonwealth and promote the movement of people and goods essential to the economic prosperity of the state."

Corridors identified as CoSS incorporate, accommodate or provide:

- Multiple modes and/or an extended freight corridor,
- Connection among regions, states and/or major activity centers,
- High volume of travel, and
- Unique statewide function and/or fulfillment of statewide goal.

The CoSS are broadly drawn and include highways, rail lines, transit services, port facilities, and airports. Parallel roadway facilities are also included in addition to the main Interstate or U.S. Highway (e.g., U.S. 11 along the $\mathrm{I}-81$ corridor). Three of the 11 CoSS serve the MPA:

Crescent Corridor: Connecting Tennessee to Maryland, Pennsylvania, and New York along the Appalachian Mountains and Shenandoah Valley, this is a vital East Coast freight corridor connecting smaller cities including Roanoke, Bristol, Winchester and Harrisonburg. In addition to Interstate 81, this corridor includes the parallel U.S. Highway 11, Norfolk Southern Crescent Corridor rail lines, and the Virginia Inland Port. The Crescent Corridor also provides access to many smaller airports with some commercial service, as well as several general aviation facilities.

Northern Virginia Connector: Connecting Washington D.C. and I-81, this corridor is an important commuter route. This corridor includes Interstate 66 and parallel routes including U.S. Route 29 within Northern Virginia, U.S. Route 50, Virginia Route 55 west of Gainesville, and Virginia Route 7; and Norfolk Southern rail lines. The corridor includes numerous commuter park and ride facilities, Northern Virginia's extensive public transit network, and Amtrak passenger rail service; and provides access to the Virginia Inland Port, Dulles International Airport and reliever airports and general aviation facilities.

Coastal Corridor: This corridor is primarily defined by U.S. 17, connecting Winchester with Fredericksburg and the Tidewater region; and provides access to passenger rail service.

## Park and Ride facilities

There are currently no park and ride facilities within the planning area. However, several such facilities are located nearby:

Table 3: Park and Ride lots, Northern Shenandoah Valley

| County | Location | Spaces |
| :---: | :--- | :---: |
| Clarke | Waterloo (US 340 at U.S. 50) | 170 |
|  | Double Tollgate (US 522/340 and Ray of Hope Lane) | 26 |
|  | Bluemont (Route 7 \& Route 601-Blueridge Mountain Road) | 40 |
| Page | Luray (US 340 Business and Route 211 Bypass) | 107 |
|  | Stanley (Valley Exxon, US 340 Business and Route 713-Vista View Drive) | 175 |
|  | Stanley (Riverside Mini-Mart, US 340 and Route 650-River Road) | 16 |
| Shenandoah | Strasburg (Route 629-Oranda Road \& US 11) | 46 |
|  | Toms Brook (I-81 and Route 651-Mount Olive Road) | 10 |
|  | Front Royal (US 522 and Route 637-Riverton Road) | 279 |
|  | Linden (Route 55 and Route 647-Dismal Hollow Road) | 193 |
|  | Linden (Chevron Station, Routes 55 and 79) | 88 |

## Freight railroads and intermodal transfer facilities

CSX Transportation operates a line through the center of Winchester, connecting the planning area with the railroad's National Gateway main line currently being upgraded for double-stack service to the Midwest; and with Norfolk Southern Railway's Shenandoah and Piedmont main lines, part of its Crescent Corridor which provides direct intermodal service to the ports of New York/New Jersey, New Orleans, and Virginia at Hampton Roads.

Norfolk Southern is currently expanding capacity on the Crescent Corridor to serve the intermodal (truck-rail-port) market. The Commonwealth of Virginia has funded parts of this capital program to divert a portion of I-81 truck traffic to rail.

The Port of Virginia owns and operates an intermodal transfer terminal, the Virginia Inland Port (VIP), located on US 522 approximately five miles southeast of the planning area. As a U.S. Customsdesignated port of entry, VIP serves as an inland extension of the Port of Virginia, providing direct service between northwest Virginia and overseas markets. The facility is located near the Town of Front Royal on Norfolk Southern's main line.

The planning area is also served by the Winchester \& Western Railroad (WW), Virginia's oldest operating short line, running since 1917. The 54-mile FRA Class III railroad, with 29 miles of track in the planning area, operates between Gore and Winchester and from Winchester to Hagerstown, Maryland, connecting with the Class I CSX and Norfolk Southern railroads. Locally, WW moves sand, paper, plastics, and food products, and transloads bulk materials from truck.

## Aviation

The WinFred MPO is served by the Winchester Regional Airport, which is in Frederick County on Airport Road (west of the City of Winchester on US 17/50). This regional airport is a general aviation airport and is not certified to handle commercial aircraft. The airport currently has two runways, each with a length
of 5,500 feet. Runway 32 is a precision instrument runway, while runway 14 is a non-precision instrument runway. For the 12-month period ending June 30, 2016, the airport had 44,115 aircraft operations, averaging 121 per day. ${ }^{2}$

[^1]
## 4 Measures of Performance

In the interest of increasing the accountability and transparency of the Federal-aid highway program, Federal policy requires that MPOs evaluate progress toward the attainment of national transportation system performance goals using quantitative (numerical) measures. The national goals are:

1. Safety - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
2. Infrastructure condition - To maintain the highway infrastructure asset system in a state of good repair.
3. Congestion reduction - To achieve a significant reduction in congestion on the National Highway System.
4. System reliability - To improve the efficiency of the surface transportation system.
5. Freight movement and economic vitality - To improve the National Highway Freight Network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
6. Environmental sustainability - To enhance the performance of the transportation system while protecting and enhancing the natural environment.
7. Reduced project delivery delays - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

The movement toward greater transparency and accountability in transportation funding is also evident at the state level, with the passage in 2014 of Virginia House Bill 2 and its implementation, known as Smart Scale, establishing a system for quantitatively evaluating proposed projects based on their likely contribution toward the attainment of state transportation performance goals:

## A. Economic Competitiveness and Prosperity

A1. Reduce the amount of travel that takes place in severe congestion
A2. Reduce the number and severity of freight bottlenecks
A3. Improve reliability on key corridors for all modes
B. Accessible and Connected Places

B1. Reduce average peak-period travel times
B2. Reduce average daily trip lengths
B3. Increase accessibility to jobs via transit, walking and driving
C. Safety for All Users

C1. Reduce the number and rate of motorized fatalities and severe injuries
C2. Reduce the number of non-motorized fatalities and severe injuries

## D. Proactive System Management

D1. Improve the condition of all bridges based on deck area
D2. Increase the lane miles of pavement in good or fair condition
D3. Increase percent of transit vehicles and facilities in good or fair condition

## E. Healthy communities and Sustainable Transportation Communities

E1. Reduce per-capita vehicle miles traveled
E2. Reduce transportation-related emissions
E3. Increase the number of bicycling and walking trips
Tracking performance is useful insofar as it serves to guide investment decisions. The practice of linking investment decisions with measurable progress toward strategic goals is called Performance-Based Planning and Programming (PBPP).

Table 4 below lists the national performance measures applicable to the WinFred MPO.
Table 4: National Performance Measures

| Rulemaking | 23 CFR Part 490 Section | Final Performance Measures | Measure Applicability |
| :---: | :---: | :---: | :---: |
| Safety | 490 207(a)(1) | Number of fatalities | All public roads |
|  | 490 207(a)(2) | Rate of fatalities | All public roads |
|  | 490 207(a)(3) | Number of serious injuries | All public roads |
|  | 490 207(a)(4) | Rate of serious injuries | All public roads |
|  | 490 207(a)(5) | Number of non-motorized fatalities and non-motorized serious injuries | All public roads |
| Infrastructure | 490 307(a)(1) | Percentage of pavements in Good condition | The Interstate System |
|  | 490 307(a)(2) | Percentage of pavements in Poor condition | The Interstate System |
|  | 490 307(a)(3) | Percentage of pavements in Good condition | The non-Interstate NHS |
|  | 490 307(a)(4) | Percentage of pavements in Poor condition | The non-Interstate NHS |
|  | 490 307(c)(1) | Percentage of bridges in Good condition | NHS |
|  | $491307(\mathrm{c})(2)$ | Percentage of bridges in Poor condition | NHS |
| System Performance | 490 507(a)(1) | Percent of person-miles traveled that are reliable | The Interstate System |
|  | 490 507(a)(2) | Percent of person-miles traveled that are reliable | The non-Interstate NHS |
|  | 490 507(b) | Percent change in tailpipe CO2 emissions compared to the calendar year 2017 level | NHS |
|  | 490607 | Truck Travel Time Reliability (TTTR) Index | The Interstate System |

## 5 System performance report

Below is a report on the performance of the transportation system of the WinFred MPO. Statewide targets for safety, asset condition and system performance, set at what can reasonably be achieved according to VDOT models, are presented annually to the Commonwealth Transportation Board for adoption. MPOs may support the state's targets or adopt their own.

The accessibility, health and sustainability measures correspond to goals of the statewide 2040 transportation plan; the associated data was compiled during the Virginia Multimodal Transportation Plan (VMTP) 2025 Needs Assessment, an assessment of the metropolitan transportation needs to the year 2025 conducted in 2015 as part of the VTrans2040 planning effort.

This report is a "snapshot" of conditions as of the date of plan adoption. Strategies for moving these performance numbers toward national and state goals over time are described in chapters 6 through 9.

## Safety

Number of fatalities and serious injuries: During the 10 years 2010 through 2019, a total of 7,072 motor vehicle crashes occurred within the planning area, 42 of which resulted in 80 fatalities ( 5 of which were pedestrians), and 300 producing serious injuries, 17 involving pedestrians and one involving a bicyclist.

Figure 7: Fatality trends


During the 2010s, on average, one life was lost in a motor vehicle crash for every 100 million vehicle miles traveled. The five-year average annual fatality rate has held steady since 2013 (see Figure 8, next page).

Figure 8: Fatality rate trends


The five-year serious injury rate average declined by more than half from 2010 to 2017 before leveling off at approximately seven seriously injured per 100 thousand vehicle miles traveled (Figure 9 below).

Figure 9: Serious injury rate trends


The MPO's 2022 safety targets are presented below.
Table 5: MPO Safety Targets for 2022

| Measure | Target |
| :---: | :---: |
| Fatalities | 9 |
| Fatality Rate $^{*}$ | 1.027 |
| Serious Injuries $^{\text {Serious Injury Rate }}$ * | 56 |
| Non-Motorized Fatalities + Serious Injuries | 7.623 |

*per 100 million vehicle miles traveled

## Asset Condition

Of the 148 bridges in the MPA, 65 percent are in good condition while 2 percent are in poor condition as of May 2022.

Targets for twelve federally mandated asset condition and system performance measures must be established and reported to FHWA every four years, beginning in 2018. Federal regulations require both State Departments of Transportation and Metropolitan Planning Organizations to set targets for the twelve measures. The rule requires MPOs to establish targets by either (1) "agreeing to plan and program projects so that they contribute toward the accomplishment of the relevant State DOT target" or (2) "committing to a quantifiable target for that performance measure for their metropolitan planning area." By supporting any of the State targets, the MPO agrees to plan and program projects to contribute toward achieving the State target.

Table 6: MPO Asset Condition and System Performance Targets for 2022

| Measure | 4-Year Target |
| :--- | :---: |
| Percentage of Pavement in Good Condition (Interstate) | $45 \%$ |
| Percentage of Pavement in Poor Condition (Interstate) | $<3 \%$ |
| Percentage of Pavement in Good Condition (Non-Interstate NHS) | $25 \%$ |
| Percentage of Pavement in Poor Condition (Non-Interstate NHS) | $<5 \%$ |
| Percentage of Deck Area of Bridges in Good Condition (NBI on NHS) | $33 \%$ |
| Percentage of Deck Area of Bridges in Poor Condition (NBI on NHS) | $3 \%$ |
| Percentage of Person-Miles Traveled that are Reliable (Interstate) | $82 \%$ |
| Percentage of Person-Miles Traveled that are Reliable (Non-Interstate NHS) | $\mathbf{8 2 . 5 \%}$ |
| Truck Travel Time Reliability Index | $\mathbf{1 . 5 6}$ |

## System Performance

Travel time reliability: Level of Travel Time Reliability (LOTTR) measures the dependability of travel time from day to day. It is calculated as the number of hours where the ratio of longer (80th percentile) travel times to "normal" (50th percentile) travel time exceeds 50\%. A higher number indicates less reliable travel.

In 2021 there were three roadway segments which were unreliable for an average of 2.3 hours per week:

- US 11/Martinsburg Pike northbound from VA 37 to I-81
- VA 7/Berryville Pike westbound from Greenwood Road to I-81
- Route 277/Fairfax Pike eastbound from Double Church Road to Aylor Road


## Economic Competitiveness and Prosperity

Amount of travel that takes place in severe congestion: Travel Time Index (TTI) is the ratio of the travel time during the peak period to the time required to make the same trip at reference (aka typical) speeds. For example, a TTI of 1 indicates average conditions or reference speed while a TTI of 1.3 indicates a travel time that is $30 \%$ longer than free-flow conditions. A higher number indicates more congestion.

In 2021 there were eight locations, each less than one mile in length, which had a TTI of 1.3 or greater for an average of 8.4 hours per week.

## Accessibility, Health, Sustainability

Percent of commuters using alternatives to driving alone: In the WinFred urbanized area just prior to the pandemic, most commuters drove alone to work: about 77 percent of commuters drove alone most of the time. Carpooling was the second most popular option, accounting for 11 percent. Those who commute by public transportation comprised less than 1 percent of the region's commuters. Approximately 2.7 percent walked to work; more than 8 percent worked from home. ${ }^{3}$

Travel times, peak period: The mean (average) travel time to work was 27.9 minutes. ${ }^{4}$
Accessibility to jobs via driving: Number of jobs accessible within a 30-minute drive: 89,363. ${ }^{5}$
Accessibility to jobs via transit: Number of jobs accessible within 30 minutes by bus, a.m. peak: 2,955; within 60 minutes: $10,485 .{ }^{6}$

Bicycling and walking trips: Bicycling and walking are used by 4 percent of commuters; in the City of Winchester, pedestrian commuters top 7 percent.

[^2]
## 6 Operational and management strategies

Operations Management and Intelligent Transportation Systems (ITS) are key elements in the overall design of MPO and regional transportation systems. Operations and Management planning may include traffic safety and flow, coordination between highway and transit operations, coordination among public safety and transportation agencies, traffic signalization, corridor management strategies, and planning for non-recurring events.

The WinFred MPO considers these types of operational and management strategies during development of the TIP, UPWP and MTP in order to improve the performance of existing transportation facilities, to relieve vehicular congestion, and maximize the safety and mobility of people and goods. The WinFred MPO will work with VDOT and local jurisdictions to improve and enhance the regional ITS architecture in accordance with federal law and regulations.

VDOT operates a Transportation Operations Center located in Staunton which monitors traffic conditions in the planning area via cameras and other technology, provides traveler information on road conditions and coordinates congestion management and incident response.

## Transportation Demand Management

Transportation Demand Management (TDM) is the practice of reducing demand for peak period vehicle trips through various means such as the promotion of transit, carpooling and alternative work hours, to reduce peak period (rush hour) traffic congestion, assist individuals seeking transportation options to their workplaces and other destinations, and to reduce environmental impacts caused by vehicle emissions, roadway expansion, and other transportation-related factors.

The Northern Shenandoah Valley Regional Commission provides TDM services through its RideSmart program for the City of Winchester and the counties of Clarke, Frederick, Page, Shenandoah and Warren. The TDM Plan serves as RideSmart's operational plan for 2015 through 2021. Informed by a regional survey of commuters conducted in 2014, the plan outlines a strategic framework (goals and objectives) for the agency as well as program enhancements and financial resources needed to implement the plan.

This plan is consistent with long-range plans prepared by local and regional planning organizations, VDOT, and DRPT; and provides all information necessary to include the TDM program in the Six- Year Improvement Program, Statewide Transportation Improvement Program, Transportation Improvement Program, and Constrained Long- Range Plan.

## Transit operations

Winchester Transit System Performance Review and Recommendations. In 2014 a review of WinTran transit service was undertaken to identify ways to improve its three-bus operation within the range of current resources, and recommend changes to the WinTran system based on an evaluation of the needs of the users. Routing patterns, headways and bus stop location and spacing were considered.
Recommendations included focusing the Trolley service on downtown, providing frequent service along a shortened route, and modifications to other routes. System alternatives for three- and four-bus operations were identified and evaluated for service quality and coverage.

## 7 Transportation and transit enhancement activities

## Virginia Statewide Intercity Bus Study

The federal transit Formula Grants for Rural Areas (Section 5311) program provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations of less than 50,000 . Each state must spend no less than 15 percent if its annual apportionment for the development and support of intercity bus transportation, unless it can certify, after consultation with intercity bus service providers, that the intercity bus needs of the state are being adequately met.

Intercity bus is defined in federal guidance as regularly scheduled, fixed-route bus service, excluding commuter service, open to the public with limited stops between two or more urban areas not in close proximity, providing meaningful connection with the national intercity bus network through coordinated schedules, information and transfer locations.

In 2014 DRPT commissioned a study of Virginia's intercity bus needs in consultation with bus service providers and other stakeholders, identifying potential corridors for new service based on demographic comparison of high need areas currently lacking service, and survey input.

Sixteen corridors were developed to test potential demand and estimate costs. Three of these routes would serve Winchester: Washington, DC to Blacksburg via Rt. 7, Washington, DC to Martinsburg, WV via Rt. 7, and Washington, DC to Martinsburg, WV via I-66. Four other routes have been put into operation under the brand Virginia Breeze.

## 8 Capital investment and other strategies

By federal law the MTP must integrate, directly or by reference, the goals, objectives, performance measures and targets described in State transportation plans and processes, as well as plans developed by the public transportation provider, Winchester Transit. These plans are described in this chapter, as well as in chapters 7 and 8 ; also referenced in this chapter are the plans for human services and bicycle and pedestrian transportation, and the comprehensive plans of Frederick County, the City of Winchester and the Town of Stephens City.

### 8.1 State plans

## Statewide Transportation Plan

VTrans is Virginia's multimodal surface transportation plan. Pursuant to § 33.2-353, VTrans is developed by the Commonwealth Transportation Board (CTB) with assistance from the Virginia Office of Intermodal Planning and Investment (OIPI).

VTrans conducts a comprehensive assessment of transportation needs and long-term risks and opportunities to guide Virginia's transportation future. VTrans has four main components:

1. Vision, goals, and objectives to inform the identification and prioritization of transportation needs. For each Goal, one or more performance measures are identified. A performance measure is a numeric description of a transportation system's performance or condition.
2. A policy to identify and prioritize transportation needs, known as Mid-term Needs, to advance the Goals and Objectives established by the CTB over the next ten years using performancebased planning linking measurable goals, needs, and project outcomes. The identified Mid-term Needs are used to screen funding applications for the SMART SCALE program and prioritize funding requests received for the VDOT's Revenue Sharing Program. The 2021 Technical Guide for the Identification and Prioritization of the Mid-term Needs documents data sources, methods, and processes for planners and engineers. The VTrans Policy Guide (v6) provides a framework and details for all VTrans related policies.
3. A policy to develop and monitor a Long-term Risk \& Opportunity Register. This policy allows the Commonwealth to systematically monitor a wide range of uncertainties that could impact the transportation network over the next 20-plus years, derived from a data-driven assessment to identify risks and opportunities related to four megatrends: flooding, technology, consumption patterns, and demographics.
4. A set of Strategic Actions that are adopted by the CTB and guide OIPI, VDOT, and DRPT's business plans. Derived from VTrans Vision, VTrans Mid-term Needs and Priorities, VTrans Longterm Risk \& Opportunity Register, and VTrans Freight Element, the Strategic Actions are initiatives that will help the Commonwealth achieve its transportation Vision, Goals and Objectives and may require the creation of new policies or modifications to existing policies. The aim is to seek out gaps and/or new opportunities to make the transportation system better prepared for existing and potential challenges consistent with the CTB's Vision while considering available resources, timeframes, and feasibility.

MPO

VTrans Strategic Actions relate to:

- Clarifying roles and responsibilities
- Developing stronger linkages between planning and programming
- Ensuring consistency and improving transparency
- Improving coordination between transportation and land use
- Improving efficiency of multimodal and intermodal connections

VDOT's Project Pipeline program, launched in 2021, directs the state's limited planning funds toward developing the most cost-effective solutions to the CTB adopted VTrans Needs. The program, led by the Office of Intermodal Planning and Investment, is based on VDOT's STARS program, which data-based recommendations have had an $80 \%$ success rate in getting funded through SMART SCALE, to develop projects and investment strategies which are competitive for funding, strengthening the link between planning and programming and addressing the other strategic aims.

OIPI consults with each CTB member to identify a limited number of priority 1 needs for study. OIPI, in coordination with VDOT and DRPT, provides recommendations for up to five needs for study to each member. Certain needs will cost more to study than others so the actual number will vary based on actual needs selected for study. Board members may modify recommendations among priority 1 needs; and may select a non-priority 1 VTrans need to address potential concerns about geographic diversity and/or other local knowledge about specific needs.

## Project Pipeline 2021 study locations:

ST02-US 11 Valley Avenue from Middle Road to Bellview Avenue
ST03 - US 11 Martinsburg Pike from Crown Lane to Redbud Road/l-81 Exit 317
ST04 - US 522 (Front Royal Pike) from US $17 / 50$ to Costello Drive

## State Strategic Highway Safety Plan

Updated every five years, Virginia's Strategic Highway Safety Plan (SHSP) provides a comprehensive coordinated framework for reducing deaths and severe injuries on Virginia's public roads. Developed in consultation with Federal, state, local, and private-sector safety stakeholders, the SHSP establishes strategic statewide goals and identifies engineering, enforcement, education, and emergency response strategies which promise the greatest reductions in death and injury, based on analyses of recent crashes.

The 2022-2026 SHSP identified 106 ongoing, short-term, and long-term actions across 13 Emphasis Areas to guide Virginia toward reducing fatalities and serious injuries over the five-year plan period.

## VTrans Freight Element

The VTrans Freight Element is a component of VTrans and serves as the Commonwealth's state freight plan in accordance with 49 U.S.C. 70202 FAST Act State Freight Plans. In addition to meeting federal requirements, the VTrans Freight Element serves the following purposes:

- Designation of critical urban and rural freight corridors under the National Highway Freight Program 23 U.S.C. § 167)
- Identification of transportation needs that may directly or indirectly impact the flow of freight within and through the Commonwealth
- Development of a Freight Investment Plan listing the freight-beneficial projects supported by National Highway Freight Program (NHFP) funds
- Identification of policy recommendations to inform the VTrans Long-Term Needs and VTrans Strategic Actions
- Increase awareness of the identified needs so that they can be better reflected or considered as part of metropolitan planning processes
- Provide basis for future modifications to the Policy for the Identification and Prioritization of the VTrans Mid-Term Needs


## Virginia Statewide Rail Plan

The 2017 Statewide Rail Plan (VSRP) defines a vision for rail transportation, both passenger and freight, in the Commonwealth through 2040. The VSRP incorporates elements of a Resource Allocation Plan that details project selection and prioritization, funding, and implementation schedules.

## Proposed freight rail projects include

- expanding capacity at the Virginia Inland Port and improving grade crossings on tracks serving the Port.
- Winchester \& Western Railroad: tie/rail replacement, surfacing, crossing, capacity upgrade/yard Improvements, rail replacement and bridge deck renewal, replace Winchester Interchange and Siding Turnout.


## Interstate 81 Corridor Improvement Plan

In 2018 the Commonwealth Transportation Board (CTB), with assistance from the Office of Intermodal Planning and Investment (OIPI), the Virginia Department of Transportation (VDOT) and the Department of Rail and Public Transportation (DRPT), studied the entire length of the Interstate 81 corridor in Virginia. The CTB approved the I-81 Corridor Improvement Plan in late 2018, and the study's findings were reported to the General Assembly. The study identified a $\$ 2$ billion package of projects for the corridor.

During the 2019 General Assembly, two bills were passed identifying dedicated revenue sources for funding the project package and establishing an Advisory Committee to provide advice and recommendations to the CTB regarding implementation of the program.

The program includes widening l-81 to three lanes per direction between Exit 313 and Exit 317.

### 8.2 Regional modal plans

## Transit

The WinTran Transit Development Plan (TDP) Update for Fiscal Years 2017-2028 defines short-range strategies to match transit service to needs identified through a planning process involving technical evaluation of needs and current service, and consultation with stakeholders. The state Department of Rail and Public Transportation (DRPT) requires that public transit operators receiving State funding prepare, adopt and submit a TDP every six years.

## Recommendations:

Short-term (1-3 Years)

1. Improve on-time arrival

- Eliminate underperforming stops
- Serve facilities during business hours
- Reconfigure Downtown circulation pattern

2. More frequent service

- Eliminate Trolley and re-assign to streamlined Amherst-Apple Blossom routes to achieve 30minute service

3. Improved information access

- Make route map available via print materials
- Update website

4. Designated waiting areas at Transfer Station

- Designate bays for individual bus routes

5. Additional staff member

- Hire staff member to assist with operations


## Medium-term (4-6 Years)

1. More frequent service

- Introduce Northside Circulator, to replace Northside and Berryville routes
- Introduce Southside Circulator, to replace valley, South Loudoun, and Trolley routes


## Long-term (7-11+ Years)

1. Expand service span

- Extend Saturday service to 8:00 PM and Introduce Sunday service with ADA service on both days

2. More frequent service

- Place additional vehicles into service on Circulator routes to achieve 30-minute headways

3. Expand service span

- Extend Apple Blossom route to Delco Plaza with ADA service
- Introduce Frederick County route with ADA service
- Extend service to LFCC


## Human services transportation

The Coordinated Human Services Mobility (CHSM) Plan identifies the transportation needs of seniors, individuals with disabilities, low-income individuals, and veterans.; provides strategies for meeting those needs; and prioritizes transportation services for funding. Updated every five years, the Plan presents statewide and regional gaps and strategies to improve human services transportation and was last updated in 2019 by DRPT.

The federal Section 5310 Program provides formula funding to states to assist transportation providers in meeting the transportation needs of older adults and people with disabilities when transportation service is unavailable, insufficient, or inappropriate to meeting these needs. States and local governments, private non-profit organizations, and operators of public transportation services may receive funding for services included in the CHSM Plan. Funds may be used to cover operating and capital expenses, including the purchase of vehicles.

## Action Item: Develop a "one click/one call" approach for human service transportation in [the] region.

## Bicycling \& walking

The MPO Bicycle and Pedestrian Master Plan, first completed in 2009, was updated in 2014. The update included a technical assessment of bicycling and walking conditions, network connectivity, and latent demand; and a multi-part public involvement process to collect community feedback and verify the analyses. The analyses and feedback were used to identify projects and prioritize them to make the largest possible improvement in bicycling and walking conditions at the least cost.

## The plan's recommended strategy is to

- Fund and construct the high value, lower cost projects as identified in the project rankings (Figure 10);
- Intersperse the implementation of these projects with projects that add to the Green Circle Trail;
- Conduct community outreach to most efficiently move forward high value projects important for medium- and longer-term bicycle and pedestrian connectivity goals; and
- Implement highly-ranked projects through scheduled roadway maintenance and reconstruction.

Subsequent studies completed in 2018 and 2021 presented alternatives for a bikeway along the plan's highest priority corridor, a north-south route through Old Town Winchester. A 2020 study determined the feasibility of a bike share service for the City.

## Aviation

Winchester Regional Airport's 2005 Airport Layout Plan (ALP) Update identified improvements to meet current and projected aviation demand through 2025, including the construction of a new terminal. The next ALP update is scheduled for 2026.

Figure 10: Ten highest priority locations for bicycle and pedestrian improvements


## 2045 METROPOLITAN TRANSPORTATION PLAN

### 8.3 Locality comprehensive plans

To maximize coordination and consider the relationships between transportation and land use, the development of an MPO transportation plan must be respectful of the planning efforts of each of its members. The following compilation of local comprehensive plan objectives provide important context to the goals of each MPO locality.

## City of Winchester

The City's Comprehensive Plan 2019-2022 Update presents mobility strategies under 13 objectives to address the city's mobility goal which emphasizes safety, interconnectivity, walkability and reduced dependence on the automobile.

## Transportation Objectives and Strategies, City of Winchester Comprehensive Plan

1) Pursue limited construction of new thoroughfares and widening of existing thoroughfares as shown in the WinFred MPO Long Range Transportation Plan.
a) Monitor state and federal funding streams and changing city needs to prioritize certain roadway projects from the MPO plan.
b) Advocate rail infrastructure projects to reduce freight traffic congestion on Interstate 81, consistent with City Council Resolution 2003-50.
2) Employ a hierarchy of functional street categories including thoroughfare streets for major traffic movements through and within the community at higher speeds; collector streets to channel major traffic movements into and out of separate areas of the community at moderate speeds; and local streets to provide access to individual properties at lower speeds.
3) Encourage the use of alternate modes of mobility including walking, bicycling, and public transportation by all sectors of the population to reduce the dependency upon private automobile use.
a) Implement the recommendations of the MPO's 2014 Bicycle and Pedestrian Master Plan and pending 2020 Bikeshare Study.
i) Complete the Green Circle Trail.
ii) Add miles of bike lane to arterial and collector roads
iii) Install bike racks and encourage businesses to do the same.
b) Implement the recommendations of the MPO's 2009 Transit Services Plan.
i) Increase WinTran route frequency to more than once an hour.
ii) Extend WinTran out into Frederick County's most urbanized areas to serve the needs of both city and county residents and visitors.
iii) Add bike racks to WinTran buses.
4) Encourage the growth and sustainability of the urbanized area of the City by providing adequate and convenient parking and a comprehensive system of sidewalks and walking paths.
a) Address identified sidewalk deficiency by filling in gaps in the system.
b) Construct new sidewalk.
c) Maintain all sidewalks and respond quickly to complaints.
d) Identify and widen certain sidewalks to create outdoor social spaces.
e) Identify streets where new parallel parking spaces would benefit business and calm traffic.
f) Use the MPO plans to link Frederick County trail projects to city infrastructure.
g) Increase pedestrian connection points between the Old Town pedestrian mall and the George Washington and Braddock Street parking garages.
5) Alter conventional street standards especially in mixed use and planned residential developments by encouraging New Urbanistic layouts of interconnected grid streets.
a) Prioritize pedestrian-friendly street designs in neighborhood redevelopment projects.
b) Rewrite the current Zoning Ordinance, subdivision ordinance, and Engineering Standards to encourage New Urbanism, including elements of Traditional Neighborhood Design (TND).
6) Employ access management and consider use of roundabouts to provide for traffic calming and improved safety.
a) Study speed, flow, and accident data to identify streets most in need of calming.
b) Pilot different calming techniques including roundabouts, green medians, on-street parking, and pedestrian islands.
c) Continue efforts to reduce the number of driveway openings within proximity of each other through use of driveway spacing standards and in conjunction with public street improvement projects.
d) Implement the recommendations of the MPO's multimodal corridor studies for Berryville Avenue and S. Pleasant Valley Road.
7) Investigate the needs for multimodal transfer facilities.
a) Construct covered bus shelters, especially at multimodal intersections near parking garages or the Green Circle Trail.
8) Work closely with Frederick County and Stephens City to extend public transportation between the City and destinations such as Lord Fairfax Community College, DMV, the Employment Commission/Job Training office, and the regional detention facilities as well as urbanizing areas of the County and Town.
a) Implement the operational changes and undertake the capital expenses needed to develop a truly regional transit service that allows City residents to access services currently situated beyond the limits of existing transit routes.
9) Promote Telecommuting as an alternative to commuting to work.
a) Adopt telework incentives for city staff where appropriate.
b) Encourage and support telework among private firms.
10) Increase safety on thoroughfare streets and bike and pedestrian trails where they cross railroad tracks and consider grade-separated crossings.
a) Study improvements needed to rail crossings such as Featherbed Lane for safely accommodating an immediate alignment of the Green Circle Trail including a safe means for crossing the CSX railroad tracks.
11) Expand and improve general aviation, air cargo, and air passenger operations at the Winchester Regional Airport. a. Support MPO efforts to add hanger space, technology, and amenities at the airport.
12) Pursue development of projects and works that are in line with the Vtrans 2040 Master Plan.
13) Pursue development of a bike share program that serves Winchester through stations at Shenandoah University, Old Town, and the Medical Center

## Frederick County

The Frederick County Comprehensive Plan, adopted in 2021, includes goals and strategies for transportation, presented below.

Transportation Goals and Strategies, Frederick County Comprehensive Plan
GOAL 1: TO PROMOTE THE DEVELOPMENT OF NEW ROADWAYS AND THE REDEVELOPMENT OF EXISTING ROADWAYS IN A MANNER THAT MAKES THEM OPEN, AVAILABLE, AND SAFE TO ALL MODES OF TRANSPORTATION.

- Match desired form of development to roadway classification to simplify the determination of which roadways receive which treatment. That is, different types of streets for different land uses. For example, while some roadways would require a separate bicycle and pedestrian trail in order to be more accessible to bicyclists and pedestrians. In rural areas a wider shoulder section may be more appropriate.
- Work with new development and redevelopment to implement this policy and the overall transportation plan. This may require analysis and modification of the existing subdivision ordinance.
- Work cooperatively with the School Board to identify school locations that meet both school and County goals of public access and safe walkability.
- Seek outside funding sources to fill in gaps in order to attach separate segments and create a fully interconnected system.
- Continue to monitor the County ordinances to ensure they meet the shifting needs of facility planning and VDOT standards.

GOAL 2: IMPLEMENT THE ROADWAY PRIORITIES OF THE COUNTY AS OUTLINED ANNUALLY IN THE CAPITAL IMPROVEMENT PLAN, THE INTERSTATE, PRIMARY AND SECONDARY ROAD PLANS, AND THE EASTERN ROAD PLAN, AND PARTICULARLY ROUTE 37 EAST.

- Work with new development and redevelopment to implement the Eastern Road Plan through construction and preservation of rights-of- way.
- Continue to work closely with VDOT, State and Federal representatives, and any other available revenue sources to increase transportation funding.
- In the absence of outside funding, continue to protect rights-of-way and move forward on planning transportation priorities.
- Coordinate with VDOT to make sure the required percentage of maintenance funds to be spent on other accommodations is used on County priorities.
- Maintain the character of the rural roadways in the County while addressing safety issues as they may arise.

GOAL 3: IMPROVE UPON EXISTING TRANSPORTATION SAFETY AND SERVICE LEVELS IN THE COUNTY.

- Coordinate with VDOT in the scoping and review of Traffic Impact Analyses (TIA).
- Analyze VDOT Access Management standards and, when needed, adopt County standards that are stronger.
- Work with new development and redevelopment to ensure that trip generation and new movements do not degrade the transportation system, increase delays, or reduce service levels.
- Create an informal working group with Staff, VDOT, and law enforcement to identify and address safety concerns with coordination to be handled by Planning and Development and the Board's Transportation Committee (TC).

GOAL 4: KEEPING THE COST OF INDUSTRIAL PROPERTY COMPETITIVE. WORK TO ENHANCE USE OF INTERMODAL FREIGHT MOVEMENT WHEREVER POSSIBLE.

- Coordinate with local business to maximize the use of Economic Development Road Access funding, as well as Rail Access funding.
- Actively work with rail carriers through the Economic Development Authority to maximize the amount of material that is shipped into and out of Frederick County via rail.
- Perform a study to discern where opportunities to bring air freight into the regional airport may be available.
- Work to encourage and maximize opportunities presented by expansion of the Virginia Inland Port.
- Make use of revenue sharing funds for development of industrial property when the Board of Supervisors determines that it is in the best interest of Frederick County.
- Incorporate the Airport Master Plan into the County planning efforts.


## GOAL 5: IMPROVE THE BEAUTY OF TRANSPORTATION CORRIDORS AT THE COUNTY GATEWAYS AND ALONG COMMERCIAL ROADWAYS.

- Work with VDOT to create roadway design plans that meet standards while beautifying local gateways and commercial corridors.
- Through the Transportation Committee, develop a plan and actively promote corridor beautification. This should include working with local institutions to create more attractive County entrances into their facilities.


## GOAL 6: ENSURE SAFE OPERATION OF FIRE AND RESCUE VEHICLES AND SCHOOL BUSES.

- Investigate the existence and potential removal of barriers between neighborhoods that lead to delays in response, particularly for the Greenwood and Millwood Companies.
- Promote the adoption of a uniform locking technology acceptable to the Fire and Rescue Department for use on gated and locked emergency access points.
- Analyze driving, road, and parking standards and actively seek the Fire and Rescue Department input for driveways and roads to ensure that all approved developments are accessible by fire equipment.

GOAL 7: PROVIDE COST-EFFECTIVE ALTERNATIVES TO AUTOMOBILE TRAVEL AS NEEDED, FOR THE ELDERLY, DISABLED, STUDENTS, AND WORKFORCE.

- Coordinate with existing agencies such as the Shenandoah Area Agency on Aging (SAAA) and Access Independence to secure outside funding to enhance service to the elderly and disabled in the community.
- Make use of the Winchester-Frederick Metropolitan Planning Organization (MPO) resources to identify areas of most critical need.
- Monitor existing data source updates to determine areas of growing need.


## Town of Stephens City

The 2010 Stephens City Comprehensive Plan calls for coordination and cooperation with Frederick County in jointly planning for compact, rational growth patterns and appropriate transportation systems for the greater Stephens City area. Under the plan's transportation goal to "provide a safe, efficient transportation system for pedestrians, bicyclists and vehicles in the Town and surrounding areas" are objectives and strategies summarized below.

## Transportation Objectives and Strategies, Town of Stephens City Comprehensive Plan:

## Extend the Town's historic street grid into new development

## Develop a system of bicycle and pedestrian trails and sidewalks

## Review parking requirements

## Utilize traffic calming strategies

## Pay for improvements through Tax Increment Financing and fair developer proffers

## Build new roadways and other improvements to improve traffic flow and enhance safety:

- Widen I-81
- Build a western bypass connecting Route 277 and Warrior Drive to the east with Shady Elm Road to the north;
- Relocate Exit 307 to the south, to provide direct access to the western bypass;
- Build two east-west roads to connect existing and future neighborhoods divided by I-81; and
- Realign Passage Lane to improve safety.


### 8.4 WinFred MPO strategies

The goals and objectives of this MTP, compiled from local plans to reflect the collective aspirations of the MPO's localities as they relate to state transportation goals and objectives, are presented at the beginning of this document. Strategies are identified for most of these goals and objectives, presented below.

