

# Roanoke Valley Transportation PLANNING ORGANIZATION

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## Roanoke Valley TRANSIT VISION PLAN

*Approved September 22, 2016*

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PART 2: Background and Existing Conditions

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## 1.0 HISTORICAL TRANSIT PERSPECTIVE

There is a significant amount of transit history in the Roanoke Valley. Most people think of transit as motorized buses but its predecessor, in the Roanoke Valley as in many larger and/or comparably sized areas, was the railway streetcar.

On May 2, 1887, the Roanoke Street Railway Company was formed. The company was franchised by the City of Roanoke in early 1888 with initial service consisting of four mule-pulled cars and two miles of track. The mule service steadily grew. During the next year, 1889, another company provided service from Roanoke to both Vinton and Salem. This new service utilized steam dummy engines (made to look like passenger cars) and extended rail lines by another eight and a half miles.

*Figure 1.0-1 | Following the use of mule-pulled passenger rail lines, steam dummy engines were used during the early expansion of the Roanoke Street Railway Company*



In February 1892, under a different company, the first electric railway car system in Roanoke began. In 1898, the Roanoke Railway and Electric Company (RR&E) was formed—at the beginning of a period of great expansion.

The early 1900's saw various improvements to the system, including: multiple service extensions, the installation of double tracks, and the modernization of steam and hydroelectric plants.

The year 1925 was seen as the height of RR&E's electric car service in Roanoke, with 50 cars in operation and 30 miles of track.

### 1.1 Streetcar Decline and Rise of Bus Service

It was also in 1925 that the first bus service, the Safety Motor Transit Company (SMT) was formed. The SMT was formed from a group of previous RR&E employees calling themselves Jitneys, who formed an association to operate a bus system which was in direct competition with RR&E. The service was initiated with seven routes (in Roanoke City), and 23 total miles of routes. SMT operated until 1928, when its revenues could simply no longer maintain the existing bus fleet, and was then acquired by RR&E.



Figure 1.1-1 | An example of the Jitney buses which were commonplace in the Teens and early 1920's in Roanoke



Beginning with the Great Depression in 1929, Roanoke's streetcar industry slowly declined. RR&E gradually transitioned its streetcar fleet to motor buses, until its complete demise in 1948, with the abandonment of the last two lines and the sale of all streetcars.

Bus transit service was booming in the Roanoke Valley from the 1940's-50's, with increased routes, service hours and ridership. Despite the boom in transit ridership, a 1959 *Roanoke Area Urban Transit Study* showed that 25 percent of all transit riders ceased riding the bus in Roanoke. Compared to other urban areas, the decrease was not as severe.

By 1969, it was reported in the *Roanoke Valley Area Thoroughfare and Functional Plan* that 20 percent of shoppers and employees in downtown Roanoke utilized public

transportation to get to their destination. Another company, Roanoke City Lines, continued local and regional bus service.

Following years of financial turmoil Roanoke City Lines dissolved, and in 1975 the Greater Roanoke Transit Company (GRTC, also known as Valley Metro) was formed. Valley Metro is overseen by a Board of Directors and is owned, in its entirety, by the City of Roanoke.

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## 1.2 Significant Regulatory Changes

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In 1962, the Federal-Aid Highway Act mandated all metropolitan areas of 50,000 or more to regionally coordinate transportation planning between all localities, where service occurred, in a manner utilizing the 3C planning process: Cooperative, Comprehensive and Continuing. This type of cooperation, albeit mandated from the federal government, gave rise to Metropolitan Planning Organizations (MPOs) which became responsible for carrying out the federally mandated 3C transportation planning process. Although the Roanoke Valley Area Metropolitan Planning Organization (RVAMPO) was not established until 1979, the Cities of Roanoke and Salem; Roanoke and Botetourt Counties; and the Town of Vinton began regional long-range comprehensive transportation planning in 1963.

In 1965, the Older Americans Act was signed into law creating the National Aging Network, which structured federal, state, and local funding and support systems for portions of an area's population aged 60 and above. In the Roanoke Valley, the Local Office on Aging is a product of the Older Americans Act and is an advocate for quality transportation services for the elderly.

In 1969, the Fifth Planning District Commission (PDC) was formed as a result of the Virginia Area Development Act, which sought to promote regionalism and cooperation among local governments. Regional transportation was just one of many areas that the PDC would facilitate. The Fifth PDC (which changed its name to the Roanoke Valley-Alleghany Regional Commission in 1988) would later become the lead staffing agency to the RVAMPO.

Other significant federal legislation and regulations include the 1990 Americans with Disabilities Act (ADA) which provided sweeping changes for the riddance of discrimination against persons with disabilities. Following the ADA legislation, in 1991, were regulations from the U.S. DOT to stop discrimination with regard to transportation.

In 2012, the Roanoke Valley experienced another significant regulatory change when the urbanized area population as of the 2010 Census rose past the 200,000 person threshold and the MPO region was classified as a “Transportation Management Area”. The change brought the MPO new responsibilities and privileges particularly in its decision-making authority over some federal transportation funds allocated to the region. In 2014, the MPO adopted the business name of the Roanoke Valley Transportation Planning Organization to better communicate its purpose to the public.

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### 1.3 Reflections on the Past

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During the development of this Plan, several personal interviews were held with various current and past transportation officials, in order to obtain a better understanding of the operations, perceptions, challenges and shortcomings of bus transit in the Roanoke Valley. Information was provided from William Callahan and Steve Mancuso, two former Valley Metro general managers; Curtis Andrews, current executive director of RADAR; and Beverly T. Fitzpatrick, Jr., the executive director of the Virginia Museum of Transportation.

Fitzpatrick remembered riding the bus as a child when it was the Safety Motor Transit Company (SMT). He emphasized his childhood perception of the bus being safe to ride and how it was essential for going downtown to shop and work. SMT ran service to Glenvar, Clearbrook, Stewartsville and other portions of Roanoke County. Service to Salem had been sporadic over the years. During the height of the service, there were 100 buses. The public image of bus transit service was good, especially when new, air conditioned buses with comfortable seating were purchased in the early 1980’s.

Curtis Andrews recounted that RADAR service began in 1975, due to an influx of requests for bus service from elderly, disabled, and social service related clients. The service began in four areas of Roanoke, one day a week, with one of the vehicles being lift-equipped. Ridership has steadily increased over the years. CORTRAN (County of Roanoke Transportation) service began in 1985, serving Roanoke County residents with two vans. In 1990, the Americans with Disabilities Act was passed by

Congress, and the following year, RADAR service was extended to serve the growing client base.

*Figure 1.3-1 | Photo of an original vehicle used for CORTAN service*



During the late 1970's before his employment with Valley Metro, William Callahan was in Roanoke and observed the bus system at that time. He noted that the operation had deteriorated, with a mixture of old and new buses, although the staff and drivers kept a high appearance of professionalism. Callahan began his tenure with Valley Metro in 1980, in the wake of a 1970's labor strike that created a separate city school bus system. Memories of the strike were still evident in Callahan's first few years, and it was a source of poor driver morale and animosity. This, naturally, became the public perception—that drivers were typically disagreeable and unhappy.

In terms of growth of the Valley Metro system, Callahan noted there was no significant growth or decline in bus ridership from 1980-1986. The bus fleet did not grow during the period, except for routine replacement which included updating all buses with air-conditioning. During Callahan's tenure at Valley Metro, service extended into Salem to the V.A. Hospital and to Tanglewood Mall. There was a limited employment service to Vinton, running four to five trips per day. There was another service between Salem and Roanoke, running two to three trips per day.