1. Goal: Economic Competitiveness and Prosperity
1.1. Objective: Reduce the amount of travel that takes place in severe congestion 1.1.1. Strategy: Maintain roadway levels of service by selectively expanding roadway capacity
1.2. Objective: Reduce the number and severity of freight bottlenecks
1.2.1. Strategy: Facilitate truck movement between freight generators and the Virginia Inland Port
1.3. Objective: Improve reliability on key corridors for all modes
1.3.1. Strategy: Implement meaningful improvements to I-81
2. Goal: Accessible and Connected Places
2.1. Objective: Reduce average peak-period travel times
2.1.1. Strategy: Implement the County Roads Plan and Winchester Comprehensive Plan
2.2. Objective: Reduce average daily trip lengths
2.2.1. Strategy: Build out the arterial and collector network associated with new development
2.3. Objective: Increase accessibility to jobs via transit, walking and driving
2.3.1. Strategy: Implement WinTran Transit Development Plan
2.3.2. Strategy: Implement the Bicycle and Pedestrian Master Plan
2.3.3. Strategy: Design streets and roads for all users
3. Goal: Safety for All Users
3.1. Objective: Reduce the number and rate of motorized fatalities and severe injuries
3.1.1. Strategy: Implement the Virginia Strategic Highway Safety Plan
3.1.2. Strategy: Prepare and implement a metropolitan road safety strategic plan
3.2. Objective: Reduce the number of non-motorized fatalities and severe injuries
3.2.1. Strategy: Promote Safe Routes to School strategies and programs
4. Goal: Proactive System Management
4.1. Objective: Improve the condition of all bridges based on deck area
4.2. Objective: Increase the lane miles of pavement in good or fair condition
4.3. Objective: Increase percent of transit vehicles and facilities in good or fair condition
5. Goal: Healthy Communities and Sustainable Transportation Communities
5.1. Objective: Reduce per-capita vehicle miles traveled
5.1.1. Strategy: Encourage Traditional Neighborhood Development (TND) within the Urban Development Areas (UDAs)
5.2. Objective: Reduce transportation-related emissions
5.2.1. Strategy: Encourage compact, mixed use development
5.3. Objective: Increase the number of bicycling and walking trips
5.3.1. Strategy: Implement the MPO Bicycle and Pedestrian Master Plan
5.3.2. Strategy: Design streets and roads for all users

### 8.5 Performance-based strategies

Cultural and political shifts, coupled with advances in data science, have led to increased demand for measurable performance from each public dollar spent at both the federal and state levels.

Ideally, the long-range plan should consist of projects which, as a package, best improve the overall performance of the system at a cost that can be covered by projected funding.

Virginia's SMART SCALE process models proposed transportation projects for effectiveness in furthering the state's transportation objectives, calculating a numerical score which is used to rank and prioritize projects for programming (funding) based on how each project might be expected to mitigate traffic congestion, improve safety, increase access to jobs, promote economic development, and protect the environment relative to the financial cost to the state.

With this MTP, for the first time, WinFred MPO employed a performance-based strategy in selecting projects for inclusion in the plan. The previous plan (2017) included a list containing 130 projects largely derived from locality plans. The MPO's Technical Advisory Committee screened the list down to 16 projects for scoring by VDOT staff using a model similar to the SMART SCALE system, with the intention of identifying and prioritizing the most competitive projects for state funding programs. A detailed description of the methodology is presented as Appendix $A$. The scoring rubric is presented in Figure 11 (right). A list of evaluated projects and their scores is presented as Appendix B.

In 2021 VDOT launched a program, named Project Pipeline, to identify and recommend projects which address the highest priority needs identified in the statewide transportation plan, VTrans and therefore likely to score well in SMART SCALE. Although not scored through the WinFred MPO/VDOT scoring process, the

Figure 11: Project scoring rubric
 region's four Project Pipeline projects were selected for inclusion in the Constrained Long Range Plan (CLRP). The scored projects were then added to the CLRP in rank order until the next ranking project exceeded the financial constraint. The CLRP is comprised of 12 projects, listed in Table 9, page 51.

## 9 <br> Public input

Listening and responding to the concerns voiced by the public is a strategy for addressing needs as well as a check on the assumptions of other strategies. Nobody knows the problems as well as the people who live with them.

The public involvement plan for this MTP is described in chapter 13; events and input received are summarized in Appendix C. A MetroQuest on-line survey served as the main means of gathering public input for this MTP. The survey was open from November 1, 2021, until February 11th, 2022. In total, 607 residents responded to the survey. The survey was available in English and Spanish.

The MetroQuest survey included an interactive map that allowed users to drop markers and comment on issues across the region. Each marker had an associated issue and contextual question, along with an open-ended comment box; 389 of the survey respondents added over 1,300 comments to the map. Half of respondents added three or more comments to the map. Figure 12 shows a heatmap of all the mapped comments overlaid with the CLRP projects. The top four comment "hot spots" and associated planning responses to the issues cited (in italics) are described in the table and narrative below.

| Comment <br> Hot Spot | Corresponding <br> CLRP Project | Location | Ongoing Activities | Project Origin |
| :--- | :--- | :--- | :--- | :--- |
| 1 | A | Intersection of Pleasant <br> Valley Rd. and E. Jubal <br> Early Dr. | Improvements <br> identified, STARS <br> final report 2020 | City of Winchester; <br> VDOT STARS Study |
| 2 | A | Intersection of Routes <br> $17 / 50 / 522$ and I-81 <br> ramps |  <br> construction funding <br> application <br> submitted, 2022; I-81 <br> overpass slated for <br> replacement starting <br> 2026 | Frederick County <br> Comprehensive <br> Plan; WinFred MPO <br> Millwood Ave. <br> Traffic Diversion <br> Study |
| 3 | C | Interchange of Route 11 <br> and I-81 at Exit 317 |  <br> construction funding <br> application <br> submitted 2022 | Frederick County <br> Comprehensive <br> Plan; WinFred MPO <br> North Winchester <br> Area Plan |
| 4 | K, L | Route 277 at I-81 Exit <br> 307 in Stephens City | Widening of Fairfax <br> Pike underway; <br> sidewalk, drainage <br> improvements on <br> Fairfax St. west of <br> intersection <br> proposed | Stephens City and <br> Frederick County <br> Comprehensive <br> Plans |

Comment hotspots 1 and 2 are located along the East Jubal Early Drive/Millwood Avenue corridor, with the highest concentration of comments focused on the Jubal Early/Pleasant Valley intersection. With the convergence of major activity nodes (Shenandoah University; Apple Blossom Mall) and major transportation corridors (I-81, Millwood Pike, Front Royal Pike, Pleasant Valley Road), congestion is the primary complaint expressed in the comments submitted. Comments refer to specific intersections as well as the entire corridor, as in need of revised signal timing, congestion mitigation, bridge maintenance, and bike and pedestrian improvements.

A 2020 VDOT study recommends dual left turn lanes on Jubal Early Drive at Pleasant Valley Road to alleviate congestion. Replacement of the Millwood Avenue/l-81 overpass is in design, including an additional through lane and sidewalk. The City of Winchester is pursuing funds for a pedestrian bridge over Millwood Avenue at Mall Boulevard. WinFred MPO has applied for funds to reconfigure the Front Royal Pike/Millwood Pike/l-81 northbound ramp intersection (CLRP A) to alleviate congestion, as recommended in a 2022 VDOT study.

Comment hotspot 3 is focused on the I-81 and US Route 11 interchange at exit 317, north of the Winchester City limits. Comments are spread along the Martinsburg Pike Corridor from industrial parks located at the intersection of routes 11 and 37 , north to the commercial and dense residential development around Snowden Bridge and Rutherford Crossing. Delay and congestion are among the most cited deficiencies as there are multiple signalized intersections, heavy truck traffic, and a convergence of primary transportation corridors. Due to the high traffic flow, congestion often extends to the I-81 northbound exit at 317, causing stacking at the off-ramp.

WinFred MPO and Frederick County have each applied for funds to build a re-designed interchange and improve other Route 11 intersections (CLRP C and F) to improve safety and relieve congestion.

Comment hotspot 4 is reflective of congestion and delay occurring along the Route 277 Fairfax Pike corridor that intersects with I-81 at Exit 307, and traffic entering and exiting Route 11. This congestion not only causes delays on Town and County roads, but also causes frequent back-ups at I-81 exit ramps, effecting the flow of interstate traffic. The comments submitted describe conditions that include too few lanes to support traffic volumes, large amounts of truck traffic moving to and from Route 11 and I81, unsynchronized signal timing, and too many signalized intersections.

Construction is underway to widen Fairfax Pike to four lanes with a median from east of the I-81 northbound ramps to east of Double Church Road to provide additional traffic capacity. The project will also provide pedestrian access along the north and south sides of Fairfax Pike. CLRP K proposes extending the widening east to Warrior Drive.

## Multimodal Interest

Despite overwhelmingly relying on cars, respondents indicated high levels of interest in multimodal transportation options. While 95\% of respondents report driving for most trips, one in four respondents state that it should be easier to ride the bus, walk, and bike in the region.

The region's bicycle and pedestrian plan was last updated in 2014. Subsequent studies recommended specific bikeway improvements in Old Town Winchester and determined the feasibility of a bike share system. The MPO formed a Bicycle and Pedestrian Advisory Committee in 2022 to guide an update of
the Bicycle and Pedestrian Plan and the launch of the bike share system. A feasibility study for a demand-response "microtransit" public transportation system is in the MPO's Fiscal Year 2023 Unified Planning Work Program.

Figure 12: Public comment hotspots and CLRP projects


## 10 Financial plan

This chapter describes the financial means by which the strategies described in this plan may be implemented. The Six-Year Improvement Program for fiscal years 2023 through 2028 (all funding sources) of currently funded or active projects within the MPO is presented in Table 7 on the following page.

A project to widen I-81 between exits 313 and 317 to three lanes in each direction (UPC 116281) does not appear in Table 7 but is bundled with other I-81 projects statewide, programmed for funding through the I-81 Improvement Fund. Construction is scheduled to start in late 2026.

Table 7: FY '23 Six Year Improvement Program, WinFred MPO

| UPC | Description | Route | Road System | Jurisdiction |  | Previous <br> alues in Tho | FY23 ousands | $\begin{aligned} & \text { FY24-28 } \\ & \text { of Dollars) } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 106054 | WENTWORTH DRIVE SRTS SIDEWALK |  | Enhancement | Winchester | \$2,998 | \$3,426 | \$0 | \$0 | (\$427) |
| 106055 | GREEN CIRCLE TRAIL - JUBAL EARLY SEGMENT |  | Enhancement | Winchester | \$1,007 | \$998 | \$0 | \$0 | \$8 |
| 111027 | \#SMART18-(ST) GREEN CIRCLE TRAIL - FINAL PHASES |  | Enhancement | Winchester | \$5,492 | \$966 | \$1,389 | \$1,835 | \$1,301 |
| 111418 | MUSEUM OF THE SHENANDOAH VALEY TRAIL CONNECTION |  | Enhancement | Winchester | \$2,751 | \$2,751 | \$0 | \$0 | \$0 |
| 116858 | BOSCAWEN STREET PEDESTRIAN MALL |  | Enhancement | Winchester | \$2,504 | \$1,518 | \$450 | \$536 | \$0 |
| 113895 | ABRAMS CREEK TRAIL - FREDERICK COUNTY | 657 | Enhancement | Frederick County | \$1,090 | \$101 | \$356 | \$633 | \$0 |
| 116040 | ROUTE 11 AND I-81 RAMP IMPROVEMENTS EXIT 307 AND 317 | 11 | Interstate | Frederick County | \$412 | \$624 | \$0 | \$0 | (\$212) |
| 113535 | \#SGR19VB - RT 17/50/522 MILLWOOD PIKE BRIDGE OVER I-81 | 17 | Interstate | Frederick County | \$29,809 | \$8,073 | \$1,135 | \$22,121 | (\$1,520) |
| 112900 | I-81- INSTALL HIGH TENSION CABLE BARRIER | 81 | Interstate | Frederick County | \$2,240 | \$0 | \$150 | \$2,090 | \$0 |
| 115181 | \#SMART20 I-81 EXIT 317 ACCEL/DECEL LANE EXTENSIONS | 81 | Interstate | Frederick County | \$3,209 | \$0 | \$780 | \$2,429 | \$0 |
| 115717 | \#SMART20 I-81 EXIT 313 BRIDGE CAPACITY IMPROVMENT | 81 | Interstate | Frederick County | \$5,264 | \$4,408 | \$0 | \$856 | \$0 |
| 120642 | EXIT 317 NB RAMP REALIGNMENT TO REDBUD ROAD LOCATION | 81 | Interstate | Frederick County | \$6,944 | \$6,944 | \$0 | \$0 | \$0 |
| 116851 | GREEN CIRCLE TRAIL WIDENING |  | Miscellaneous | Winchester | \$2,100 | \$160 | \$470 | \$1,471 | \$0 |
| 116852 | MIDDLE ROAD SIDEWALKS AND BIKE LANES |  | Miscellaneous | Winchester | \$5,657 | \$3,489 | \$1,200 | \$1,211 | (\$243) |
| 119644 | \#SMART22-ROUTE 7 STARS ACCESS MANAGEMENT PROJECTS | 7 | Primary | Frederick County | \$1,000 | \$275 | \$424 | \$301 | \$0 |
| 117944 | \#I81CIP DETOUR IMPROVEMENTS - EXIT 317 | 11 | Primary | Frederick County | \$900 | \$245 | \$265 | \$390 | \$0 |
| 119649 | \#SMART22-PLEASANT VALLEY ROAD ACCESS MANAGEMENT | 11 | Primary | Winchester | \$203 | \$0 | \$34 | \$169 | \$0 |
| 119650 | \#SMART22 - PLEASANT VALLEY ROAD ACCESS MANAGEMENT II | 11 | Primary | Winchester | \$830 | \$0 | \$50 | \$780 | \$0 |
| 119920 | \#PIPELINE22-RTE. 11 | 11 | Primary | Frederick County | \$160 | \$160 | \$0 | \$0 | \$0 |
| 119921 | \#PIPELINE22-RTE. 11 | 11 | Primary | Winchester | \$130 | \$130 | \$0 | \$0 | \$0 |
| 120643 | ROUTE 11/OLD CHARLES TOWN ROUNDABOUT | 11 | Primary | Frederick County | \$6,357 | \$6,357 | \$0 | \$0 | \$0 |
| 120820 | \#ITTF22 HIGH SPEED COMMUNICATIONS FOR SIGNALS RTE 11 | 11 | Primary | Frederick County | \$750 | \$750 | \$0 | \$0 | \$0 |
| 107022 | RTE $50-$ SAFETY IMPROVEMENTS | 50 | Primary | Frederick County | \$3,801 | \$4,800 | \$0 | \$0 | (\$999) |
| 112615 | RTE 50 INTERSECTION AT INDEPENDENCE DR (NFCU) | 50 | Primary | Frederick County | \$1,170 | \$1,170 | \$0 | \$0 | \$0 |
| 18003 | \#HB2.FY17 RTE 277 - WIDEN TO 5 LANES | 277 | Primary | Frederick County | \$45,311 | \$45,311 | \$0 | \$0 | \$0 |
| 110396 | \#HB2.FY17 RTE 277 - WIDEN TO 5 LANES GARVEE DEBT SERVICE | 277 | Primary | Frederick County | \$35,409 | \$5,702 | \$2,123 | \$11,880 | \$15,703 |
| 111227 | \#SMART18-(ST) INTERSECTION OF RTE 277 AND WARRIOR DR | 277 | Primary | Frederick County | \$477 | \$236 | \$240 | \$0 | \$0 |
| 78825 | ROUTE 522, FRED. CO., STR. ID 08156 BRG REPL. FED ID-08156 | 522 | Primary | Frederick County | \$4,329 | \$3,630 | \$0 | \$0 | \$700 |
| 119916 | \#PIPELINE22-RTE. 522 | 522 | Primary | Frederick County | \$50 | \$50 | \$0 | \$0 | \$0 |
| 119917 | \#PIPELINE22-RTE. 522 | 522 | Primary | Frederick County | \$215 | \$215 | \$0 | \$0 | \$0 |
| 113065 | S. LOUDON ST.-INSTALL CONCRETE CROSSING SURFACE | 0 | Rail | Winchester | \$180 | \$0 | \$0 | \$180 | \$0 |
| 113063 | RT.631-INSTALL FLASHING LIGHTS AND GATES | 631 | Rail | Frederick County | \$310 | \$0 | \$0 | \$310 | \$0 |
| 113062 | RT.638-UPGRADE EXISTING FLASHING LIGHTS AND GATES | 638 | Rail | Frederick County | \$310 | \$93 | \$0 | \$217 | \$0 |
| 110986 | RT.661-INSTALL NEW CONTROL HOUSE \&TRACK REDUNDANT DETECTOR | 661 | Rail | Frederick County | \$206 | \$62 | \$144 | \$0 | \$0 |
| 114900 | RT.664- UPGRADE TO FLASHING LIGHTSAND GATES | 664 | Rail | Frederick County | \$425 | \$0 | \$0 | \$425 | \$0 |
| 110985 | RT.672-UPGRADE CABINET, CIRCUITRY AND RAISE CANTILEVER | 672 | Rail | Frederick County | \$100 | \$30 | \$70 | \$0 | \$0 |
| 110988 | RT. 672 -REALIGN CURVE, RAISE ROAD \& INSTALL CONCRETE SURFACE | 672 | Rail | Frederick County | \$260 | \$78 | \$182 | \$0 | \$0 |
| 101435 | RELOCATE RT. 661 RED BUD ROAD | 661 | Secondary | Frederick County | \$5,988 | \$1,842 | \$5 | \$3,726 | \$415 |
| 87616 | REVENUE SHARING - TEVIS STREET EXTENSION | 788 | Secondary | Frederick County | \$13,237 | \$13,544 | \$0 | \$0 | (\$307) |
| 104262 | AIRPORT ROAD AND WARRIOR DRIVE EXTENSION | 896 | Secondary | Frederick County | \$8,710 | \$8,432 | \$0 | \$0 | \$278 |
| 103013 | RTE 11 - IMPROVE DRAINAGE, ADD SIDEWALKS AND C\&G |  | Urban | Winchester | \$10,792 | \$9,160 | \$1,675 | \$0 | (\$42) |
| 115138 | \#SMART20 TRAFFIC SIGNAL IMPROVEMENTS, VALLEY AND GERRARD ST. |  | Urban | Winchester | \$1,227 | \$135 | \$420 | \$672 | \$0 |
| 116865 | JUBAL EARLY DRIVE TRAFFIC IMPROVEMENTS |  | Urban | Winchester | \$3,600 | \$300 | \$800 | \$2,500 | \$0 |
| 116866 | PLEASANT VALLEY ROAD TRAFFIC IMPROVEMENTS |  | Urban | Winchester | \$1,400 | \$80 | \$305 | \$1,074 | (\$58) |
| 116867 | MILLWOOD AVENUE TRAFFIC IMPROVEMENTS |  | Urban | Winchester | \$6,500 | \$2,884 | \$850 | \$4,898 | (\$2,133) |
| 121154 | PAPERMILL ROAD SIDEWALKS AND BIKE LANES |  | Urban | Winchester | \$14,262 | \$2,000 | \$0 | \$0 | \$12,262 |
| 121155 | PLEASANT VALLEY ROAD SAFETY |  | Urban | Winchester | \$7,064 | \$1,253 | \$0 | \$0 | \$5,810 |
| 104266 | EXTENSION OF HOPE DR REALGNMENT OF PAPERMILL RD TEVIS ST | 0 | Urban | Winchester | \$12,433 | \$12,433 | \$0 | \$0 | \$0 |
| 105632 | PAVEMENT OVERLAY ON VARIOUS STREETS (REV. SHARING) 2014-2015 | 0 | Urban | Winchester | \$6,000 | \$6,000 | \$0 | \$0 | \$0 |
| 112961 | NEW TRAFFIC SIGNAL AT ADAMS/LEGGE - WINCHESTER | 0 | Urban | Winchester | \$339 | \$339 | \$0 | \$0 | \$0 |
| 112211 | SIGNAL REPLACEMENT N. LOUDOUN ST / BRICK KILN RD / BROOKE RD | 11 | Urban | Winchester | \$600 | \$600 | \$0 | \$0 | \$0 |
| 112963 | NORTH CAMERON STREET DRAINAGE IMPROVEMENTS - WINCHESTER | 11 | Urban | Winchester | \$14,898 | \$7,300 | \$2,000 | \$9,898 | (\$4,300) |

### 10.1 Highways

The Virginia Department of Transportation (VDOT) provided highway construction program funding projections for the WinFred MPO as shown in Table 8 below.

Table 8: Summary of future highway construction allocations for the WinFred MPO

| Funding Source | $\mathbf{2 0 2 5 - 2 0 4 5}$ <br> Totals |
| :--- | :---: |
| District Grant Program | $\$ 86,152,337$ |
| State of Good Repair | $\$ 85,781,312$ |
| High Priority Projects | $\$ 61,365,799$ |

Each of the funding sources listed in the table, and the methods used by VDOT to determine the funding amounts, is described below.

- District Grant Program funding is distributed to VDOT districts based on the codified formulas. The distribution to the MPOs within the district is determined based on its population share of the district.
- State of Good Repair funding is distributed to VDOT districts based on need and has codified constraints on the distribution among the districts. The distribution to the MPOs within the district is determined based on its population share of the district.
- High-Priority Projects Program funding is available to projects as selected by the Commonwealth Transportation Board. The distribution to the MPOs within the district is determined based on its population share of the district.

MPO projections are not provided for statewide discretionary funding sources such as the Transportation Alternatives Program, Revenue Sharing, and bond revenue; nor are local funds such as the value of transportation improvements funded by land developers, or proffers. Of the funding sources listed in Table 8, only the District Grant and High Priority Projects programs can be used to fund the construction of new facilities. The funds available from these sources for highway projects during the fiscal years 2025 through 2045 are projected to be $\mathbf{\$ 1 4 7 , 5 1 8 , 1 3 6}$. The projects listed in Table 9 and mapped in Figure 11 are the MPO's priorities for implementation using these funds. This list is the MPO's Constrained Long Range Plan, or CLRP.

The CLRP consists solely of projects eligible under the funding programs for which VDOT has provided official projections. Strategies for funding transit service, freight rail (short line) and stand-alone bike and pedestrian improvements are described elsewhere in this chapter.

Table 9: WinFred 2045 Constrained Long Range Plan

| Map ID | Description | Locality | Year 2035 Cost |
| :---: | :---: | :---: | :---: |
| A | US 17/50/522 @ I-81 Exit 313 Partial Median U-Turn | Frederick | \$8,062,653 |
| B | US-522/Costello Dr Thru-Cut + SB left turn lane and median | Frederick | \$6,718,877 |
| C | US 11 @ I-81 Exit 317 Diverging Diamond Interchange | Frederick | \$40,313,264 |
| D | Valley Ave Roadway Reconfiguration (Bellview Ave to Middle Rd) | Winchester | \$10,750,204 |
| E | Legge Boulevard Extension | Winchester | \$4,839,607 |
| F | Redbud Road (Route 661) Realignment | Frederick | \$3,870,073 |
| G | Inverlee Way Extension | Frederick | \$5,924,437 |
| H | Renaissance Drive Extension | Frederick | \$5,441,028 |
| 1 | Route 11 South Widening (Opequon Church Laneand ShawneeDrive) | Frederick | \$6,178,490 |
| J | Route $17 / 50$ Widening <br> (I-81N to Prince Frederick Dr) | Frederick | \$22,897,128 |
| K | Route 277 West Widening <br> (Double Church Rd to Warrior Dr) | Frederick | \$17,877,589 |
| L | Fairfax Street Improvements <br> (Route 11 tovicinity of Squirrel Ln) | Stephens City | \$9,890,335 |
|  | TOTAL |  | \$142,763,687 |
|  | Fiscal constraint, FY 2025-2045 |  | \$147,518,136 |
|  | CONTINGENCY |  | \$4,754,449 |

Figure 13: WinFred 2045 Constrained Long Range Plan


### 10.2 Transit

Grant funds administered by DRPT generally provide support for capital, operating or planning expenses. Capital expenditures are long-term assets such as vehicles, transit facilities and infrastructure, machinery or heavy equipment. Operating expenditures are annual costs to support transit operations, maintenance, repairs and administrative costs. Planning expenditures are for studies of public transportation and/or Transportation Demand Management (TDM) improvements, such as service expansions or ridesharing programs.

DRPT administers eight state aid grant programs and five federal aid grant programs:

## State Aid Grant Programs

- Operating Assistance
- Capital Assistance
- Demonstration Project Assistance
- Technical Assistance
- Public Transportation Intern Program
- TDM Operating Assistance
- Transportation Management Project Assistance
- Senior Transportation Program


## Federal Aid Grant Programs

- Metropolitan Planning - FTA Section 5303
- Statewide Planning - FTA Section 5304
- Small Urban Areas Program - FTA Section 5307
- Enhanced Mobility of Seniors and Individuals with Disabilities - FTA Section 5310
- Rural Areas - FTA Section 5311


### 10.3 Freight rail

Short line railroads often serve as the first or last link in business-to-business delivery by providing the intensive switching operations that are not profitable for the Class I railroads. Winchester and Western Railroad is one of five independent short line railroads operating in Virginia.

Winchester and Western, like many of Virginia's short lines, was built over 100 years ago, to standards that are now obsolete. A combination of deferred maintenance and the trend toward the use of heavier railcars has created a need to invest in short line infrastructure.

The state's Shortline Railway Preservation and Development Fund provides funding for the preservation and continuation of existing short line rail service. Funds are distributed through DRPT's Rail Preservation Program (RPP) which is allocated \$3 million annually.

The allocation of RPP funds considers project cost in relation to the prospective use, line capacity, and the economic and public benefits and future public uses of the properties. Projects must show a benefit-cost ratio of greater than 1.0, except in the case of safety projects not eligible under another safety program. No funds are used for general railroad operating expenses. Each application must be accompanied by a resolution from the appropriate local government, MPO, or PDC endorsing the usage of funds for the project.

Funds are provided to local governments, authorities, agencies, MPOs, PDCs, or non-public sector entities for rail projects funded under the program at a maximum 70-percent state and minimum 30percent local match. RPP funds may be used as a portion of the non-federal match for federal grants.

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No more than 50 percent of the funds can be recommended for any single applicant in any fiscal year unless there are too few applicants to otherwise use the funds or a project has been determined to be of major significance to the Commonwealth.

Funds may be loaned to the current or prospective owners of a short line railroad to purchase or refinance operating railway properties. The maximum amount of any loan is limited by the net liquidation value of the property.

The Commonwealth retains an interest in the property with an option to buy the balance if the rail operation is not continued as originally intended. The Commonwealth may purchase lines for lease to other entities for rail transportation purposes.

The recipients of funding are contractually committed to the maintenance of such tracks, facilities, and property and to the payment of any costs related to the future relocation or removal of such tracks and facilities for a period of 15 years. The Commonwealth may allow the recipient of funds to purchase the Commonwealth's interest in a railway, equipment, and facilities. RPP funds are intended for projects that obtain a minimum FRA Class II Track Safety Standards and those that develop the viability of the branchline for current and future rail traffic.

RPP programmed projects for Winchester \& Western Railroad are listed in Table 10.
Table 10: Rail Preservation Program allocations, FY 2023-2028, Winchester \& Western Railroad

| Project Description | Funding Source | Previous Allocations | FY23 | FY24 | FY25 | FY26-28 | Total <br> Programmed |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tie / Rail Replacement, Surfacing, Crossing | State Rail Preservation Funds | \$ 2,894,256 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 2,894,256 |
|  | Public or Private Matching Funds | \$ 1,240,395 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 1,240,395 |
|  | Total | \$ 4,134,651 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 4,134,651 |
| Rail Replacement and Bridge Deck Renewal | State Rail Preservation Funds | \$ 2,576,000 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 2,576,000 |
|  | Public or Private Matching Funds | \$ 1,104,000 | \$ 0 | \$ 0 | \$ 0 | \$0 | \$ 1,104,000 |
|  | Total | \$ 3,680,000 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 3,680,000 |
| Unimin Plant Crossing Road Approaches and Culvert Rehabilitation | State Rail Preservation Funds | \$ 270,030 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 270,030 |
|  | Public or Private Matching Funds | \$ 115,727 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 115,727 |
|  | Total | \$ 385,757 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 385,757 |
| Sandman Subdivision Curve Rail Project | State Rail Preservation Funds | \$ 0 | \$0 | \$ 471,701 | \$ 471,701 | \$0 | \$ 943,402 |
|  | Public or Private Matching Funds | \$ 0 | \$ 0 | \$ 202,158 | \$ 202,158 | \$ 0 | \$ 404,316 |
|  | Total | \$ 0 | \$ 0 | \$ 673,859 | \$ 673,859 | \$ 0 | \$ 1,347,718 |
|  | Total Costs for All Projects | \$8,200,408 | \$ 0 | \$ 673,859 | \$ 673,859 | \$ 0 | \$ 9,548,126 |

### 10.4 Bicycle and pedestrian

Bicycle and pedestrian projects, whether standalone or incidental to a larger highway project, may be included in the CLRP for highway funding. Other funding sources include the Transportation Alternatives Program (including Safe Routes to School), the Highway Safety Improvement Program (HSIP), and the Revenue Sharing program. Localities may apply for grants from these competitive funding sources for standalone bicycle and pedestrian projects.

Most of the funding sources described above require a local match - up to $20 \%$ of the project cost, in some cases. In-kind donations of materials, labor, and land can be used as matching funds. Through a creative strategy of volunteer assistance and land donation, other Virginia counties have been able to generate matching funds with very little capital outlay.

To ensure adequate funding for trails, on-road bikeways, and sidewalk projects, programs, and maintenance activities, it will be important for the County, City, and Town to:

- Establish specific funding sources to use as matching funds for federal, state, and other grants. These funds can be generated through donations from community groups, through the land development proffer system, and through the capital budget if necessary;
- Partner with local governments and adjacent jurisdictions to develop funding sources; and
- Look for additional funding opportunities from the public and private sectors.

The VDOT Policy for Integrating Bicycle and Pedestrian Accommodations applies to all projects that involve VDOT right of way or use funds that flow through VDOT. This policy requires that such projects will be initiated with the presumption that they will accommodate pedestrians and bicyclists. However, localities should continue to make specific requests for pedestrian and bicycle facilities to be included in project descriptions within the TIP, SYIP and locality capital improvement programs; and should monitor the planning, design, and construction of these projects to ensure that they accommodate pedestrians and bicyclists adequately.

### 10.5 Aviation

Winchester Regional Airport's Fiscal Year 2022-2027 Federal Airport Capital improvement Plan (ACIP) identifies improvements totaling $\$ 44,740,765$, including construction of a new terminal building, rehabilitation of runway and taxi way, roadway access on the airport's north side, and land acquisitions. Federal and state funds are anticipated to cover approximately 83 percent of the total cost.

## 11 Environmental mitigation activities

The considerations and recommendations made during the planning process are preliminary in nature. The National Environmental Policy Act (NEPA) does not subject metropolitan transportation plans to detailed environmental analysis. With exceptions for regional ambient air quality, the mitigation of environmental impacts during the metropolitan planning process is not required.

While detailed environmental analysis is not required, it is important to consult with environmental resource agencies during the development of a long-range transportation plan. This interagency consultation provides an opportunity to compare transportation plans with environmental resource plans, develop a discussion on potential environmental mitigation activities, areas to provide the mitigation, and activities that may have the greatest potential to restore and maintain the environment.

Detailed environmental analysis of individual transportation projects occurs later in the project development process as the improvement approaches the preliminary engineering stage. At this stage, project features may be narrowed and refined, and the environmental impacts and environmental mitigation strategies can be appropriately ascertained. Virginia's State Environmental Review Process directs the project-by-project interagency review, study, and identification of environmental concerns.

Related requirements that typically apply at this stage involve public hearings, environmental permitprocessing, and NEPA studies. Usually, a variety of environmental documentation, permit and mitigation needs are identified, and environmental findings are closely considered and evaluated.

Common project environmental mitigation measures (required silt-fence barriers, precautions to control dust, etc.) are managed using road and bridge standards that apply to all construction activities. Special environmental concerns, however, may differ widely by project and location. As environmental studies are conducted and undergo public and interagency review, needed mitigation plans are specified and committed to within the environmental documents on the particular transportation project or activity. Environmental management systems then are used to monitor, and ensure compliance with, the environmental mitigation commitments.

Potential environmental mitigation activities may include: avoiding impacts altogether, minimizing a proposed activity/project size or its involvement, rectifying impacts (restoring temporary impacts), precautionary and/or abatement measures to reduce construction impacts, employing special features or operational management measures to reduce impacts, and/or compensating for environmental impacts by providing suitable, replacement or substitute environmental resources of equivalent or greater value, on or off-site. Where on-site mitigation areas are not reasonable or sufficient, relatively large off-site compensatory natural resource mitigation areas generally may be preferable, if available. These may offer greater mitigation potential with respect to planning, buffer protection and providing multiple environmental habitat value (example: wetland, plant and wildlife banks).

Mitigation activities and the mitigation areas will be consistent with legal and regulatory requirements relating to the human and natural environment. These may pertain to neighborhoods and communities, homes and businesses, cultural resources, parks and recreation areas, wetlands and other water sources, forested and other natural areas, agricultural areas, endangered and threatened species, and the ambient air. The following table illustrates some potential mitigation activities and potential mitigation areas for these resources:

Table 11: Environmental Mitigation Options for Transportation Projects

| Resource | Key applicable requirements | Potential mitigation activities for project implementation | Potential mitigation areas for project implementation |
| :---: | :---: | :---: | :---: |
| Neighborhoods and communities, and homes and businesses | Uniform Relocation Assistance and Real Property Acquisition Policy Act at 42 USC 4601 et seq. | Impact avoidance or minimization; context sensitive solutions for communities (appropriate functional and/or aesthtic design features). | Mitigation on-site or in the general community. (Mitigation for homes and businesses is in accord with 49 CFR 24) |
| Cultural resources | National Historic Preservation Act at 16 USC 470 | Avoidance, minimization; landscaping for historic properties; preservation in place or excavation for archaeological sites; Memoranda of Agreement with the Department of Historic Resources; design exceptions and variances; environmental compliance monitoring | On-site landscaping of historic properties, on-site mitigation of archeological sites; preservation in-place |
| Parks and recreation areas | Section 4(f) of the U.S. Department of Transportation Act at 49 USC 303 | Avoidance, minimization, mitigation; design exceptions and variances; environmental compliance monitoring | On site screening or on-site replacement of facilities; in some cases, replacement of affected property adjacent to existing |
| Wetlands and water resources | Clean Water Act at 33 USC 1251-1376; <br> Rivers and Harbors Act at 33 USC 403 | Mitigation sequencing requirements involving avoidance, minimization, compensation (could include preservation, creation, restoration, in lieu fees, riparian buffers); design exceptions and variances; environmental compliance monitoring | Based on on-site/offsite and in-kind/out-of-kind sequencing requirements; private or publicly operated mitigation banks used in accordance with permit conditions |

Table 11 (continued): Environmental Mitigation Options for Transportation Projects

| Resource | Key applicable <br> requirements | Potential mitigation <br> activities for project <br> implementation | Potential mitigation <br> areas for project <br> implementation |
| :--- | :--- | :--- | :--- |
| Forested and other <br> natural areas | Agricultural and <br> Forest District Act <br> (Code of VA Sections <br> 15.2-4305; 15.2- <br> 4307-4309; 15.2- <br> 4313); Open Space <br> Land Act (Section <br> $10.1-1700-1705$, <br> $1800-1804)$ | Avoidance, <br> minimization; <br> Replacement property <br> for open space <br> easements to be of <br> equal fair market value <br> and of equivalent <br> usefulness; design <br> exceptions and <br> variances; <br> environmental <br> compliance monitoring | Landscaping within <br> existing rights of way; <br> replacement property <br> for open space <br> easements to be <br> contiguous with <br> easement; <br> replacement of <br> forestry operation <br> within existing <br> agriculture/forestal <br> district |
| Agricultural areas | Farmland Protection <br> Policy Act of 1981 at <br> 7 USC 4201-4209, <br> Agricultural and <br> Forest District Act <br> (Code of VA Sections <br> 15indance, <br> minimization; design <br> exceptions and <br> variances; <br> environmental <br> compliance monitoring | Replacement of <br> agricultural operation <br> within existing <br> agriculture/forestal <br> district |  |
| 4307-4309; 15.2-2- |  |  |  |$\quad$| 4313) |
| :--- |

## 12 Environmental justice analysis

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. To ensure environmental justice, the process of transportation planning must be consistent with the provisions of Title VI of the Civil Rights Act:

1. To avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority populations and low-income populations.
2. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
3. To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations.

Consistent with the U.S. DOT Order on Environmental Justice, disproportionately high and adverse impacts should be mitigated where possible. Beyond this mitigation requirement, there is no presumed distribution of resources to sustain compliance with the Environmental Justice provisions. The intent is to ensure that no person is denied benefits based on race, color, or national origin.

As shown in Table 12 below, racial minorities as a percentage of total population in the Winchester urbanized area ${ }^{7}$ is significantly below that of Virginia as a whole. The urbanized area's Hispanic population is nearly four percentage points higher than that of the Commonwealth. Low-income individuals, residing in households with incomes less than 200 percent of the poverty level, comprise just under 25 percent of the urban population, comparable to the state's share.

Table 12: Minority and low-income populations, 2020

|  | Percent of total population |  |  |
| ---: | :---: | :---: | :---: |
|  | Racial <br> minority | Hispanic | Low <br> income |
| Winchester urbanized area | $17.0 \%$ | $14.3 \%$ | $24.8 \%$ |
| Virginia | $39.7 \%$ | $10.5 \%$ | $23.9 \%$ |

Source: American Community Survey 2020 5-Year estimates; 2020 US Census
The construction of new roadways, and roadway projects intended to increase traffic capacity (the volume of traffic the roadway can handle) may bring adverse health, environmental and financial impacts in the form of increased noise, air pollution, risk of personal injury and property damage, and reduction in home values, to persons living near the facility. Care must be taken that such projects as included in the CLRP do not disproportionately burden predominantly minority or low-income neighborhoods with adverse impacts.
${ }^{7} 2010$ Census urban area delineation

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The U.S. Department of Transportation (USDOT) has developed a definition for highly disadvantaged communities using existing, publicly available data sets. Disadvantaged Census Tracts exceed the 50th percentile (75th for resilience) across at least four of the following six transportation disadvantaged indicators. Each of the six disadvantage indicators are assembled at the Census Tract level using data from the- CDC Social Vulnerability Index, Census America Community Survey, EPA Smart Location Map, HUD Location Affordability Index, EPA EJ Screen, FEMA Resilience Analysis \& Planning Tool and FEMA National Risk Index.

- Transportation Access disadvantage identifies communities and places that spend more, and longer, to get where they need to go. (CDC Social Vulnerability Index, Census America Community Survey, EPA Smart Location Map, HUD Location Affordability Index)
- Health disadvantage identifies communities based on variables associated with adverse health outcomes, disability, as well as environmental exposures. (CDC Social Vulnerability Index)
- Environmental disadvantage identifies communities with disproportionate pollution burden and inferior environmental quality. (EPA EJ Screen)
- Economic disadvantage identifies areas and populations with high poverty, low wealth, lack of local jobs, low homeownership, low educational attainment, and high inequality. (CDC Social Vulnerability Index, Census America Community Survey, FEMA Resilience Analysis \& Planning Tool)
- Resilience disadvantage identifies communities vulnerable to hazards caused by climate change. (FEMA National Risk Index)
- Equity disadvantage identifies communities with a high percentile of persons (age 5+) who speak English "less than well." (CDC Social Vulnerability Index)

Figure 13 on the following page displays the location of the CLRP projects in relationship to "Transportation Disadvantaged Census Tracts" as defined by USDOT.

Figure 14: Disadvantaged Census tracts and CLRP projects


## 13 Public Participation

Public engagement is an integral part of transportation planning and project development decisionmaking. To create well-thought out and meaningful plans that result in project implementation, planners and local officials must consider the viewpoints and needs of a diverse and ever-changing public. As planners and engineers, we tend to view our transportation infrastructure from a technical perspective - cost, land acquisition, design standards, etc. It is not until we engage the public, users of this infrastructure, that we begin to understand how the plans we adopt and projects we implement (or fail to implement) impact our community.

The MPO contracted with EPR-PC, a consulting firm located in Charlottesville, to develop a public participation plan that would engage diverse segments of our community in a meaningful way. This section presents an overview on the public participation plan and processes put in place to receive high quality, valuable, actionable feedback from diverse stakeholders throughout the planning area.

The WinFred MPO's Public Participation Plan for the 2045 MTP update consists of two parts - the Engagement Framework and Communications Channels. The engagement framework section describes the overall phases of engagement and major milestones. The second part describes the outreach channels that will maximize public participation during the MTP update.

The engagement framework consists of three complementary sections: guiding principles, goals, and the engagement process.

### 13.1 Guiding Principles

From the start, staff prioritized engaging a large and diverse segment of our population including fire and public safety officials, business leaders, local government officials, minority populations, non-profit organizations, and advocacy groups, while adhering to four guiding principles - that public engagement should strive to be:

- Meaningful - Where public and stakeholder comments will influence the process and planning document.
- Accessible - Offering options for everyone to participate in the process.
- Representative - Providing opportunities for all parts of the regional community to participate, seeking out and considering the "needs of those traditionally underserved by existing systems" (Public Participation Plan).
- Clear - Ensure participants can understand the process, materials, and how their involvement will influence the MTP.


### 13.2 Public Engagement Goals

To guide the development of meeting presentations, stakeholder discussions, surveys, and other engagement activities the project team established four goals:

- Educate and Inform - A core goal will be to educate the public and stakeholders on the overall process, general transportation concepts, and what that means to the region.
- Identify Needs - An early goal will be identifying transportation needs and issues in the community. This goal includes understanding the local knowledge of and opinions about the community and its transportation network.
- Be Transparent and Inclusive - Public engagement efforts should inspire trust in the process. Being as inclusive as possible can help ensure that all community and stakeholder voices are heard and transparent in all project processes, materials, and meeting information throughout the process.
- Review and Affirm - Stakeholders and the public will have an opportunity to review draft documents, alternatives, and final recommendations. Participants' opinions will be respected, well documented, and will form the basis for MTP recommendations.


### 13.3 The Engagement Process

The engagement process is broken down into three phases - listen, envision, and affirm. These phases are designed to build upon each other, with activities from each phase often overlapping. This overlap allows staff and decision-makers to evaluate and respond to feedback provided through input channels throughout the engagement process.

## Phase 1: Listen

During Phase 1, the primary focus was educating the public and stakeholders on the existing conditions and influences that affect the regional transportation systems. In turn, staff listened to, and strived to understand the ideas and needs of the public and stakeholders that participated in outreach activities.

## Phase 1 Activities

- Review of previous efforts: Consultants conducted a thorough review of previous engagement efforts Listening to past feedback by conducting an inventory of previous engagement efforts
- Community Survey: Staff and consultants developed an online MetroQuest Survey, available in both English and Spanish, which remained open throughout the public engagement process, November 1, 2021 - February 11, 2022.
- Stakeholder Discussions: A total of five stakeholder discussions were held from December 2021 - January 2022. The staff compiled a comprehensive and diverse list of local stakeholders.
- Public Intercept Events: Staff attended the annual Frederick County Transportation Forum in October 2021.


## Phase 2: Envision

Phase 2 works towards the development of the MTP project list. The feedback received from stakeholders, the public, and survey submission assists staff in recommend alternatives and developing strategies to planning for long-term transportation needs. This phase also provided an opportunity for staff and consultants to educated stakeholders about tradeoffs and choices associated with the decision-making process.

Phase 2 Activities

- Open House Events: The WinFred MPO held a series four open house-style meetings the Week of January 31, 2021.
- Continued stakeholder discussions: Throughout the public engagement period staff stayed in close contact with local stakeholders to answer questions and provide information on engagement opportunities.
- Work Sessions: In the spring of 2022 consultants and staff presented findings from public engagement activities to the Policy Board and TAC. Staff also shared these findings with the project steering committee to help guide CLRP project selection to include in the final MTP update.


## Phase 3: Affirm

The primary focus of phase 3 was utilizing stakeholder input to develop list of constrained long-range projects. This phase is designed to confirm with stakeholders that their input and feedback was understood and considered in project selection.

Phase 3 Activities

- Public Comment on the Draft Plan: The MPO reevaluated typical practice for public review of the draft plan. In this update cycle, staff presented the draft MTP update to the TAC, then put the draft document out for comment from October $24^{\text {th }}$ through November $14^{\text {th }}, 2022$. Additionally, the opportunity for comment, as well as the Policy Board Meeting where action was scheduled, was advertised in the Winchester Star and through other established communications channels. Comments received during the public comment period are presented in Appendix E.
- Website Updates: The MTP project website was continuously updated throughout the engagement process, including all stages leading up to plan adoption.
- Work Sessions: Multiple work sessions were held with TAC and the project steering committee to review the draft plan and proposed CLRP projects.
- Policy Board Public Hearing: All of the effort of a robust public engagement process culminates in the approval of the 2045 MTP. In addition to the 20-day public comment, a public comment period was held during the Policy Board meeting to receive feedback on the draft plan.


### 13.4 Communications Channels

The modes of communication used during public engagement work in tandem with the engagement framework described in the sections above. To receive the high-quality feedback desired, multiple twoway communications channels were put in place. Through the channels listed below, staff and consultants were able to disseminate information across various mediums in order to reach a diverse audience:

- Social Media Channels: Staff created and managed a Facebook page for the MPO to announce events, post survey links, and provide updates on the MTP development process. Staff also coordinated with stakeholders to cross post information in order to reach the largest audience. County and City departments developed communications plans in order to assist the MPO in a targeted engagement effort.
- Project Webpage: A project webpage provided background information on the MTP and a link for visitors to view the previous version of the plan. Additionally, an easily fillable from was provided for visitors to submit comments and communicate directly with the project team.
- Surveys: Staff worked with consultants and VDOT to develop and administer a MetroQuest survey. The focus of the survey was to identify goals and assess transportation deficiencies. This survey was advertised across multiple communications platforms and remained open during the entire engagement period. During our stakeholder meetings, we learned that a major employer was unable to access the survey in office due to firewall restrictions. A separate, smaller survey was developed for this employer to allow their employees for one of our major employers in order to allow employees to engage.
- Stakeholders: MPO staff and consultants spent extensive time carefully developing a list of diverse stakeholders including representatives from major employers, local government and non-profit entities, and police and fire departments. Staff also actively sought-out and worked with key stakeholders in our Hispanic community in order to reach a more diverse audience.
- Traditional Media Channels: Staff reached out to the local paper, the Winchester Star, to promote the MTP update and engagement efforts. The Star printed multiple articles detailing upcoming events and engagement opportunities.


### 13.5 Environmental resource agency consultation

As required by federal law, this MTP was developed in consultation with federal, state and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation. Agencies were requested via e-mail to review and comment on the plan. The letter and a list of the agencies and organizations to which the letter was sent, are presented in Appendix D. No responses were received.

Appendix A: CLRP project prioritization methodology

## WinFred MPO LRTP Project Prioritization Methodology

VDOT Staunton District

## Proposed Methodology for WinFred MPO LRTP Project Prioritization

## VDOT Staunton District Planning - February 2019

The WinFred MPO is preparing to amend its Long Range Transportation Plan (LRTP) to meet performance-based planning requirements set forth by the MAP-21 and FAST Acts. Scoping of the amendment will involve development of a performance-based prioritization process for projects in the 2040 LRTP Vision Plan. This memo details the prioritization methodology proposed by VDOT Staunton District Planning for the consideration of WinFred MPO staff. Given that there are roughly 120 projects in the Vision Plan, VDOT proposes a two-tiered screening plus prioritization process to economize staff efforts while providing a deep analysis of a core group of projects expected to be the most competitive in Smart Scale or other VDOT SYIP grant programs. This memo provides a detailed outline of the proposed process.

## Project Screening

The screening step uses a 10 -point scale scoring method that considers a project's ability to address key performance areas and its magnitude of cost. VDOT proposes that screening be used to reduce the Vision Plan to roughly 20 projects to carry forward to the detailed evaluation and prioritization process. The performance categories and measures recommended for the screening step are summarized in the table below.

| Performance Category | Proposed Performance Measure | Scoring |
| :---: | :---: | :---: |
| Congestion | Projects diverts traffic from or adds capacity to a congested roadway segment (volume-to-capacity ratio, V/C $>=0.8$ ) under 2015 conditions in the WinFred MPO travel demand model | $\begin{aligned} & \text { Yes }=2 \text { pts } \\ & \text { No }=0 \text { pts } \\ & \text { (Max } \mathbf{2} \text { pts) } \end{aligned}$ |
| Multimodal Accessibility | Project includes pedestrian, bike, and/or transit mode component | $\begin{gathered} 2+\text { modes }=2 \mathrm{pts} \\ 1 \text { mode }=1 \mathrm{pt} \\ 0 \text { modes }=0 \text { pts } \\ \text { (Max } 2 \text { pts) } \end{gathered}$ |
| Safety | Project diverts traffic from or overlaps a roadway segment or intersection identified in VDOT's Potential for Safety Improvement (PSI) list | 3+ PSI locations $=3$ pts <br> 2 PSI locations $=2$ pts <br> 1 PSI location = 1 pt <br> 0 PSI locations = 0 pts <br> (Max 3 pts) |
| Economic Development | Distance decay weighted quantity of 2015-2040 job growth adjacent to the project using assumptions in the WinFred MPO travel demand model | Top $1 / 3=3$ pts <br> Middle $1 / 3=1$ pt <br> Bottom 1/3 = 0 pts <br> (Max 3 pts) |
| Magnitude of Cost | Planning level cost per mile multiplied by project length | Divide by Cost |

The methodology for the economic development measure is the same in both the screening and the full scoring process and will be described in more detail in the project prioritization section below along with a definition of the potential for safety improvement (PSI) list. The other screening performance measures are assumed to be self-explanatory.

Virginia Department of Transportation

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VDOT Staunton District

## Staunton

## Project Prioritization Metrics

The proposed project prioritization methodology is similar to the one successfully used for the HRMPO LRTP Amendment in 2018. Each performance measure is designed to either match or be a proxy to the methodology used by Smart Scale, with the intention being to approximate the most competitive projects within the MPO for state funding programs. Since much of the leg work to locate data sources \& software tools, develop workable methodologies, and build scoring schemas has already been completed through the HRMPO project, the process for WinFred MPO will be less time consuming, though nonetheless a substantial work commitment. The proposed performance metrics are summarized below. Each performance metric is described in more detail in the following sections.

Smart Scale
Scoring Measure (Category C Weight)

Congestion
Mitigation (15\%)

Safety
(25\%)

Accessibility (25\%)

Economic
Development (25\%)

Environmental Quality (10\%)

## SMART SCALE Metric (Measure Weight)

Increase in peak period person throughput, 2017 conditions (50\%) Reduction in peak period delay, 2017 conditions (50\%)

Reduction in equivalent property damage only (EPDO) of fatal and injury crashes (50\%)

Reduction in EPDO of fatal and injury crash rate (50\%)

Increase in average job accessibility per resident (60\%)

Increase in average job accessibility per resident for disadvantaged populations (20\%)

Increase in access to multimodal travel choices (20\%)

Square feet of commercial/industrial development supported (60\%)

Intermodal access and efficiency / tons of goods impacted (20\%)

Improvement to travel time reliability (20\%)
Potential to improve air quality/ environmental effect (50\%)

Natural and cultural resources scaled by potential acreage impacted (50\%)

## Proposed Performance Metric (Measure Weight)

Reduction in network vehicle hours traveled (VHT) using WinFred MPO travel demand model, 2015 conditions (100\%)

Rank-weighted sum of segments and intersections identified in VDOT's Potential for Safety Improvement (PSI) list (100\%)

Increase in average job accessibility per resident (60\%)

Increase in average job accessibility per resident for disadvantaged populations (20\%)

Increase in access to multimodal travel choices (20\%)

Decay weighted job growth adjacent to project, 2015-2040 by TAZ (70\%)

## Intermodal access and efficiency/tons of goods impacted (30\%)

Potential to improve air quality/ environmental effect
(100\%)

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## Congestion Mitigation (15\%)

## Proposed Metric (1 of 1):

Reduction in network vehicle hours traveled (VHT) using WinFred MPO travel demand model, 2015 conditions (100\%)

The Smart Scale congestion mitigation methodology uses a variety of customized tools, including FHWA's Capacity Analysis for Planning of Junctions (CAP-X) tool to measure changes in intersection volume to capacity ratio, the Bureau of Public Roads (BPR) volume-delay function to measure changes in roadway segment throughput, and an estimation method for the reduction in peak period non-SOV users based on transit/ped/bike/TDM project elements, all of which are consolidated into an expected reduction in peak hour person hours of delay under existing conditions (defined as 2017 for Smart Scale round 3). For projects involving a roadway on new location, the MPO travel demand model is used to substitute for the CAP-X and BPR tools. This Smart Scale methodology is unachievable at the VDOT district level since not all of the tools are available and the process is too involved for our labor resources.

The alternative methodology proposed is to use the WinFred MPO travel demand model to perform a before and after comparison of network vehicles hours traveled, which is a measure of the cumulative travel time for all vehicles on all roadways in the model. Most of the Vision Plan projects are new location roadways or major widening projects, both of which are well suited for the travel demand model since they are macroscopic in scale and may produce ripple effects in the transportation network that can be captured through vehicle routing adjustments. Smaller projects such as turn lanes and bike/ped facilities cannot be represented in our MPO's model. Since Smart Scale considers existing peak hour rather than future conditions, we propose the WinFred MPO model's base year 2015 PM peak period network be used for this analysis.

## Congestion $\quad 2015$ PM peak period VHT Mitigation $=$ BEFORE vs. AFTER project

## Safety (25\%)

## Proposed Metric (1 of 1):

Rank-weighted sum of segments and intersections identified in VDOT's Potential for Safety Improvement (PSI) list (100\%)

Smart Scale uses detailed project scoping information and assigns crash modification factors (CMF) to each segment and intersection element, tallying the estimated reduction in number and rate of crashes based on 5 years of historical data. In the absence of detailed scoping for the WinFred MPO Vision Plan projects, an alternative methodology needs to be identified to score projects.

VDOT's Potential for Safety Improvement (PSI) list ranks the top roadway segments and intersections based on the magnitude of difference between the number of historical crashes at a given location and the expected number of crashes at that location based on statewide crash averages for similar facilities. VDOT calculates the expected number of crashes using considerations such as a roadway's functional classification, entering traffic volumes, and intersection control type. PSI lists are made available for segments and intersections in each VDOT District. The PSI segment and intersection PSI lists for Staunton District each contain a few hundred segments and intersections. This list of "top" locations is published for planning purposes to help state, regional, and local agencies prioritize safety projects. PSI is

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somewhat relevant to Smart Scale in that project eligibility category uses PSI locations to identify locations having a safety need of any rank.

The proposed initial screening process assigns points to a project based on whether it diverts traffic from or overlaps a segment or intersection identified in VDOT Staunton District's PSI list. The proposed prioritization metric for safety asks this same question, but adds consideration for the ranking of the PSI segments and intersections effected by the project. The operating assumption for this process is that, if a project on existing alignment touches a PSI segment/intersection, then there is potential to improve conditions to address historical crash issues. For new location projects, diverting traffic away from a PSI location will reduce traffic volume and, therefore, is assumed to reduce crashes. Smart Scale makes this same assumption for new location facilities, except it uses a travel demand model to estimate diversion behavior and assigns CMFs based of the percent traffic reduced for all segments where there is a reduction in traffic >= 10\%. Since the proposed WinFred MPO process using PSI rankings is greatly simplified relative to that of Smart Scale and only assigns points to the most problematic locations rather than all historical crashes, a different diversion threshold for new location projects may be necessary to facilitate level comparison of existing vs. new location projects.

The PSI dataset ranks segments and intersections separately, with rank 1 being the location with the greatest potential for safety improvement (i.e. - the location with the greatest positive deviation between actual crashes and expected crashes, or simply, the most problematic spot). It's necessary to bear in mind that these are lists of the top locations in the entire Staunton District, meaning they represent a few hundred locations out of thousands of existing intersections and roadway segments. All of these locations are important to some degree and the rankings exist to show which ones are the "worst of the worst".

## Scoring of Effected PSI Segments

To perform project prioritization based on these ranked values, a custom methodology has to be developed. It's proposed that points be assigned to each rank in proportional reverse order, with rank 1 receiving the highest value and each successive rank being one value lower. For example, in a set of 250 PSI segments, one project that effects a rank 1 PSI segment would earn 250 points, while a second project effecting a rank 10 segment would earn 240 points, and a third project effecting a rank 300 segment would earn 1 point.

PSI segmentation is based on VDOT's roadway network system (RNS), which has inconsistent segment lengths. Because of this, a one mile Vision Plan project may touch multiple PSI segments in succession with varying ranks, or it may touch one longer segment with a single rank. To take location out of the picture, the proposed methodology assigns points to a project based only on the highest ranking PSI segment effected. This method also shows cognizance of the fact that the roadway typical sections and linear project elements that may address safety issues are likely to be the consistent across the entire length of that the project.

## Scoring of Effected PSI Intersections

The segmentation issue described above does not apply for PSI intersections, as each intersection is evaluated as an independent, equally sized location. Also, while a project may have consistent treatments across multiple segments, project elements may vary from intersection to intersection to address the varying characteristics of each. Given these considerations, it's proposed that all PSI intersections effected by a project be tallied. To score intersections, the PSI intersection list is assigned points in reverse order to rank using the same process as the segments list.

## Staunton

Safety Metric Scoring Example
(Based on 250 PSI locations in segment \& intersections datasets)

| Project $\mathbf{1}$ |  | SCORE |
| :--- | :---: | :---: |
| Segment effected | - | 202 |
| Segment score |  |  |
| Intersections effected | 49 | 0 |
| Intersection scores | 202 | 202 |


| Project 4 |  | SCORE | 418 |
| :--- | :---: | :---: | :---: |
| Segment effected | 238 |  |  |
| Segment score | 13 |  |  |
| Intersections effected | 62 | 35 | 13 |
| Intersection scores | 189 | 216 |  |


| Project 2 |  |  | SCORE | $\mathbf{7 3 2}$ |
| :--- | :---: | :---: | :---: | :---: |
| Segment effected | 2 |  |  |  |
| Segment score | 249 |  |  | 249 |
| Intersections effected | 100 | 90 | 80 |  |
| Intersection scores | 151 | 161 | 171 | 483 |


| Project 5 |  | SCORE | $\mathbf{4 8 1}$ |
| :--- | :---: | :---: | :---: |
| Segment effected | 1 |  |  |
| Segment score | 250 | 250 |  |
| Intersections effected | 20 |  |  |
| Intersection scores | 231 | 231 |  |


| Project 3 | SCORE | $\mathbf{4 5 5}$ |
| :--- | :---: | :---: |
| Segment effected | 32 |  |
| Segment score | 219 | 219 |
| Intersections effected | 15 |  |
| Intersection scores | 236 | 236 |


| Project | Metric <br> Score |
| :---: | :---: |
| $\mathbf{1}$ | 202 |
| $\mathbf{2}$ | 732 |
| $\mathbf{3}$ | 455 |
| $\mathbf{4}$ | 418 |
| $\mathbf{5}$ | 481 |

## ACCESSIBILITY (15\%)

## Proposed Metric (1 of 3):

Change in average job accessibility per person (60\%)
The proposed methodologies for each of the three metrics of the accessibility measures will closely match those described in the Smart Scale Technical Guide, with minor changes possible based on information released in the Round 4 Technical Guide. Metrics 1 and 2 use TransCAD and the HERE network for accessibility scoring. The congestion analysis feeds the inputs for the accessibility analysis, with congested speed data for each roadway in the travel demand model's network effected by a given project being entered into TransCAD for the no build and build conditions.

Excerpt from the Smart Scale Technical Guide:
The GIS accessibility tool analyzes the existing average accessibility to jobs within 45 minutes per person at the individual U.S. Census block group level statewide... The jobs are weighted based on a travel time decay function, where jobs within a shorter travel time are weighted more than jobs farther away. The decay function was developed based on travel survey data. The average accessibility represents the total number of jobs reachable in a 45 minute travel time from each block group to every other block group.

Change in Job Access

## Proposed Metric (2 of 3):

Change in average job accessibility per person for disadvantaged populations (20\%)
The calculation of accessibility for disadvantaged populations begins with the same methodology as above for general accessibility, except that instead of averaging for population as a whole, the accessibility is averaged for the disadvantaged population in each Census block. For the purposes of this analysis, "disadvantaged population" is defined as low-income, minority, or limited-English proficiency (LEP) residents. This is the same methodology as the one used for Smart Scale.

## Proposed Metric (3 of 3):

Access to multimodal travel choices (20\%)
This metric considers the degree to which the project can increase access to non-single occupant vehicle travel options. The objective is to recognize projects that enhance connections between modes or create new connections. For scoring, a modified version of Table 8.2 in the Smart Scale Technical Guide is used, as seen below. Points from the qualitative questions will not be multiplied by the number of new peak period non-SOV users.

## Table 8.2 Access to Multimodal Choices - Scoring Approach

| Project Type (Mode) and Characteristics | Points (lf Yes) |
| :--- | :---: |
| Project includes transit system improvements or reduces delay on a roadway with <br> scheduled peak service of 1 transit vehicle per hour. | 5 |
| Project includes improvements to an existing or proposed park-and-ride lot. Ex. New lot, <br> more spaces, entrance/exit, technology (payment, traveler information). | 4 |
| Project includes improvements to existing or new HOV/HOT lanes or ramps to <br> HOV/HOT | 2 |
| Project includes construction or replacement of bike facilities. For bicycle projects, off- <br> road or on-road buffered or clearly delineated facilities are required. | 1.5 |
| Project includes construction or replacement of pedestrian facilities. For pedestrian <br> projects, sidewalks, pedestrian signals, marked crosswalks, refuge islands, and other <br> treatments are required (as appropriate). | 1.5 |
| Project provides real-time traveler information or wavfinding specifically for intermodal <br> connections (access to transit station or park\&ride lot). | 1 |
| Provides traveler information or is directly linked to an existing TMC network/ITS <br> architecture. | 1 |
| Total Points Possible <br> Measure Scaling: Points are multiplied by the number of new peak period non-SOV <br> users | 5 points maximum |

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## Economic Development (25\%)

## Proposed Metric (1 of 2):

Decay weighted job growth adjacent to project, 2015-2040 by TAZ (70\%)

The proposed metric for effect on economic development scores projects based on the distance decay weighted quantity of 2015-2040 job growth adjacent to the project per the TAZ-level land use assumptions made by localities in the WinFred MPO travel demand model. Job growth occurring closer to the transportation project is given higher weight than growth occurring farther from the project. Distance weighting is accomplished using concentric ringed buffers that approximate the buffer distances seen in the Smart Scale Technical Guide Table 10.3, inserted below, except jobs are used with this method as opposed to economic development site building square footage.

Table 10.3 Buffer Distance by Project Type and Adjustment for Provision of Access

| Buffer Distance to Determine Total <br> Square Footage | Applicable Project Types |
| :--- | :--- |

* buffer distance is measured via the travel distance on the transportation network

The maximum buffer size is determined using the first portion of the table above. Next, the proposed buffers below are created around the linear project area to decay weight job growth by proximity. The distance weights selected serve as a proxy for the direct vs. indirect access provision and driving distance modifiers used in Smart Scale for economic development sites, as seen in the lower portion of Table 10.3 above. The proposed distance decay weighting is in the table below.

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Proposed Distance Decay Weighting of Job Growth


The map below gives an example of how these concentric buffers would look for a widening project on Route 50/17. Seen in wide gray boundaries on the map are TAZ boundaries. In most cases, a given buffer will only overlap a portion of a TAZ. Also, a single TAZ may be covered by multiple buffers. To account for these geographic mismatches, the percent of a TAZ that's overlapped by a given buffer will be determined and the job growth for that TAZ multiplied by the percent coverage. For example, a TAZ having a job growth of 500 is overlapped $50 \%$ by the $1-3$ mile buffer with $25 \%$ weighting. To determine the job growth for that zone within the 1-3 mile buffer, the following calculation is performed: 500 jobs $\times 50 \%$ coverage area $\times 25 \%$ weighting $=62.5$ jobs. Jobs for each TAZ are summed to reach a total project score.

Example Job Growth Buffers for a Route 50/17 Widening Project


## Proposed Metric (2 of 2):

Intermodal access and efficiency/tons of goods impacted (30\%)
The proposed intermodal access metric closely matches the Smart Scale Technical Guide. Table 10.5 is copied below to demonstrate how scoring for this metric occurs. Per the Technical Guide, points tallied using Table 10.5 are multiplied (scaled) by total freight tonnage within the project corridor and by the total length of the proposed roadway project contributing to the operational benefit to freight movement.

## Table 10.5 Intermodal Access and Efficiency - Scoring Approach

| Rating Description | Value |
| :---: | :---: |
| 1. Level to which the project enhances access to existing or planned distribution centers, intermodal transfer facilities (excluding ports and airports), manufacturing industries or other freight intensive industries |  |
| Project provides direct access (within 1 mile) to existing or planned locations | 2 |
| Project provides indirect access (greater than 1 mile, less than 3 miles) to existing or planned locations | 1 |
| No direct or indirect access | 0 |
| 2. Level which the project supports enhanced efficiency on a primary truck freight route |  |
| Project is on the designated STAA National and Virginia Network or a STAA Virginia Access Route ${ }^{10}$ | 2 |
| Project directly connects to designated STAA National and Virg̣inia Network or a STAA Virginia Access Routes | 1 |
| Project is not on and does not connect to the designated STAA National and Virginia Network | 0 |
| 3. Level to which the project enhances access or reduces congestion at or adjacent to Virginia ports or airports |  |
| Project provides direct access to (within 1 mile) existing or planned ports or airports (measured from designated entry gates to port or air cargo facilities) | 2 |
| Project provides indirect access to (greater than 1 mile, less than 3 miles) existing or planned ports or airports (measured from designated entry gates to port or air cargo facilities) | 1 |
| No direct or indirect access | 0 |
| Total (sum of score) | 0-6 |

Environmental Quality (10\%)

## Proposed Metric (1 of 1):

Potential to improve air quality/environmental effect (100\%)
The environmental quality metric scoring methodology follows Table 9.2 in the Smart Scale Technical Guide, which assigns points for non-SOV and freight transportation project characteristics. This table is pasted below for reference. For the proposed WinFred MPO prioritization, the measure scaling described at the bottom of Table 9.2 is omitted due to limitations in evaluation tools at the district level.

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## Table 9.2 E. 1 Air Quality and Energy Environmental Effect Scoring Approach

| Project Type (Mode) and Characteristics | Points (If Yes) |
| :---: | :---: |
| Non-SOV Project Characteristics |  |
| Project includes improvements to rail transit or passenger rail facilities.* | 3 |
| Project includes construction or replacement of bike facilities. For bicycle projects, offroad or on-road buffered or clearly delineated facilities are required.* | 2 |
| Project includes construction or replacement of pedestrian facilities. For pedestrian projects, sidewalks, pedestrian signals, marked crosswalks, refuge islands, and other treatments are required (as appropriate).* | 2 |
| Project includes improvements to an existing or proposed park-and-ride lot. Ex. New lot, more spaces, entrance/exit, technology (payment, traveler information).* | 2 |
| Project includes bus facility improvements or reduces delay on a roadway with scheduled peak service of 1 transit vehicle per hour. ${ }^{*}$ | 1 |
| Project include special accommodations for hybrid or electric vehicles, or space or infrastructure for electric vehicle parking/charging).* | 0.5 |
| Project includes energy efficient infrastructure or fleets, including: hybrid or electric buses, electronic/open road tolling, alternative energy infrastructure (e.g., roadside solar panels).* | 0.5 |
| Total Points Possible | 8.5 points maximum* |
| Measure Scaling: *Points are multiplied by the number of peak period non-SOV users. |  |
| Freight Transportation Project Characteristics | Points (If Yes) |
| Project reduces traffic delay at a congested intersection, interchange, or other bottleneck with a high percentage of truck traffic (greater than 8 percent of AADT). *** | 1 |
| Project includes improvements to freight rail network or intermodal (truck to rail) facilities/ports/terminals. ** | 0.5 |
| Total Points Possible | 1.5 points maximum** |
| Measure Scaling. *Points are multiplied by daily truck volumes ** Points awarded for projects with a decrease in persen hour delay greater than zero and with truck traffic greater than $8 \%$ AADT |  |

## Project Scoring

The proposed scoring process is summarized in this section. More detailed examples of this process can be found in Section 4.5 of the Smart Scale Technical Guide.

## Normalization

The proposed methodology uses the Smart Scale normalization procedure for each performance metric in which the highest scoring project in a given metric is assigned 100/100 possible points, then the scores for all other projects are calculated based on their score as a percentage of the high score.

Next, the weighting for each metric is applied (e.g. - change in average job accessibility, which is 70\% of Accessibility measure) and an overall value is calculated for each scoring measure (e.g. - accessibility, congestion, etc. - AKA "factors" in Smart Scale). Finally, the scoring measure, or factor, weights are applied (e.g. - accessibility is weighted at $25 \%)$ to arrive at the project benefit score.

It's important to bear in mind that this process normalizes scores based on the pool of projects being considered. Benefit scores calculated through this process are not comparable to projects submitted in Smart Scale because we are comparing WinFred MPO projects to themselves and not to a statewide pool of Smart Scale applications.

## Factoring in Project Cost

Project cost is a crucial component in the prioritization process. In the absence of funding consideration, there is no relationship between the benefits provided by a project and the cost required to achieve that benefit. For example, a mega project may rank at the top of the prioritized list if only the benefit score is considered because it makes large scale improvements, but that project could easily slide to the bottom of the list if the price tag far exceeds that of other projects relative to the benefit provided. It's proposed that WinFred MPO use the Smart Scale method for factoring in cost, in which a project's benefit score is divided by the project's cost in $\$ 10$ millions (e.g. - a $\$ 5$ million project would have its benefit score divided by $10 / 5=2$ ). This produces a final project score for prioritization.

Project cost estimates will be developed using the VDOT TMPD Cost Estimating Worksheet. Inflation to a 2025 year of expenditure will be used to match the anticipated year of funding release for projects awarded in Smart Scale round 4.

## Work Plan

At least two dedicated personnel should be committed to the project to work in tandem and QA/QC one another's work. A suggested allocation of responsibilities is laid out in the two tables below.

## Project Screening Step

## Performance Category

## Proposed Performance Measure

Responsible Agency

Congestion
Projects diverts traffic from or adds capacity to a congested roadway segment (volume-to-capacity ratio, $\mathrm{V} / \mathrm{C}>=0.8$ ) under 2015 conditions in the WinFred MPO travel demand model

Multimodal
Accessibility

Safety

Economic
Development

Magnitude of Cost

Project includes pedestrian, bike, and/or transit mode component

Project diverts traffic from or overlaps a roadway segment or intersection identified in VDOT's Potential for Safety Improvement (PSI) list

Distance decay weighted quantity of 2015-2040 job growth adjacent to the project using assumptions in the WinFred MPO travel demand model

Planning level cost per mile multiplied by project length

WinFred MPO

VDOT

VDOT

## Project Prioritization Step

Smart Scale
Scoring Measure
(Category C Weight)

Congestion
Mitigation
(15\%)

Safety
(25\%)

Accessibility (25\%)

Economic
Development (25\%)

Environmental
Quality
(10\%)

Planning Level
Cost Estimates

Proposed Performance Metric (Measure Weight)

Responsible Agency

| Reduction in network vehicle hours |  |
| :---: | :---: |
| traveled (VHT) using WinFred MPO travel |  |
| demand model, 2015 conditions (100\%) |  |$\quad$| VDOT |
| :--- |

Rank-weighted sum of segments and intersections identified in VDOT's Potential for Safety Improvement (PSI) list (100\%)

| Increase in average job <br> accessibility per resident (60\%) | VDOT |  |
| :---: | :---: | :---: |
| Increase in average job accessibility per <br> resident for disadvantaged populations <br> (20\%) |  | VDOT |
| Increase in access to multimodal <br> travel choices (20\%) | WinFred MPO |  |
| Decay weighted job growth <br> adjacent to project, 2015-2040 by TAZ (70\%) |  | VDOT |
| Intermodal access and efficiency/tons |  |  |
| of goods impacted (30\%) |  |  |$\quad$| WinFred MPO |
| :---: |
| Potential to improve air quality/ <br> environmental effect <br> (100\%) |
| TMPD Cost Estimating Worksheet |

Appendix B: CLRP project prioritization scores

| DRAFT Project Prioritization Results WinFred MTP January 2021 |  |  | Overall Project Scoring |  |  | $\qquad$ |  | $\begin{aligned} & \text { Safety } \\ & 25 \% \\ & 100 \% \end{aligned}$ |  | $\begin{gathered} \text { Accessibility } \\ 25 \% \end{gathered}$ |  |  |  |  | $\begin{aligned} & \text { Economic Development } \\ & 25 \% \end{aligned}$ |  |  |  | $\begin{aligned} & \text { Environment } \\ & 10 \% \\ & 100 \% \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 60\％ | 20\％ | 20\％ |  |  |  |  | 70\％ | 30\％ |  |  |  |  |
| ID | project name | LOCALITY |  |  |  | $\begin{aligned} & \text { PROJECT SCORE } \\ & \text { Benefit/ Cost per } \\ & \$ 10 \mathrm{M} \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { Total Benefit } \\ \text { Points } \end{array}$ |  |  | Cost Estimate |  | Wegleafratar | Psiluations | J Wagheie Fagator | ${ }_{\text {a }}$ |  | Nemmatichees |  | ${ }^{\text {Westrefe Facer }}$ | $\begin{gathered} \text { Proximity to Job } \\ \text { Growth Normalized } \\ \text { Value } \end{gathered}$ | Nomilmat vate |  | ${ }^{\text {Wempeef facor }}$ | Ar Arativa Eniomenenal | Veathef Fator |
| 107 | age bulevard Exenesion | Winc | 178.4 | 64.2 | 53，60，500 | ${ }^{93}$ | 13.9 | ${ }^{79,7}$ | 19.9 | ${ }^{89}$ | ${ }^{88}$ | － | ${ }^{71}$ | 17.8 | 69 | 8 | ${ }^{51}$ | 12.6 | 0 | 0.0 |
| ${ }^{73}$ | Reabuc Roas（Route e6fl Realigment | Freserick | 85.5 | ${ }^{24.6}$ | 52，88，000 | 7 | 1.1 | 41.5 | 10.4 | ${ }^{39}$ | ${ }^{3}$ | 0 | ${ }^{29}$ | 7.3 | ${ }^{29}$ | 9 | ${ }^{23}$ | 5.8 | 0 | ${ }^{0.0}$ |
| ${ }^{17}$ | Inveres We Eve Exenesion | Friederick | ${ }^{80.5}$ | 35.5 | 54，48，800 | 69 | 10.4 | 0.0 | ${ }^{0.0}$ | ${ }^{80}$ | ${ }^{11}$ | 0 | ${ }^{62}$ | 15.5 | ${ }^{53}$ | 4 | ${ }^{39}$ | 9.6 | 0 | ${ }^{0.0}$ |
| ${ }^{108}$ | Renaisanceo oive Extension | Frodetick | ${ }^{55.5}$ | 30.6 | 54，049，660 | 12 | 1.8 | 0.0 | 0.0 | 100 | 100 | － | ${ }^{80}$ | 20.0 | ${ }^{48}$ | 5 | ${ }^{35}$ | ${ }^{8.8}$ | － | ${ }^{0.0}$ |
| ${ }^{25}$ |  | Frederick | ${ }^{71.8}$ | ${ }^{33.0}$ | 54，597，859 | 0 | 0.0 | 0.0 | 0.0 | 9 | 11 | 100 | ${ }^{27}$ | 6.9 | 58 | ${ }^{80}$ | ${ }^{65}$ | 16.1 | 100 | 10.0 |
| 31 |  | ${ }_{\text {Feiteciock }}$ | 36.0 | ${ }^{61.3}$ | \＄17，03，400 | 0 | ${ }^{0.0}$ | ${ }^{983}$ | ${ }^{24.6}$ | 10 | 10 | 100 | ${ }^{28}$ | 7.0 | 70 | 100 | ${ }^{79}$ | 19.8 | 100 | 10.0 |
| 4 |  | Fradeicie | 25.3 | ${ }^{33.6}$ | ${ }^{513,34,000}$ | 55 | 8.2 | ${ }_{6} 9$ | 1.7 | 11 | 10 | 100 | ${ }^{28}$ | 7.1 | ${ }^{28}$ | ${ }^{21}$ | ${ }^{26}$ | ${ }^{6.6}$ | 100 | 10.0 |
| 12 |  | Stepensesciry | 22.6 | 16.6 | 57，360，110 | － | 0.0 | 0.0 | ${ }^{0.0}$ | － | － | 100 | ${ }^{20}$ | 5.0 | 5 | 10 | － | 1.6 | 100 | 10.0 |
| ${ }^{55}$ | Aneme | Fiedetiok | ${ }^{21.4}$ | 15.5 | 57，28，600 | 。 | ${ }^{0.0}$ | 0.0 | ${ }^{0.0}$ | 。 | 。 | 。 | 。 | ${ }^{0.0}$ | ${ }^{68}$ | ${ }^{49}$ | ${ }^{62}$ | 15.5 | 。 | ${ }^{0.0}$ |
| 57 |  | Winonsestr | 17.1 | 25.1 | \＄14，644，000 | 0 | 0.0 | 192 | 4.8 | 0 | $\bigcirc$ | 0 | － | ${ }^{0.0}$ | ${ }^{90}$ | ${ }^{60}$ | ${ }^{81}$ | 20.3 | $\bigcirc$ | ${ }^{0.0}$ |
| ${ }^{22}$ | （e） | ${ }_{\text {Friderick }}$ | 16.7 | ${ }^{47.1}$ | \＄28，26，000 | 17 | 2.5 | 100.0 | 25.0 | ${ }^{6}$ | 7 | － | ${ }^{5}$ | 1.3 | 70 | ${ }^{80}$ | ${ }^{73}$ | 18.3 | $\bigcirc$ | ${ }^{0.0}$ |
| ${ }^{42}$ | S．Pleasant Valley Road＋Battaile Drive Extensions；Battaile Drive 3－Lane Widening | Winenest | 16.4 | 55.2 | 833，65，725 | 100 | 15.0 | 192 | 4.8 | 8 | 10 | 100 | ${ }^{27}$ | ${ }^{6.7}$ | 100 | 17 | ${ }^{75}$ | 18.8 | 100 | 10.0 |
| ${ }^{18}$ | Reat | Fredeiok | 16.2 | ${ }^{44.2}$ | ${ }^{527,36,000}$ | ${ }^{29}$ | 4.3 | 0.0 | ${ }^{0.0}$ | ${ }^{18}$ | ${ }^{22}$ | ${ }^{100}$ | ${ }^{35}$ | ${ }^{8.8}$ | ${ }^{86}$ | 82 | ${ }^{85}$ | 21.2 | 100 | 10.0 |
| ${ }^{27}$ |  | Freterick | ${ }^{11.8}$ | 4.6 | ${ }^{53,84,300}$ | － | ${ }^{0.0}$ | ${ }^{23}$ | ${ }^{0.6}$ | 7 | 8 | － | － | 1.5 | 7 | 16 | 10 | 2.5 | － | ${ }^{0.0}$ |
| 4.1 |  | ${ }_{\text {Finediciok }}$ | ${ }^{11.2}$ | ${ }^{22.4}$ | S19，956，000 | 2 | ${ }^{0.4}$ | ${ }^{0.0}$ | ${ }^{0.0}$ | 6 | 6 | 100 | ${ }^{25}$ | ${ }^{6.3}$ | ${ }^{24}$ | ${ }^{21}$ | ${ }^{23}$ | ${ }^{5.8}$ | 100 | 10.0 |
| 45 | Cedar Creek Grade（Route 622）Widening （City Limits to Route 37） | Freserick | 9.5 | ${ }^{19.8}$ | ${ }^{220,888,750}$ | 0 | 7.1 | ${ }^{0.0}$ | ${ }^{0.0}$ | ${ }^{18}$ | ${ }^{23}$ | － | ${ }^{16}$ | 3.9 | ${ }^{43}$ | ${ }^{15}$ | ${ }_{35}$ | 8.7 | 0 | 0.0 |

Appendix C: Public engagement and input summary

## Public Engagement and Input Summary

## WinFred 2045 Metropolitan Transportation Plan

March 24, 2022

## PUBLIC ENGAGEMENT PROCESS

## Input Channels

The public engagement effort included multiple channels for input to reach as many residents as possible. The process included:

- Two surveys,
- One public intercept event
- Five stakeholder forums,
- Four public meetings, and
- A webform on the Winchester / Frederick County Metropolitan Planning Organization (WinFred MPO) website.
- Social media accounts of the MPO, the City of Winchester, Frederick County, and the Town of Stephens City

To ensure diverse participation one of the stakeholder forums and one of the public meetings focused on Hispanic residents. Each input channel is described below. All open-ended comments derived from these channels are included in Appendix B.