Steve Mancuso related his memories of transit service in the Valley, as executive director of Valley Metro from 1986 to 1997, describing it mainly as a Roanoke City system without any regional components or characteristics. Mancuso noted that there had been an effort to create a transportation district commission, which would have been funded by a per gallon tax on fuel. Ridership, Mancuso noted, steadily increased during his tenure with bus service provided throughout the City of Roanoke and to Salem and Vinton. The Valley Metro fleet remained relatively steady, however the service was revamped by extending evening service from 7:30 to 9:30 p.m. and improved bus frequency (varying routes of 20, 30 and 60 minutes). Until the routes were changed to allow 30 minutes out and 30 minutes back, passengers had long waits for transfers. This "Figure-8" configuration reduced the number of passenger transfers. During this period, the fare increased from \$.75 to \$1.00.

*Figure 1.3-2 | Buses load and unload at the Campbell Court Transportation Center*



Campbell Court Transportation Center in downtown Roanoke became the main transfer point for all Valley Metro buses in 1983. Previously, bus transfers occurred along downtown streets. Callahan, who directed Valley Metro during the planning phases of the project, opined that the City of Roanoke viewed this as an urban development project, as downtown during this time was not safe and vacant buildings peppered the landscape. The City purchased the land on Campbell Avenue as its 10% match for access to public transit conversion funds.

Dave Morgan was the general manager of Valley Metro following Steve Mancuso until 2009. Morgan facilitated the partnership between the New River Valley and the Roanoke Valley to initiate the regional Smart Way Commuter bus service which began in July 2004 and has been a successful option for commuters between the two regions ever since. In July 2007, Morgan initiated a “Students Ride Free” program and by December of that year student ridership registered an average of more than 1,000 student trips per day. Morgan also initiated the Star Line

Trolley service between downtown Roanoke and Carilion Roanoke Memorial Hospital in November 2008.

Carl Palmer became the General Manager of Valley Metro in 2009. Unfortunately, as a result of behavior concerns with students, the “Students Ride Free” program was altered to require students to pay half-fare resulting in a decrease in the number of students who ride the bus. Discussions regarding passenger rail picked up at this time, and under Palmer’s leadership, the Smart Way Connector service began operating between Roanoke and Lynchburg’s Amtrak station in July 2011. This initiative was a first step in an attempt to demonstrate the demand for passenger rail in Roanoke. The long-awaited announcement for Amtrak’s extension to Roanoke came in 2013 as part of Governor McDonnell’s Transportation Bill, HB2313. Amtrak service will begin in Roanoke in 2017.

Mr. Palmer continues to lead the organization through adjustments in transit’s funding structure as the Roanoke Valley has changed status with regard to federal transportation funding. Palmer stresses the importance of thoughtful development practices that consider transit in their planning. Palmer has been a huge supporter of this regional Transit Vision Plan effort, and hopes to see transit’s services and service area expand as a result of this planning effort.

## 2.0 TRANSIT IN THE ROANOKE VALLEY TODAY

Today, transit is provided in the Roanoke Valley via multiple providers. Where a person lives determines the type of transit options that are available to them. A summary of service availability is provided in the table.

*Table 2.0-1 | Regional Transit Service Availability*

Locality	For Anyone	Only For Older Adults	For Anyone with a Disability
<b>Bedford County</b>	No	Yes, age 60 and over	Yes
<b>Botetourt County</b>	No	Yes, age 55 and over	Yes
<b>Montgomery County</b>	No	Yes, age 60 and over	Yes
<b>Roanoke County</b>	Yes	Yes, age 60 and over	Yes
<b>City of Roanoke</b>	Yes	No	Yes
<b>City of Salem</b>	Yes	No	Yes
<b>Town of Vinton</b>	Yes	No	Yes

As shown in the table, in Bedford, Botetourt, and Montgomery Counties, public transportation options are provided only for residents who meet the age or disability criteria. Like these counties, Roanoke County elects to provide transportation services for people based on age and disability though small portions of Roanoke County also have public transportation service available for anyone.

In the City of Salem, City of Roanoke, and the Town of Vinton there are public transportation options in many parts of the locality that are available to anyone regardless of age or ability.

The following sections discuss the current public transportation services provided.

### 2.1 Fixed-Route Transit

The Greater Roanoke Transit Company (d/b/a Valley Metro) provides fixed-route transit services in the Roanoke Valley as well as select regional intercity services discussed later in this chapter. The fixed-route system operates as a hub and spoke style network with Campbell Court in Downtown Roanoke as the hub where all routes converge to facilitate transfers. The routes are the spokes that have one endpoint at Campbell Court and the other endpoint (often referred to as the end-of-the-line) somewhere else in the region.

Buses begin service at 5:45 a.m. at their respective end-of-the-line with the first convergence of routes at Campbell Court at 6:15 a.m. The buses proceed in this ebb and flow manner with hourly transfer opportunities at Campbell Court on the :15 of each hour with the last transfers taking place at 8:15 p.m. All fixed-route buses terminate service at 8:45 p.m. at their respective end-of-the-line.

Peak service provides extra buses that enable service every 30 minutes on many routes for a few hours in the morning and late afternoon. Morning peak service begins at the end-of-the-line at 6:15 a.m. arriving in Campbell Court at 6:45 a.m. The last peak outbound from Campbell Court is at 8:45 a.m. with service terminating at the end-of-the-line at 9:15 a.m. Afternoon peak service begins at 3:45 p.m. in Campbell Court and reaches the end-of-the-line at 4:15 p.m. The afternoon peak service terminates in Campbell Court at 6:45 p.m.

The following table lists the route numbers for hourly and peak services.

*Table 2.1-1 | Fixed-Route Numbers*

	Outbound Route numbers	Inbound route numbers
<b>15</b>	11, 15, 21, 25, 31, 35, 41, 51,	12, 16, 22, 26, 32, 36, 42, 52,
<b>Hourly Routes</b>	55, 61, 65, 71, 75, 85, 91	56, 62, 66, 72, 76, 86, 92
<b>11 Peak Routes</b>	Route 81 and all of the above inbound routes except 31, 35, 41, 61, 91	Route 82 and all of the above inbound routes except 32, 36, 42, 62, 92

The next map (Figure 2.1-1) shows the frequency of fixed-route service between the current areas served. Valley Metro operates fixed-route service in winter weather as long as road conditions permit safe operation of the vehicles. Due to some streets not being suitable for bus travel in winter weather, routes are modified and referred to as snow routes.

*Figure 2.1-2| Buses Transport People during Snow Events*



All hourly and peak routes operate during snow events on snow routes. The network of Valley Metro snow routes is provided in Figure 2.1-3.