## Public Intercept Event

Staff attended the annual Frederick County Transportation Forum on October $26^{\text {th }}$, 2021. MPO Staff set up a display to inform attendees and participants of the upcoming public engagement opportunities for the MTP update. Staff distributed informational rack cards and collected over a dozen map comments identifying transportation related needs and challenges throughout the MPO area.

## Surveys

A MetroQuest survey served as the main survey throughout the process. The survey was open from November 1, 2021, until February $11^{\text {th }}, 2022$. In total, 607 residents responded to the survey. The survey was available in English and Spanish.

A second, abbreviated survey was created with SurveyMonkey due to web browser restrictions that prevented employees from using the MetroQuest survey at a major employer in the region. The second survey was open from December $20^{\text {th }}, 2021$, until February $11^{\text {th }}, 2022$. The second survey drew 29 responses.

## Stakeholder Forums

Four stakeholder forums gathered input from important employers, officials, and representatives from the across the region. MPO Staff identified stakeholders that included major employers, advocacy groups, emergency service personnel, and government officials. Staff identified and invited representatives from over 40 organizations in the region. Staff and consultants met with over a dozen of the identified stakeholders via four 90-minute virtual meetings on the following dates:

- Monday December $6^{\text {th }}$, at 1 pm
- Monday December 6 ${ }^{\text {th }}$, at 2:30pm (Hispanic stakeholders)
- Thursday December $9^{\text {th }}$, at 3 pm
- Monday December $13^{\text {th }}$, at 11 am
- Monday January $10^{\text {th }}$, at 1 pm

Staff shared information about the process with stakeholders who were unable to attend the forums. Additionally, stakeholders assisted with advertising the public input channels described above, including social media posts, newsletters, and distributing physical materials, such as flyers and rack cards. A summary of the stakeholder discussions is in Appendix A.

## Public Meetings

Four public meetings were held during the first week of February 2022. The meetings were two hours long and consisted of a presentation, display boards, and comment cards. MPO staff and consultants were available to answer attendees' questions and discuss their concerns. The meetings were held from 6 pm to 8 pm on following evenings:

- Monday January 31st, 2022, at Stephens City Town Hall
- Tuesday February 1st, 2022, at Millbrook High School
- Wednesday February 2nd, 2022, at Greenwood Mill Elementary School
- Thursday February 3rd, 2022, at the Timbrook Public Safety Building

Additionally, staff attended the Frederick County Transportation Forum and received comments from stakeholders.

## Project Webpage

Information about the project was available on the project website throughout the process. Dates and meeting information for the public meetings was posted on the website, along with links to the surveys. General information about the planning process and the project schedule were also available on the site. Additionally, the webpage included a comment box that allowed residents to enter their name, email address, and an open-ended comment.

## Publicity

The input channels described above were advertised to residents though several means. The surveys and public meetings were advertised in the Winchester Star newspaper, on the MPO Facebook page, on the City of Winchester and Frederick County social media pages, and through the City's newsletter. Stakeholders also assisted in publicizing the surveys and meetings by notifying the staff and members of their organizations. Additionally, MPO staff created rack cards with information on the surveys and public meetings and, with the help of stakeholders, distributed them throughout the region.

## Respondent Characteristics

While demographic information was not collected during the stakeholder and public meetings or the short form survey, the MetroQuest survey provides insight into the demographic makeup of the residents who provided input during the process. The final screen of the survey asked respondents about their age, gender, race/ethnicity, and income. Over twothirds of respondents answered the demographic questions. The charts below show the demographic information of the respondents, along with census data for the Winchester, VA Urbanized Area (UA). The Winchester UA is a census geography that captures the City of Winchester and the developed surrounding areas. The Winchester UA and the MPO boundary should include roughly the same population since they are both federal urban geographies. Adding in census data for the Winchester UA suggests to some extent how well the survey respondents represent the MPO population.

## Age

Figure 1 shows the age breakdown of the survey respondents compared to that of the Winchester Urbanized Area. The results suggest that the survey overrepresented middle-aged residents and underrepresented residents below 18, but otherwise closely represent the region.

Figure 2. Age of survey respondents. Source: MetroQuest
Survey \& American Community Survey 5-Year Estimates, Table S0101

## Age

$■$ Survey Respondents $\quad$ Winchester Urbanized Area


## Gender

Figure 2 shows the gender of survey respondents and the region. Unlike the survey, the census table used for the comparison did not include a category for non-binary. However, the results show that the respondents' gender closely represent that of the region.

Figure 1. Gender of survey respondents. Source: MetroQuest Survey \& American Community Survey 5-Year Estimates, Table DP05

## Gender

$■$ Survey Respondents $\quad$ Winchester Urbanized Area


## Race/Ethnicity

Figure 3 shows the race and ethnicity of the survey respondents. The chart shows that the respondents skewed somewhat less diverse than the region. Particularly, the respondents included a higher share of white residents and a lower share of Hispanic and African American residents than the region.

Figure 3. Race/ethnicity of survey respondents. Source:
MetroQuest Survey \& American Community Survey 5-Year MetroQuest Survey \& American Community Survey 5-Year Estimates, Table DP05

Race/Ethnicity
■ Survey Respondents Winchester Urbanized Area


## Income

Finally, Figure 4 shows the respondents' income compared to incomes across the region. The chart suggests that affluent residents might have been overrepresented in the survey while lower-income residents were underrepresented. It is possible that lower-income residents opted not to answer this question.

Figure 4. Income of survey respondents. Source: MetroQuest Survey \& American Community Survey 5-Year Estimates, Table S2001
ncome

■ Survey Respondents Winchester Urbanized Area


## COMMON THEMES

## Overall Themes

## Automobile Centricity

Figure 4 shows the modal breakdown of respondents, with the vast majority of respondents citing the car as their primary mode of transportation. Consequently, most of the issues raised by the respondents relate to issues with driving automobiles. When asked to mark issues by mode and type on a map of the region, two out of three comments described issues from the driver's point of view. Furthermore, when asked to select three improvements to improve mobility in the region, two of the three top choices were car-centric, as seen in Figure 5. However, Figure 5 also shows that there is a high level of interest in multimodal transportation improvements in the region, with bus, bike, or pedestrian improvements totaling to $60 \%$ of selected improvements.

| Fiaure 4. Primarv mode of transportation |  |
| ---: | :--- |
| What is your primary mode of |  |
| transportation? |  |
| Car |  |
| Walk | $2 \%$ |
| Bus / Transit | $1 \%$ |
| Bike | $1 \%$ |
| Taxi / ride share... | $0 \%$ |
| Carpooling | $0 \%$ |

Fiaure 5. Preferred tvpes of improvements
Which three of the following improvements would most increase your ease in getting to where you want to go in the region?


## Multimodal Interest

Despite overwhelmingly relying on cars, respondents indicated high levels of interest in multimodal transportation options, as seen in Figure 6. While $95 \%$ of respondents report driving for most trips, one in four respondents state that it should be easier to ride the bus, walk, and bike in the region. As Figure 5 (previous page) shows, building more sidewalks and crosswalks was the second most selected improvement.

Figure 6. Preferred types of improvements
Which mode should be easier to use than it currently is?


Figure 7 shows reasons that respondents choose to drive over other modes. Impediments that cannot be improved through public policy or improvement projects only accounted for $12 \%$ of reasons that respondents cited. The responses suggest that policy changes and improvement projects aimed at expanding and improving infrastructure and services for alternative transportation modes could significantly increase their mode share in the region.

Figure 7. Reasons for car travel
If you did not select bike, walking or public transportation, but would like to use those modes, what prevents you from doing so?


## Other

GOALS
Respondents were asked to allocate a hypothetical funding breakdown to the five goals of the plan. Based on the results, the goals can be ranked by respondent preference in the following order:

1. Accessible and Connected Places
2. Safety for All Users
3. Economic Competitiveness and Prosperity
4. Healthy communities and Sustainable Transportation Communities
5. Proactive System Management

Figure 8. Missing services
Do you feel that any of the following are not adequately provided in the region?


## REGIONAL CONNECTIVITY

Figure 8 shows connectivity services that respondents believe are not adequately provided in the region.

## FUNDING SOURCES

Figure 9 shows respondents' preferences on funding alternatives for transportation improvements.

Fiqure 9. Funding sources
Of the local revenue sources listed below, which would you support increasing to fund transportation improvements in the region?


Public Engagement and Input Summary

## MAP COMMENTS

The MetroQuest survey included an interactive map that allowed users to drop markers and comment on issues across the region. Each marker had an associated issue and contextual question, along with an open-ended comment box. Figure 10 shows the breakdown of comments by mode.

Figure 10. Comment markers
Comments by Mode


389 of the survey respondents added over 1,300 comments to the map. Half of respondents added three or more comments to the map. Figure 11 shows a heatmap of all the mapped comments overlaid with the constrained list of projects. While not all markers included write-in comments, many did and those are included in Appendix B. The following sections provide more information on the map comments by mode.


## Automobile Comments



## Representative Comments

"Lights are not coordinated creating jams in a very busy commercial area."
"This area is always very congested. There are so many cars trying to go every direction that often drivers do not know who is next."
"Roads need to be repaved not just patched"
"Cars speed down this street every day and every night. They go ridiculous speeds and are a danger to pedestrians and other drivers."
"Dangerous intersection and traffic backed up for long periods of time, especially at "rush" hours"


Public Engagement and Input Summary

## Pedestrian Comments

## Pedestrian Issues



## Representative Comments

"Crosswalk needed here."
"Dangerous pedestrian crossing in all directions, no safe access from hotels to local stores/restaurants "
"No sidewalks for pedestrians"
"Unsafe walking conditions from hotels to shopping areas"
"Shipping center across the street from hotel and dorms, but separated by a very dangerous road. As someone who works at one of these hotels, we've had complaints on the walkability of this area."


Public Engagement and Input Summary

## Bike Comments

Bike Issues


## Representative Comments

"Invest in more bike paths here, additional features"
"Dangerous area to navigate the bike route"
"Invest in more bike paths here, additional features"
"Safer bike options connecting the park to old town. Vehicles make biking dangerous"
"Stephens City is a major residential center for the area but is only (safely) accessible via automobile. Stephens City needs a bike path or roads with dedicated bike lanes that connect to Winchester City."


## Public Transportation Comments

Public Transportation Issues


## Representative Comments

"Buses need to run on weekends"
"No public transportation available"
"Access needed to DMV on at least a weekly basis."
"Many handicap people on electric chairs. No covering leaves them in the rain"
"Winchester public transit does not visit nearly enough places in Winchester, specifically areas with high employment rates."


Public Engagement and Input Summary

## APPENDIX A. STAKEHOLDER FORUMS SUMMARY

## Meeting Format

The stakeholder forums consisted of 90-minute discussions framed by a presentation and a set of questions. Each forum began with a brief overview of the MPO and the Metropolitan Transportation Plan (MTP) plan and update process. After the introduction, participants were asked for open-ended input through a series of discussion topics. Participants were introduced to the plan's vision statement, goals, and objectives, and asked to provide feedback on each. Participants were then asked about general transportation issues that their organizations face in the region and to identify needs and deficiencies. Participants were also asked for general and location-specific strategies and opportunities to improve the region's transportation system. Finally, participants were asked about a selection of potential funding sources for transportation improvements.

## Common Themes

## Transit

Expanding transit service was a common refrain in the stakeholder forums. Stakeholders suggested expanding both the hours of service and the service area of public transportation in the region. In terms of service area,
stakeholders mentioned a need for greater transit access to Shenandoah University, Lord Fairfax Community College, and generally to destinations outside of the City of Winchester. Business stakeholders cited expanding transit service hours and access to industrial parks as key for many of their employees, especially shift workers who work outside the typical 9am to 5pm workday.

Several stakeholders suggested improving inter-regional transit options, e.g., access to Dulles International Airport and other parts of Northern Virginia via public transportation. Stakeholders noted that transit is especially important for the general mobility of the elderly and residents with disabilities, and for their access to healthcare services. Additionally, public transportation was noted to be a primary mode for Hispanic residents in the area.

## Interstate 81

Stakeholders identified Interstate 81 as a source of many transportation issues in the region. Most notably, congestion on I-81 and at interchanges with the interstate and other major roads in the region was a common concern. Business stakeholders observed that unreliability of commute times due to congestion was as a common complaint from employees.

Safety on I-81 was also a concern. Participants noted concerns over both the number of crashes and congestion related to collisions on I-81.

## Active Transportation

A number of stakeholders noted that a lack of bike lanes and trails, and sidewalk gaps are important issues for multiple reasons. A primary reason was the contribution of trails and
active transportation options to the quality of life in the region, both for commuting and recreational trips. Stakeholders from government partner organizations noted a need for improved safety for cyclists due to a rising interest in cycling among area residents. Furthermore, stakeholders from major employers suggested that increasing bike and pedestrian connectivity could make the region more attractive to prospective workers.

## Invitees and Participants

| REPRESENTATIVE | TITLE | ORGANIZATION | CATEGORY | ATTENDED MEETING |
| :---: | :---: | :---: | :---: | :---: |
| Belinda Chaney |  | Amazon Fulfillment Center | Business Stakeholders |  |
| Rick Hardy |  | American Woodmark Corporation | Business Stakeholders |  |
| Laurie Frogale |  | Annandale Millwork Corporation | Business Stakeholders |  |
| Darcey Gyurisin |  | Axiom Staffing Group | Business Stakeholders |  |
| Janie Shirley | Business Development | Costco | Business Stakeholders |  |
| Samantha Wilson |  | Grafton School, Inc. | Business Stakeholders |  |
| Tina Murphy |  | H.P. Hood, Inc. | Business Stakeholders |  |
| Michele Hruska |  | Kohl's Department Stores | Business Stakeholders |  |
| Theresa Aikens |  | Kraft Heinz Company | Business Stakeholders |  |
| Brandy Boies |  | Lord Fairfax Community College | Business Stakeholders |  |
| Steve Thigpen |  | M \& H Plastics, LLC | Business Stakeholders |  |
| Gary Meeks |  | Masonite Corporation | Business Stakeholders |  |
| Marshall Sorenson |  | Metromont Corporation | Business Stakeholders |  |


| REPRESENTATIVE | TITLE | ORGANIZATION | CATEGORY | ATTENDED MEETING |
| :---: | :---: | :---: | :---: | :---: |
| Kristy Powers | Asst. Vice President, Winchester | Navy Federal Credit Union | Business Stakeholders |  |
| Susan Brooks | Senior Vice President, Winchester | Navy Federal Credit Union | Business Stakeholders | Yes |
| Jen Wilson | Director of Career and Prof. Dev. | Shenandoah University | Business Stakeholders | Yes |
| Kelly Jenkins |  | The Home Depot | Business Stakeholders |  |
| Michael Bailey |  | The Home Depot | Business Stakeholders |  |
| Jay Rudolph |  | Trex Company Inc. | Business Stakeholders |  |
| Abbey Rembold | Director, HR Business Partnerships | Valley Health System | Business Stakeholders |  |
| Liz Savage | Chief Human Resources Officer | Valley Health System | Business Stakeholders |  |
| Rachel Schaefer | VHS Director, Talent and Acquisition | Valley Health System | Business Stakeholders | Yes |
| John Ferrulli | Director, Information Tech. | Westminster Canterbury | Business Stakeholders | Yes |
| Duane Wernecke |  | Westminster Canterbury | Business Stakeholders |  |
| Jeannie Shiley | President, CEO | Westminster Canterbury | Business Stakeholders | Yes |
| Jason Van Heukelum |  | Winchester City Public Schools | Business Stakeholders |  |
| Cynthia Schneider | CEO | Chamber of Commerce | Government Partners | Yes |
| Chris Jenkins | Volunteer Chief | Clearbrook Fire Department | Government Partners |  |
| Judith McCannSlaughter | Chair Fred County Transportation Committee | Frederick County Board of Supervisors | Government Partners |  |
| Patrick Barker | Executive Director | Frederick County Economic Development Authority | Government Partners |  |
| Larry Oliver | Deputy Chief | Frederick County Fire and Rescue | Government Partners | Yes |
| Warren Gosnell | Lieutenant, Traffic Division Commander, Public Information Officer | Frederick County Sheriff's Office | Government Partners | Yes |


| REPRESENTATIVE | TITLE | ORGANIZATION | CATEGORY | ATTENDED MEETING |
| :---: | :---: | :---: | :---: | :---: |
| Mark Dalton | Volunteer Chief | Middletown Fire Department | Government Partners |  |
| Jeremy Linaburg | Social Media Specialist | Museum of Shenandoah Valley | Government Partners |  |
| Julie Armel | Deputy Director, Community Relations | Museum of Shenandoah Valley | Government Partners |  |
| Perry Mathewes | Deputy Director, Museum Operations and Director of Gardens | Museum of Shenandoah Valley | Government Partners | Yes |
| Sherry Hudson | Senior Director, Institutional Advancment | Museum of Shenandoah Valley | Government Partners |  |
| Darlene Walker | Secretary | NAACP Winchester | Government Partners |  |
| Andy Gail | President | Old Town Winchester Business Association | Government Partners |  |
| Jen Wilson |  | Shenandoah University | Government Partners |  |
| Barry Schnoor | Direct or Physical Plant | Shenandoah University | Government Partners |  |
| TJ Vaught | Volunteer Chief | Stephens City Fire Department | Government Partners |  |
| Justin Kerns | Director | Win/Fred County Convention \& Visitors Bureau | Government Partners | Yes |
| Matt Dehaven | Deputy Chief of Operations | Winchester Fire and Rescue | Government Partners | Yes |
| Joel Richardson | President Winchester Mainstreet Foundation | Winchester Mainstreet Foundation | Government Partners |  |
| Chris Konyar | Parks and Recreation Director | Winchester Parks and Rec | Government Partners |  |
| Douglas Watson | Captain of Administration | Winchester Police | Government Partners |  |
| Renee Wells | Transit Director | Winchester Transit | Government Partners | Yes |
| Victoria Zabala |  | A\&Z Services | Hispanic Stakeholders |  |


| REPRESENTATIVE | TITLE | ORGANIZATION | CATEGORY | ATTENDED |
| :--- | :--- | :--- | :--- | :--- |
| MEETING |  |  |  |  |

## APPENDIX B. WRITE-IN COMMENTS

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Bike access/parking downtown |
| METROQUEST SURVEY | Adding more bike lanes, bridges, footpaths |
| METROQUEST SURVEY | Bike lane would be nice |
| METROQUEST SURVEY | Bike/walk lane connecting parks |
| METROQUEST SURVEY | Completing the Bike/Ped Path on Channing to Senseny, and on Senseny to Old Town would be Incredible. |
| METROQUEST SURVEY | Continue bike path from Sherando park |
| METROQUEST SURVEY | Fairfax pike bike lane |
| METROQUEST SURVEY | Fairfax pike bike lane |
| METROQUEST SURVEY | I find public transportation a mystery. Bike lanes are few and far between. Ditto safe sidewalks. Busses seem to arrive rather randomly. |
| METROQUEST SURVEY | Invest in more bike paths here, additional features |
| METROQUEST SURVEY | Loudoun street bike lane |
| METROQUEST SURVEY | Need connected bike trail from Tasker to Warrior around CVS and over bridge on Warrior. No infrastructure for bikes Or pedestrians and it is dangerous. |
| METROQUEST SURVEY | Need lanes. |
| METROQUEST SURVEY | Need lanes. |
| METROQUEST SURVEY | Need to set up bike lanes from Lake Frederick to Sherando Park |
| METROQUEST SURVEY | Needs lanes. |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | No Bike / Pedestrian access across 81 to Tasker |
| METROQUEST SURVEY | No bike lanes or sidewalks in Ft Collier Industrial Park |
| METROQUEST SURVEY | no bike paths |
| METROQUEST SURVEY | No bike paths on Senseny Rd. From Clarke County to Winchester |
| METROQUEST SURVEY | No defined bike lanes for route 11 |
| METROQUEST SURVEY | Not enough bike access on public transportation |
| METROQUEST SURVEY | Pleasant valley bike lane |
| METROQUEST SURVEY | Please include additional bike trails for existing neighborhoods and future developments |
| METROQUEST SURVEY | Route 11 bike lane |
| METROQUEST SURVEY | Route 11 bike lane |
| METROQUEST SURVEY | Route 11 bike lane |
| METROQUEST SURVEY | Route 11 bike lane |
| METROQUEST SURVEY | Safer bike options connecting the park to old town. Vehicles make biking dangerous |
| METROQUEST SURVEY | Safer bike options from route 50 to capon bridge. Vehicles make biking dangerous |
| METROQUEST SURVEY | Safer bike options in and around old town Winchester. Vehicles make biking dangerous |
| METROQUEST SURVEY | Safer bike options in and around Stephens city. Vehicles make biking dangerous |
| METROQUEST SURVEY | Safer bike options on Loudoun street. Vehicles make biking dangerous |
| METROQUEST SURVEY | Safer bike options on pleasant valley. Vehicles make biking dangerous |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :--- | :--- |
| METROQUEST <br> SURVEY | Safer bike options on route 11. Vehicles make biking dangerous |
| METROQUEST | Safer bike options on route 7. Vehicles make biking dangerous |
| SURVEY |  |
| METROQUEST <br> SURVEY | Safer bike options on valley ave. Vehicles make biking dangerous |
| METROQUEST | Separation from cars/trucks |
| SURVEY |  |
| METROQUEST <br> SURVEY | Stephens City is a major residential center for the area but is only (safely) accessible via automobile. <br> METROQUEST |
| Stephens City needs a bike path or roads with dedicated bike lanes that connect to Winchester City. <br> SURVEY |  |
| METROQUEST <br> SURVEY | we could use some bike trails in Winchester since we lost access to the Battlefield by Millbrook |
| METROQUEST | 522 bike lane |
| SURVEY |  |
| METROQUEST <br> SURVEY | Route 11 bike lane |
| METROQUEST <br> SURVEY | Bike lanes along all of valley/main roads Winchester |
| METROQUEST <br> SURVEY | Need wider bike lanes. |
| METROQUEST <br> SURVEY | Waiting on completion of green circle trail |
| METROQUEST <br> SURVEY | Bike lane ends \& lack of accessible shoulder forces cyclists into travel lanes. |
| METROQUEST <br> SURVEY | Bike lanes would be great to get to downtown from here. |
| METROQUEST <br> SURVEY | It is not safe for pedestrians or cyclists to cross the bridge over I81 bike paths. |
| METROQUEST <br> SURVEY <br> METROQUEST <br> SURVEY | No bike lanes! |
| METROQUEST <br> SURVEY | Sidewalks are too narrow along Berryville Ave. |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | The Green Circle Trail is a great addition to the community but many people don't know it exists and the signage on the route is small and easy to miss. Using the Green Circle Trail, especially on Jubal Early Drive, feels unsafe because the automobile tr |
| METROQUEST SURVEY | Bike Lanes on the road aren't safe and should be more separated from cars. |
| METROQUEST SURVEY | Connecting the Bike/Ped access over 81 to Old Town would be incredible. |
| METROQUEST SURVEY | Dangerous area to navigate the bike route |
| METROQUEST SURVEY | dangerous left turn from apple vally tonto shady elm |
| METROQUEST SURVEY | Do not attempt to bike along jubilee early dr |
| METROQUEST SURVEY | Do not attempt to bike along National ave or Berryville ave |
| METROQUEST SURVEY | Do not attempt to bike along pleasant valley rd |
| METROQUEST SURVEY | Finish the green circle |
| METROQUEST SURVEY | Get the Bicyclists off this road. They back up multiple cars and will not stop or slow do to allow them to safely pass. then these same bicyclists will approach the red light at Valley Ave and Middle road and blow past all stopped traffic and through the |
| METROQUEST SURVEY | hard to identify the location on the map, but asa cyclist using shady elm rd as a major escape rt if find competition with tractor trailers from fedex and other light industry to be unsafe. the unsignaled turn from shady elm to apple valley on a curve is |
| METROQUEST SURVEY | inadequate bike lane infrastructure, extend Green Trail |
| METROQUEST SURVEY | Inadequate bike lane infrastructure. Extend Green Trail |
| METROQUEST SURVEY | Inconsistent / incomplete sidewalks. No crosswalk at sunnyside plaza @ Martin's. |
| METROQUEST SURVEY | Insufficient bike lanes or sidewalks to traverseboth sides / directions of the road safely |
| METROQUEST SURVEY | It might be helpful if it was possible to bike from downtown Winchester to this industrial park. Currently it would be very dangerous |
| METROQUEST SURVEY | no adequate bike path, sidewalk only, extend Green Trail |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | No bike lane |
| METROQUEST SURVEY | No safe bike lane or shoulder. |
| METROQUEST SURVEY | No shoulders/sidewalks |
| METROQUEST SURVEY | Not a bikeable area. |
| METROQUEST SURVEY | roads are too narrow for bikes and vehicles creating very dangerous situations |
| METROQUEST SURVEY | Shared use path ends abruptly. Pedestrians/cyclists must use improvised paths or the road. |
| METROQUEST SURVEY | the homeless \& kids riding their bikes recklessly |
| METROQUEST SURVEY | The location is ALL OVER! Few dedicTed bike lanes |
| METROQUEST SURVEY | 37/81/11, dangerous intersection during commutes |
| METROQUEST SURVEY | 50 from 522 into town to Valley Ave is a mess all the time. Traffic is horrible |
| METROQUEST SURVEY | 81 being 2 lanes causes delays even with minor incidents |
| METROQUEST SURVEY | 81 is always delayed with accidents which then cause backups on Rt. 11 |
| METROQUEST SURVEY | A kindergardener could better engineer this mess. Start over. |
| METROQUEST SURVEY | A lot of truck traffic at lights for 81 |
| METROQUEST SURVEY | A two way stopsign a block from another - the stopping from hell. Teresa Lehman moved. You can take the stop sign down now - the Queen is no longerin residence. This serves NO safety purpose whatsoever and was erected only to satisfy a constantcomplain |
| METROQUEST SURVEY | Afternoon traffic 5 pm and on, traffic circle isbacked up in both directions from the Kent St./Piccadilly St. stop light. Cars heading westbound backs up to National Ave. because they are stopped at the light. This makes the traffic circle non-functional |
| METROQUEST SURVEY | Again, too much congestion here |


| SOURCE | COMMENT |
| :--- | :--- |
| METROQUEST <br> SURVEY | All along Pleasant Valley is congested. The lights don't sync and a lot of people travel that road |
| METROQUEST | All directions |
| SURVEY |  |
| METROQUEST <br> SURVEY | All the lights is chaotic and cause backups |
| METROQUEST | All the way from this intersection to the Pleasant Valley Walmart is very bad for delays. |
| SURVEY | People turning left into and off of this road continues to make this a dangerous area. |
| METROQUEST <br> SURVEY | Always a backup and lots of traffic and lights slowing down traffic. Usually avoid this area |
| METROQUEST | Always a backup at rush hour. Terrible entranceand exit from all the parking lots and anyone tryin to get |
| SURVEY | on or off 81 |
| METROQUEST <br> SURVEY | Always always always backed up here. Not enoughspace for as much as Winc has expanded. |
| METROQUEST | Always backed up |
| SURVEY |  |
| METROQUEST <br> SURVEY | always backed up |
| METROQUEST <br> SURVEY | Always backed up |
| METROQUEST <br> SURVEY | Always backed up. |
| METROQUEST <br> SURVEY | always backs up. Hardly a time when it doesnt. |
| METROQUEST <br> SURVEY | Always backup due to turning into shopping centers |
| METROQUEST <br> SURVEY | At some points there is no traffic moving due tothe light situation. |
| METROQUEST <br> SURVEY | Back up at 81 |
| METROQUEST <br> SURVEY | Back up at 81 |
| METROQUEST <br> SURVEY | Back up at lights standstill traffic during rushhour |
| METROQUEST <br> SURVEY | Back up from traffic using Red Bud Rd to cut across. Solve by turning end of the road in to a dead end. Re- |
| route traffic to use Milburn Road then onto Snowden Bridge Boulevard. |  |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | back up-long delays for light to change |
| METROQUEST SURVEY | Backed up traffic |
| METROQUEST SURVEY | Backed up traffic on Jubal / Pleasant Valley. Triple light cycles. Red light runners heading to Wal Mart |
| METROQUEST SURVEY | Backup at traffic signals Cedar Creek Grade, Weems Lane, and Valley Avenue |
| METROQUEST SURVEY | backup between traffic lights |
| METROQUEST SURVEY | backup east bound on 277 east bound and SherandoHS. Turn lane to high school too short. Blocks traffic on 277 |
| METROQUEST SURVEY | Backup from Jubal Early and I-81 exit ramp |
| METROQUEST SURVEY | Backups |
| METROQUEST SURVEY | Backups are common |
| METROQUEST SURVEY | Backups because of traffic |
| METROQUEST SURVEY | backups between traffic lights |
| METROQUEST SURVEY | Backups for traffic light, especially west-boundJubal Early turning south onto Pleasant Valley. |
| METROQUEST SURVEY | Backups for traffic lights |
| METROQUEST SURVEY | Backups regularly happen at this intersection w/I-81. Recent "improvements" did little. |
| METROQUEST SURVEY | Because of the light turning off independence to50, I have to wait at this light every single day. Please consider adjusting the timing. I never had this issue with the stop sign on independence |
| METROQUEST SURVEY | Bottleneck |
| METROQUEST SURVEY | Bottleneck |
| METROQUEST SURVEY | Bottleneck |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Bottleneck at the bridge over 81. Common in themornings and evenings, and sporadically happens at other times (I've sat in traffic for 15 minutes going eastbound on Saturday AM). |
| METROQUEST SURVEY | Bottleneck getting into 81 and entering Winchester |
| METROQUEST SURVEY | Bottleneck trying to get across 81 |
| METROQUEST SURVEY | bottlenecking, needs 3rd lane |
| METROQUEST SURVEY | Bottlenecks every single day at peak hours. Sometimes you sit thru 9-10 light changes to turn left at light toward I-81 bridge. |
| METROQUEST SURVEY | Bridge is constantly backed up at busy travel hours |
| METROQUEST SURVEY | Bridge is not wide enough for the amount of traffic. A share turn lane hasnï̀ $1 / 2 t$ worked for 15 years. Bottle necked. |
| METROQUEST SURVEY | Bus and school traffic blocks up 522 for JWHS |
| METROQUEST SURVEY | Cannot turn right off of ramp from 81 to then get into Target complex |
| METROQUEST SURVEY | Cars backed up on 81 at rt 11 exit |
| METROQUEST SURVEY | Cars get back up and you cannot get thru duringbusy times. Including evening and weekends |
| METROQUEST SURVEY | Cars in the intersection, business entrances tooclose to intersection. An overpass for Jubal Early Dr over S Pleasany Valley would benefit all |
| METROQUEST SURVEY | City wide needs help. Traffic lights are out ofsync, new ones need to be installed, etc. |
| METROQUEST SURVEY | Clusters of stores with many entry/exit points with oddly placed traffic lights |
| METROQUEST SURVEY | Comgestion |
| METROQUEST SURVEY | coming into town in the evenings. |
| METROQUEST SURVEY | congerstion, layout of road and lanes too short, too small coming right off of interstate |
| METROQUEST SURVEY | Congested traffic |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | congestion |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | congestion |
| METROQUEST SURVEY | congestion |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | congestion during peak driving hours |
| METROQUEST SURVEY | Congestion from here, up Millwood, to Pleasant Valley and the three mile surrounding radius. |
| METROQUEST SURVEY | congestion, accidents |
| METROQUEST SURVEY | Congestion, accidents etc |
| METROQUEST SURVEY | congestion, accidents, delays |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | congestion, poor layout with Starbucks parking lot enter/exits |
| METROQUEST SURVEY | congestions |
| METROQUEST SURVEY | Constant congestion and blocking intersections not just at rush hours itie $1 / 2$ becoming an all day issue |
| METROQUEST SURVEY | constant congestion on 81 during peak hours, especially getting off the interstate onto 7,50,15,37/11 and Stephens City exit |
| METROQUEST SURVEY | Constant heavy traffic on any ramp to or from 81. Heavy congestion at Red Bud Rd when trying to turn on it coming from Target or turning off it toward 37. Red Bud Rd also needs to be shut down to semi traffic except for local deliveries. They use it a |
| METROQUEST SURVEY | Constant southbound backup on 81s during eveningrush hour. |
| METROQUEST SURVEY | Constant traffic congestion |
| METROQUEST SURVEY | Construction causing lots of delays |
| METROQUEST SURVEY | Convection both ways during rush hours. |
| METROQUEST SURVEY | crowding and short timing on lights |
| METROQUEST SURVEY | D.R. Horton is about to build $300+$ homes on thissite with NO improvements to the existing road system including the Main St./Fairfax St intersection. Something MUST be done about this traffic issue. It was a problem when I was on the Planning Commissio |
| METROQUEST SURVEY | daily backup of westbound traffic at/after end of workday |
| METROQUEST SURVEY | Daily backup. Double / triple light cycles. |
| METROQUEST SURVEY | dangerous morning and evening traffic near two schoole, numerous medical offices and the hospital |
| METROQUEST SURVEY | delay at light - traffic terrible with too manylights there together - need to connect Red Bud exit and 317 together and move traffic from red budto Milburn and Snowden bridge road |
| METROQUEST SURVEY | DELAY GETTING ACROSS THE BRIDGE AT RT 50 E, 522AND I81.....CAN NOT GET TO A SUPERMARKET. |
| METROQUEST SURVEY | Delay getting on and off 81 |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Delay in this area between access to shopping and access to 81 . |
| METROQUEST SURVEY | delays and congestion at I81 and Rt 50. |
| METROQUEST SURVEY | Delays at rush hours. |
| METROQUEST SURVEY | Delays caused by traffic trying to access the I-81 corridor that can back up for over a mile |
| METROQUEST SURVEY | Delays getting on and off 81 |
| METROQUEST SURVEY | Delays related to unsynchronized lights in evenings. Light will be green but bridge is full |
| METROQUEST SURVEY | Difficult to get from the west to the east. Needalternate routes around the downtown area. Too much traffic for the size of the roads. |
| METROQUEST SURVEY | Distance between lights is too short to handle the amount of traffic from main roads. This stacks traffic at the narrowing lanes into a high trafficretail area |
| METROQUEST SURVEY | Driving from Winchester South through Kernstownis RIDICULOUS! Traffic is always so slow and always so crowded |
| METROQUEST SURVEY | Entire intersection is outdated. |
| METROQUEST SURVEY | Even with the improvements made, traffic still gets congested from people getting off work and trying to go West on 50. |
| METROQUEST SURVEY | Evening congestion caused by commuters, completion of 37 bypass would elevate a large amount of small type fixes cause by people cutting through oraround. |
| METROQUEST SURVEY | Evening rush hour back ups |
| METROQUEST SURVEY | evening volume traffic |
| METROQUEST SURVEY | Everyone knows traffic is an absolute nightmarearound here. 1 lane each way across 81 doesn't cut it anymore |
| METROQUEST SURVEY | Exit 313 is a nightmare most days. |
| METROQUEST SURVEY | Extream bottleneck. Current/on-going improvements will only extend the back ups. Until the bridge is widened or another built adjacent delays are imminent. |
| METROQUEST SURVEY | Fairfax Pike is still undersized for the trafficvolume and schools. |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Featherbed going west is always congested. Yesterday (Tuesday 2/9) cars were backed up along the whole stretch from the railroad tracks into \& blocking this intersection in all directions. Cars and semi trucks were all stuck with nowhere to go andpiling |
| METROQUEST SURVEY | Find new ways for traffic! |
| METROQUEST SURVEY | Flashing yellow arrow for left turn onto IndianHollow would be nice. Often sit at the red arrow waiting with no incoming traffic to speak of |
| METROQUEST SURVEY | flow of traffic is terrible |
| METROQUEST SURVEY | For obvious reasons this intersection creates most of the congestion problems for all the drivers trying to shop and work in Winchester. I propose an overpass on Jubal Early that will allow traffic from Pleasant valley to move without the impediment of a |
| METROQUEST SURVEY | four lanes to two lanes when traffic volume dramatically increases |
| METROQUEST SURVEY | General traffic back up is very routine here. Perhaps better light sequencing? |
| METROQUEST SURVEY | Getting of 81 N ramp can backup onto the highwayduring rush hour. Getting under the overpass in all directions can backup as well |
| METROQUEST SURVEY | Greenwood Road has many side roads that have a significant delay in turning onto Greenwood Road due to speeding up the hill towards Senseny Road. |
| METROQUEST SURVEY | Having 3 lights all less than what I can guess is a $1 / 4$ mile of each other creates constant backups here, reroute redbud to end at the light for target and get rid of an entire light by having the 81 N exit light and 81 N on ramp be the same light. |
| METROQUEST SURVEY | Heading eastbound at this intersection, the timed delay at the light doesn't make any sense. A RIGHT TURN LANE needs to be carved out of this road right of way/vacant lot for the eastbound vehicles. Otherwise driving over to Parkview Ave. is the only opt |
| METROQUEST SURVEY | Heading north on P.V., the dedicated left turn lane at this intersection, heading into the shopping center, is constantly backed up into the thru lanes going north on P.V. Between this jam up and the one that happens at the Starbucks entrance, it gets RE |
| METROQUEST SURVEY | heavy traffic |
| METROQUEST SURVEY | Heavy traffic |
| METROQUEST SURVEY | Heavy traffic |
| METROQUEST SURVEY | Heavy Traffic |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Heavy Traffic |
| METROQUEST SURVEY | Heavy Traffic backups from 81 to Woodsmill Rd |
| METROQUEST SURVEY | Heavy traffic congestion now, will get much worse in years to come |
| METROQUEST SURVEY | Heavy traffic delays south from Millwood to Tevis. |
| METROQUEST SURVEY | Heavy traffic due to the numerous tractor trailers and other vehicle traffic. Doesn't help when there are numerous lights in the area that are notfar apart from one another. |
| METROQUEST SURVEY | Heavy traffic from 81 all the way to Woods MillRd. |
| METROQUEST SURVEY | Heavy traffic on Fairfax Drive and I-81 exits |
| METROQUEST SURVEY | Heavy traffic prevents timely turning on FairfaxSt from Main St. At times you sit for 10-15 min just waiting to turn. |
| METROQUEST SURVEY | heavy traffic, only 1 lane, lots of lights not in siync. |
| METROQUEST SURVEY | Heavy traffic. <br> This is one of the worst intersections I've seen. There should be at least one other Stephen City exit from 81 |
| METROQUEST SURVEY | horrible planning by county! Crossover must become a flyover. |
| METROQUEST SURVEY | Huge traffic bottleneck |
| METROQUEST SURVEY | I am aware that the city has a traffic light system in place that is supposed to maximize traffic flow, however, there are days when trying to get out or into the city via Berryville Avenue is reminiscent of a drive through Manhattan at the end ofworkday |
| METROQUEST SURVEY | I avoid shopping and eating by 7 entering Winchester due to high traffic volume from traffic lights and back ups to I-81 on ramps. I take my business elsewhere in and out of town to avoid sitting in traffic. |
| METROQUEST SURVEY | I avoid this area at all costs due to traffic delays and how terrible the light timing is. 37 needs to be completed beyond 81 . Re-routing the rampsto 81 should be considered |
| METROQUEST SURVEY | I have literally never seen a bus here ... There's supposed to be a bus. Where is it? |
| METROQUEST SURVEY | I have never not known a delay westbound Route 7 for the last 20 years from 3 p.m. until after 6 p.m. MF. |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST | 181 accidents |
| SURVEY |  |
| METROQUEST | 181 heavy truck traffic |
| SURVEY |  |
| METROQUEST | 181 issues cause severe backup here |
| SURVEY |  |
| METROQUEST | I-81 on ramp back up, mall congestion. |
| SURVEY |  |
| METROQUEST | I-81 should be wider with longer on-ramps |
| SURVEY |  |
| METROQUEST | Increasing homes being developed in the community causing significant traffic delays every hour of the |
| SURVEY | day. |
| METROQUEST | Instead of moving this exit consider doing a dogbone style dual traffic circle configuration where the exit |
| SURVEY | and entrance ramps for 81 meet 277. |
| METROQUEST | Intersection not big enough to handle morning and evening traffic. |
| SURVEY |  |
| METROQUEST | intersection operations |
| SURVEY |  |
| METROQUEST | Intersection operations |
| SURVEY |  |
| METROQUEST | intersection operations |
| SURVEY |  |
| METROQUEST | intersection operations |
| SURVEY |  |
| METROQUEST | Intersection operations |
| SURVEY |  |
| METROQUEST | Intersection operations |
| SURVEY |  |
| METROQUEST | It would be a huge help to traffic and congestion getting off of Exit 313 if some traffic could be rerouted |
| SURVEY | to connect a road from the Kernstown exit toto 522. It's ridiculous that Navy Federal employees have to go all the way to 313 when you are coming |
| METROQUEST | I've been stuck for 20 minutes behind a fire truck trying to cross the interchange. Lives, property, etc. are |
| SURVEY |  |
| METROQUEST | Jubal and pleasant Valley always backed up, horrible flow of traffic |
| SURVEY |  |
| METROQUEST | Jubal Early \& Pleasant Valley traffic jamming upthis intersection. |
| SURVEY |  |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Jubal Early heading east traffic during rush hour in the evening. |
| METROQUEST | Just time the lights correctly |
| SURVEY | So they donï $\mathrm{c}^{1} / 2$ tchange when no cars are present. |
| METROQUEST SURVEY | Lack of proper timing of lights. Horrible congestion needs to be fixed. |
| METROQUEST SURVEY | Leaving the center of Winchester in any direction is delayed during the rush-hours |
| METROQUEST SURVEY | Left hand turns onto South Pleasant Valley |
| METROQUEST SURVEY | Left turn lane on P.V. is always blocking the thru lane heading north. It's gotten even worse since the Tevis overpass opened up. P.V. going north has really turned into a one lane road between Chipotle \& the Win/Fred Visitor Center. |
| metroquest SURVEY | Left turn off of 522 to get to Costco |
| METROQUEST SURVEY | Light seems always red for thru traffic on 522.Causes long delays |
| METROQUEST SURVEY | Light synchronization, poor business entries from other intersection |
| METROQUEST SURVEY | Light timing between Shenandoah University and 81 / 522 are awful. Getting in and out of downtown should be promoted over other directions. |
| METROQUEST SURVEY | Light to right onto millwood from university Drtakes far too long and you can sit there seeing an open road. |
| METROQUEST SURVEY | Lights |
| METROQUEST SURVEY | Lights |
| METROQUEST SURVEY | lights |
| METROQUEST SURVEY | lights |
| METROQUEST SURVEY | Lights are not coordinated creating jams in a very busy commercial area. |
| METROQUEST SURVEY | Lights are poorly timed from the intersection of37 and 11 up to Red Bud Rd. |
| METROQUEST SURVEY | Lights are time incorrectly on both ends of the81 bridge. Traffic sits on bridge and blocks all intersections from Main Street to Stickley. |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Lights need to be in different places currentlycause daily backs up trying to get on 81 n and short merge 81 south |
| METROQUEST SURVEY | Lights not synchronized very well. |
| METROQUEST SURVEY | Lights timed wrong |
| METROQUEST SURVEY | Long backups on rt-11 because of trucks mergingonto l-81. Frequent accidents |
| METROQUEST SURVEY | Long delays for this exit ramp light in high traffic |
| METROQUEST SURVEY | Long delays, worst in evening trying to get onto81N |
| METROQUEST SURVEY | Long lines of traffic during rush hour. |
| METROQUEST SURVEY | Long lines of traffic. |
| METROQUEST SURVEY | Long wait at traffic light to turn right (no right on red) while exiting l-81 to Winchester. |
| METROQUEST SURVEY | Lots of incoming lanes and merges with stop lights and high traffic commercial/industrial I. |
| METROQUEST SURVEY | Main problem is heading east. Too much traffic for the current 181 interchange. Worse at peak work/school time periods. <br> Really back when accidentson 181 north or south bound. |
| METROQUEST SURVEY | Main Street and Fairfax, Fairfax and 81 interchange is just awful. So congested |
| METROQUEST SURVEY | Major delays at the Jubal Early and Pleasant Valley intersections |
| METROQUEST SURVEY | Major delays on 7 westbound during heavy commuter traffic time. Delays from just over the city line all the way to Pleasant Valley where it turns into National Ave. |
| METROQUEST SURVEY | major improvement in traffic flow entry and exitramps to 181 needed at Rt 50 , Rt 7 , and Rt 37 . I am concerned that the old golf course between Tristate Nissan and Sulfur Springs is being turned in industrial park and more residential housing. There is |
| METROQUEST SURVEY | Many sit through 5-6 light changes at the lightin Stephens City waiting for bottlenecks to clear during peak hours |
| METROQUEST SURVEY | Millwood Pike between Pleasant Valley Road and Route 81 ramps |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Morning and night the traffic to get to NOVA oraround this area is terrible. I do not go to this part of town unless it's a must. It's too dangerous and too many delays |
| METROQUEST SURVEY | mornings and evenings - almost all days, delaysand congestion at 181 and Rt7 |
| METROQUEST SURVEY | mornings and evenings - almost always a bottleneck at 181 \& rt37 and also at 181 \& rt7. |
| METROQUEST SURVEY | Most often, this area of Rte 277 is clogged withtraffic. This is one of the causes of the safety issue regarding the impedence of fire \& rescue. The bottom line is that the Town of Stephens City is growing faster than the infrastructure is being reviewed |
| METROQUEST SURVEY | MOVE THE *\&^\% interchange! Do what you said youwould do 30 years ago. |
| METROQUEST SURVEY | Multiple traffic lights along with 1-81 trafficmakes this section a pain to get through at times. |
| METROQUEST SURVEY | NB traffic on 181 sometimes backs up trying to get off onto Route 7. Sometimes the traffic light on R7 malfunctions |
| METROQUEST SURVEY | Need a green arrow light for people leaving theroad with Starbucks |
| METROQUEST SURVEY | Need new bridge |
| METROQUEST SURVEY | Needs a right turn only lane onto 7 East. |
| METROQUEST SURVEY | Neighbor hood had been landlocked between multiple construction projects |
| METROQUEST SURVEY | New Logistics Park when complete will present gridlock tractor trailer traffic from its exit on Rt 50 to 181. No infrastructure or planning to support it. |
| METROQUEST SURVEY | New subdivisions are putting more pressure on anintersection that cannot be expanded due to historical structures. |
| METROQUEST SURVEY | Nightmare on Millwood is what we call this. Close the access and connections to SU and move them north by the park |
| METROQUEST SURVEY | No right turn lane onto Senseny |
| METROQUEST SURVEY | Northbound I-81 Right turn lane needs to be extended all the way back to Millbrook! |
| METROQUEST SURVEY | Northbound vehicles having turned off of J.E. driving into Starbucks drivethrough. Even b4 the pandemic the drive through line regularly backed up onto Pleasant Valley further congesting cars on PV. Now it's just a given that cars in the drive through li |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Nothing about this area works. Too many roads and cars coming together. And the signals donï̇ $1 / 2$ t help |
| METROQUEST SURVEY | Once in a blue moon, when I'm going to or comingfrom Costco and the intersection lights are timed as green, I can get from this intersection to theHollingsworth/P.V. intersection (by way of going over the 81, turning towards the university and then going |
| METROQUEST SURVEY | over crowding |
| METROQUEST SURVEY | Parents dropping their children off at the highschool create a backup that reaches almost to the I-81 interchange. |
| METROQUEST SURVEY | peak hour traffic jams |
| METROQUEST SURVEY | People block the entrance to Schenck Foods and if you need to turn left you canï̇1/2t |
| METROQUEST SURVEY | Pleasant valley Road is always backed up with traffic cause the Winchester/Frederick County is growing but we donï $\sum^{1 ⁄ 2}$ t have the infrastructure to support the heavier traffic |
| METROQUEST SURVEY | Pleasant Valley traffic is very bad |
| METROQUEST SURVEY | Poor flow of traffic |
| METROQUEST SURVEY | Poor flow of traffic causes major delays |
| METROQUEST SURVEY | Poorly timed lights and traffic lead to delays that stretch from I-81 past Pleasant Valley. |
| METROQUEST SURVEY | Profound delays exist in the afternoons. |
| METROQUEST SURVEY | Proper time for lights to allow traffic flow |
| METROQUEST SURVEY | Red lights are not in-synch which causes trafficback up |
| METROQUEST SURVEY | Redbud and 37 and 181 exit |
| METROQUEST SURVEY | Roadway and lighting doesnï̇½t work for the volume |
| METROQUEST SURVEY | Route 11 is congested by the traffic every evening. From 37 through Clearbrook. Not sure how it could be rectified but it takes a long time to get through the lights or off 81 |
| METROQUEST SURVEY | Route 11 is impossible to travel during peak traffic times because of the commuters from Winchester driving through to get home and the number of lanes doesnï̀ $1 / 2 t$ support the heavy traffic. |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Route 7 approaching I-81 |
| METROQUEST SURVEY | Route 7 gets backed up in all directions starting from Burnt Factory up to l-81 every evening |
| METROQUEST SURVEY | Route 81 is horrid. It should be 3-4 lanes throughout Winchester and should have been updated to that YEARS ago. |
| METROQUEST SURVEY | Rt 11 and Fairfax pike to 181 during morning andevening rush hour is terribly congested |
| METROQUEST SURVEY | Rt 7 has heavy traffic from the Clarke County line to downtown. Traffic going west backs up before First Woods Dr and it can sometimes take more than 25 minutes to get to 81 . If getting on 81 Southbound coming from the west, youïट $1 / 2$ re taking yourlife in |
| METROQUEST SURVEY | RT 7 is always a nightmare of backed up traffic |
| METROQUEST SURVEY | Rt. 11 Delay between Rt11 Clearbrook and Entrance ramp to Rt. 37 |
| METROQUEST SURVEY | Rt. 7 Westbound delays at the I-81 intersection |
| METROQUEST SURVEY | Rush hour traffic |
| METROQUEST SURVEY | Rush hour traffic causes backups |
| METROQUEST SURVEY | Rush hour traffic due to Snowden residents |
| METROQUEST SURVEY | Rush hour traffic from Main Street east to AylorRoad; sometimes extends north and south on Main Street for several blocks, and/or east beyond AylorRoad. |
| METROQUEST SURVEY | Rush hour traffic is insufferable with this intersection |
| METROQUEST SURVEY | Rush hour/school in session traffic at standstill due to traffic light timing and the fact that there are too many stop lights in a very short milage span |
| METROQUEST SURVEY | Rush hour/school in session traffic at standstill due to traffic light timing and the fact that there are too many stop lights in a very short milage span |
| METROQUEST SURVEY | Rush hour/school in session traffic at standstill due to traffic light timing and the fact that there are too many stop lights in a very short milage span |
| METROQUEST SURVEY | Rush hour/school in session traffic at standstill due to traffic light timing and the fact that there are too many stop lights in a very short milage span |
| METROQUEST SURVEY | Rush hour/school in session traffic at standstill due to traffic light timing and the fact that there are too many stop lights in a very short milage span |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Rush hour/school in session traffic at standstill due to traffic light timing and the fact that there are too many stop lights in a very short milage span |
| METROQUEST | Same congestion |
| SURVEY |  |
| METROQUEST SURVEY | Same feedback from intersection previous to thisarea |
| METROQUEST | Seems like all area traffic is routed through this intersection |
| SURVEY |  |
| METROQUEST | seems to be traffic all the time |
| SURVEY |  |
| METROQUEST | Serious bottleneck and delays at the entrance tothis shopping area. The back up on rt 7 West is constant. |
| SURVEY |  |
| METROQUEST | Severe backups coming into Winchester |
| SURVEY |  |
| METROQUEST | Severe congestion from I-81 to Greenwood Rd, especially WB |
| SURVEY |  |
| METROQUEST | Severe traffic backups due to poor design on Rt.7. Poorly timed traffic lights. Turn lanes lot long enough on Rt. 7 to turn onto 81 N and S . |
| SURVEY |  |
| METROQUEST | Should possibly look at making it a double turning lane and expanding Costello Rd to ease the length of the line here. |
| SURVEY |  |
| METROQUEST | Significant congestion regularly |
| SURVEY |  |
| METROQUEST | So much volume of traffic on the way to work; lunchtime; after work |
| SURVEY |  |
| METROQUEST | Stacked traffic lights that cause massive delaysin morning and evening rush hours |
| SURVEY |  |
| METROQUEST | Stephens City traffic is crazy busy at all times. This causes delays |
| SURVEY |  |
| METROQUEST | Stephenson 81 exits and entrances. So many lights to get to 81 and then $i t i ̈ ¿ 1 / 2 s$ super backed up to get off and on to 81 in eve |
| SURVEY |  |
| METROQUEST | Stoplights and heavy congeetion over the 81 bridge. Not enough space to turn. |
| SURVEY |  |
| METROQUEST | Takes too long to switch from Millwood Ave traffic to Jubal Early traffic (turning left onto Jubal Early) |
| SURVEY |  |
| METROQUEST | Terrible congestion all the time! |
| SURVEY |  |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Terrible congestion almost all the time! |
| METROQUEST SURVEY | Terrible traffic - backups. |
| METROQUEST SURVEY | The 317 exit is always congested from traffic entering and exiting 1-81. |
| METROQUEST SURVEY | The combination of this route from here to the (eastbound) along JE to the otherside of 81 is ridiculous. It makes one wonder if VDOT and City traffic planners have any training at all. |
| METROQUEST SURVEY | The development was allowed where the new interchange should have been. We need a new 6 lane bridge. Stephens City is the fast developing area. |
| METROQUEST SURVEY | The entire stretch of South Pleasant Valley Ave.is crowded, resulting in traffic back up, especially at traffic lights. |
| METROQUEST SURVEY | The entrance and exits to and from route 81 areNOT sufficient. To ease traffic, a separate on and off ramp for the industrial park should be addedapproximately a mile north of exit 317. |
| METROQUEST SURVEY | The flow of traffic and traffic light |
| METROQUEST SURVEY | The Greenwood Traffic cycle seems very short during rush hours. Especially when School is in session. |
| METROQUEST SURVEY | The interchange of 81 and route 7 is very slow moving in the evenings. Winchester and Frederick County are growing fast and our roads are not builtfor the amount of people living in the area |
| METROQUEST SURVEY | The intersection becomes congested throughout the day. I am honestly not sure as to why. |
| METROQUEST SURVEY | The intersection of Rt 7 \& I-81. Probably the most congested location in our area. Traffic lights are not in sync causing major delays, especially during rush hours |
| METROQUEST SURVEY | The interstate exit and excessive number of lights in this area creates an unnatural and excessive delay. |
| METROQUEST SURVEY | The interstate exit and excessive number of lights in this area creates an unnatural and excessive delay. |
| METROQUEST SURVEY | The interstate exit and excessive number of lights in this area creates an unnatural and excessive delay. |
| METROQUEST SURVEY | The interstate exit and excessive number of lights in this area creates an unnatural and excessive delay. |
| METROQUEST SURVEY | The light and the lanes are not long enough. Only 2-3 cars get thrpugh. So many accidents because people grow impatient and block the intersection or run the red lights |
| METROQUEST SURVEY | The light at Mall Blvd creates traffic issues inboth directions of 50. |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | The light timing is such that backups are created |
| METROQUEST SURVEY | the light to cross Pleasant Valley, into the park is red for 3 full minutes. I drive there all the time. Also, cars on Pleasant Valley frequentlyrun the red light. |
| METROQUEST SURVEY | the lights |
| METROQUEST SURVEY | The lights are long and drivers exciting the highway from 815 are unable to turn right on red. |
| METROQUEST SURVEY | The lights from Jubal and Pleasent all the way to the 81 bridge need to be better coordinated. These lights all go off at different times and causesbottlenecks and people trying to beat the light and causing congestion because they donï己 $1 / 2$ t want towait fo |
| METROQUEST SURVEY | The lights seem to be slightly out of sync as traffic from the 81 crossover to the intersection at pleasant valley takes forever to transverse |
| METROQUEST SURVEY | The lights timing causes backups in this area. |
| METROQUEST SURVEY | The lights timing causes delays. |
| METROQUEST SURVEY | The Millwood/81 interchange and blocks leading up to it on the west side is a total disaster during rush hour every day. Something about the doublelights for drivers merging on or off 81 South bound, plus the Mall Blvd light, just causes chaos. |
| METROQUEST SURVEY | The never ending delay to correct the traffic issues at the Route $11 \backslash 181 \backslash 37$ intersections has caused this to be the worst traffic area in the county. |
| METROQUEST SURVEY | The ONLY purpose this lights serves is to stop forward momentum once the light previous to it turned green. The fact that traffic planners have beenusing stoplights to compound major congestion, backing cars up on JE all the way to Valley and along the M |
| METROQUEST SURVEY | The Pleasant Valley\|Jubal Early Corridor is a mess. Other than the developers completing Crossover Blvd local governments have done nothing to improve traffic flow in these corridors. |
| METROQUEST SURVEY | The railroad track on Redbud can take forever tocross when a train comes through. The train likes to stop on it and move back and forth a few timesbefore it leaves. I have sat there for up to 10-15 minutes before. |
| METROQUEST SURVEY | The signals on Jubal Early are the primary causes of traffic. They lack any coordination. |
| METROQUEST SURVEY | The timing of the lights and people blocking thebox cause delays during evening commute |
| METROQUEST SURVEY | The traffic in this area does not glow and all the tricks getting on 81 are a nightmare |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | The traffic is always slow moving from route 7 into Winchester and on and off the highway. An expensive, but needed improvement is widening the bridge that attaches 7 from Frederick county to Winchester city. Another improvement here would be creating I |
| METROQUEST SURVEY | The traffic light at Hollingsworth \& Lowry makesaccessing Pleasant Valley from here a headache! It's timed for 2+ minutes before cars can move ontoPleasant Valley. There needs to be a dedicated right turn lane on the Hollingsworth side so cars aren't hav |
| METROQUEST SURVEY | The traffic light timing isn't equal for both sides. The side road has a longer light span than N Cameron |
| METROQUEST SURVEY | The traffic lights could use some sequence improvement. Traffic is routinely backed up here. |
| METROQUEST SURVEY | The turn lanes and arrows need to be extended.You will sit through 2 turn arrows before being able to go. They let 3 cars through. |
| METROQUEST SURVEY | the turning signal from Weems Ln to Valley Ave is too short. It only allows a few cars through at a time |
| METROQUEST SURVEY | The whole 50/81 interchange area is usually pretty congested during morning/afternoon rush. Maybe there is nothing to be done? Just an observation. |
| METROQUEST SURVEY | There are often backups on the off ramp from 37to 50 . The intersections on 50 in this area are often backed up. |
| METROQUEST SURVEY | There is a tremendous amount of traffic from Ft.Collier, to include tractor trailers. The left turn In should be extended as one truck takes up theentire In and causes delays. |
| METROQUEST SURVEY | There should be a right turn only lane to turn onto Cork street as you come north on Pleasant Valley. |
| METROQUEST SURVEY | There's something wrong with the left turn arrowhere. It's the one turning off of P.V. going north onto Hollingsworth |
| METROQUEST SURVEY | This area is always congested. It continues thewhole way down the road (through the construction). |
| METROQUEST SURVEY | This area is always very congested. There are somany cars trying to go every direction that often drivers do not know who is next. |
| METROQUEST SURVEY | This area is horribly congested with commuters morning and evening. It takes far to long to get through to get on 81 , especially if you want to go South. |
| METROQUEST SURVEY | This can be a real nightmare to get through during rush hour. From this point all the way to Gateway is difficult to traverse |
| METROQUEST SURVEY | This entire corridor backs up in all directions |
| METROQUEST SURVEY | This entire corridor, plus Pleasant Valley pastMartin's, have gotten very congested over the last 5+ years. |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | This entire row of lights are terrible. People will stop in theiddle of the intersections blocking the other lanes. |
| METROQUEST SURVEY | This entire section of town tends to be difficult to navigate at times due to the amount of traffic flow. |
| METROQUEST SURVEY | This few blocks of National is too narrow and too busy to let cars park on the street at all. It slows up traffic and increases the chance of a caror a person being hit. |
| METROQUEST SURVEY | This intersection is always backed up in the evenings. |
| METROQUEST SURVEY | This intersection is far too congested, |
| METROQUEST SURVEY | This intersection tends to get greatly congestedduring weekends, with shopping and through traffic. |
| METROQUEST SURVEY | This light and the lights over 81 are a nightmare. It takes way too long to get through. Too many communities being built, this town wasn't built tosustain it. |
| METROQUEST SURVEY | This light has always been a bottleneck, eitherthe lights are to long or not long enough also with the amount of trucks attempting to start from astop here they donï¿ $1 / 2$ t allow enough traffic through. |
| METROQUEST SURVEY | This light is very long for those exiting the SUcampus. |
| METROQUEST SURVEY | This light really interferes with the Jubal Early/Pleasant Valley light. I think an adjustment to the light cycle would improve this greatly. |
| METROQUEST SURVEY | This really should be another exit from 81. |
| METROQUEST SURVEY | This road becomes nonsense at rush hour |
| METROQUEST SURVEY | This stretch of Weems is really busy now. I've almost been rear-ended trying to turn left onto Roosevelt when heading west on Weems. |
| METROQUEST SURVEY | This whole 50/522/81 area is a mess. It takes 10 minutes to get through it no matter the time of day or traffic levels. |
| METROQUEST SURVEY | Through southbound traffic on Rt 11 snarled by traffic exiting Rutherford Crossing |
| METROQUEST SURVEY | Timing of lights is horrible! |
| METROQUEST SURVEY | Timing of the light at MHS/Greenwood is awful \&causes backups |
| METROQUEST SURVEY | To keep traffic moving consider adding some lights to certain intersections and the entrance to 81 south with the yellow caution arrow. |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Too many cars. |
| METROQUEST SURVEY | Too many cars. Not enough space. Poor signal timing, interstate congestion |
| METROQUEST SURVEY | Too many lights with too much traffic. |
| METROQUEST SURVEY | Too many lights. Too much traffic. |
| METROQUEST SURVEY | Too many traffic lights close together causing backups |
| METROQUEST SURVEY | Too many vehicles. |
| METROQUEST SURVEY | Too much congestion due to red lights at 181 on/off ramps \& business congestion. |
| METROQUEST SURVEY | Too much congestion during rush hour. |
| METROQUEST SURVEY | Too much congestion. The lights are not synced up. Can not get across 81 or into/out of Stephens City. |
| METROQUEST SURVEY | Too much congestion. The lights are not synced up. Cannot make a left off of $r \mathrm{rt} 11$ to get over 81 . Very difficult to get from Stephens City proper across the highway. Time of day does not seem to matter, always congested and getting worse. There needs to |
| METROQUEST SURVEY | too much traffic and short turning lanes betweenlights |
| METROQUEST SURVEY | Too much traffic for the current capacity; lackof alternative, non-interstate routes. |
| METROQUEST SURVEY | Too much traffic for the infrastructure. This area is a nightmare! |
| METROQUEST SURVEY | Too much traffic for the lights that are too close together. Not enough lanes for traffic to flow smoothly and efficiently in Stephens city. Everyone runs lights and blocks intersections making it worse |
| METROQUEST SURVEY | too much traffic in one little spot |
| METROQUEST SURVEY | Too much traffic. |
| METROQUEST SURVEY | Too much traffic. |
| METROQUEST SURVEY | Too much traffice |


| SOURCE | COMMENT |
| :--- | :--- |
| METROQUEST <br> SURVEY <br> METROQUEST <br> SURVEY | Too much volume and bad timed lights. |
| METROQUEST <br> SURVEY | Traffic |
| METROQUEST <br> SURVEY | Traffic |
| METROQUEST <br> SURVEY | Traffic always seems to be backed up - through out all of south pleasant valley road |
| METROQUEST <br> SURVEY | Traffic and volume |
| METROQUEST <br> SURVEY | Traffic and volume |
| METROQUEST <br> SURVEY | Traffic and volume, just make 81 3 lanes through Fred county. |
| METROQUEST <br> SURVEY | Traffic and volume. |
| METROQUEST <br> SURVEY | Traffic and volume. |
| METROQUEST <br> SURVEY | Traffic back up due to lights and volume. |
| METROQUEST <br> SURVEY | Traffic back ups. |
| METROQUEST <br> SURVEY | Traffic backed up from rush hour times. Trafficpattern could be improved |
| METROQUEST <br> SURVEY | Traffic backed up trying to get off 81 at 7 |
| METROQUEST <br> SURVEY | Traffic backs up across the 81 bridge. Too manylights, the bridge isn't wide enough, and it is the only way |
| METROQUEST <br> SURVEY | Traffic backs up as people turn onto cork to goto the county |
| METROQUEST <br> SURVEY | traffic backups caused by entrance to l-81 |
| METROQUEST <br> SURVEY | Traffic coming out of stephens city can't get across bridge due to traffic coming off of 81. Widening of |
| 277 for short distance will do very littleto resolve issue. |  |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Traffic congestion |
| METROQUEST SURVEY | Traffic congestion |
| METROQUEST SURVEY | Traffic delays due to volume between Double Church and Warrior Drive on 277 |
| METROQUEST SURVEY | Traffic flow |
| METROQUEST SURVEY | Traffic flow and backup. We need a main access here to the East side of Winchester or to route 50 on the east side of 81 |
| METROQUEST SURVEY | Traffic flow is very slow here |
| METROQUEST SURVEY | Traffic flowing on Martinsburg Pike |
| METROQUEST SURVEY | Traffic funneled from Pleasant Valley Rd. and Jubal Early Dr. creates backups in this section to 181. |
| METROQUEST SURVEY | Traffic gets backed up all the time here, especially during the afternoon rush hour. |
| METROQUEST SURVEY | Traffic here is almost always unsafe |
| METROQUEST SURVEY | Traffic in the afternoon |
| METROQUEST SURVEY | Traffic is always backed up here. Too many lights in a short area. |
| METROQUEST SURVEY | Traffic is ballistic through this area |
| METROQUEST SURVEY | Traffic is very heavy here. |
| METROQUEST SURVEY | Traffic jam |
| METROQUEST SURVEY | Traffic jam from here all the way till the exitto 81. |
| METROQUEST SURVEY | Traffic leaving Winchester on 11S Is a huge bottleneck in the evening |
| METROQUEST SURVEY | Traffic light changes too fast during parts of the day. Allows only 3 cars through. |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Traffic light delay and back up for l-81 on ramps north and south. |
| METROQUEST SURVEY | Traffic light is timed badly, often stopping alltraffic for one car coming out of the neighborhood on 815. |
| METROQUEST SURVEY | Traffic lights are not coordinated. You spend along time because after a light turns green the next one turns red almost immediately |
| METROQUEST SURVEY | Traffic lights not timed well enough with volumeof traffic. Back ups onto the interstate cause sudden slowdowns |
| METROQUEST SURVEY | Traffic on Featherbed at this light is very heavy. The light on Pleasant Valley is very long, then there is the left hand only turn for each direction |
| METROQUEST SURVEY | Traffic on the bridge |
| METROQUEST SURVEY | Traffic Volume caused by Costco is terrible |
| METROQUEST SURVEY | Traffic! |
| METROQUEST SURVEY | train blocks entrance to stonewall industrial park |
| METROQUEST SURVEY | Trying to get onto P.V. to go north OR south isoutrageous here. U can be stuck for minutes having to wait for the light to change in addition to the wacky way the parking lot lanes were laid out for other cars to get into line at the intersection. They pu |
| METROQUEST SURVEY | Trying to turn left when incoming traffic failsto yeild to the right away |
| METROQUEST SURVEY | Turn lane gets backed up from valley mill because everyone stays in middle turn lane to get to 81 |
| METROQUEST SURVEY | Turn lane not long enough and gets blocked causing traffic back ups |
| METROQUEST SURVEY | Turn lanes to get onto 81 too short to support traffic |
| METROQUEST SURVEY | Turning onto 81s from rte7e is a nightmare during rush hours.. turn lane too small, should have a ramp instead of a left turn lane |
| METROQUEST SURVEY | Turning onto pleasant valley road |
| METROQUEST SURVEY | Unless it is the dead of night the traffic hereis always bad. Especially if you are trying to get onto 81 North from 37 |
| METROQUEST SURVEY | Until the bridge over i-81 is widened/replaced,the traffic in the Town will continue to be excessively high and very slow moving. |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Upgrade traffic lights; heavy congestion, upgrade extension of lanes. New warehouses and home growth have put stress on intersection Rt 11 and 81. |
| METROQUEST SURVEY | vehicular congestion |
| METROQUEST SURVEY | Very congested |
| METROQUEST SURVEY | Very crowded and dangeous |
| METROQUEST SURVEY | very few alternate routes that take just as longor are significant greater distance. |
| METROQUEST SURVEY | Very long wait times for drivers exiting 81 N . |
| METROQUEST SURVEY | Very often long backlogs here. Especially in theafternoon and Friday |
| METROQUEST SURVEY | Very slow along this corridor |
| METROQUEST SURVEY | Volume of traffic exceeds the ability of the road to flow smoothly. Especially during key times: lunch, rush hour, holidays. |
| METROQUEST SURVEY | Week day evening volume traffic usually backs uptraffic to Millbrook high school. |
| METROQUEST SURVEY | West bound is a mess |
| METROQUEST SURVEY | Westbound traffic is very congested trying to get to 81. |
| METROQUEST SURVEY | Worst intersection in the region. Results in backed up traffic on I-81 as well and reckless driving with drivers using the shoulder to beat backed up traffic. |
| METROQUEST SURVEY | 11 and downtown roads are old and some have potholes and other issues of age |
| METROQUEST SURVEY | 317 off ramp needs to be moved to Redbud Rd andRedbud Rd needs to be taken to Ezra Ln |
| METROQUEST SURVEY | additional turn lane needed coming out of CusterAve |
| METROQUEST SURVEY | Bad bump in road at stop sign. |
| METROQUEST SURVEY | Big bump in the road just before stop sign. |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Bridge at 50/522 |
| METROQUEST SURVEY | Bridge has tons of pot holes |
| METROQUEST SURVEY | Bridge is too narrow, needs more lanes |
| METROQUEST SURVEY | Bridge replacement is needed ASAP. |
| METROQUEST SURVEY | Complete 37 ring road and connect Stephens Cityto crossover blvd |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | Cutting the trees and dhrubbs back to be sble tosee making a left hand turn onto mall drive |
| METROQUEST SURVEY | Downtown Stephen City exit construction has created a terrible bottle neck |
| METROQUEST SURVEY | Drainage along southbound shoulder for several blocks |
| METROQUEST SURVEY | Fix the lights! |
| METROQUEST SURVEY | Frederick County has never followed through witha Route 7 to Route 50 Connector road. Greenwood Road serves that purpose and nothing has been doneto Greenwood Road south to make any improvements in the last 30 years even with the insane amount of develo |
| METROQUEST SURVEY | 181 will soon be three lanes throughout WV. This will only cause bottlenecking at the state line when it returns to two lanes. I would support widening to three lanes throughout Frederick county. |
| METROQUEST SURVEY | I have no real third issue, but completion of 37 will be beneficial. |
| METROQUEST SURVEY | Lots of large, deep potholes across bridge. |
| METROQUEST SURVEY | Most of Winchester has road issues that are overdue to be resolved. South end of town Valkey Ave and Papermill Road specifically are awfull |
| METROQUEST SURVEY | New repairs have left the road extremely bumpy |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST | offramp needs repair |
| SURVEY |  |
| METROQUEST | Old country road paved to accommodate traffic.Road cross section does not meet VDOT standards. |
| SURVEY | Ditch, lande width, clearance to obstructions, shoulders, vertical and horizontal curves, sight distances, ingress and egress points, lighting, etc.This affec |
| METROQUEST | Paving Milburn Road |
| SURVEY |  |
| METROQUEST | Piccadilly should be extended so that drivers from route 7 can take it all the way across town where it will |
| SURVEY |  |
| METROQUEST SURVEY | PLEASE lengthen the left turning lane onto valley mill road on 7 westbound!!! See my safety explain for same turning lane. |
| METROQUEST | Pot hole developing here for the right turn lanegoing onto Featherbed. |
| SURVEY |  |
| METROQUEST | Pot holes on this corner |
| SURVEY |  |
| METROQUEST | Potholes - an attempt at repairing was recentlymade, however, it was a very poor attemp. The patches |
| SURVEY | are rough, and the entire area needs to be repaved. |
| METROQUEST | Real long shot idea, but would like to see 81 expanded to 3 lanes or even an HOV lane added to prevent |
| SURVEY | slowdowns causes by the numerous tractor-trailers passing each other. |
| METROQUEST SURVEY | Road is so uneven due to truck traffic. Not aroad in the county that is a smooth ride. |
| METROQUEST | Road needs to be widened and paved. |
| SURVEY |  |
| METROQUEST | Road surface is horrible. |
| SURVEY |  |
| METROQUEST | Roads need to be repaved not just patched |
| SURVEY |  |
| METROQUEST | roads were redone but still single lanes in eachdirection. what was the use of making it wider if the |
| SURVEY | middle is just an ugly slab of raised median? could at least have planted trees if you're not going to use it for transportation. |
| METROQUEST | Rough roads and pot holes |
| SURVEY |  |
| METROQUEST | Rough roadway, single lane access to 81 N . Hightruck traffic nonstop damages bridge, roadway. |
| SURVEY |  |
| METROQUEST | Rte coming off 81 POTHOLES always |
| SURVEY |  |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Steep hill and rough crossover railroad tracks |
| METROQUEST SURVEY | The asphalt in the 522 north lanes it always indented in the shape of a trough from large semi trucks which causes smaller vehicles to "pull" left or right when using these lanes. |
| METROQUEST SURVEY | The bridge has huge potholes and is spalling. The concrete is deteriorating. Rebar is showing. |
| METROQUEST SURVEY | The bridge over 81 in Stephens City on Fairfax pike looks like it is about to collapse and I donï¿ $1 / 2$ t feel safe having to drive over it |
| METROQUEST SURVEY | The Millwood Pike bridge is falling apart |
| METROQUEST SURVEY | The poor paving quality of 50 and 37. |
| METROQUEST SURVEY | The project to replace the bridge on R50 over 181 is admirable. Plenty of PR will be needed beforehand to manage expectations about detours. Corkand Tevis will take a lot of overflow during construction |
| METROQUEST SURVEY | The railroad tracks are in poor condition here in the intersection |
| METROQUEST SURVEY | The road is been dug up and paved but it is still rough |
| METROQUEST SURVEY | The sidewalk is so far below the manhole cover that you can scrape your car on it if you arenï̀ $1 / 2 \mathrm{t}$ careful |
| METROQUEST SURVEY | There have been no maintenance provided to Senseny Road since CVS was built and the county made them provide safety improvements to the Greenwood Road/Senseny Road intersection. The entire eastern network of roadways have been ignored by the county even |
| metroquest SURVEY | These side streets are extremely bowed, making driving a mess |
| METROQUEST SURVEY | This area is typically congested. Breaking up traffic patterns. Rotarties or widening smaller road |
| METROQUEST SURVEY | This area off of route 11 is terrible |
| METROQUEST SURVEY | This block seems to always be under construction... |
| METROQUEST SURVEY | This bridge is in very bad condition. |
| METROQUEST SURVEY | this is always busy and gets congested and lotsof accidents, maybe a round a bound you help |
| METROQUEST SURVEY | Traffic lights do not help the flow of traffic.You can sit forever at a light and no traffic is traveling in the other direction. Very frustrating. |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Traffic lights timing does not assist the flow of traffic. |
| METROQUEST SURVEY | Valley Avenue between Jubal Early Drive and Kernstown - rough road, numerous potholes |
| METROQUEST SURVEY | Way too many accidents and sheer volume. Need tointroduce truck only lanes. |
| METROQUEST SURVEY | Widen 522 to allow more of a shoulder in case acar needs to pull over |
| METROQUEST SURVEY | Would like to see this construction finished, prevents people from taking the shortcut and causes more traffic on Papermill |
| METROQUEST SURVEY | You canï̀ $1 / 2$ t just close traffic going one way on 11 without a reasonable detour. I had to take 37 to the next exit. |
| METROQUEST SURVEY | You need to connect Snowden Bridge Blvd. So traffic can have more than one way in and out of a housing community that size. |
| METROQUEST SURVEY | Allow for a left turn directly from tasker intoWalmart |
| METROQUEST SURVEY | Can not make a left turn into businesses becausevdot installed raised median ment for round about that is not longer part of the plan. |
| METROQUEST SURVEY | Completion of Rt. 37 East |
| METROQUEST SURVEY | Confusing and unnecessary street name change forcontinuous street. |
| METROQUEST SURVEY | Connect to Legge BLVD |
| METROQUEST SURVEY | Having a traffic signal at Pleasant Valley and another One at Maple seems like a lot. Could we make Maple Stop controlled and allow Cork Street to be free flowing? |
| METROQUEST SURVEY | Make a cloverleaf and fix the issue |
| METROQUEST SURVEY | Maybe a park and ride for commuters to reduce the amount of trips (vehicles) out of the area? At route 50 or 7 along the 81 corridor. |
| METROQUEST SURVEY | Much of the traffic on jubal early could be eliminated if this overpass had on/off ramps to l-81 |
| METROQUEST SURVEY | Need better signs for this intersection. |
| METROQUEST SURVEY | Overall the traffic flow and traffic lights needto be better adjusted to account for changes in traffic as the population continues and is forecasted to grow in the area. Seems like the ball has been dropped here. |