Figure 2.1-1 | Hourly Fixed-Route Network

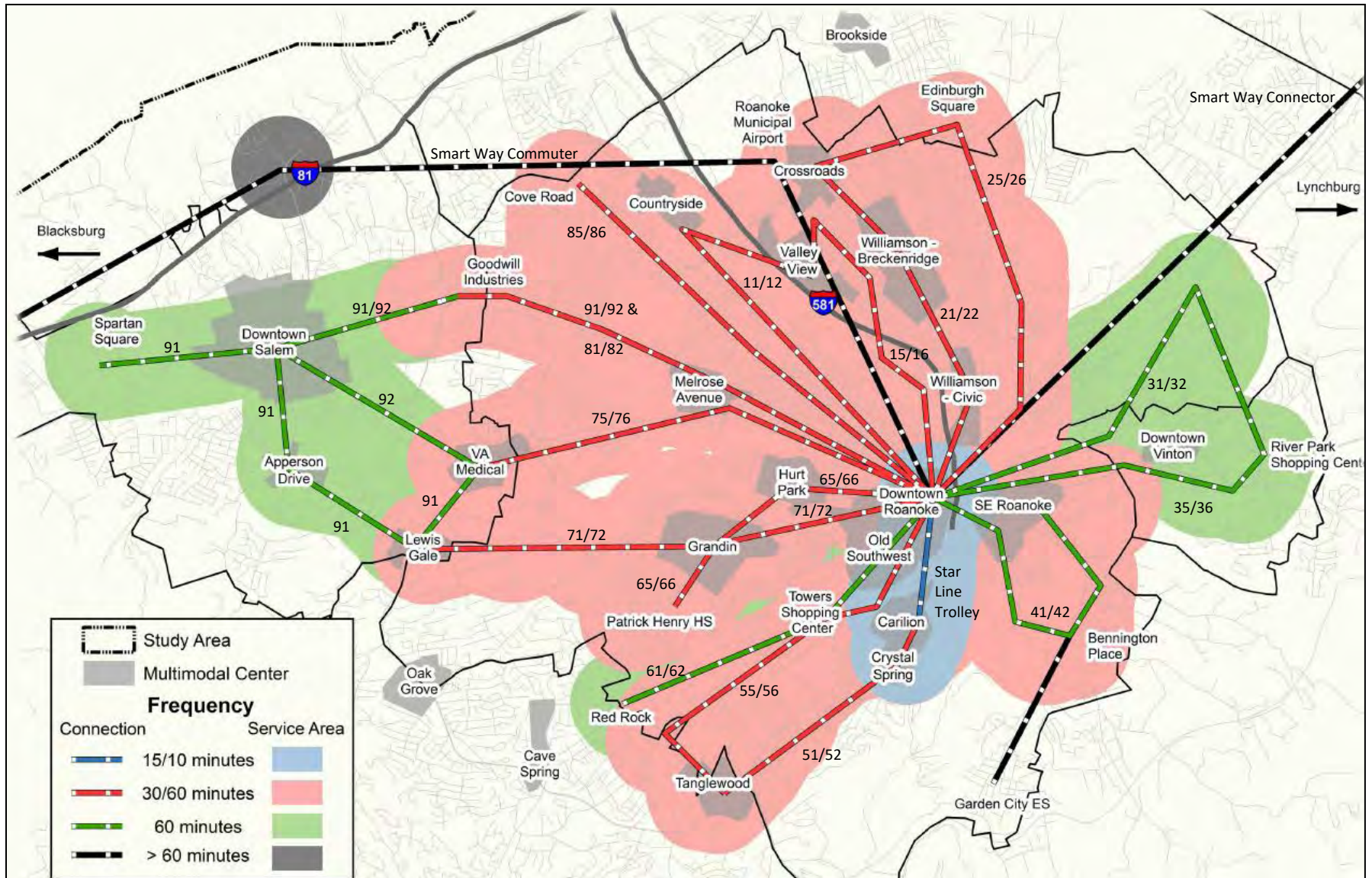
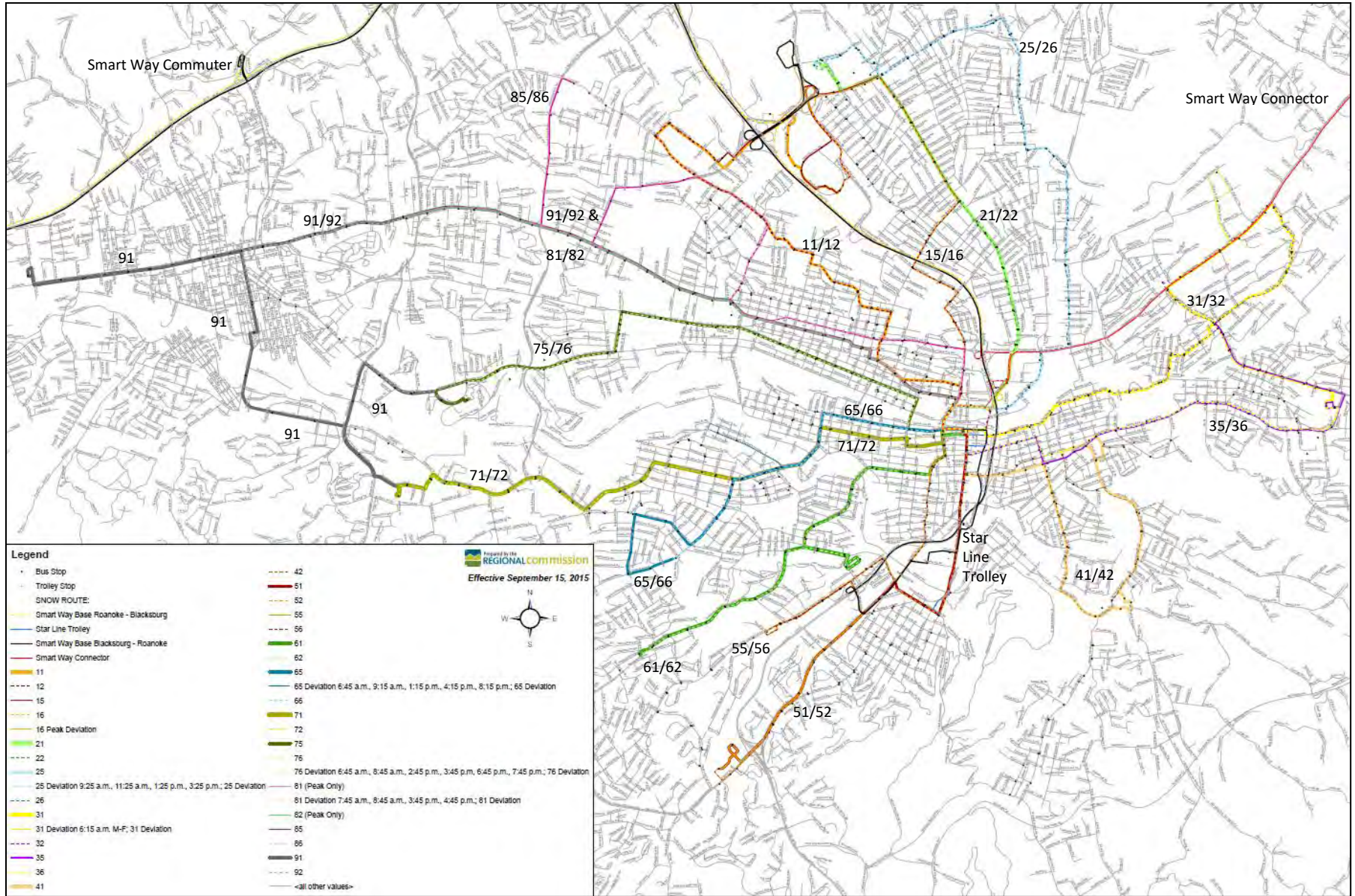


Figure 2.1-3| Valley Metro Snow Routes

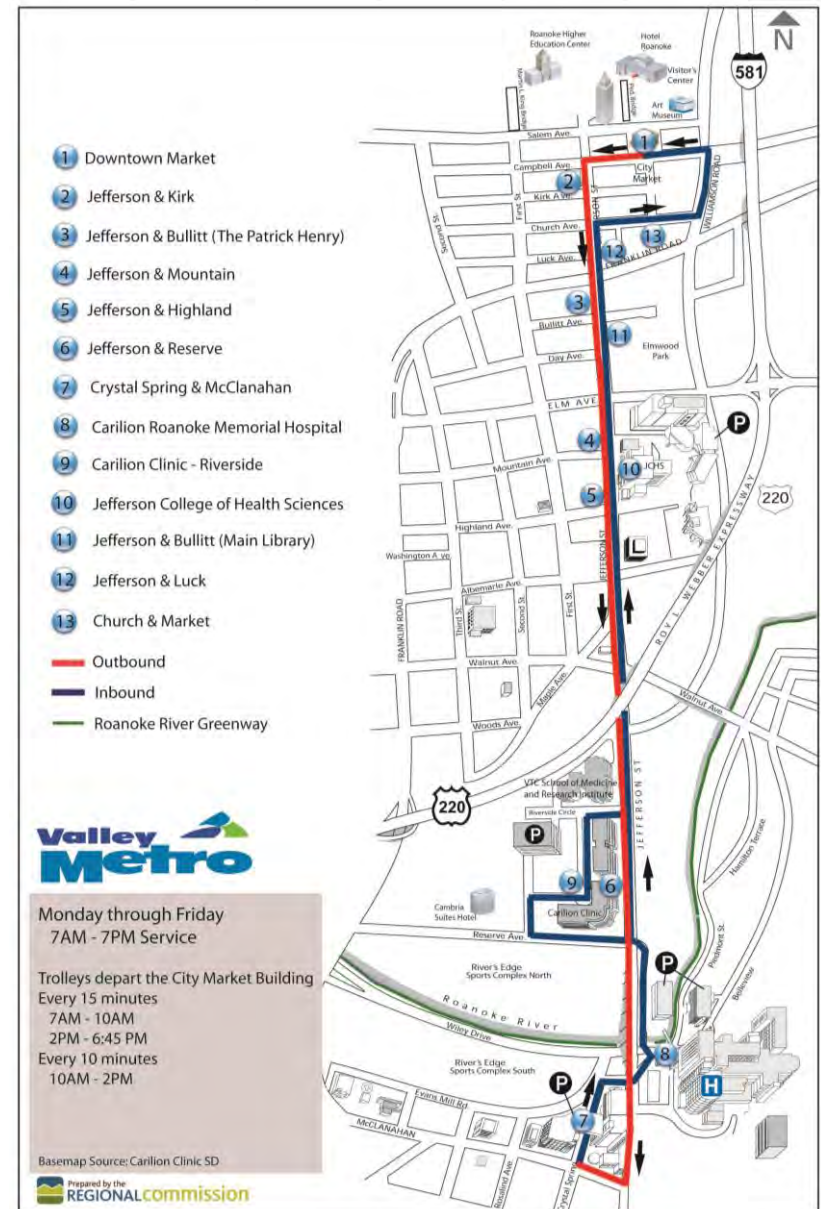




## 2.2 Star Line Trolley

The Star Line Trolley service is a joint effort funded primarily with federal and state funds along with a couple local partners: Carilion, Downtown Roanoke Inc., and the City of Roanoke. The Star Line Trolley features a historic appearance with wooden bench interior seating and a decorative exterior and has been operating since November 2008. The Trolley connects Downtown Roanoke to Carilion via Jefferson Street and operates every 15 minutes between 7:00 a.m. – 10:00 a.m. and 2:00 p.m. - 7:00 p.m. and every 10 minutes between 10:00 a.m. and 2:00 p.m. The Star Line Trolley provides the most frequent service currently available in the Roanoke Valley throughout the service area shown in the following map.

Figure 2.2-1 | Map of Star Line Trolley Service



## 2.3 Services for Older Adults and People with Disabilities

Several different services exist for senior citizens and people with disabilities in the region as described in the following sections.

### 2.3.1 Bedford County Ride Program

In Bedford County, the Central Virginia Alliance for Community Living, Inc. (CVACL) provides non-emergency medical transportation services through its Bedford Ride program. People who are age 60 and over or anyone with a disability and who are living at home, have no means to transport themselves, and have no one available in the community to assist them to and from essential services may use this service for a fee. The cost may depend on their income and medical expenses. Essential services include medical appointments, pharmacies, and grocery stores. Transportation to preapproved individuals is available generally from Monday thru Friday, 8:30 a.m. – 3:00 p.m. depending on availability of space on schedules, volunteer drivers and vehicles.

### 2.3.2 Botetourt County Senior Van Service

Public transportation in Botetourt County originally began through the Botetourt Improvement Associate and is now provided by the County's Parks, Recreation and Tourism Department. The objective of the Senior and Accessible Van Service is to improve the quality of life for Botetourt County residents that are age 55 and older or have a qualifying disability. In 2012, a total of 1,396 participants (760 seniors and 636 people with disabilities) used the service.

Due to the elevating costs for vehicles, rates were increased in January 2015 to raise revenues for new vehicles. Rates are \$6 for in-town medical appointments, \$15 for personal enrichment trips, and \$12.00 for trips taken by people in wheelchairs. Rates are a voluntary recommended donation, and no customer is refused service due to lack of ability to pay. The previous rate increase for this service took place in 2009. Transportation is available to Botetourt residents Monday through Friday from 8:00 a.m. to 5:00 p.m. for trips to destinations in Botetourt County, Roanoke County, the City of Roanoke, the City of Salem, and the Town of Vinton.

### 2.3.3 Montgomery County Public Transportation

The New River Valley (NRV) Senior Services, a private non-profit organization, provides transportation in Montgomery County and has operated since 1976. Several programs are available to residents.

The Med-Ride Program utilizes volunteers to transport clients and is available to residents in Montgomery County who have no transportation or cannot afford public transportation. The program operates on a sliding scale (considering income and expenses) with a minimum \$5 fee per trip. There is no age limit and funding is provided by the Carilion Foundation, area United Ways, the Trollinger Trust Fund, the Community Foundation and the C.E. Richardson Foundation.

Local governments provide funding for people with disabilities to receive transportation services. Riders pay a fee based on their monthly income. Transportation is also provided for non-emergency medical purposes including dialysis and cancer treatments, and Medicaid is accepted as a payment source.

Rides are arranged via Logisticare and provided by NRV Senior Services.

#### 2.3.4 Local Office on Aging Taxi Vouchers

The Local Office on Aging has been successful in receiving federal funds (FTA 5310) to support taxi vouchers for people 60 years of age and older in the City of Roanoke, Roanoke County, the City of Salem, and Town of Vinton. The taxi vouchers are used primarily to support non-emergency medical trips.

#### 2.3.5 Logisticare

Logisticare provides non-emergency medical transportation for Medicaid recipients. Routine trips require five-day notice and new standing orders require two-day notice. For public transportation tickets, Logisticare requires seven-day advanced notice. Federal transit funding is not used to provide this service.

#### 2.3.6 Private Shuttles

Many senior living centers provide private shuttles for their residents to access medical, shopping, and entertainment destinations. In addition, some churches provide bus service for members of their congregations who live within a given proximity of the church. Such privately-operated services greatly reduce the public responsibility to care for the transportation needs of fellow citizens.

#### 2.3.7 S.T.A.R. Service

Valley Metro contracts with Unified Human Services Transportation Systems, Inc. Roanoke Area Dial-A-Ride (RADAR) to provide transportation for people with disabilities who are unable to use the fixed-route transit service, regardless of their

age or income level. This type of service is referred to nationally as paratransit and locally is called Specialized Transit – Arranged Rides (S.T.A.R.) service.