| RCE | ENT |
| :---: | :---: |
| METROQUEST SURVEY | Pleasant Valley is 46 ' wide here. The same widthas the section of P.V. that runs along Walmart, between it's side and rear entrances. (P.V. narrowsto 46 ' wide there, \& includes a 5 ' wide painted line median section) There are raised medians in Win. less |
| METROQUEST SURVEY | Please finish 37! This would greatly improve things in the county. |
| METROQUEST SURVEY | Please provide charging stations for electric vehicles |
| METROQUEST SURVEY | Put TEVIS back as a through street to/from Valley Ave! |
| METROQUEST SURVEY | Signage needs to be more pronounced here for theNO TURN ON RED. $75 \%$ of the people that pull up to this light in the right lane run the red light. |
| METROQUEST SURVEY | The 81 corridor through Harissonburg to West Virginia both South and Northbound is a disaster with all the trailers and heavy traffic. The area hasgrown so that 81 needs more lanes. If there is an accident it takes hours to get through because lanes are |
| METROQUEST SURVEY | The county has ignored the traffic infrastructure in the eastern part of Frederick County while continually rezoning properties for high density residential development. There have been two improvements over the past 30 years, the improvement of Greenwo |
| METROQUEST SURVEY | This intersection is a mess. Everyone knows it.So do you. We need serious study of this intersection to make it work better. |
| METROQUEST SURVEY | This intersection is a mess. Everyone knows it.So do you. We need serious study of this intersection to make it work better. |
| METROQUEST SURVEY | This road needs to be connected to allow trafficto flow better. |
| METROQUEST SURVEY | This street should be connected to Mall Rd. |
| METROQUEST SURVEY | This windy, 2-lane country road w/very little shoulder gets a LOT of traffic. Should be widened \& straightened. |
| metroquest | Would be great to have an exit onto Papermill road for easy access to Walmart shopping center area. |
| SURVEY | Would also cut traffic on exit 315 |
| METROQUEST SURVEY | *1 in general is a huge safety issue but the area in and around the truck scales is particularly dangerous. |
| METROQUEST SURVEY | 37 is extra dangerous in adverse weather conditions |
| METROQUEST SURVEY | 5 way intersection |
| METROQUEST SURVEY | 50 is Nascar during peak hours, need smore policing. |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | 81 is dangerous, drivers often speed and drive recklessly. We need more efforcement for the insterstate, such as automated speed monitors that issuetickets for speeding. |
| METROQUEST SURVEY | 81 Way too much traffic for todayï̀ $\mathrm{i}^{1 / 2}$ s society. |
| METROQUEST SURVEY | accidents |
| METROQUEST SURVEY | accidents - very busy intersection with route 37and welltown pike. |
| METROQUEST SURVEY | Accidents nearly daily. |
| METROQUEST SURVEY | After a certain time, pleasant valley is a nightmare to drive through, even more dangerous for people walking around the area. |
| METROQUEST SURVEY | All directions |
| METROQUEST SURVEY | All of 81 in Frederick county needs to be widened, possibly do 2 local lanes and 2 through lanes in each direction. 70 mph speeds on through lanes, 55 or 50 on locals lanes |
| METROQUEST SURVEY | All of 81 in Frederick County. I won't even geton 81 unless I absolutely have to. |
| METROQUEST SURVEY | Amount of travel with tractor trailers on 81 |
| METROQUEST SURVEY | Another bottleneck for traffic during rush hour |
| METROQUEST SURVEY | As depicted in my delay concern, the side roadson Greenwood Road have only seconds to get onto Greenwood Road towards Senseny Road due to speeding. |
| METROQUEST SURVEY | Because Winchester Police have completely abandoned traffic enforcement within the City, this intersection has become a hazard for drivers as well as pedestrians. When I walk this intersection, I NEVER use the crosswalks - too dangerous. It is, in my o |
| METROQUEST SURVEY | Better signage for lanes. Right lane is right turn only, center lane is straight only. People don't realize until last minute then try to move leftto go straight. |
| METROQUEST SURVEY | blind spot coming onto 7, maybe add a light would help |
| METROQUEST SURVEY | Bottlenecked traffic, backups, traffic lights close together |
| METROQUEST SURVEY | Bridge in poor condition and traffic congestionand patterns confusing to motorists and pedestrians. |
| METROQUEST SURVEY | Bushes block the view when trying to turn from chestnut onto berryville ave |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Busy, hectic, backed up |
| METROQUEST SURVEY | Cars back up onto 81, posing danger to kids driving to MHS in the mornings |
| METROQUEST SURVEY | Cars drive too fast on Kinross Drive. Trucks will have accesds when truck stop is built on south side of Route 50. |
| METROQUEST SURVEY | Cars park on this turning street all the time. Ihave almost hit them and witnessed an accident once because of this. The cars parked on the sides,block the stop signs and do not fit two cars going opposite directions as they should. |
| METROQUEST SURVEY | Cars speed down this street every day and everynight. They go ridiculous speeds and are a danger to pedestrians and other drivers. |
| METROQUEST SURVEY | Cars speeding jockeying in left turn lane that ends to get ahead of cars in the continuous lane when headed east. |
| METROQUEST SURVEY | Cars speeding making difficult to get out of subdivision |
| METROQUEST SURVEY | Cedar creek grade eastïi $1 / 2$ why does the turn lanetake up the entire left lane? Why does this vital corridor (now that Tevis is closed) go from 4 lanes to 2? Major delays here |
| METROQUEST SURVEY | City four lanes narrow to two just as the traffic demand increases. Nightmare. |
| METROQUEST SURVEY | complete cluster at and around the convergence of 81,11 and 37 . On and off ramps in both directions have poor visibility and or geometry, merging conditions unsafe. |
| METROQUEST SURVEY | Congested |
| METROQUEST SURVEY | Congested intersection around 4, making it dangerous |
| METROQUEST SURVEY | Congested, people fail to yield |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | Congestion |
| METROQUEST SURVEY | Congestion |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | congestion and lack of crosswalks is a safety issue for vehicles and pedestrians. |
| METROQUEST SURVEY | congestion leads to safety issues. |
| METROQUEST SURVEY | congestion, pedestrian crossings, Starbucks lines over flow, panhandlers |
| METROQUEST SURVEY | continuous traffic backups, blocked access for emergency services. It takes at least 20-30 minutes to navigate through this area of 5 traffic lights. |
| METROQUEST SURVEY | Crashes every day |
| METROQUEST SURVEY | Crime is higher in Winchester on all fronts in the past two years. |
| METROQUEST SURVEY | Crossing rt11 to Red Bud road is risky |
| metroquest SURVEY | Crowded street hard to pass |
| METROQUEST SURVEY | Dangerous intersection |
| METROQUEST SURVEY | Dangerous intersection and traffic backed up forlong periods of time, especially at "rush" hours |
| METROQUEST SURVEY | Dangerous intersection. Bridge problem. |
| METROQUEST SURVEY | Dangerous to get off exit during high volume times, backs into 81, expand roads for more lanes |
| METROQUEST SURVEY | Difficult to change lanes due to congestion |
| METROQUEST SURVEY | Double red light at 81/Redbud and 11. Many people running red lights and not coming to complete stop. |
| METROQUEST SURVEY | During commuting hours, its like Nascar, needs more policing |
| METROQUEST SURVEY | During congested times, intersection is constantly stacked/blocked by drivers who fore themselves into intersection as there light expires with nowhere to go. Requires enforcement presence during time of high congestion to change this behavior. |
| METROQUEST SURVEY | During high traffic hours the off ramp from 81 North is too short to handle volume and differential in speeds from highway speed to exiting safely.Thru traffic is affected adversely! |
| METROQUEST SURVEY | Emergency lane next to turn area at light *AND*immediate left turn to mall encourage people to make 3 lanes for turning. |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Entering 37 from the onramp, 27 has traffic merge right to get onto 81 , without much merge area at all. Very difficult at times. |
| METROQUEST SURVEY | Even EMS and Fire/REscue can't get through - nocounty EMS/Fire on the east side of the interstate, and it takes 15 minutes to get across the interstate |
| METROQUEST SURVEY | Everything |
| METROQUEST SURVEY | Excessive speed through the intersection of Pleasant Valley Rd and Jubal Early. Radar/ red light cameras are needed. |
| METROQUEST SURVEY | Excessive truck traffic |
| METROQUEST SURVEY | Exit 317 and Red Bud Road |
| METROQUEST SURVEY | Exit from Walmart dangerous because of speedingvehicles on S. Plesant Valley |
| METROQUEST SURVEY | exit northbound can backup onto the highway |
| METROQUEST SURVEY | exiting winchester and having to cross 3 lanes of traffic to reach Rt 37 s this should have been a priority years ago |
| METROQUEST SURVEY | Failing to yield at the left hand turn. |
| METROQUEST SURVEY | fatalities from auto accidents due to speeding |
| METROQUEST SURVEY | Frequent accidents along Senseny near CrestleighDrive and Williamson Road |
| METROQUEST SURVEY | Had cars pass, excessive speed through this area |
| METROQUEST SURVEY | Hard to change lanes with congestion |
| METROQUEST SURVEY | Hard to see when crossing Loudoun Street - blindspots due to cars parked |
| METROQUEST SURVEY | Heavy truck traffic |
| METROQUEST SURVEY | Hillbillies drive like absolute monkeys around here |
| METROQUEST SURVEY | Horrible and unsafe. The turn lane from traffic11 north onto highway 81 is very unsafe |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | I know this may seem petty, but I have heard somany people say (and I agree) that exiting from the Handy Mart/Dunkin Donuts parking lot here is dangerous and a terrible set-up. You are unable to turn left from the parking lot to get back to the traffic I |
| METROQUEST SURVEY | I realize that this intersection is not in the City limits, but you must put pressure on other government agencies to enforce traffic laws at this intersection. I see vehicles run the red lights there every time I drive that intersection. |
| METROQUEST SURVEY | I-81 congestion thru Winchester |
| METROQUEST SURVEY | 181 deacceleration and acceleration lanes! |
| METROQUEST SURVEY | $\mathrm{I}-81$ is incredibly unsafe, with a high volume oftractor-trailers and accidents that could be avoided. We need to add lanes to 181 in our area to better assist with the flow of traffic and a lane dedicated to larger trucks. |
| METROQUEST SURVEY | I'm always seeing drivers in the oncoming lane staring into their lap and swerving over the yellow line, that is supposed to keep them from hittingcars going the opposite way? This section of P.V. from Millwood to Cork needs a raised median- it CAN be do |
| METROQUEST SURVEY | Inpatient drivers |
| METROQUEST SURVEY | Install a large traffic circle |
| METROQUEST SURVEY | Install sidewalks and a traffic circle at Maryland and tasker. Tasker could you several multi lane traffic circles |
| METROQUEST SURVEY | Intersection congested and drivers frequently run lights and block the box. |
| METROQUEST SURVEY | Interstate 81 is a mess, I avoid it at all costs. |
| METROQUEST SURVEY | Interstate is completely out of control. |
| METROQUEST SURVEY | It is difficult safely merging on 7 eastbound from Woods Mill Road |
| METROQUEST SURVEY | It is not an issue with the roads, but the drivers. Because the road is designed so drivers can switch lanes, they often stay in the left lane, accelerate quickly and merge in front of the right lane very dangerously. This needs a median between itor at |
| METROQUEST SURVEY | Lack of street lighting, speed control, and proper shoulders. Route 7 was never designed to handle the loads itï̀ $1 / 2$ s seeing, and 2025 traffic countswill severely degrade its efficiency to level of service E or F, resulting in increased travel times, sign |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Lanes not marked well in advance. Rt. 50 and Rt81 exchange area has outlived its current design. |
| METROQUEST SURVEY | Large amounts of congestion during rush hours |
| METROQUEST SURVEY | Light in Stephens City backs up traffic as it bottlenecks here every day. I donï̀ ½t think Rt. 277 improvements are going to change or help this. |
| METROQUEST SURVEY | Low visibility for cars pulling out of townhomes, t-bone waiting to happen. |
| METROQUEST SURVEY | Low visibility for cars pulling out of townhomes, t-bone waiting to happen. |
| METROQUEST SURVEY | Low visibility for cars pulling out of townhomes. T-bone waiting to happen. |
| METROQUEST SURVEY | Major backups and unsafe behavior at intersection of I-81 and 11 |
| METROQUEST SURVEY | major congestion leads to safety issues. |
| METROQUEST SURVEY | Mall exit vs. I-81 exit confusion |
| METROQUEST SURVEY | Many accidents as a result of outdated roads. Short exit and entrance ramps. |
| METROQUEST SURVEY | Many accidents due to people running light |
| METROQUEST SURVEY | Meadow Branch Dr. is used as a cut through fromWV to major roads in Winchester. Once Meadow Branch II apartments and other ongoing housing developments are completed, it is highly likely that residential side street traffic will be unable to pullout on $t$ |
| METROQUEST SURVEY | Merge lane it too short and traffic in the othertwo lanes is rarely light enough to let in merging traffic. |
| METROQUEST SURVEY | merging traffic is dangerous |
| METROQUEST SURVEY | Need closer access to emergency services such asfire and EMT personnel. |
| METROQUEST SURVEY | Need mirror to see the that the road is clear. When coming onto S Loudoun St, you canï̈ $\mathrm{c}^{1 / 2}$ t see ongoing traffic left or right. There needs to be something there like a mirror to see if youï¿1/2re clear(safe) to pull out on the road. |
| METROQUEST SURVEY | Need sidewalk/bike path on Merrimans |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Need stop light |
| METROQUEST SURVEY | Needs a left turn for 37 S and double lanes. Poor visibility |
| METROQUEST SURVEY | No ability to merge |
| METROQUEST SURVEY | No light for people turning left |
| METROQUEST SURVEY | No one yields. Major safety issues multiple accidents |
| METROQUEST SURVEY | No speed limit enforcement; drivers are going $55+\mathrm{mph}$ in a 45 mph zone not long after clearing the Greenwood light going east |
| METROQUEST SURVEY | Not enough space for all the traffic that has developed in the communities around this area, causing potential safety concerns for drivers. |
| METROQUEST SURVEY | Not enough turn lane from either direction-55MPH+ creates a back up on 7 for those trying to turn. Numerous accidents have been occurring there.Look at how many times that little bit of guard rail has been replaced recently. The line of site coming fro |
| METROQUEST SURVEY | Our EMS canï̇ $1 / 2$ t get through traffic. |
| METROQUEST SURVEY | overcrowding and poor placement of traffic signals |
| METROQUEST SURVEY | Overloaded Fire and Rescue system |
| METROQUEST SURVEY | Pedestrian students crossing to reach Shen. Univ. With north and south 81 on ramp traffic is dangerous. |
| METROQUEST SURVEY | Peope often speed here and cut infront of one another. |
| METROQUEST SURVEY | People always go straight in the turn lanes. |
| METROQUEST SURVEY | People exiting and entering l-81. Need longer lights for exiting to Rte 7 and getting onto 81S from Rte7e. People run the lights and dangerous lanechanges |
| METROQUEST SURVEY | People on right hand lane of off ramp from 81 SBtry to cross to turn into the mall first entrance by student housing |
| METROQUEST SURVEY | People regularly speed up to 80 mph here |
| METROQUEST SURVEY | People turning out/lack of turn lanes turning into/from shopping centers all along pleasant valley |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Pleasant Valley and Jubal Early are always bottlenecked in all directions. Morning, noon, and night. |
| METROQUEST SURVEY | Pleasant Valley drivers frequently run red lights, people turning left onto Pleasant Valley jump the light ahead of those going straight. |
| METROQUEST SURVEY | Please improve the signage and road markings forthe far right lane (going eastbound) to identify if the lane is only for turning onto mall road orif drivers in that lane can also pass through the intersection to enter I-81S. |
| METROQUEST SURVEY | Poor Design. Traffic backs up Justes Drive allthey way to Front Royal Pike when school starts and finishes every day. Also there is no way for emergency vehicles to gain access at these times. |
| METROQUEST SURVEY | Poorly timed lights and access to l-81 lead to massive delays that lead to accidents and aggressive driving |
| METROQUEST SURVEY | Prepare the roads around and leading up to 81 to Stephenson. Itï $\sum^{1 / 2}$ s only going to get worse and more accidents will occur. We need to get ahead ofthe population influx curve |
| METROQUEST SURVEY | Problems with cars coming in and going out of WalMart. |
| METROQUEST SURVEY | Proximity to rescue services |
| METROQUEST SURVEY | Red Bud Road - high traffic and people not obeying speed limits |
| METROQUEST SURVEY | Red light runners |
| METROQUEST SURVEY | Red light runners abound here. Very unsafe throughout the city! |
| METROQUEST SURVEY | Red light runners! |
| METROQUEST SURVEY | Road is too narrow. |
| METROQUEST SURVEY | Route 37 as a whole is becoming more and more congested with traffic not just in-state, but out-of-state too. |
| METROQUEST | ROUTE 50 EAST BY THE FBI BUILKDING IS A RACEWAYAT 5:00PM. CARS TRAVELING 70 MILES AN HOUR |
| SURVEY | PAST BUSINESSES LETTING OUT AT 5 PM |
| METROQUEST SURVEY | Running red lights from woods mill to 81 |
| METROQUEST SURVEY | Severe congestion |
| METROQUEST SURVEY | short on ramps, not enough lanes for the volume |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Side roads with little visibility when pulling out, speeding on Middle Road, uneven pavement on one side of Middle road |
| METROQUEST SURVEY | Snow maintenance is tricky with on street parking, dangerous for people trying to get out of these spots and dangerous for people driving these roads with snow piles encroaching on driving area |
| METROQUEST SURVEY | Speeding |
| METROQUEST SURVEY | Speeding cars from up the hill make pedestrians |
| METROQUEST SURVEY | Speeding in excess of 50 mph combined with non safe drivers turning due to the condensed area and multiple business entrances. |
| METROQUEST SURVEY | Steep decline/incline next to First Bank. Cars can bottom out on the road here. Slowing speed in preparation can result in fender bender behind fromtraffic not expecting the dip. |
| METROQUEST SURVEY | Stupid, stupidï $1 ⁄ 2$ why does the road merge from 4lanes to 2 here? Very unsafe |
| METROQUEST SURVEY | Substandard geometry on Route 7 |
| METROQUEST SURVEY | Suggestion to lower speed limit on 50 to 45 fromFBI/NFCU/Harley Dealer towards Winchester. Traffic volume and increased development makes the areaa bit too congested for intersections at this speed. |
| METROQUEST SURVEY | The amount of cars @ this starbucks is unsafe. It's $1 / 2$ of why this is a problematic intersection. Customers make dangerous \& illegal turns in \& outof Starbucks on the P.V. side. NOT on the Jubal Early side there's a median! P.V. needs a median here too. |
| METROQUEST SURVEY | The county has never completed their promise ofa north/south connector road between Route 7 and Route 50 and have misused proffer dollars designated for this purpose. They continue to use the narrow, winding Greenwood Road as that connector route. So G |
| METROQUEST SURVEY | The entire 181 \Route11\37 Interchange was never actually designed, it just kind of fell into place. More effort by government needs to be addressed in this area. |
| METROQUEST SURVEY | The entrance and exits at Stephens City back upand cause accidents. When 81 gets backed up, Rt. 11 gets backed up, causing even more problems. |
| METROQUEST SURVEY | The entrance to 81 S at this exit is a joke/tooshort! People can barely get through the light (too short of a time coming from town) and the entrance off the bridge headed West is too abbreviated. |
| METROQUEST SURVEY | The flow of traffic, gets backed up. |
| METROQUEST SURVEY | The intersection at this location lacks visibility and lane width is tight |
| METROQUEST SURVEY | The left turning lane from 7 westbound on to valley mill road during weekday afternoons/evenings is extremely dangerous. There is a high volume of traffic when cars quickly jump into the left turning lane or do so without a turn signal...most timescars s |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | The majority of the cross overs on Northwesternpike do not have a turn lane to allow vehicles to get out of the lanes of travel. At times there a multiple vehicles stopped in the left hand lane waiting to use the cross over. Every cross over should have |
| METROQUEST SURVEY | The merge onto rt 11 from highway 81 is very unsafe at peak times |
| metroquest SURVEY | The number of business driveways and high volumeof traffic make this stretch of pleasant valley very dangerous for everyone using it |
| METROQUEST SURVEY | The rollover rate, between the downhill grade ofGreenwood and Berryville Pike, is very high. This causes vehicle damage and adds to congestion as drivers must navigate this cautiously. |
| METROQUEST SURVEY | The speed limit is set too low, and there shouldbe an enstated minimum speed limit to encourage people to not obstruct traffic. |
| metroquest SURVEY | The street is really small compared to the amount of houses and the amount of cars is ridiculous! |
| metroquest SURVEY | The traffic backs up as people get off 81 to getonto 7 East. You have to watch so you don't hit the back end of those stopping ON 81 in front of you. |
| METROQUEST SURVEY | The traffic signal for Redbud Rd is dangerous due to the amount of traffic that is turning north on 81. Crashes occur here often due to the visibility. |
| METROQUEST SURVEY | The turn lane is too short for traffic turning from west bound Jubal Early to south bound Valley Ave. This often blocks the left most lane of traffic of Jubal Early. |
| metroquest SURVEY | The yield to turn left onto 81 is unsafe and light does not stay green long enough someone is going to die here |
| METROQUEST SURVEY | There is a fourway stop intersection near the target, Walmart, and Home Depot that is heavily used. I think a traffic light would be better as accidents occur as people do not follow proper right of way traffic flow. |
| METROQUEST SURVEY | There is an unbelievable amount of wrecks all over 81 in Frederick county |
| METROQUEST SURVEY | there is too much traffic trying to use this intersection. Many cars try to beat the lights and block the intersection. The timing on the traffic lights seem to be off cycle for the rest of the bridge traffic |
| metroquest SURVEY | There is usually so much intermittent traffic that vehicles coming out/through this subdivision are forced to pull out in front of vehicles or theysit here for long periods of time waiting to get out. |
| METROQUEST SURVEY | There's a lot of traffic turning left from harvest onto Cedar Creek. I don't know what the solution is, but I wanted to bring it to someone's attention. |
| metroquest SURVEY | This 2-lane, mostly-no-shoulder country road isterrifying in bad weather \& not wide enough for the traffic on it. PLEASE widen it \& straighten thecurves! |
| metroquest SURVEY | This bridge is not safe. I hate going over it orgetting on 50 from here. The turn is too sharp and trucks/cars run off the road all the time. The lane to merge on the bridge is also dangerous |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | This curve is extremely sharp for such a traveled road. Not sure why it has never been fixed. |
| METROQUEST SURVEY | This entire area is atrocious! It has been for years and getting worse. High volumes of traffic paired with several lights together within a shirt distance and off and on ramps create very dangerous scenarious and safety concerns. |
| METROQUEST SURVEY | This entire corridor is "the Main" shopping district for the local area. The intersection at Jubal early and Pleasant Valley is dangerous. There are problems from the entrance to Shenandoah University all the way past all the shopping out to theshopping |
| METROQUEST SURVEY | This intersection and the one next to it can bevery dangerous at times. You cannot see around vehicles turning onto i81 |
| METROQUEST SURVEY | This intersection is backed up at rush hour times of the day. The exit ramp coming off 81 N to 11 runs right into Redbud Road which has a light andoften causes back ups as well. |
| METROQUEST SURVEY | This intersection is dangerous when yielding left turns from any to any direction. Every cycle of the light during most day parts has a violation ofred light or mildly reckless yellow light behavior. The cycles of this light back up traffic in both direc |
| METROQUEST SURVEY | This intersection is dangerous with current layout and can be confusing. Lots of people cut down Opequon and this intersection is not just residential traffic. Many people do not stop at stop signs present and traffic not stopping southbound from Holling |
| METROQUEST SURVEY | This intersection is really dangerous. Due to the grading of the road, drivers waiting to turn left onto Cameron can barely see drivers coming overthe hill towards them. There's also something up with the turn radius for drivers turning right offof Camer |
| METROQUEST SURVEY | This intersection needs taken away it adds to congestion and cars will grid lock traffic by forcing thier way out |
| METROQUEST SURVEY | This light is dangerous. People have no idea about who actually has the right of way. |
| METROQUEST SURVEY | This on ramp sucks |
| METROQUEST SURVEY | This road is becoming heavily congested and needs better signs or signals at each point of access. |
| METROQUEST SURVEY | This road is too narrow for all of the traffic. |
| METROQUEST SURVEY | This street should be right out only. Itï己 $1 / 2 s$ unsafe and impedes traffic to let drivers make a left onto National |
| METROQUEST SURVEY | Three lanes of southbound traffic from two roadsmerge into a single lane with a large number of trucks also joining this, with stoplights from hell. It can take 15 minutes to travel this $1 / 2$ mile. It needs to be four lanes. |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | To many accidents and people donï̇1/2t stop or yield. |
| METROQUEST SURVEY | Too congested |
| METROQUEST SURVEY | Too congested. Doesn't flow. Lights seem not in sync. |
| METROQUEST SURVEY | Too many lights plus vehicles changing lanes |
| METROQUEST SURVEY | Too many roads coming together |
| METROQUEST SURVEY | too many vehicles using as cut through from S. Loudoun to Pleasant Valley while vehicles entering/exiting from businesses along Featherbed. Too, pedestrians forced to walk in roadway. |
| METROQUEST SURVEY | Too much congestion. The lights are not synced up. Cannot make a left off of rt 11 to get over 81 . Very difficult to get from Stephens City proper across the highway. Time of day does not seem to matter, always congested and getting worse. There needs to |
| METROQUEST SURVEY | Too much growth of housing; too much traffic for the road. Losing access to turn onto Greenwood easily out of the local subdivisions. |
| METROQUEST SURVEY | Too much traffic bottlenecked at the 37/11/81 interchange |
| METROQUEST SURVEY | Too much traffic, not enough lanes. This causesslowdowns and traffic accidents |
| METROQUEST SURVEY | Too much traffic. Need a third truck/bus only lane. |
| METROQUEST SURVEY | Too sharp of a turn. |
| METROQUEST SURVEY | Tractor \& trailers going into the back of Clemslot, they can't make the turn, Large trucks should not be allowed on this road., there are apartments back there, children riding their bikes. the tracks on both sides of the road will show you they can't ma |
| METROQUEST SURVEY | Tractor and trailer trucks using this road as ashort cut from route 55 to I81. |
| METROQUEST SURVEY | Tractor and trailers have no business on Marlboro road. They are skipping the scales. |
| METROQUEST SURVEY | Traffic |
| METROQUEST SURVEY | Traffic along Fairfax Pike during rush hour in the evening is always difficult. Traffic along the roadway backs into the Town of Stephens City and all along the roadway. Turning on to 81 north is difficult. Traffic light at Town Run does not have adequat |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Traffic at this intersection is a nightmare. Itbacks up onto 81 at times and is hazardous. |
| METROQUEST SURVEY | Traffic backs onto the highway at the intersections at the street level which move slowly and are always congested. |
| METROQUEST SURVEY | Traffic backs up when kids are dropped off and when kids are picked up at the end of the day. There is no room for emergency vehicles during these hours. <br> Need to add another exit for the school. |
| METROQUEST SURVEY | Traffic blocks the intersections, impeding fire\& rescue exit and entrance. |
| METROQUEST SURVEY | Traffic bottlenecking again, more traffic than the road can handle |
| METROQUEST SURVEY | traffic congested. Lights not in sync. exits are too close and too many signal lights. Need double turning lane coming off 81 S . |
| METROQUEST SURVEY | Traffic congestion and Fire and Rescue servicesare overloaded. |
| METROQUEST SURVEY | Traffic congestion at on/off ramps |
| METROQUEST SURVEY | Traffic congestion, too many accidents |
| METROQUEST SURVEY | traffic delays, congestion, and lack of crosswalks from the hotels on west bound side of Rt 50 to Delco plaza on east bound side of Rt 50. There isa serious lack of planning at the I81 exits onto and off off I81 at Rt 50, Rt 7, and Route 37. Theway the |
| METROQUEST SURVEY | traffic doesn't flow properly |
| METROQUEST SURVEY | Traffic frequently backs up onto the interstate,causing dangerous and sudden stops. |
| METROQUEST SURVEY | Traffic is ALWAYS backed up trying to get into Starbucks |
| METROQUEST SURVEY | Traffic is backed up trying to turn into Cook Out... cars piled up and slamming on brakes at the last second. |
| METROQUEST SURVEY | Traffic turning onto 81 this traffic backs thisentire road up cars are blocking two lanes it is a major safety hazard and also creates congestion |
| METROQUEST SURVEY | trucks getting on and off 81 clog up traffic andare unsafe in their driving |
| METROQUEST SURVEY | Trying to merge onto route 7 in the morning in pretty scary as the traffic is moving so fast and drivers don't want to let you merge |