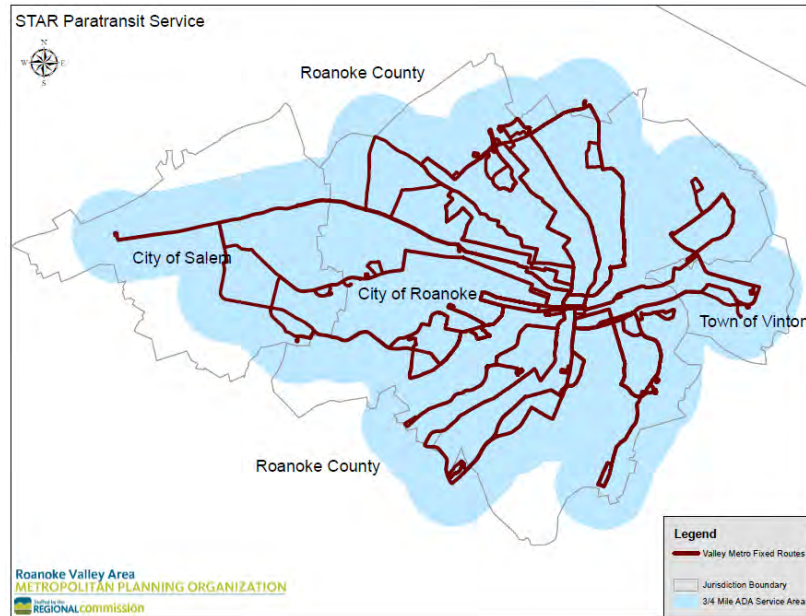
*Paratransit (American Public Transportation Association) is a mode of transit service (also called **demand response** or **dial-a-ride**) characterized by the use of passenger automobiles, vans or small buses operating in response to calls from passengers or their agents to the transit operator, who then dispatches a vehicle to pick up the passengers and transport them to their destinations. The vehicles do not operate over a fixed route or on a fixed schedule. The vehicle may be dispatched to pick up several passengers at different pick-up points before taking them to their respective destinations and may even be interrupted en route to these destinations to pick up other passengers.*

S.T.A.R. service is available to people during the same times and days as the fixed-route service, Monday–Saturday from 5:45 a.m.–8:45 p.m. Paratransit is mandated by the federal government within  $\frac{3}{4}$  mile of any fixed-route transit service; this does not include services like the Smart Way where stops are spaced far apart. The Cities of Salem and Roanoke, and the Town of Vinton elect to expand the S.T.A.R. service to cover their entire locality. In Roanoke County, beyond the S.T.A.R. service, a similar CORTRAN service exists for County residents (see section 2.3.7). The Town of Vinton, because it is also part of Roanoke County, benefits from having both services available to its residents. S.T.A.R. customers are able to travel to any destination within the service area for a flat fare. The S.T.A.R. service area is shown in the following figure.

Fares for S.T.A.R., because it is a paratransit services based on the extent of fixed-route bus service, are capped at twice the maximum fixed-route fare. S.T.A.R. fares are currently \$3.00 per trip or \$96 for an unlimited monthly ride pass.

S.T.A.R. transportation services are available unless Valley Metro operates on Snow Routes in which case S.T.A.R. services are suspended until normal routes resume. During such times, S.T.A.R. service may be provided for a portion of a day.

Figure 2.3.7-1 | S.T.A.R. Service Area

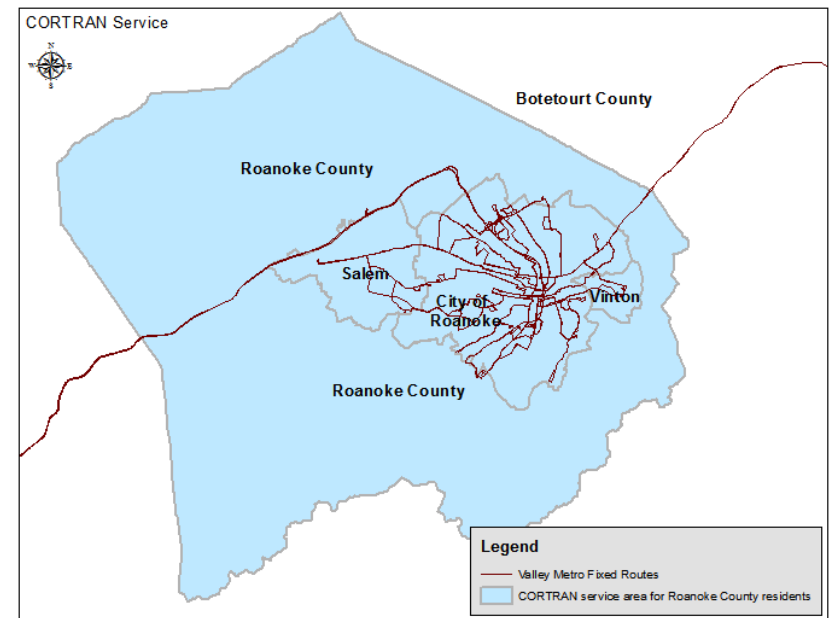


### 2.3.8 County of Roanoke Transportation (CORTAN)

Roanoke County provides public transportation services for its residents age 60 and over or residents of any age with a disability. As long as a resident meets one of these criteria, they are eligible for the service, regardless of income level or, if they are 60+, their ability.

The service is called CORTAN (County of Roanoke Transportation) and, like the S.T.A.R. service, is also provided by RADAR. CORTAN customers are able to travel to destinations within Roanoke County, the City of Roanoke, Salem and Vinton as shown in the following figure.

Figure 2.3.8-1 | CORTAN Service Area



CORTAN began operating in 1985 initially in four areas with service one day a week for each area using one accessible

vehicle. The need for the service has grown, and it now operates in all parts of the County Monday-Friday from 7:00 a.m. – 6:00 p.m. Transportation services are not available when Roanoke County schools are closed in the winter due to weather. Roanoke County sets the fare for CORTRAN which is currently \$4 per trip.

Confusion sometimes exists among the public between the S.T.A.R. and CORTRAN programs and their service areas because they are both provided with the same RADAR vehicles so in appearance there is no obvious difference.

Customers who live in the parts of Roanoke County with access to both S.T.A.R. and CORTRAN often use S.T.A.R. because the fare is \$1 less. The local funding subsidy in these cases is covered by the City of Roanoke rather than Roanoke County.

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## 2.4 Services for Students

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Just as there are specialized transit services for seniors or people with disabilities, there are specialized transit services provided in the Roanoke Valley specifically for children and teenagers for the sole purpose of providing them and their parents with a transportation option to get to school. School bus services are provided by each local school system at no cost to students or their families. Bus services are provided to students regardless of how close they live to the school, their family income, or the presence of infrastructure that would enable them to safely walk or ride a bicycle to school. School systems and local governments share the same service area. Operating public schools consume a large percentage of local budgets; however, this Plan did not examine the details of student bus ridership,

number of buses needed to provide the services in each locality, or the related expenses.

Another transit service for students is provided at the college level. Arrangements for students attending Virginia Western Community College (VWCC) or Virginia Tech-Carilion School of Medicine have been made to provide them with free transit options via Valley Metro. VWCC pays for Valley Metro trips taken by their students when classes are in session; Virginia Tech pays for Smart Way fares for Medical students and faculty. Virginia Tech also provides a fare-free shuttle between Blacksburg and Virginia Tech-Carilion School of Medicine for their students and faculty.

Hollins University contracts with RADAR to provide a free express service for the students, faculty, and staff between the University, the Valley View area, and Center in the Square. The service operates hourly on Thursday/Friday evenings between 4:00 p.m. – 11:00 p.m. and hourly on Saturdays between 11:00 a.m. – 11:00 p.m. Services are not open to the general public.

Ferrum College also contracts with RADAR to provide a similar service called the Ferrum Express. This service is open to the general public for free connecting Ferrum, the Rocky Mounty Farmers Market, Eagle Cinema, Rocky Mount Wal-Mart, and the Bowling Alley on Thursday and Friday evenings between 5:00 p.m. – 11:00 p.m. The service includes service to Downtown Roanoke on Saturdays between 1:00 p.m. – 11:00 p.m.

These college services are shown on the following brochures.