Public Engagement and Input Summary

| SOURCE | co |
| :---: | :---: |
| METROQUEST SURVEY | Turn lane for southbound traffic is too short and will often times back up into east bound through lanes, especially when trailers from Fort CollierRoad fill up the turn lane (taking up 2-3 car lengths). The crossover between the light at Five Guys and $t$ |
| METROQUEST SURVEY | Turn lane too short causing long back ups in right lane and cars changing lanes quickly. Worsened by gas stations in area |
| metroquest SURVEY | Turning traffic off town run and aylor roads. Noyielding |
| METROQUEST SURVEY | Valley avenue has issues with speed and pedestrian safety |
| metroquest SURVEY | Vehicles cutting one another off exiting \& entering Sheetz either to get on I-81 or get through the traffic lights |
| METROQUEST SURVEY | Vehicles cutting one another off in order to getthrough the traffic lights or enter interstate. |
| metroquest SURVEY | Vehicles frequently switching lanes to avoid vehicles turning mostly left (north or south) off. Berry $\left\|i i^{1} / 2 l\right\|$ Ave. |
| metroquest SURVEY | Vehicles never yield right of way when turning onto Fairmount Ave from Wyck St. |
| metroquest SURVEY | Vehicles racing through traffic lights |
| METROQUEST SURVEY | Vehicles speed through this area all hours of the day\&night. Speed limit is 25 . School zone \& Pedestrian crossing. Cars often doing 45 at least. I wish there were a radar that took pics of plates here!! People also don't stop @ stop sign on s. Loudoun in |
| metroquest SURVEY | Vehicles traveling north on P.V. travel into theleft turn lane of south P.V. at the Hollingsworth intersection. I've come near to being side swipedby oncoming vehicles on several occasions while being squarely in the left turn lane. |
| metroquest SURVEY | Vehicles travline westbound in the evenings often turn onto Valley mill road to avoid the traffic on Rt7. There are often times so many vehicles making this turn that traffics backs up in the left hand lane. This causes a lot of issues as traffic backs u |
| metroquest SURVEY | Vehicles use Costello Drive to avoid the trafficlights to get onto Millwood Pike and often times they do not stop/yield right of way in their hasteto "beat" the traffic. Almost daily I see vehicles in near collision because vehicles traveling from 522 to |
| METROQUEST SURVEY | Very congested area and needs to have space fortractor and trailers vs card |
| METROQUEST SURVEY | Very congested area, with lots of people makingturns into Martins or Walmart at the intersections without lights during busy times. Also dangerousintersection at the light next to Chipotle, especially with the opposing traffic coming out of the shopping |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Very Dangerous Intersection. Blinking Yellow light for Red Bud is ridiculous. |
| METROQUEST SURVEY | Very narrow road without shoulders |
| METROQUEST SURVEY | WB Rt. 7 left turn lane onto Valley Mill Rd. completely inadequate for number of vehicles trying to make this movement |
| METROQUEST SURVEY | We have to make a left at a blind hill (w/oncoming traffic often going very fast) to get into the neighborhood |
| METROQUEST SURVEY | West bound trucks run the red light frequently because of length of light and up hill setting |
| METROQUEST SURVEY | Whatever they did created a bump that makes carshop into the air as they cross the intersection at speed limit. |
| METROQUEST SURVEY | When 81 gets backed up, Rt. 11 gets backed up, too. |
| METROQUEST SURVEY | When on rt 11 north and needing to go South in 37 , the merge across 3 lanes to the light at the u-turn is terrifying |
| METROQUEST SURVEY | When traffic backs up on Rt 11, cars speed downtiny Germain street to bypass traffic. Itï̀ $1 / 2 \mathrm{~s}$ super dangerous. |
| METROQUEST SURVEY | When turning down the street, the cars parked are way too close to the main road (national) and when turning onto this street there is no way to tell if there is a car heading straight your way. |
| METROQUEST SURVEY | When turning out of the parking lot, it is VERYdifficult to see if cars are coming from the left (south bound on W. Jubal). |
| METROQUEST SURVEY | Why is this road 35 mph ??? <br> I've come close to getting hit while trying to leave Home Depot or from Petco. This should be 25 mph like the new stretch of Tevis is. Especially with the new apartment complex being built here. |
| METROQUEST SURVEY | With the expansion of Westminster Canterbury andthe new housing development where the old Frederick Co. school once stood, the traffic on Fox Drivewill increase dramatically, making it unsafe for pedestrians (no sidewalks) and drivers. |
| METROQUEST SURVEY | Worst interchange in northwest Virginia. Government said they were moving this interchange south 25 years ago, money was appropriated for the studies and then it was beheaded as expensive. Malfeasance is the better word for it. MOVE THE DAMN INTERCHAN |
| METROQUEST SURVEY | Accidentes y tráfico con trailers |
| METROQUEST SURVEY | Demasiado tráfico |
| METROQUEST SURVEY | Embotellamiento |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Los carros manejan demasiado rápido |
| METROQUEST SURVEY | Los carros manejan muy rápido |
| METROQUEST SURVEY | Mucho tráfico |
| METROQUEST SURVEY | Ruta muy peligrosa con muchos accidentes |
| METROQUEST SURVEY | Abrams Creek Storm water drains |
| METROQUEST SURVEY | Commercial expansion |
| METROQUEST SURVEY | Drainage easement should have pipes that run under ground. |
| METROQUEST SURVEY | Grocery options in Winchester are non-existent.Losing all the shop n save plus fresh market has put strain on the remaining stores |
| METROQUEST SURVEY | Houses are too close too each others! |
| METROQUEST SURVEY | Long ago transportation plan implemented turnedout far better than many of us expected. This is nice. |
| METROQUEST SURVEY | Need Lake Frederick road connection to Hudson Hollow Rd. to allow for more efficient access by the ov.er 1000 residents to shopping and highway access |
| METROQUEST SURVEY | New construction ripped out several trees for noapparent reason. City has requested they be re planted at same height. Want to ensure this occurs |
| METROQUEST SURVEY | Rename Jubal Early |
| METROQUEST SURVEY | Roads need to connect somewhere in here |
| METROQUEST SURVEY | Terrific! Long needed and this really helps! |
| METROQUEST SURVEY | The median area between the lanes can be improved to look less industrial and more welcoming with landscaping. |
| METROQUEST SURVEY | There needs to be a connection northbound in this area. |
| METROQUEST SURVEY | This whole area is just horrible!!! |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Ugh. Start again. |
| METROQUEST SURVEY | All along Main Street, and throughout the town,there are serious ADA compliance issues. Sidewalks are impassable to wheelchairs users. Walking pedestrians need to watch very carefully where they walk. Consistently throughout town the sidewalks area tripp |
| METROQUEST SURVEY | Close off Boscawen across the mall |
| METROQUEST SURVEY | Access from city for those who don't drive wouldhelp a lot. |
| METROQUEST SURVEY | Completing the Bike/Ped Path on Channing to Senseny, and on Senseny to Old Town would be Incredible. |
| METROQUEST SURVEY | Connecting the Bike/Ped access over 81 to Old Town would be incredible. |
| METROQUEST SURVEY | Crossing from the west side of the intersectionto the south side requires pedestrians to walk in the street by the southwest curb rather than usinga sidewalk. |
| METROQUEST SURVEY | Crosswalk needed here. |
| METROQUEST SURVEY | Crosswalks are not painted. Cars do not stop forpedestrians. Cars speed on a blind hill through a major crosswalk. |
| METROQUEST SURVEY | Enhance safety for pedestrians, children walkingto school. |
| METROQUEST SURVEY | Fort Collier has a lot of traffic from semis andcars going to all the business but also a lot of pedestrians going to the jail, Salvation Army andother gov services in the area. It needs sidewalks and street lights and pedestrian crossing. Now many peopl |
| METROQUEST SURVEY | Fort Collier would benefit from a sidewalk - there is Salvation Army as well as a work release facility and numerous tractor trailers utilizing thisnarrow winding rd. Pedestrians and cyclists are not safe. |
| METROQUEST SURVEY | From Hollingsworth to Cork St. along both sidesof Pleasant Valley, these sidewalks should be more pedestrian focused. East side land is almost allcity owned \& could be used to shape P.V. so traffic flow pairs well with pedestrians. Trying to walkalong th |
| METROQUEST SURVEY | I see to many people speed way over the speed limit outside of the mall and itïi $1 / 2 \mathrm{~s}$ scary that $i t i ̈ i^{1} 1 / 2 \mathrm{~s}$ in daylight. I wish we had people who could navigate pedestrian at cross wall in the mall and near Boscowan st. |
| METROQUEST SURVEY | Lack of |
| METROQUEST SURVEY | Lack of smooth sidewalks on Main Street |


| SOURCE | COMMENT |
| :--- | :--- |
| METROQUEST <br> SURVEY | lights too long. SU students crossing the street. |
| METROQUEST <br> SURVEY | Need a crosswalk at tasker and warrior |
| METROQUEST <br> SURVEY | Need crosswalk here |
| METROQUEST | Need crosswalk here |
| SURVEY |  |
| METROQUEST <br> SURVEY | Need crosswalk here. |
| METROQUEST <br> SURVEY | Need flashing crosswalk. Folks are speeding through here as a cut off vs just using braddock due to no <br> stop lights |
| METROQUEST <br> SURVEY | need more walk ways and safer routes for the college kids |
| METROQUEST <br> SURVEY | No crosswalk, road is wide |
| METROQUEST <br> SURVEY | No pedestrian facilities along 522 North connecting shopping centers and surrounding neighborhoods. |
| METROQUEST <br> SURVEY | No safe access here from the city for those whodon't drive. |
| METROQUEST <br> SURVEY | No safe crossing for students |
| METROQUEST <br> SURVEY | No safe pedestrian area |
| METROQUEST <br> SURVEY | No safe place to walk along Route 50 |
| METROQUEST <br> SURVEY | No safe walking area. |
| METROQUEST <br> SURVEY | No shoulders/sidewalks |
| METROQUEST <br> SURVEY <br> METROQUEST <br> SURVEY | No sideswalks for work release or other folks who walk to work within the Fort Collier Industrial Park |
| METROQUEST <br> SURVEY | No sidewalks on the east side of Pine St |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | No sidewalks along much of tasker, with all of the new residential being put in it gets used |
| METROQUEST SURVEY | No sidewalks along Senseny Road |
| METROQUEST SURVEY | No sidewalks for pedestrians |
| METROQUEST SURVEY | no sidewalks on Barley drive and subsequent roads. lots of pedestrians use these neighborhoods to walk/exercise. even those from outside the neighborhood. |
| METROQUEST SURVEY | No sidewalks. People walk to work..Salvation Army and Work Release. There isn't a safe place to walk. |
| METROQUEST SURVEY | No walking access from shopping center to hospital |
| METROQUEST SURVEY | No way to easily walk or bike to grocery store |
| METROQUEST SURVEY | Not enough sidewalk/crosswalk on all sides of the road. |
| METROQUEST SURVEY | On 522 from 37 to downtown I always see bikers or pedestrians traveling on this strip. We need a bike lane and or a sidewalk spanning this area. |
| METROQUEST SURVEY | Pedestrian traffic is not safe along Main Street. The crosswalks are not sufficiently marked. The on street parking, with vehicle doors being openedinto traffic, is a hazard for vehicular traffic and occupants of the parked/parking vehicle. |
| METROQUEST SURVEY | Pedestrians constantly cross street in this section and cross walks are not utilized (I don't think I've seen one). |
| METROQUEST SURVEY | Pedestrians often cross here, yet there are no crossing signals nor marked crosswalks |
| METROQUEST SURVEY | People trying to cross 4 lanes of traffic. |
| METROQUEST SURVEY | People walking on the side of the road no safe sidewalk |
| METROQUEST SURVEY | Sidewalk is thin and without a buffer between the road. This creates a dangerous walking environment |
| METROQUEST SURVEY | Sidewalks arenï̀ $\mathrm{i}^{1 ⁄ 2}$ t available on all of Weems |
| METROQUEST SURVEY | Students walk from JWHS down to sheetz, dunkin donuts |
| METROQUEST SURVEY | Tasker and warrior is unsafe for pedestrians |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | The county opened Greenwood Mill Elementary School to be a neighborhood school, but did not provide the infrastructure required to make it safer forchildren to walk to their school |
| METROQUEST SURVEY | There are constantly people walking along the grass/drainage median between the lanes of Route 7 because of the lack of sidewalk. With the on and off ramps for 81 causing more traffic, it is incredibly unsafe for people, especially at night. |
| METROQUEST SURVEY | There are no sidewalks on this part of Papermillroad and it is a VERY busy and highly sped on street |
| METROQUEST SURVEY | There is a lot of foot traffic in the 81/50/522area due to proximity to Winchester and the college and the intersections of very busy. There couldbe better crossings. |
| METROQUEST SURVEY | There is no crosswalk and this area is used by alot of pedestrians |
| METROQUEST SURVEY | This area needs improved crossings and sidewalksto make it safer for kids to walk/bike to/from school. |
| METROQUEST SURVEY | Unsafe walking conditions from hotels to shopping areas |
| METROQUEST SURVEY | Very dangerous road for pedestrians to walk near. Need to add sidewalk or larger shoulder to the road. |
| METROQUEST SURVEY | Walking/bike path connecting parks. |
| METROQUEST SURVEY | Would be nice to have a way to walk from here todowntown on fairmont |
| METROQUEST SURVEY | Wrought iron fence installed on south side of 7impedes sight distance for right out movement from shopping center. Sidewalks east of 81 overpass severely substandard where they exist. Pedestrian overpass needs to be installed for crossing of 7 near 81 |
| METROQUEST SURVEY | Install crosswalks and crosswalk signals |
| METROQUEST SURVEY | No safe pedestrian crossing |
| METROQUEST SURVEY | No safe walking for residents. |
| METROQUEST SURVEY | No sidewalk |
| METROQUEST SURVEY | No sidewalk |
| METROQUEST SURVEY | No sidewalks |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :--- | :--- |
| METROQUEST | No sidewalks along busy street! Lots of kids inthe area. There are quite a few daily walkers and <br> wheelchairs. |
| SURVEY | METROQUEST <br> SURVE |
| No sidewalks. No real place to walk here. Veryunsafe |  |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Traffic merging is dangerous. Pedestrians crossing the major intersections are in danger |
| METROQUEST SURVEY | What used to be a wonderful pedestrian and biking corridor is now an unforgivable, uncrossable racetrack with hurried traffic and disoriented patients coming in and out of medical building parking lots. Please do something to improve safety. Stoplights $m$ |
| METROQUEST SURVEY | Dangerous pedestrian crossing in all directions, no safe access from hotels to local stores/restaurants |
| METROQUEST SURVEY | needs a better pedestrian environment, sidewalkstoo narrow, sidewalks blocked by signage and poles |
| METROQUEST SURVEY | People walking across road |
| METROQUEST SURVEY | Poor sidewalks. |
| METROQUEST SURVEY | S Loudon sidewalks are crumbling apart making itunsafe for wheelchair users |
| METROQUEST SURVEY | This is where James Wood High school kids run/walk |
| METROQUEST SURVEY | Water collection at rail road where side walk meets, makes inaccessible to walkers |
| METROQUEST SURVEY | Cars drive too fast on Kinross Drive. This willbe worsened with truck traffic when the truck stop is built on south side of Route 50. |
| METROQUEST SURVEY | College students not safe, highly congested. |
| METROQUEST SURVEY | Dangerous intersections Cameron/Piccadilly Valley/Picaddilly |
| METROQUEST SURVEY | Dangerous to cross |
| METROQUEST SURVEY | Enhance pedestrian safety for users crossing to/from Shenandoah University. |
| METROQUEST SURVEY | Handley High School track team members run on the sidewalks along Valley Avenue. They generally cross all of the intersections without stopping fortraffic. Very dangerous for them. The coach and track team members MUST work on this before one of the $s$ |
| METROQUEST SURVEY | Jaywalking - pedestrians moving away from cornerto cross the street. |
| METROQUEST SURVEY | Lots of pedestrian traffic in downtown |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Most intersections downtown. Cars are giving wayto pedestrians. |
| METROQUEST SURVEY | Need flashing lights at cross walk. Push buttonto activate. |
| METROQUEST SURVEY | Need flashing lights at cross walk...button to activate \& cross |
| METROQUEST SURVEY | Need flashing lights in crosswalk. Button to activate and cross |
| METROQUEST SURVEY | No pedestrian walkway |
| METROQUEST SURVEY | Pedestrian crossing needs to be improved now that SU student housing is across the street. |
| METROQUEST SURVEY | Pedestrian students should have safer paths to public places |
| METROQUEST SURVEY | Safety for pedestrians. |
| METROQUEST SURVEY | See my comments under the safety marker. |
| METROQUEST SURVEY | Sign for Exxon, Dunkin, Subway blocks the view of drivers traveling east, then turning south. The drivers cannot see pedestrians in the crosswalk until they are actually turning. If they are going too fast to stop, they will hit the pedestrians. I've had |
| METROQUEST SURVEY | Speeding is bad need speed bumps for child's safety |
| METROQUEST SURVEY | Students from Shenandoah University cross here all the time. They don't always wait for the signal to cross safely. At night when they cross, theintersection could use more lighting. |
| METROQUEST SURVEY | The crossing at this junction is unsafe for pedestrians. Many people walk in this area to get into Stephens City proper, where there are maintainedsidewalks. But the lack of sidewalks and cross walks on the Fred County side make it dangerous for them. |
| METROQUEST SURVEY | The house, wall, and shrubbery on the southwestcorner of this intersection block the view of eastbound Bellview Avenue drivers. I saw the same oldman get struck twice at that intersection by drivers legally driving through the intersection withthe green |
| METROQUEST SURVEY | There should be a crosswalk here since there isa bus stop on both sides. |
| METROQUEST SURVEY | There's a big metal box that holds the controlsfor the traffic lights at this intersection. It blocks the view of traffic for pedestrians. It also blocks the view of pedestrians for drivers. Very poor safety planning on someone's part who should know |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Too busy for pedestrians, needs bridge |
| METROQUEST SURVEY | Too congested for pedestrian or bike |
| METROQUEST SURVEY | Traffic regulation. |
| METROQUEST SURVEY | University Students needing to cross a very busyintersection. We really need a pedestrian bridge over this road. |
| METROQUEST SURVEY | City removed the stop light and people ignore the stop sign. The West Virginians don't even slow down. This area had pedestrians struck a few years ago and the City Police started ticketing. We never see City Police out - bring back the stoplight |
| METROQUEST SURVEY | It is dangerous and impossible at times for pedestrians to cross Pleasant Valley Road to access the only large scale public park in Winchester. Conversely, Shenandoah University students cannot get to downtown safely. Find land to create a pedestrian br |
| METROQUEST SURVEY | No cross walks on intersection of tasks and warrior. Also no street lights available on either road especially coming down warrior |
| METROQUEST SURVEY | Pedestrians trying to cross 4 lanes of traffic. |
| METROQUEST SURVEY | Tough for kids crossing to get to school as traffic here is overloaded |
| METROQUEST SURVEY | No hay suficientes aceras para caminar |
| METROQUEST SURVEY | Peligroso para caminar |
| METROQUEST SURVEY | 2 new busses in 4 years. |
| METROQUEST SURVEY | In general, the bus stops throughout the city seem pretty basic. A bench and safe three wall enclosures to protect riders from the elements- not just rain and cold, but the heat of summer too, would be beneficial. |
| METROQUEST SURVEY | Many handicap people on electric chairs. No covering leaves them in the rain |
| METROQUEST SURVEY | North end direct connect routes |
| METROQUEST SURVEY | People park in the bus stop all the time. Itï̀¹⁄2snot marked on the road as not parking. Just a small sign for the stop |
| METROQUEST SURVEY | A bus stop will make it easier for people to goto different stores and it is beneficial for thr university |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Access needed to DMV on at least a weekly basis. |
| METROQUEST SURVEY | Access to the stores on this side of 81 would begreatly helpful to those in the city. Many stores, short distance, no access. |
| METROQUEST SURVEY | Bus stop at the Home Depot facility as well as Wal-Mart |
| METROQUEST SURVEY | Bus to the DMV. |
| METROQUEST SURVEY | Doesnï̇ 1 ¹2t exist |
| METROQUEST SURVEY | Doesnï̇½t exist |
| METROQUEST SURVEY | Doesnï̇ 1 ¹/2t exist |
| METROQUEST SURVEY | Doesnï̇ 1 ¹2t exist |
| METROQUEST SURVEY | For special olympics and those who don't drive, access is needed to the skating rink. Martins shopping center would also help. |
| METROQUEST SURVEY | Hotels and dorm should have an option to take public transportation to more popular areas of the city |
| METROQUEST SURVEY | I understand this is a survey specifically relating to Winchester and Frederick Cty,, but I think when it comes to transit, ONLY looking at the cityand county is too myopic. People move here from other cities, people visit here for Apple Blossom and othe |
| METROQUEST SURVEY | It would be enormous to have a bus line that runs from Winchester to LFCC. Online classes, while helpful, are not the same as in-person learning andstudents without transportation are stuck without a bus line into Middletown. |
| METROQUEST SURVEY | Lack of into the county |
| METROQUEST SURVEY | Lack of transportation |
| METROQUEST SURVEY | Lack of transportation |
| METROQUEST SURVEY | Lack of transportation |
| METROQUEST SURVEY | Need a Bus route on Jubal Early to go from Shenandoah University to Winchester Medical Center with multiple stops. Bus route to connect also to Oldtown and city government and court. |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Need access for those who don't drive |
| METROQUEST SURVEY | Need availability for a large and elderly population to drug stores, food stores and other critical services. |
| METROQUEST SURVEY | Needs a connecting route here, lots of businesses and hotels |
| METROQUEST SURVEY | No bus service |
| METROQUEST SURVEY | No bus transport to here. |
| METROQUEST SURVEY | no public transportation |
| METROQUEST SURVEY | No public transportation |
| METROQUEST SURVEY | No public transportation available |
| METROQUEST SURVEY | No public transportation available. |
| METROQUEST SURVEY | None available here. Would be a good spot for abus stop for those that travel from the north. Would help people stay off of I-81 |
| METROQUEST SURVEY | None available! |
| METROQUEST SURVEY | None available. This is outside a senior community. |
| METROQUEST SURVEY | One location in Winchester with a shuttle or busservicing Dulles airport. Regional services as well. |
| METROQUEST SURVEY | Public transportation from the UDA in FrederickCounty to downtown Winchester |
| METROQUEST SURVEY | Public Transportation would allow elders and families to gain acces to doctors, employment, cheaper housing with minimal trans. Cost |
| METROQUEST SURVEY | There is literally no way to go from Winchesterto anywhere else other than elsewhere *in* Winchester. Want to catch the Amtrak at Martinsburg orHarpers Ferry? Too bad. <br> Want to get to Dulles Airport? Take a $\$ 100+$ Uber. <br> Want to go a few towns over? Outta |
| METROQUEST SURVEY | there is no public transportation |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | There should be a bus route between Stephens City and Winchester. Also bus routes along Fairfax and Tasker that feed into routes into Winchester. Weneed a way to get to the Winchester Medical Center. Also to the parks, like Sherando and Jim Barnett, and |
| METROQUEST SURVEY | There should be transit at the university. The nearest bus stop is farther away on a pedestrian-unsafe road. |
| METROQUEST SURVEY | Transit here would allow residents greater job opportunity and offer transp. To better jobs and services |
| METROQUEST SURVEY | We need public transportation to LFCC. |
| METROQUEST SURVEY | Allow NW Sal. Army bus to continue and turn around at the Sharp Shopper. This will provide additional service to that store and more riders on thisbus. The current riders will have more choices of where to go easily. |
| METROQUEST SURVEY | Can't have it - too screwed up already |
| METROQUEST SURVEY | It would be nice to have more public transportation to connect the outskirts with Winchester proper |
| METROQUEST SURVEY | Lack of Public Transit to all employers locatedwithin the Ft Collier industrial park. |
| METROQUEST SURVEY | Need Regional connections |
| METROQUEST SURVEY | No way to get into Frederick county via public systems from other areas such as Harrisonburg, Fredericksburg, Warrenton, etc |
| METROQUEST SURVEY | NONE. Frederick County has no public transportation for its taxpaying citizens. |
| METROQUEST SURVEY | Please provide bus transit for Stephenï̇ $1 / 2$ S Cityarea |
| METROQUEST SURVEY | There is none. It is a huge employer and it would be great to have alternative transpiration hï¿ $1 / 2 \mathrm{re}$. |
| METROQUEST SURVEY | Winchester public transit does not visit nearlyenough places in Winchesterï̀ $1 / 2$ specifically areas with high employment rates. |
| METROQUEST SURVEY | Winchester public transit does not visit nearlyenough places in Winchesterï̀ $1 / 2$ specifically areas with high employment rates. |
| METROQUEST SURVEY | Wintran could use a closer stop to all the apartments |
| METROQUEST SURVEY | more public transportation needed to reduce carbon footprint within city limits and more hours for public transportation |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | There is a bus stop near the Salvation Army butthe times don't match our shift times |
| METROQUEST SURVEY | Buses need to run on weekends |
| METROQUEST SURVEY | not enough drivers. no trolley. |
| METROQUEST SURVEY | Is there actually a bus that comes by this location? If not, remove the sign. If so, the bus should come on a regular basis. |
| METROQUEST SURVEY | What public transport. Public transportation inthis town is sparse and takes forever to go a few miles. |
| METROQUEST SURVEY | Se necesita transporte público más barato quellegue hasta aquí |
| METROQUEST SURVEY | Seria bueno tener bus que viaje hasta aqui |
| METROQUEST SURVEY | Property and business owners have debt to thiscommunity-if they don't start investing via taxes and thriving wages, more people will start leaving. |
| METROQUEST SURVEY | Overall this area is wholly car dependant. Pedeatrian safety and bike accessibility are low in low income areas. There is a disparity for safe non-vehicle travel between wealthy and poor communities. There is a lack of safe bike lanes across thecity |
| METROQUEST SURVEY | Biking/walking in this area is made dangerousby the lack of safe infrastructure. Emphasis on vehicle infrastructure reduces walking/biking toursim and makes it unsafe for commuters. Hazardous conditions are more prevalent in low income areas. |
| METROQUEST SURVEY | I'm originally from Arlington and used to thetransit there. You can walk or bike to anything you need. Here I have no choice but to drive. That'spartly a zoning problem - no grocery stores within walking distance - but also a safety problem. |
| METROQUEST SURVEY | Infrastructure planning should come before notafter development. Please fix traffic circulation before approving new housing. |
| METROQUEST SURVEY | Please do not take my responses as negative. We have made great progress, and I look forward to the continued improvement. |
| METROQUEST SURVEY | Completion of route 37 east side, starting with extension to route 522 |
| METROQUEST SURVEY | There is no public transportation in the county, or a plan for pedestrian or bike infrastructure in the proposed urban development areas |
| METROQUEST SURVEY | Lack of reliable and affordable transportationis one of the largest barriers for low-income folks \& the disability population to gain \& maintainemployment. We NEED mass transit here. Being carless shouldn't be a death sentence for employees. |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | No tax increases. Use of existing tax dollars. |
| METROQUEST SURVEY | Biking, especially for order retired adults could be improved with well marked bike lanes. Enforcement and education to motorists than endanger bike riders would help |
| METROQUEST SURVEY | Transportation is under funded and improvements are driven by politics, not need. |
| METROQUEST SURVEY | I don't think we need to raise taxes anywhere.I think we need to reallocate funds from other areas. Housing and rent prices should be capped so everyone can afford homes. We don't need to grow financially any more. |
| METROQUEST SURVEY | English only!!!! |
| METROQUEST SURVEY | Population growth is outpacing the level of infrastructure needed for safe and delay free travel on area roads. More police are needed for trafficviolation enforcement. |
| METROQUEST SURVEY | Im apposed to tax increases, fix the wastefulspending on schools that have glass hallways and all this fancy stuff that has no impact on learning. Cut the boards spending on research you will have all the money you need |
| METROQUEST SURVEY | I couldn't enter problem areas. For me, it isrt 7 and I-81 interchange. I use Redbud road when I can, but not when dark, weather is bad etc. Not sure how to fix, but an earlier lane to get onto Rt 81 N coming in from RT 7 would maybe be possible. |
| METROQUEST SURVEY | WinTran needs to be expanded to more locations. |
| METROQUEST SURVEY | Really need closer full service grocery stores |
| METROQUEST SURVEY | Pedestrian Walk Signals need to be backed up by Red Light Initiation for all vehicles . |
| METROQUEST SURVEY | Thank you for the opportunity to provide feedback. We recently moved here to take advantage of all that is offered and we look forward to the progress ahead. |
| METROQUEST SURVEY | I work within the city of Winchester. |
| METROQUEST SURVEY | Keep needed destinations and desired shoppingand visitation areas accessible to all who don't drive if that's what you want to encourage. |
| METROQUEST SURVEY | Over development must be stopped or else Nothing will yield a positive result. |
| METROQUEST SURVEY | Winchester is very car/driver focused. They could learn a lot about the way Rockingham County and Harrisonburg complete public transit routing, bicycle lanes and awareness, and traffic pattern recognition/adaptations. |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :--- | :--- |
| METROQUEST |  |
| SURVEY |  | | The stop light set-up needs to be fixed. Unfortunately, Winchester is growing very fast, but there doesn't |
| :--- |
| seem to be any progress with the local government to fix the stoplights. It's almost as if the local |
| government is ignoring the rapid growth. |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Although my primary mode of transportation ismy car, I walk in the City of Winchester every day. I would be happy to walk the City with any cityplanner or safety official to point out the many serious deficiencies in the City for the pedestrian. |
| METROQUEST SURVEY | Expand I81, make police enforce slow drivers and driving in the fast lane going too slow or not passing anything. The trucks need this enforcement bad. You don't see hogging of the fast lane in Cleveland OH because law enforcement enforce thelaws! |
| METROQUEST SURVEY | Expanding interstate 81 and making it 3 lanedof each side from WV boarder to 166 would be ideal. WV is already in the process and you can see thepositive changes already. Reducing congestion, flow of traffic and accidents. Rte 7 needs reroutingtoo |
| METROQUEST SURVEY | Telework needs to be highly pushed and incentivized. This would reduce traffic related stress across all areas. Businesses should be prioritizingthis option to help the community. |
| METROQUEST SURVEY | Thank you for surveying the community! |
| METROQUEST SURVEY | I would LOVE to see some sort of rail that connects to Metro/Amtrak! |
| METROQUEST SURVEY | Would like a regional bus service to connect to Loudoun County bus service in order to more easily travel between Winchester and NFCU Headquartersand other DC region locations. |
| METROQUEST SURVEY | The downtown area greatly benefit w/ enhancedsafety \& driving room on the streetsCars go crazy on the street -don't stop at the stop signs There shouldn't be cars parked on the st between gray/Smithfield they block the signs and no room to pull over |
| METROQUEST SURVEY | Winchester is a very unfriendly place for people without cars. The public transportation is confusing and very small. Ride sharing apps are sporadic in a city as small as this, and many stroads are very unsafe to cross. |
| METROQUEST SURVEY | Bus service to DC / Dulles or regional service, please! Even though many of us have cars, we don't want to worry about airport parking or drive topick up guests every time. Fix 81 on /off ramp traffic off of 50, 7 and the overpass by Stephens City. |
| METROQUEST SURVEY | Don't increase taxes. Stop spending money onbrand new shit for your cops. |
| METROQUEST SURVEY | It would be *amazing* to get a real grocery store in the downtown area! I'd practically never use my car if that were an option. :) |
| METROQUEST SURVEY | With the extension of the Silver Line to Reston, while expensive, bringing it out to somewhere on Rt 7 into Frederick county will not only help ease commutes, but make the area even more attractive while reducing emissions. |
| METROQUEST SURVEY | Trails and walking paths are great, but traffic to a community that employs an amazing amount of commuters need to focus on smart traffic solutions. |
| METROQUEST SURVEY | Need highway access ramp for new overpass!! |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | Roundabouts are ridiculous. |
| METROQUEST SURVEY | Retired military |
| METROQUEST SURVEY | There is currently no public transportation inFrederick County, VA. I assisted a vision impaired person in obtaining transportation to work andhad to point her to Uber or a taxi for transportation. |
| METROQUEST SURVEY | 1 am a life long resident of Frederick County, VA. |
| METROQUEST SURVEY | The growth in the area has outpaced our physical resources. We need the industrial tax base but need to catch up with roads and water. |
| METROQUEST SURVEY | This survey is great, thank you for the opportunity to provide input. Winchester should be the premier town in the valley with transportation infrastructure to match. |
| METROQUEST SURVEY | many projects long over due and have been discussed for years - especially Ex 317 at Stephenson. |
| METROQUEST SURVEY | The county needs to hold developers more accountable for the infrastructure needs that their developments require. They have been given a free pass for the past 40 years and have not been a good partner to the taxpayers of Frederick County. |
| METROQUEST SURVEY | Frederick Co. seems to have allowed lots of construction of housing units, subdivisions, etc. without planning updated roadways or transportationto accommodate the extra traffic. There needs to be immediate change. Waiting for 2040 is too late. |
| METROQUEST SURVEY | The survey only allowed for answers you wantedto hear. Funding ... how come there was not an option for no increases? |
| METROQUEST SURVEY | I'm 74 years old. Am thinking most in terms ofwhat would be of benefit to next generations. |
| METROQUEST SURVEY | Priority: encouraging more taxi services or "senior rides" for senior citizens. Since Taxi USA went out of business, there is no clean, dependable taxi service in this area. |
| METROQUEST SURVEY | Please don't become like Loudoun Co. I moved to Frederick Co to escape Loudoun Co taxes. |
| METROQUEST SURVEY | You should think about an alcohol tax as morepeople drink than smoke. |
| METROQUEST SURVEY | Exit 307 off 181 is terribly congested ...something needs to be done |
| METROQUEST SURVEY | Thank you for providing an easy way for citizens to comment! For the survey questions in future, it might be helpful to differentiate answered questions with checks in boxes or stronger bolding. |
| METROQUEST SURVEY | VDOT has come up with an idea to spend $\$ 5$ +milto fuck up the ONLY section of S . Pleasant Valley that works (along the entire stretch from post office to Papermill) $\mathrm{w} /$ a roundabout between Cork \& Lowry. Poor \& misdirected solution, \& a waste of our \$! |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | I would love to be able to safely bike more into Winchester. There is just no safe way to do so. My bike never gets to leave the garage. |
| METROQUEST SURVEY | More street lights and better stripping on roads would help |
| METROQUEST SURVEY | Please try to get bus service sooner than 2045! Thank you. |
| METROQUEST SURVEY | I commute to Winchester from Bunker Hill due to the cost of realestate in and around Winchester. |
| METROQUEST SURVEY | timing of lights on 522 where beltway crossesin north Winchester |
| METROQUEST SURVEY | Not everyone can wear masks according to theirhealth guidelines. Requiring them for everyone prohibits many seniors and disables from using the bus system they need. |
| METROQUEST SURVEY | Moving l-81 exit 302 further south will do nogood, and has the potential to create a lot of harm and waste a great deal of money. For more than 20 years, a bottleneck has been created |
| METROQUEST SURVEY | Thank you for the opportunity to share my views on modes of transportation for our community. |
| METROQUEST SURVEY | The most difficult thing about driving withinthe city is the traffic lights. The left hand turn arrow is horrible on Pleasant Valley and Jubal Early. |
| METROQUEST SURVEY | We have very few problems in the area considering the congestion of nearby DC and related communities. Please don't make here more like there. I like this area. Is it perfect, no. But still better than most places. |
| METROQUEST SURVEY | Please do not do all the repairs at the same time. |
| METROQUEST SURVEY | In a beautiful and historic city with mild weather, we must take advantage of developing public transportation. This may attract tourism and encourage employment in areas that are currently unwalkable. Also climate change is a thing. |
| METROQUEST SURVEY | Winchester needs to move towards more bike paths, walking trails, and sustainable public transportation. Look at Davis CA for an example of a sustainable city. |
| METROQUEST SURVEY | In case you need to know for statistical purposes, my ethnicity is Hearty American Hybrid and my income is retirement based. <br> I have lived in abig city without |
| METROQUEST SURVEY | Buses should come more often and zoning shouldbe changed so that smaller necessity stores (grocery/pharmacy) are in neighborhoods. People shouldbe able to walk to that sort of shop. We need grocery stores. Have smaller accessible ones. |
| METROQUEST SURVEY | I'd like to bike/skate/rollerblade around town easier. |


| SOURCE | COMMENT |
| :---: | :---: |
| METROQUEST SURVEY | I have tried for yrs to get public transportation from Forest Lake Estates in Stephens City to Winchester for Shopping etc \& back to FLE. THANKS.PLEASE CONSIDER. I DO NOT DRIVE. |
| METROQUEST SURVEY | Changes to transportation need to be made to meet the needs of our diverse population. It would be a small step toward equalizing opportunities for groups that struggle with housing/low income. It also needs to be done to address the climate crisis. |
| METROQUEST SURVEY | In my opinion the growth should be slowed so that the infrastructure can catch up. |
| METROQUEST SURVEY | Mejoras en la infraestructura |
| METROQUEST SURVEY | Gracias por dejarnos opinar lo que creemos necesario |
| METROQUEST SURVEY | No entendi mucho la encuesta |
| METROQUEST SURVEY | Hay personas que necesitan más aceras para caminar hacia su trabajo |
| SHORT-FORM SURVEY | 1-Amhurst- major delay at the light coming off 37 N (by mcdonalds) turning left. Traffic at time backs up to the main road on 37 2-route 7-Not enough lanes for traffic between I-81 and east of safford Jeep Dealership |
| SHORT-FORM SURVEY | I drive from Strasburg to Winchester via Route 11. During rush hours the longest delay is at the intersection of Rt 11 and Fairfax Pike in Stephens City. Drivers will block the intersection when turning on to Fairfax Pike causing safety issues and long delays. |
| SHORT-FORM SURVEY | I find all of these area's to be very congested and sometimes dangerous while driving. people coming off $81 / 313$ B exit merges right into the traffic on rt 50 . I feel that is very dangerous. the bridge on rt 50 Winchester seems to need work done on it. |
| SHORT-FORM SURVEY | I only have a issue with congestion when on rt 50 where you can get on 81 there it can take some extra time to get through the traffic depending on the time of the day |
| SHORT-FORM SURVEY | I see kids walking and riding bikes from Millbrook up Senseny road all the way up to Greewood rd. There should be a Pedestrian bridge to allow them to safely cross rt 7 I also see kids crossing from the schools straight thru to Blossom Dr. There are no sidewalks or bike paths for these kids. The hill across from the schools also gets backed up it causes delays and then has people cutting through neighbors hoods to avoid traffic. The 81 N exit to Clearbrook also gets back up onto the high way everyone is turning right towards the new Rutherford crossing shopping center and the new Snowden Bridge homes. These lights are way too close together and cause extreme delays |
| SHORT-FORM SURVEY | 1-81 delays, traffic congestion, road repair, accidents, deer, weather. |
| SHORT-FORM SURVEY | It takes 5 x longer to get anywhere in Winchester. Our city and Frederick County is growing rapidly! |


| SOURCE | COMMENT |
| :--- | :--- |
| SHORT-FORM |  |
| SURVEY |  | | Jubal Early is always congested with cars especially at the intersection on South Pleasant Valley Rd where |
| :--- |
| the starbucks is across from the old Ruby Tuesday. Starbucks needs a larger space, the cars are always |
| outside the parking lot. The cars pulled out the parking lot in to the left lane. When they are supposed to |
| pull out into the right lane, signal then get in the left lane. The customers do not do that. Unsafe and will |
| cause an accident. There are not many side walks in the areas where there is a high traffic of people |
| example Valley Ave. The buses do not go a far distance and the hours to catch the bus are cut off at 6pm. |
| You can only go a few places with the city bus. It would be nice to have an more extensive distance for |
| the buses. Stephens City and Winchester City the construction is unorganized and the barriers are all |
| over the road. There are pot holes all across the Winchester City are Berryville Ave, in store parking lots |
| right by family dollar, in the school zones and etc. |
| need to be able to make it safely to and from work. |


| SOURCE | COMMENT |
| :---: | :---: |
| STAKEHOLDER FORUMS | There is a lack of bike lanes and sidewalks on Route 11 and Senseny Road. This is a safety concern, too. |
| STAKEHOLDER FORUMS | There is no interregional rail or bus service to other parts of the state. |
| STAKEHOLDER FORUMS | The Virginia Maritime Association has an open house mixer. The traffic club includes logistics managers that can provide more detailed feedback. |
| STAKEHOLDER FORUMS | There are concerns about the Senseny Road and Greenwood Road interception as buildout continues. |
| STAKEHOLDER FORUMS | There needs to be better accident cleanup on I-81 because accidents can back up traffic and overload the surrounding roads. |
| STAKEHOLDER FORUMS | Could there be a higher weight load requirement for trucks to reduce the number of trucks on the road. |
| STAKEHOLDER FORUMS | Could there be payment for transportation improvements based on use or "user fees." |
| STAKEHOLDER FORUMS | Try displaying posters on community boards in Hispanic Stores. |
| STAKEHOLDER FORUMS | Consider partnerships with other stakeholders, like Virginia Career Works, Salvation Army, Valley Assistance Network, Literacy Volunteers, Laurel Center, and Winchester Rescue Mission. |
| STAKEHOLDER FORUMS | Offer incentives for assistance in taking the survey. |
| STAKEHOLDER FORUMS | Connect with Anna Fitzpatrick with Sacred Heart. |
| STAKEHOLDER FORUMS | Coordinate to get on the Small Business Development page. |
| STAKEHOLDER FORUMS | Safety is a huge issue and concern for the Hispanic communities. |
| STAKEHOLDER FORUMS | Wordsmith the vision and goals to make them more understandable to lay people. With the vision, consider breaking the statement down into multiple sentences. |
| STAKEHOLDER FORUMS | Highlight diversity and inclusion in the vision and goals. |
| STAKEHOLDER FORUMS | Safety is the number one goal. |
| STAKEHOLDER FORUMS | Accessibility is a huge deal, because there is no access to reliable vehicle and limitations to receiving a driver's licenses. |
| STAKEHOLDER FORUMS | There needs to be more park and rides. |


| SOURCE | COMMENT |
| :--- | :--- |
| STAKEHOLDER | Public transit is a priority need. |
| FORUMS |  |
| STAKEHOLDER | Pedestrian access and safety are priority needs. |
| FORUMS |  |
| STAKEHOLDER | There are weekly backups on Interstate 81. There should be expansion and lane restrictions for truck and |
| FORUMS | freight movements. |
| STAKEHOLDER | There are major problems at the Interstate 81 and Route 37 interchange (the Stonewall Industrial Park). |
| FORUMS |  |
| STAKEHOLDER <br> FORUMS | There are major problems at the interstate 81 and Route 7 interchange. |
| STAKEHOLDER | There could be more bridges and overpasses that cross over and connect the city and county. |
| FORUMS |  |
| STAKEHOLDER | Make more space for sidewalks. |
| FORUMS |  |
| STAKEHOLDER | Make more bike-friendly infrastructure. |
| FORUMS |  |
| STAKEHOLDER | Use the cigarette tax and real estate to help fund transportation improvements. |
| FORUMS |  |
| STAKEHOLDER | There needs to be better access and transit service to the University campus. |
| FORUMS |  |
| STAKEHOLDER | The vision could be more specific about the focus on tomorrow. |
| FORUMS |  |
| STAKEHOLDER | The vision statement is too wordy and does not appear to be a policy, as it states. |
| FORUMS |  |
| STAKEHOLDER | The vision and goals touch on topics that are important to the community. |
| FORUMS |  |
| STAKEHOLDER | The vision could focus more on non-automobile travel and trails. |
| FORUMS |  |
| STAKEHOLDER | There should be better transportation access for employees to major employers and students to areas of |
| FORUMS | the County. |
| STAKEHOLDER | There should be more robust transit within the City. |
| FORUMS |  |
| STAKEHOLDER | Expand transit services out farther beyond the City. |
| FORUMS |  |
| STAKEHOLDER | The University tries to attract students who do not use cars. |
| FORUMS |  |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :--- | :--- |
| STAKEHOLDER | There should be more shuttles and a more robust transportation system. This may include bus service to |
| FORUMS | Dulles. |
| STAKEHOLDER | Focus on more connections to transit points, intra- and inter-regional services. |
| FORUMS |  |
| STAKEHOLDER | Route 7 is a choke point for access to Interstate 81. |
| FORUMS |  |
| STAKEHOLDER | Route 11 is also a problem area. People tend to avoid those hotels if they can. |
| FORUMS |  |
| STAKEHOLDER | Industrial traffic mixes with local trips and causes issues. These problems are prompting people to live |
| FORUMS | elsewhere. |
| STAKEHOLDER | The acceleration lanes on Interstate 81 are too short. |
| FORUMS |  |
| STAKEHOLDER | The region needs a better biking network. |
| FORUMS |  |
| STAKEHOLDER | New development should accommodate buses. |
| FORUMS |  |
| STAKEHOLDER | I'm looking at transportation options for the community. |
| FORUMS |  |
| STAKEHOLDER | Reliability is a major issue on the Interstate 81 corridor. |
| FORUMS |  |
| STAKEHOLDER | There needs to be inter-regional services. |
| FORUMS |  |
| STAKEHOLDER | There should be more focus on land use and transportation connections. |
| FORUMS |  |
| STAKEHOLDER | There are problems at the industrial access of Fort Collier Road and Route 37. There is a bad visitor |
| FORUMS | experience from the tourism perspective. It keeps people from purchasing homes. |
| STAKEHOLDER | There should be on-road bike facilities, better transit, and more trails. |
| FORUMS |  |
| STAKEHOLDER | There should be space on roads for transit. |
| FORUMS |  |
| STAKEHOLDER | The Route 522, Route 50 , and Interstate 81 intersection is hindering business and retention, due to |
| FORUMS | traffic. |
| STAKEHOLDER | There are backups at Greenwood and Senseny Roads. |
| FORUMS |  |
| STAKEHOLDER | Transportation to and from Lord Fairfax Community College would help with clinical work. |
| FORUMS |  |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| STAKEHOLDER FORUMS | Environmental Services EVS staff at the medical center don't have transportation to and from work. Employees are coming from everywhere. |
| STAKEHOLDER FORUMS | There should be more focus on transit services. |
| STAKEHOLDER FORUMS | There are significant mobility issues with getting seniors to their medical appointments. |
| STAKEHOLDER FORUMS | They do partner with organizations to try to address transportation. Some people take an ambulance because of the lack of transportation options. |
| STAKEHOLDER FORUMS | There are few sidewalks in Stephens City and few alternative transportation options. |
| STAKEHOLDER FORUMS | In the City of Winchester, there are gaps and inconsistencies with the sidewalk network. |
| STAKEHOLDER FORUMS | There should be better connections to the medical center and free clinic. |
| STAKEHOLDER FORUMS | Could there be other transportation options, like with vouchers for Lift and other services. |
| STAKEHOLDER FORUMS | There are issues with internet connections in the rural areas. |
| STAKEHOLDER FORUMS | Provide mobility for those with physical and cognitive disabilities. |
| STAKEHOLDER FORUMS | Reliability on Interstate 81 is a problem. |
| STAKEHOLDER FORUMS | Interstate 81 is incredibly inconsistent. It is not built for the type of traffic it gets. People purposefully avoid Interstate 81 and use local roads, instead. |
| STAKEHOLDER FORUMS | Route 7 in the evenings is becoming an issue, but then people avoid it, pushing traffic on neighborhood roads. |
| STAKEHOLDER FORUMS | Frederick County is fast growing and has inter-regional roads and tourist destinations. As a result, the region is more affected by outside forces than local traffic. |
| STAKEHOLDER FORUMS | The region has several north/south routes but not many east/west routes. So, motorists use alternate routes through neighborhoods. |
| STAKEHOLDER FORUMS | There are cut-through problems in many areas, including Raven Wing, Corner Stone, Meadow Branch, Snowden Bridge, One Logistics Park, and other locations. |
| STAKEHOLDER FORUMS | There are areas, like Old Charlestown Road, with many accidents and fatalities. |
| STAKEHOLDER FORUMS | There is insufficient truck parking. The Flying J area is overcrowded. A new truck stop would be useful. Zachary Lane gets truck parking when the Flying J is full. The pandemic increased truck traffic. |