Figure 2.4-1 | Hollins Express

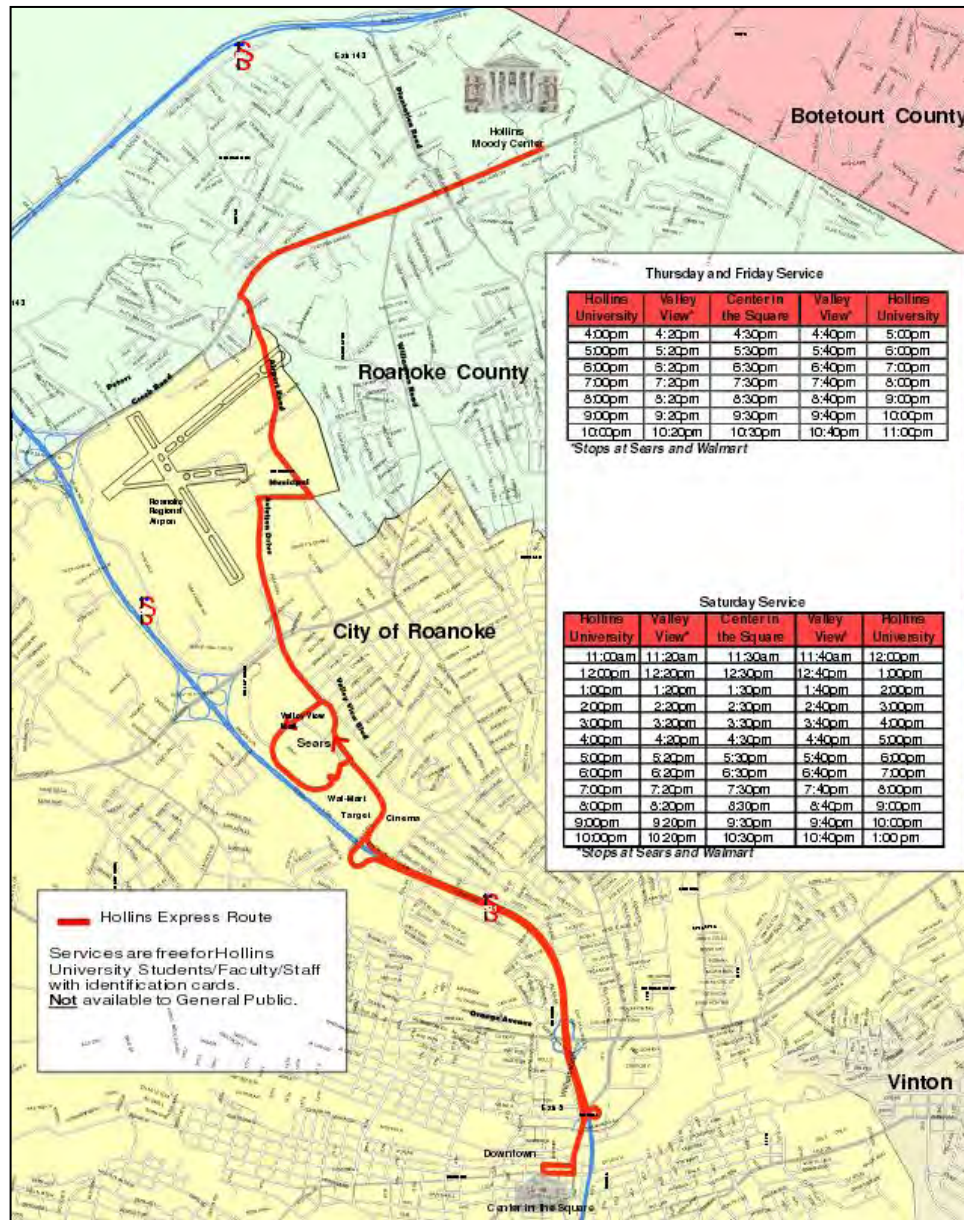


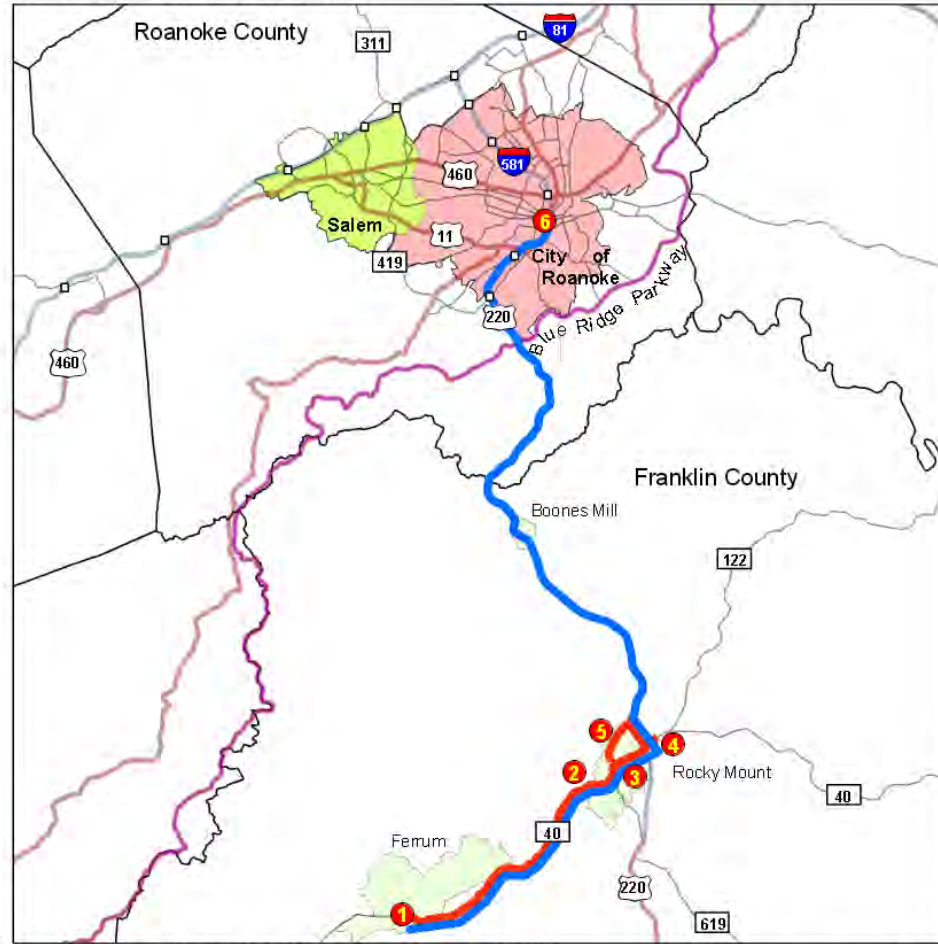
Figure 2.4-2 | Ferrum Express

● **Bus Stops**

- 1: Ferrum
- 2: Rocky Mount Farmers Market
- 3: Eagle Cinema
- 4: Rocky Mount Wal-Mart
- 5: Bowling Alley
- 6: Campbell Court  
Transportation Center (Saturday Only)



**THE FERRUM EXPRESS SERVICE MAP**



**Schedules**

<b>Thursday and Friday Route</b>	Ferrum	Farmers Mrkt	Eagle Cinema	Wal-Mart
	5:00 p.m.	5:15 p.m.	5:20 p.m.	5:25 p.m.
	6:00 p.m.	6:15 p.m.	6:20 p.m.	6:25 p.m.
	7:00 p.m.	7:15 p.m.	7:20 p.m.	7:25 p.m.
	8:00 p.m.	8:15 p.m.	8:20 p.m.	8:25 p.m.
	9:00 p.m.	9:15 p.m.	9:20 p.m.	9:25 p.m.
10:00 p.m.	10:15 p.m.	10:20 p.m.	10:25 p.m.	

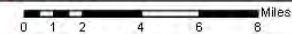
<b>Thursday and Friday Route</b>	Wal-Mart	Bowling Alley	Farmers Mrkt	Ferrum
	5:25 p.m.	5:35 p.m.	5:40 p.m.	6:00 p.m.
	6:25 p.m.	6:35 p.m.	6:40 p.m.	7:00 p.m.
	7:25 p.m.	7:35 p.m.	7:40 p.m.	8:00 p.m.
	8:25 p.m.	8:35 p.m.	8:40 p.m.	9:00 p.m.
	9:25 p.m.	9:35 p.m.	9:40 p.m.	10:00 p.m.
10:25 p.m.	10:35 p.m.	10:40 p.m.	11:00 p.m.	

<b>Saturday Route</b>	Ferrum	Farmers Mrkt	Eagle Cinema	Wal-Mart	Roanoke
	1:00 p.m.	1:15 p.m.	1:20 p.m.	1:25 p.m.	2:00 p.m.
	3:00 p.m.	3:15 p.m.	3:20 p.m.	3:25 p.m.	4:00 p.m.
	5:00 p.m.	5:15 p.m.	5:20 p.m.	5:25 p.m.	6:00 p.m.
	7:00 p.m.	7:15 p.m.	7:20 p.m.	7:25 p.m.	8:00 p.m.
	9:00 p.m.	9:15 p.m.	9:20 p.m.	9:25 p.m.	10:00 p.m.
11:00 p.m.	11:15 p.m.	11:20 p.m.	11:25 p.m.	12:00 p.m.	

<b>Saturday Route</b>	Roanoke	Wal-Mart	Eagle Cinema	Farmers Mrkt	Ferrum
	2:00 p.m.	2:35 p.m.	2:40 p.m.	2:45 p.m.	3:00 p.m.
	4:00 p.m.	4:35 p.m.	4:40 p.m.	4:45 p.m.	5:00 p.m.
	6:00 p.m.	6:35 p.m.	6:40 p.m.	6:45 p.m.	7:00 p.m.
	8:00 p.m.	8:35 p.m.	8:40 p.m.	8:45 p.m.	9:00 p.m.
	10:00 p.m.	10:35 p.m.	10:40 p.m.	10:45 p.m.	11:00 p.m.

The Ferrum Express is a free service that is open to the public.  
For service changes due to inclement weather please call 540/365-5555 or visit [www.ferrum.edu/weather/](http://www.ferrum.edu/weather/).  
For connection information to Valley Metro and Smart Way bus services, please contact 800/368-7005.

Prepared by the staff of the Roanoke Valley-Alleghany Regional Commission, July 2005



## 2.5 Intercity Bus Transportation

Three operators (Greyhound, Megabus, and Valley Metro) provide intercity bus transportation to and from the Roanoke Valley. Intercity bus service is long-distance public transportation connecting major destinations with few or no stops in between.

### 2.5.1 Greyhound

Greyhound provides intercity bus transportation from the Campbell Court Transportation Center in Downtown Roanoke to destinations as shown in the following network map. Access to Greyhound is available by Valley Metro fixed-route buses and Smart Way Commuter buses. Greyhound is a valuable service to citizens in the Roanoke Valley providing affordable long-distance transportation options. Information about Greyhound trip schedules can be found on the website at [greyhound.com](http://greyhound.com).

Figure 2.5.1-1 | Greyhound Services



### 2.5.2 Megabus

Megabus also provides a valuable long-distance travel option for citizens in the Roanoke Valley. Megabus is a low-cost, express bus service that offers trips from the Exit 118B Christiansburg Park and Ride Lot to Washington DC, Knoxville, and Atlanta. Megabus connections to points beyond are available from these cities. Citizens from the Roanoke Valley can access the service using the Smart Way Commuter bus which also provides service to Exit 118B from multiple locations within the Roanoke Valley. Information about Megabus trip schedules can be found on the website at [megabus.com](http://megabus.com). Connecting schedule information via the Smart Way service can be found on [smartwaybus.com](http://smartwaybus.com).



### 2.5.3 Smart Way Base

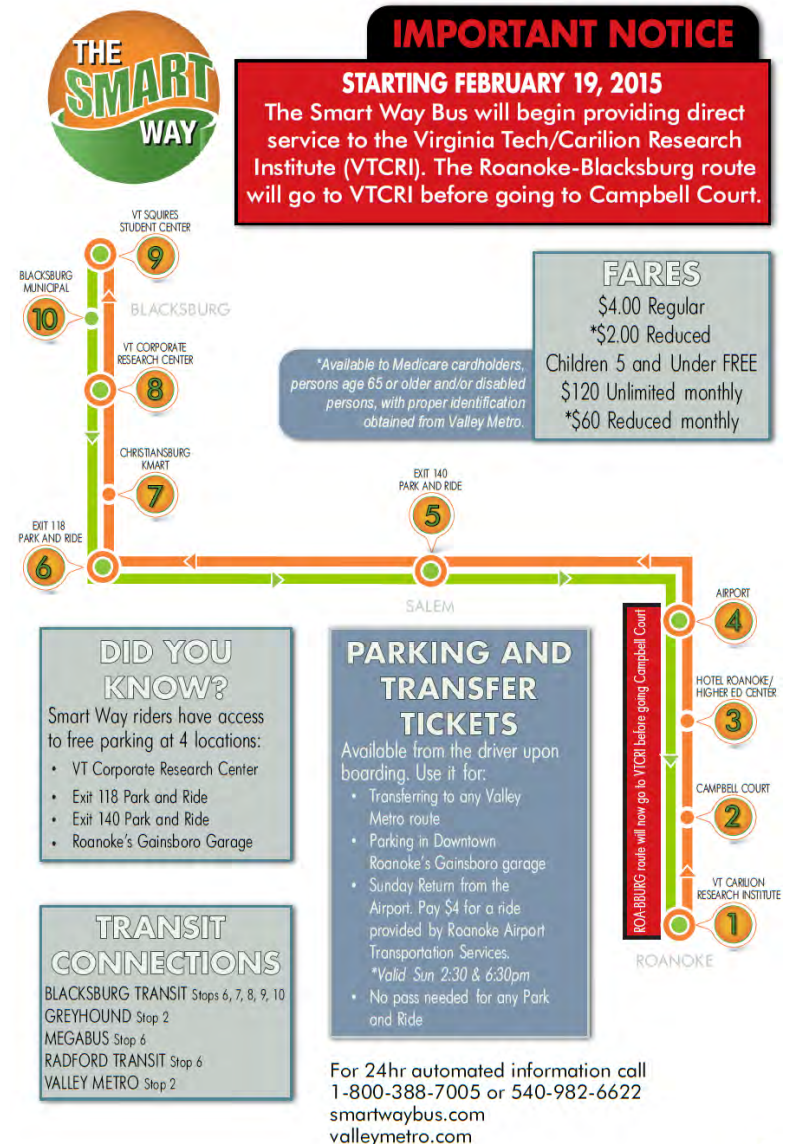
The Smart Way Base Commuter connects the Roanoke Valley and the New River Valley Monday through Saturday. Stops include the following locations:

- ▲ VIRGINIA TECH CARILION RESEARCH INSTITUTE
- ▲ CAMPBELL COURT IN DOWNTOWN ROANOKE
- ▲ ROANOKE HIGHER EDUCATION CENTER
- ▲ ROANOKE-BLACKSBURG REGIONAL AIRPORT
- ▲ EXIT 140 PARK AND RIDE
- ▲ EXIT 118B PARK AND RIDE
- ▲ CHRISTIANSBURG KMART
- ▲ CORPORATE RESEARCH CENTER
- ▲ VIRGINIA TECH SQUIRES STUDENT CENTER
- ▲ BLACKSBURG MUNICIPAL BUILDING

Service is provided via a 45' commuter coach with luggage storage available. As noted by the stops, several places along the route are available for park and ride access to the Smart Way. In Downtown Roanoke, the Gainsboro Garage provides free parking for Smart Way users.

The Smart Way is the only transit service currently available to the Roanoke-Blacksburg Regional Airport. The following maps show the Smart Way stops and the following tables show the current Smart Way schedule.