Public Engagement and Input Summary

| SOURCE | COMMENT |
| :---: | :---: |
| STAKEHOLDER | The Regional Hazardous Materials Response Team recorded 29,000 commercial trips per day. |
| FORUMS | Middletown has weigh station data. Monday and Thursday are the worst days for truck traffic. |
| StAKEHOLDER | There are seasonal changes in truck traffic. |
| FORUMS |  |
| STAKEHOLDER FORUMS | Meadow Branch is causing more traffic through neighborhoods. Traffic moving out of the City is still a problem. |
| STAKEHOLDER | There are emergency response issues with the traffic on Route 37 and Interstate 81, and Jubal Early. |
| FORUMS |  |
| STAKEHOLDER FORUMS | Emergency responders must shut down lanes to protect responders when there ae accidents. We need to educate the public on the need to protect EMS staff. There should be safety over convenience. |
| STAKEHOLDER FORUMS | On Crossover Boulevard, people will cut across airport road. The intersection could see crashes. It is a two lane road not built for the traffic. |
| Stakeholder | People walk on Amherst but there is not enough room on the sidewalk. The Museum Trail System counts |
| FORUMS | 8,000 to 10,000 pedestrians per month. Even during bad weather or colder months, there are at least 6,000 pedestrians. |
| STAKEHOLDER FORUMS | There are concerns about EMS access to the Museum Trail System. Perry Matthews indicated the need for training with City staff on access. There are problems at switchbacks, but EMS access will be part of the Museum's upcoming strategic planning process. |
| STAKEHOLDER FORUMS | Rush hour traffic at Stephens City is a problem. The fire station uses a two-lane bridge to get anywhere east of Stephens City. There is significant queueing on the bridge. This is a huge issue that affects response times and insurance. Exit 317 is a need. |
| STAKEHOLDER FORUMS | Traffic backs up onto Interstate 81 at exit 315 and 317. It blocks travel on the interstate. |
| STAKEHOLDER FORUMS | There are needs at exit 317, on the northbound lane to Route 7. A huge amount of traffic tries to turn onto Route 7, east. The AM and PM peaks are problematic. |
| STAKEHOLDER FORUMS | There are 1,100 new homes in Stone Bridge that will bring more traffic. |
| STAKEHOLDER | There needs to be coordination with the local planning office on the new housing units already approved. |
| FORUMS STAKEHOLDER |  |
| STAKEHOLDER FORUMS | The City has 4,000 new housing units already approved. |
| STAKEHOLDER FORUMS | EMS is looking at staffing to do GIS work to check locations of stations and whether they are in the best locations. |
| STAKEHOLDER | Lake Frederick buildings are too close together. Snowden Bridge also has tight areas. |
| STAKEHOLDER | There is a growing population of cycling enthusiasts. The needs to be additional bike infrastructure. |
|  |  |


| SOURCE | COMMENT |
| :---: | :---: |
| STAKEHOLDER FORUMS | There is a new park (Rosewood Park) on Route 37, where people may want to access by bike. |
| STAKEHOLDER FORUMS | There needs to be more pedestrian crosswalks in neighborhoods. The Snowden Bridge to Rutherford crossing saw an uptick in pedestrian strikes. There are issues on Route 7, between gateway and Valley Mill. |
| PUBLIC MEETINGS | Add lanes to I-81. Look at add a third lane towards the median of the interstate, rather than on the outside lanes. |
| PUBLIC MEETINGS | Build the eatern bypass around Winchester. |
| PUBLIC MEETINGS | There are limited shoulders on Route 37, which is causing accidents and rollover issues. |
| PUBLIC <br> MEETINGS | Add the eastern portion on Route 37 (the eastern bypass). |
| PUBLIC MEETINGS | Other parts of the state have more political pull and can get more transportation funding. |
| PUBLIC MEETINGS | There are more warehouses coming to the region - creating more truck traffic. |
| PUBLIC MEETINGS | We need to widen several bridges. |
| PUBLIC MEETINGS | There should be better Maintenance in NW Frederick County, on Wesley Chapel Church Road and Brush Creek Road. |
| PUBLIC <br> MEETINGS | At Route 522 and 37 - the signage is misleading with directions. |
| PUBLIC <br> MEETINGS | New warehouses in the area are increasing truck traffic. |
| PUBLIC MEETINGS | Take an integrated approach working with the community and getting feedback, especially on large projects. |
| PUBLIC <br> MEETINGS | The MPO should play a bigger role in publicity of STARS projects, studies, and other efforts. |
| PUBLIC MEETINGS | Give more attention to public transit. |
| PUBLIC MEETINGS | There should be more rail frieght to help get trucks off the roads. |
| PUBLIC MEETINGS | Maintain the rural quality of the region. |
| PUBLIC MEETINGS | Manage growth, including the development of manufacturing sprawl. |


| SOURCE | COMMENT |
| :---: | :---: |
| PUBLIC MEETINGS | There should be more consistent speed limits on roadways. |
| PUBLIC MEETINGS | The region needs the Route 37 eastern bypass. |
| PUBLIC MEETINGS | In Stephens City, the rush hour traffic on Main Street is a serious issue. Traffic backs up on Fairfax Street and blocks the intersection with Main Street. Backups are to and over Interstate 81. |
| PUBLIC <br> MEETINGS | Truckers use Route 11 as an alternate route to Interstate 81 to avoid weigh stations. This causes traffic and other issues on Route 11. |
| PUBLIC MEETINGS | There are serious safety concerns at the intersection of Fairfax Street (Route 277) and Mulberry Street. There is traffic from trucks on Mulberry Road. |
| PUBLIC MEETINGS | Prioritize improvements to Route 37 and the eastern bypass. |
| PUBLIC MEETINGS | Main Street (Route 11) functions as a parallel route to Interstate 81. Traffic can overwhelm Stephens City, due to reliability issues on Interstate 81 and trucks. |
| PUBLIC MEETINGS | There are access management issues on Fairfax Pike. The right-turn only design causes issues. |
| PUBLIC MEETINGS | Look at a stop light in front of the Bowman Library. |
| PUBLIC MEETINGS | There should be a bike path from the Green Circle Trail to the new Rose Hill Park. |
| PUBLIC <br> MEETINGS | Make bike connections from Lord Fairfax Community College to Stephens City. |
| PUBLIC MEETINGS | Provide for outdoor recreation. |
| PUBLIC <br> MEETINGS | Support agritourism with trails. |
| PUBLIC MEETINGS | Prioritize business owners on Main Street. |
| PUBLIC MEETINGS | Fairfax Pike and Route 11 is a bottleneck, due partly to trucks trying to avoid the weigh stations. |
| PUBLIC MEETINGS | Route 11 is dangerous for cyclists. |
| PUBLIC MEETINGS | There is pedestrian and bike traffic on Cedar Creek Grade but it is not wide enough. Add shoulders and sidewalks. |
| PUBLIC <br> MEETINGS | Establish equestrian trails and allow people to ride horses on certain roads. |


| SOURCE | COMMENT |
| :---: | :---: |
| PUBLIC | Lower the speed limit on Route 11 to deincentivize parallel traffic to Interstate 81. |
| MEETINGS |  |
| PUBLIC | Does not want to see what happened in Loudoun County. |
| MEETINGS |  |
| PUBLIC | There should be better communication with the community on transportation projects. |
| MEETINGS |  |
| PUBLIC | There are concerns about the Jubal Early traffic circle and how that will change the community character. |
| MEETINGS |  |
| PUBLIC | There should be presentations with the community on transportation projects before it's too late to comment and provide feedback. |
| MEETINGS |  |
| PUBLIC | At Route 7 and Interstate 81, the turn lane is not long enough, causing traffic to back up on Berryville. The backups are for Interstate 81 southbound. |
| MEETINGS |  |
| PUBLIC | There needs to be more bike and pedestrian space on Valley Avenue. Some depend on that route for commutes but don't have cars. |
| MEETINGS |  |
| PUBLIC | It's so hard to walk in Winchester. |
| MEETINGS |  |
| PUBLIC | There should be a greenway west of Winchester, along Route 37, that connects with Abrams Creek Wetlands, Jubal Early, and Rose Hill Park. |
| MEETINGS |  |
| PUBLIC | There is no safe way for pedestrians to cross Interstate 81. It functions as a major barrier for those experiencing homelessness and those without a car. |
| MEETINGS |  |
| PUBLIC | Look at the southern end of Papermill Road at Pleasant Valley Road. There needs to be more sidewalks. |
| MEETINGS |  |
| PUBLIC | We need bike paths on Route 7. |
| MEETINGS |  |
| PUBLIC | There are signs in the middle of the sidewalks - creating more accessibility problems for those with limited mobility. |
| MEETINGS |  |
| PUBLIC | There needs to be more accessibility to the airport for employees. What if you don't have access to a car? There is a hispanic population that works around the airport. This could also help travelers. |
| MEETINGS |  |
| PUBLIC | We need more taxis. |
| MEETINGS |  |
| PUBLIC | There are issues with traffic light timing on Jubal Early. Some traffic lights seem to be redundant. |
| MEETINGS |  |
| PUBLIC | On Jubal Early, motorists miss the Interstate 81 exit and are forced to make U-turns at the next light. |
| MEETINGS |  |
| PUBLIC | There is a Pleasant Valley Road cut-through behind the Target and Wal-Mart. There could be a road project to turn this into a parallel route. Create a new parallel road through the mall property and use that as a strategy to spark reinvestment in the mall. |
| MEETINGS |  |


| SOURCE | COMMENT |
| :---: | :---: |
| PUBLIC MEETINGS | Review the bus fares and invest in better headways and improved bus stops. Decrease headways and have a clearer transit schedule. Look at more benches and shelters at stops. |
| PUBLIC | Why are there no bus routes on the City's GIS? |
| MEETINGS |  |
| PUBLIC <br> MEETINGS | Establish a shuttle service to Martinsburg to connect with the MARC train station. TREX is currently running buses to the MARC station. Are there opportunities to partner with them? |
| PUBLIC MEETINGS | There needs to be transit access to the DMV and other key destinations. There should be more mobility options for people experiencing homelessness or without cars. |
| PUBLIC <br> MEETINGS | Interstate 81 is a major boundary for pedestrians. |
| PUBLIC | Improve communications with the community using water bills and inserts. |
| MEETINGS |  |
| PUBLIC | The traffic lights are inconsistent on South Pleasant Valley Road to Hollinsworth. People run the light at |
| MEETINGS | Valley, by the Popeyes. |
| MPO WEBSITE | The recent elimination of the extra traffic signal at the I-81 overpass in Stephens City seems to have reduced the problematic traffic congestion at the intersection of Fairfax Pike and Main Street. I have noticed considerable reduction when I travel through between 5:30 and 6:30 on weekday afternoons. Perhaps the timing on the remaining signals was adjusted as well? |
| MPO WEBSITE | Also, keeping the truck weigh station on Route 11 more of the time seems to have helped reduce unnecessary truck traffic on Route II. |
| MPO WEBSITE | Your map wouldn't let me highlight problem areas. Fairfax Pike from Stickley to 11 is a disaster from a backup to a safety standpoint. The bridge across 81 desparetely needs to be widen. Closing the 4 way intersection at Town Run will cut down on accidents but the bottleneck will remain. |
| MPO WEBSITE | I HAVE TRIED FOR YEARS TO GET PUBLIC TRANSPORTATION FROM FOREST LAKE ESTATES COMMUNITY ( OVER 250 HOMES) IN STEPHENS CITY VA TO WINCHESTER FOR SHOPPING ETC. (PLEASANT VALLEY RD) AND RETURN BACK. MANY DO NOT DRIVE SUCH AS MYSELF \& THERE WOULD BE LESS CARS ON THE ROAD PLUS MORE REVENUE FOR STORES IN WINCHESTER. THANKS. PLEASE CONSIDER. |
| MPO WEBSITE | Transportation problems abound in the Stephens City area. There are traffic jams on Main St and Fairfax pike from 3:00 PM - 6:00 PM. Monday - Friday. If there's an accident on I-81, which is a weekly occurrence, traffic is snarled for hours. Our roads are horribly crowded. Route I-81 continues to become more hazardous by the day. |
| MPO WEBSITE | Old Dominion University's 2021 State of the Commonwealth Report stated that there has been exponential growth in the Winchester Metropolitan Statistical Area. In spite of this growth, it seems that funding and concern for the Stephens City area is lacking. By this, I am specifically referring to the seeming lack of concern for the need of the I-81 exit being moved further south from Stephens City on Rte 11. |

Public Engagement and Input Summary

| SOURCE |
| :--- |
| MPO WEBSITE |
|  |
| MPO WEBSITE |
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| MPO WEBSITE |
| MPO WEBSITE |
| MPO WEBSITE |
| MPO WEBSITE |

COMMENT
Also, the need for the " Rte 37 beltway" circumventing the Town. Obviously, Main St within town limits can't be widened. The two most viable solutions seem to be the above-mentioned.

Admittedly, I am speaking as a rather uninformed citizen. I've just recently begun learning about the process of needed changes in our community. I hope that we will have further opportunity to address these issues.
I understand that the City of Winchester is once again considering running a bus from Winchester to Lord Fairfax Community College but that it will make NO STOPS along the way. I believe that the bus SHOULD stop in the Town of Stephens City and transport students or others to the college on a regular schedule. I think the flow of traffic could be greatly effected by moving the on and off ramps south by half a mile and converting our current bridge to a fly over bridge.
Please try to make the transportation problem better before the year 2045. Thank you.
There is a need to be part of a larger plan. Noting the traffic on I-66, Rt7, and ZRt. 50 in the morning. I wish the State would consider an extension of VRE, to perhaps the intersection of Rt. 340 and US 50 at Waterloo VA. This would provide service into Northern Virginia for area residents.

## Appendix D: Resource agency consultation summary

## Stakeholder consultation outreach letter

October 17, 2022
Good Afternoon,
As it is mandated to do every five years, the Winchester-Frederick County Metropolitan Planning Organization (WinFred MPO) is creating a long-range plan for transportation for the City of Winchester and surrounding areas of eastern Frederick County, Virginia.

Federal law requires that metropolitan transportation plans be developed in consultation, as appropriate, with federal, state and local agencies responsible for land use and natural resources management, environmental protection, conservation, and historic resources. WinFred MPO invites you to review the draft 2045 Metropolitan Transportation Plan (https://drive.google.com/file/d/1qgcQRzQvMT5njBlyOmAXoC6iSNO-aP e/view?usp=sharing) and submit comments on behalf of your organization or agency.

MPO staff will acknowledge and respond as appropriate to all submitted comments. Comments received prior to November 14, 2022 will be published in the final plan document.

Please submit your comment via e-mail or letter to:
Mr. John Madera
WinFred MPO
400 Kendrick Lane, Suite E
Front Royal, VA 22630
imadera@nsvregion.org
You may contact me at (540) 636-8800 for more information.
Sincerely,
John Madera, AICP
Principal Planner
Northern Shenandoah Valley Regional Commission
Winchester-Frederick County Metropolitan Planning Organization
400E Kendrick Lane, Suite E
Front Royal, VA 22630
(540) 636-8800

List of resource agencies and organizations consulted

| Agency/Organization | City | State |
| :--- | :--- | :--- |
| Cedar Creek Battlefield Foundation | Middletown | VA |
| Kernstown Battlefield Association | Winchester | VA |
| Shenandoah Valley Battlefields Foundation | New Market | VA |
| USDA Rural Development | Strasburg | VA |
| Virginia Clean Cities | Harrisonburg | VA |
| Virginia Department of Conservation and Recreation | Richmond | VA |
| Virginia Department of Emergency Management | Richmond | VA |
| Virginia Department of Environmental Quality | Richmond | VA |
| Virginia Department of Forestry | Salem | VA |
| Virginia Department of Game and Inland Fisheries | Richmond | VA |
| Virginia Department of Historic Resources | Richmond | VA |
| Virginia Department of Historic Resources | Stephens City | VA |
| Virginia Department of Mines, Minerals, and Energy | Charlottesville | VA |
| Virginia Marine Resources Commission | Newport News | VA |
| Virginia Office of Commonwealth Preparedness | Richmond | VA |
| Winchester-Frederick County Historical Society | Winchester | VA |

Appendix E: Comments received during the draft plan public comment period

## WinFred MPO

# Comments received during 2045 MTP Public Comment Period October 24 November 14, 2022 

## Overview of comments received at the Frederick County Transportation Forum

William Melvin - Inverlee Way Extension (This comment was submitted via comment card) As the President of the Raven Point HOA, my comments come from our homeowners. Why is the Inverlee Extension the list of projects in the planning sequence? The Planning Division announced several years ago that the extension to would not happen. For the extension to take place, the farm that faces Senseny Road would have to be acquired. The owners fought the acquisition by eminent domain on more than one occasion and won. With the current development of One Logistics Park, the extension of Inverlee would place a large volume of truck traffic through the residential developments of Raven Pointe and Revan Oaks. Without extensive improvements to Senseny Road, traffic of any kind coming from US-50 to Senseny Road over Inverlee would pose a traffic nightmare. No improvements to Senseny Road are included on the WinFred MPO list of projects.

Mike Nordberg - Widening at Warrior Dr. and Double Church Road (This comment was submitted via comment card)
Please consider the inclusion of Bike and Ped facilities when implementing this project.

Andrea Berkenkemper - (This comment was submitted via comment card)
Concern for the environmental impacts from mining and road construction on Redbud Run.

## Overview from in-person public comment meeting - November 9, 2022

A total of 11 people attended the in-person public comment meeting; five residents of Woodbrook Village; four residents of the Raven Pointe/Raven Oak community; David Ray, City if Winchester Planning Commissioner and WinFred MPO BPAC Vice-Chair; Annette Carden, community member; a full list of attendees is attached.

## Annette Carden - Need for Public Transit

Ms. Carden attended the in-person comment meeting on November 9, 2022. Ms. Carden stated she lives just outside the City boundary at Wilkins and Senseny and sees a great need for public transit in the County and to LRCC. Ms. Carden also states there is a need for commuter bus options along RT-7, RT-50, and RT-66 Corridors.

## Residents of the Raven Pointe/Raven Oak Communities

Residents had questions comments regarding the Inverlee Way Extension (CLRP project G) and other potential traffic issues that could impact their residential roads.

- Residents are curious if a planning study has been conducted since the topic was previously discussed at the County level.
- Are there alternative options for connecting Inverlee to Senseny than previously proposed.
- Residents worry once One Logistics Park is developed, they will see significant truck traffic on their residential roads.
- Residents asked if improvements to Senseny will also be considered as housing developments and One Logistics Park are developed.


## Residents of Woodbrook Village

Residents wanted more information on Route 11 South Widening (Project I). Specifically, will this widening include a new traffic signal at Opequon Church Lane? The residents were emphatic about how dangerous it is for them to take a left turn from Opequon Church Rd. onto Route 11. The intersection of Route 11 and Opequon Church Rd. is the only way in or out of the neighborhood. Residents are worried that they will lose one of their neighbors to a fatal traffic accident before a signal is added or road realigned. All of residents stated that they were very involved in the initial public engagement done during the study conducted in 2015, and inquired on the implementation status of the preferred design alternative.

## Phone Comments

Staff received four phone call from residents of Woodbrook Village that wanted to provide public comment. All residents express the same concerns and asked the same questions stated in the previous section. Residents are listed below.

## Mary Clark

Nancy Tisinger
Sandra Ratliff
Mary Barb

## Email Comments

Staff received several comments through email and the project page submittal form. Comments have been copied below in their entirety. Staff responded to all submitted comments.

From: BDI/Bill and Bobbi Meier [bdi1993@yahoo.com](mailto:bdi1993@yahoo.com)
Sent: Thursday, October 27, 2022 7:22:34 AM
To: Amanda Kerns [akerns@nsvregion.org](mailto:akerns@nsvregion.org)
Subject: MPO Draft Plan

Hello

What page of online draft plan might I find I-81 exit 317 "divergent diamond" interchange information and what page for Red Bud road realignment info/sketches?
bill meier

## Building Diagnostics Inc.

540-667-2290
building consultant
licensed contractor

From: Rachel Carlson [mail@winfredmpo.org](mailto:mail@winfredmpo.org)
Sent: Wednesday, October 26, 2022 2:21 PM
To: John Madera [jmadera@nsvregion.org](mailto:jmadera@nsvregion.org)
Subject: New Message From WinFred MPO - Public Comments Form

WinFred 2045 Metropolitan Transportation Plan Public Comments Form Submission -
Name: Rachel Carlson
Email Address: rac145@hotmail.com
Comments:
I don't think bridge issues are listed within this plan; however, with all of the growth in stephens city and middletown the bottleneck for bridge traffic is going to get worse and it is already poor. There is too much traffic trying to get onto 1-81 north and south over this bridge let alone all the people going back and forth for daily work. But I think one of the worse issues is the amount of tractor-trailer traffic getting off of 81 and cutting over to 522 and back; assuming they are going to the inland port and back. If the bridge can't be addressed by this plan...please reconsider the 37 extension to warrior drive if not all the way to 522 to reduce this congestion (time studies will definitely show how long it takes to cross the bridge from the west to the east side beginning at $3: 15$ until at least $5: 30$ is about 15 minutes (to go $1 / 2$ a mile). Supervisors have approved too too too many new developments on the west side of 81 without addressing these issues)

From: Dana Culp [mail@winfredmpo.org](mailto:mail@winfredmpo.org)
Sent: Monday, November 14, 2022 3:33 PM
To: John Madera [jmadera@nsvregion.org](mailto:jmadera@nsvregion.org)
Subject: New Message From WinFred MPO - Public Comments Form
WinFred 2045 Metropolitan Transportation Plan Public Comments Form Submission Name: Dana Culp
Email Address: pattersondana@hotmail.com

## Comments:

Having only ONE crossing over I-81 (Fairfax St./Rt. 277) in Stephens City no longer is feasible. New housing developments already in progress will add hundreds more drivers attempting to cross here to access nearly all of the businesses located on the east side of I-81, let alone attempt to use the interchange to get onto l-81 itself. There must be local bridges/crossings both north and south of the current Exit 307 at Stephens City NOW/ASAP--not in 23 years! Also, Route 11/Main St. backs up horribly whenever there<br>\'s a (weekly) accident on I-81, as drivers simply reroute onto Route 11 until they can get back on I-81, usually at Middletown. Anyone approaching the lone stop light (Fairfax and Main) within Stephens City town limits takes any means possible to avoid that intersection, using School Street (traveling south) and Mulberry Street (traveling north) to get to Route 11/Main Street. Thursday and Friday evenings and weekends midday also are extremely bad times to attempt passing along this corridor and are to be avoided at all costs.

From: Dana Patterson [pattersondana@hotmail.com](mailto:pattersondana@hotmail.com)
Sent: Monday, November 14, 2022 3:10 PM
To: Amanda Kerns [akerns@nsvregion.org](mailto:akerns@nsvregion.org)
Subject: 2045 MTP draft - Public comment
Importance: High
Hello,
I saw Stephens City Town Manager Mike Majher at the polls on Election Day last week and we were chatting about this latest plan. I see that today is the last day to publicly comment, so I wanted to add my two cents to the matters concerning Stephens City:

I live right on Main Street/Route 11 (east side) in the center of town. Even with the completed widening and new traffic lights on Fairfax Street/Route 277—which has helped quite a bit-several days and various times per week, traffic backs up all the way from the stop light (our only one within the town
limits) north up the hill nearly to Clem's Garage. It is particularly bad that way on Thursday evenings, for some reason, although Fridays also are quite bad. Many people (myself included) simply take one of the side streets to get to Germain Street to continue traveling south out of town. Forget doing that if you're trying to cross the ONE crossing over I-81 to get to the other side where all the shopping and restaurants are located, or if you're traveling to Berryville, as my husband does daily for work. This area also backs up midday on weekends, particularly on Sundays (maybe church crowds leaving the area, but also just a lot of folks out on those two days and trying to access I-81 or other roads past there). Many, many people (myself included) use the small residential/back roads (Mulberry Street-traveling north and School Street-traveling south) to do anything to avoid that stop light/crowded intersection at Fairfax/277 and Route 11. The Sheetz station also gets more than its share of people cutting through there simply to turn right onto Fairfax and either get on I-81 or simply get across to the other side to access businesses.

Given the ever-increasing number of new housing developments being crammed all around the edges of Stephens City, and anywhere else they can shoehorn them in, there will be hundreds more residents attempting to cross this already overburdened LONE crossing over I-81. This is madness to have only ONE crossing here. At the very least, there need to be local traffic crossovers/bridges immediately north and south of that I-81 interchange at Exit 307 (I think that's the correct number).

Now, Mike Majher informed me that such a thing indeed is in this plan (I've just briefly reviewed the first 100 pages or so of it online)-but it has been pushed back from 2035 to 2045 ! That's 28 years away and we have significant problems NOW! This is unacceptable, especially given the looming population explosion coming our way in coming months-not years. This single crossing at Stephens City needs to be addressed now. The housing development currently beginning on the north and west edges of the town also will greatly increase traffic on Route 11 north between Stephens City and the Kernstown interchange-so there will be precious little relief from the southern congestion simply by going north to Kernstown, which is usually what I do, rather than even attempt to get onto I-81 in Stephens City, despite that being my closest entry point.

Note: One other thing affecting Route 11 traffic between Kernstown and Stephens City is whenever I-81 is backed up due to accidents--which seems to be a weekly occurrence--EVERYone then simply reroutes onto these local roads until they can get back onto the interstate, usually at Middletown.

The main gist of my comment, as you can see, is that the current single passage over $\mathrm{I}-81$ is insufficient and should be remedied SOONER, rather than later, as proposed in this draft plan.

Thank you for your attention and patience in hearing my views on this matter. I hope the planners will take these comments into consideration as they look toward the immediate and long-term future of these areas in which we live and work.

Sincerely,
Dana Culp
Main Street resident/homeowner
Stephens City, VA
From: Dixie Erwin [mail@winfredmpo.org](mailto:mail@winfredmpo.org)
Sent: Monday, November 14, 2022 5:25 PM
To: John Madera [imadera@nsvregion.org](mailto:imadera@nsvregion.org)
Subject: New Message From WinFred MPO - Public Comments Form

Name: Dixie Erwin
Email Address: kenndixi@yahoo.com
Comments:

Residential growth within The Town of Stephens City and surrounding areas of Frederick County have created gridlock on the streets and roads that will not be remedied by this Transportation Plan. The horse was let out of the barn YEARS ago -- the proposed Western Bypass was never built and never will be. All plans and no accomplishments are the norm and I have no hope that ANYTHING is going to actually be done.

## Top of Virginia Regional Chamber Transportation Comments

During the summer of 2022, the Top of Virginia Regional Chamber conducted a transportation related survey of it's members. CEO Cynthia Schneider shared the results of that survey as part of the public comment period for the 2045 MTP for the Board's consideration.

## Comments through the Mail

Staff received two comment letters through the mail, sent to the NSVRC office. Those comments are attached.

509 Airport Rd. Ste, 200, Winchester VA 22602
540-662-4118 www.regionalchamber.biz

## TVRC 2022 Member Survey

How do you believe transportation issues and the I-81 Corridor impact your business or business in general? How would you like to see investments being made?

- Investment and increased usage of the Virginia Inland Port will continue to reduce truck traffic on I-81 and I-66, resulting in safer and less congested interstates. Investing in the VIP, local 3PL and distribution space, and rail infrastructure would be a great benefit to the region's transportation situation, as well as a job-creating economic engine.
- I 81 has become a huge issue affecting where people decide to live.
- ability of patients to get to our place of business
- N/A to me, however, living near rt 81, the trucks are too much!
- We need a third lane
- It doesn't affect my business.
- Transportation issues don't affect our business directly. In general, the interstate is clogged many days especially in the summer with additional vacation travel.
- I think the impact is minimal for us (we all work from home, and I don't have to take I-81 really at all for work purposes). I do think I-81 should be widened to three lanes each way. I'm also willing to see tolling happen to pay for I-81 upkeep (especially truck and non-local tolling), but we would probably also have to toll I-95 at the same time or else we might just push traffic to I-95 from I-81 (or maybe we'd see a whole lot more traffic on smaller highways and back roads to evade the tolls, and that should definitely be explored before tolling moves forward to ensure that we don't create new problems of excess vehicles clogging other roads in the process).
- Very important as we service our clients up and down the I81 Corridor. 181 needs to be widened starting with the busiest intersections and working out from there. 181 south around truck scales and Route66 merge lane needs attention as there are accidents and backup at least once a week.
- Complete the 37 connector. Too much congestion in current I-81 proximity. Namely Stephenson and Stephens City
- Will not impact my business
- Expansion to keep up with increased demand.
- They do not
- Minimal Impact
- 81 is the economic engine of the Valley. It is congested and unsafe. It needs to be widened to six lanes, or have a restricted access dedicated truck lane that is tolled. Truck traffic has grown and needs truck traffic solutions, We have been paying increased gasoline taxes for years to improve and widen I-81, yet smart scale takes that money and spend it elsewhere.
- Winchester offers sufficient public transportation for the needs of the community. The I81 corridor is a double edged sword, both convenient providing access and problematic by creating dangerous congestion, particularly from the trucking industry. I would like to see a separate corridor provided for the trucking industry.
- This area needs more public transportation options
- Will bring more people to the area that will either need our services or want to volunteer
- We use the I-81 corridor everyday and need it to be safe. Lower speed limit, longer entrance ramps.
- I-81 does NOT affect our business. At this point many cannot afford groceries let alone gas. Use the money to make essential products that families need Tax Free like DeSantis In Fla.
- I-81 is a major truck and transportation route. It creates clogged roads in the immediate areas around I-81. This is good for business but creates problems for local traffic. If you expand I-81, you must also invest heavily in local roads that service the I-81 corridor.
- We have to always be able to move goods easily and without disruption. We're supportive of any measures to accomplish that.
- Anything that impedes safe transportation has a negative impact on the region's ability to be competitive. Without a strong thoroughfare, the perception of poor infrastructure will erode growth.
- I would like to see tractor trailers restricted to the right lane only on 81.
- We are blessed to live in an area with access to the I 81 corridor for shipping and receiving and basic transportation
- For employees, there are some trouble spots on the corridor that need to be fixed.
- Investing in widening I-81 would be very beneficial. Back ups cause delays in getting place to place.
- There is a great need for I-81 to be a 6-lane highway throughout the entire state. We also need to explore increasing rail service and street car service in towns/cities.
- Being located at the intersection of I-66 and I-81, the interstate system brings significant revenue to our business. 81 needs to be widened and the gas tax needs to apply to Front Royal as well. Long term, a 3rd N/S interstate needs to be constructed along Route 29.
- Overall, I don't feel it effects me very much.
- Public Transportation and a robust network of sidewalks / bike paths connecting residents to businesses in our area would help more people get to work and assume higher paying jobs.
- Safe and accessible.
- Focused widening and safer interchanges.
- Road improvements make this area more desirable to live in, therefore increasing the number of home buyers.
- Anything to ease congestion at intersections along 81 is a win for everyone

101 Rosewood Lane
Winchester, VA 22602
November 6, 2022
Winchester Planning Organization
400 Kendrick Lane
Front Royal, VA 22630
Dear Organizers:
I am in favor of widening Rt 11 South from Opequon Church Lane and Shawnee Drive, adding a light at Opequon and erecting visible signs. There are safety issues for vehicles entering and exiting Rt 11 from Opequon Church Lane.

Woodbrook Village residents (an over 55 community with 88 houses) and Opequon Church members use this route. There is no light at the intersection of Rt 11 and Opequon. It is nearly impossible to make a left turn from Opequon onto Rt 11. A new condo at Creekside will increase traffic.

There are many signs at that intersection and most are not easily visible. I believe this causes excess traffic of people who think Opequon Church Lane is a throughway. I live on the corner of Opequon and Rosewood Lane. Many vehicles speed up Opequon and make a U-turn in the cu de sac and go back out to Rt 11. There are 18 wheel trucks that speed past my house, hit the brakes when they see the street ends and turn around. This puts excess wear and tear on the street. Please put a sign saying not a through street. There are also many vehicles who appear to be joy riders who speed up and around and back out to Rt 11.

Thank you for your efforts at improving traffic in Winchester.
Sincerely,


Kay Malone

To: Members of MPO
From: Resident of Woodbrook Village
Date: November 8, 2022

I am writing this to encourage you to SERIOUSLY consider your assisting in improving the VERY DANGEROUS intersection of Opequon Church Lane and Route 11. This could be by either widening Route 11 or replacing the traffic light presently at Swanee Rd and Opequon Church Road to Route 11 and Opequon Church Rd.

The residents of Woodbrook Village are elderly (many in 70 's, 80 's, and even 90's) plus the traffic on Route 11 has greatly increased. PLEASE consider assisting with this troublesome intersection.


Sharon Loudenslager
222 Crestwood Lane
Winchester, VA 22602



[^0]:    ${ }^{1} 2021$ State of the Commonwealth Report, Old Dominion University Dragas Center for Economic Analysis and Policy, p. 142.

[^1]:    ${ }^{2}$ Wikipedia contributors, "Winchester Regional Airport," Wikipedia, The Free Encyclopedia, https://en.wikipedia.org/w/index.php?title=Winchester Regional Airport\&oldid=1012539830 (accessed May 24, 2022).

[^2]:    ${ }^{3}$ U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates
    ${ }^{4}$ Ibid.
    ${ }^{5} 2015$ Auto Accessibility Report: Virginia. July 7, 2016: Prepared for the state of Virginia by Accessibility Observatory at the University of Minnesota
    ${ }^{6} 2018$ Transit Accessibility Report: Virginia. December 18, 2019: Prepared for the state of Virginia by Accessibility Observatory at the University of Minnesota