Figure 2.5.3-1 | Smart Way Stops and Connections





### 2.5.4 Smart Way Connector

The Smart Way Connector provides a link between the New River Valley, the Roanoke Valley, and Bedford to the Kemper Street Amtrak station in Lynchburg. The service began in July 2009 with the purpose of providing connecting service to passenger rail. The Connector bus operates every day of the year and stops at the following locations:

- ▲ VIRGINIA TECH-SQUIRES STUDENT CENTER
- ▲ I-81 EXIT 118B PARK AND RIDE
- ▲ I-81 EXIT 140 PARK AND RIDE
- ▲ CAMPBELL COURT IN DOWNTOWN ROANOKE
- ▲ ROANOKE BERGLUND CENTER
- ▲ BEDFORD WELCOME CENTER
- ▲ KEMPER STREET STATION – LYNCHBURG AMTRAK

The Connector bus has provided a much desired service and its success helped prove the need to extend passenger rail service to Roanoke. Initial ridership expectations of 19 passengers per day (RVARC Bus Connector Staff Report 2009) were greatly surpassed with the Connector bus carrying an average of 35 passengers per day in its first full month of service (August 2011). After five years of service, the estimate was 47 passengers per day. However, less than four years after service initiation, the Connector is averaging 55 passengers per day.

When Amtrak service is extended to Roanoke in 2017, there will no longer be a need for passenger rail connector service between Roanoke and Lynchburg to meet the current Northeast Regional morning departures and evening arrivals in Lynchburg.

A connecting service will still be needed between Blacksburg and Roanoke.

Thus far, there has been no expressed need to provide a bus connector service for the Crescent train service in Lynchburg.

This is likely due to the late night departures and early morning arrivals that lessen the regional demand for this service.

Given the success of the current Northeast Regional train, a second Northeast Regional train to Lynchburg has been contemplated. If a second train is provided, depending on the schedule, there may be sufficient demand to provide Connector bus service to meet that train's departures and arrivals.

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## 2.6 Amtrak Passenger Rail

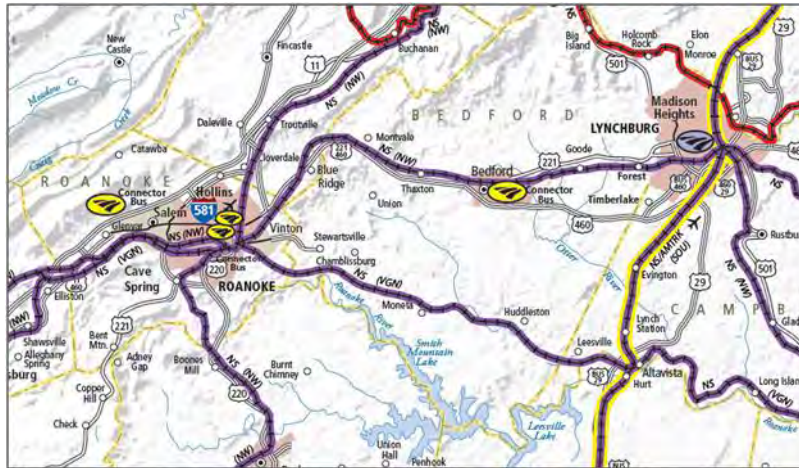
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Since 1979 Roanoke citizens have longed to bring passenger rail service back to the Star City. In February 2013, the Virginia General Assembly passed HB 2313, which changed the way transportation was funded in the Commonwealth. The bill enabled the expansion and growth of intercity passenger rail service including the extension of Amtrak from Lynchburg to Roanoke. The announcement was made official on August 9, 2013 in a News Release from the Governor's Office. The news was met with great excitement and some surprise. While having passenger rail service return to Roanoke has been a desire for a long time, as of the last Long Range Transportation Plan in 2012, there was still no train arriving for the foreseeable future. The 2013 transportation bill was the catalyst to make the service a reality.

The timing has also worked out. Norfolk Southern had been working with the Virginia Department of Rail and Public

Transportation to add freight capacity and upgrading signals to its rail yard in Downtown Roanoke thus improving the efficiency of freight operations. Working in a side track and platform for passenger rail was a relatively simple add-on.

Figure 2.6-1 | Excerpt from Official Virginia State Railroad Map, 2012



In the map above, the yellow Amtrak symbols represent where there is connecting bus service to an Amtrak station which is marked with a grey Amtrak symbol. In order to achieve passenger rail service extension, improvements to the tracks on the Norfolk Southern VGN (Virginian Railway) line between Altavista and Roanoke were made to accommodate double-stack trains. By making those improvements, more freight trains could use the VGN tracks making room for passenger service on the Norfolk Southern NW (Norfolk and Western Railway) line.

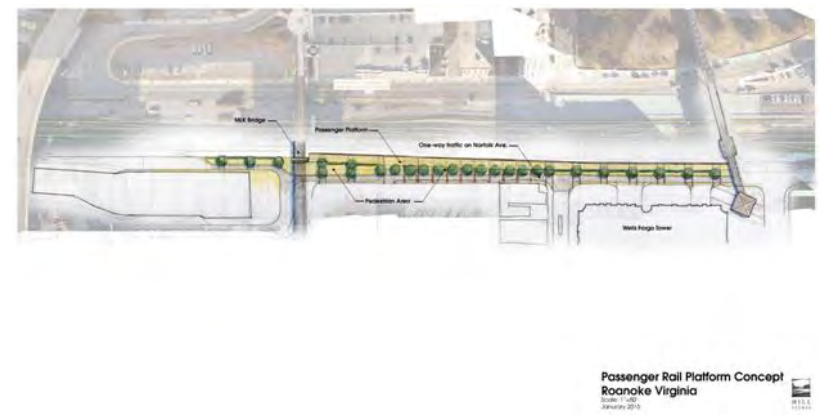
The following pictures show a concept for Amtrak in Downtown Roanoke. Since their rendering, the Virginia Department of Rail and Public Transportation, in working with Norfolk Southern, Amtrak, and the City of Roanoke, has determined that providing

a high platform to ease passenger boarding/alighting, particularly for people with disabilities, is feasible and will be constructed.

Figure 2.6-2 | Passenger Rail Platform Typical Section



Figure 2.6-3 | Passenger Rail Platform Concept



▲ ANTICIPATED TRAIN DEPARTURE TIMES:

- Around 6:15 a.m. Monday through Friday
- Around 8:35 a.m. on Saturdays and Sundays

▲ ANTICIPATED TRAIN ARRIVAL TIMES:

- Around 10:00 p.m. Sunday through Friday
- Around 9:00 P.M Saturdays

In 2013, the City of Roanoke and Valley Metro applied for and received Regional Surface Transportation Program funds to study the future needs of passengers given the Amtrak platform location as well as the future needs of Valley Metro’s downtown transfer hub, Campbell Court. Wendel Architects was hired to conduct the study which recommends a new intermodal transportation center be constructed on land adjacent to the Amtrak platform between Salem Avenue and Norfolk Avenue, Jefferson Street and the MLK Pedestrian Bridge that would accommodate transfers between intercity buses, local buses, passenger rail, passenger drop-off and pick-up, short- and long-term parking, taxis, bikes, and pedestrians. More information about the Study is provided in the Local Plans Review section of this Plan.

## 3.0 FARE STRUCTURES AND EXISTING FUNDING SOURCES

Possibly the greatest challenge to any transit project is securing the funding for operating the service as well as purchasing the necessary vehicles and equipment. One source of funding comes from the fares charged to people who use the service. Fares are typically less for seniors, people with disabilities and for children. Otherwise, fares are the same for any person regardless of personal income or any other distinction. Fares are charged for transit services in the following manner.

**Valley Metro Fixed-Route:**

- ▲ \$1.50, FREE TRANSFERS TO OTHER VALLEY METRO FIXED-ROUTE WITHIN THE HOUR
- ▲ \$0.75 DISCOUNT FARE FOR MEDICARE CARD HOLDERS, PEOPLE 65 AND OVER, OR PEOPLE WITH DISABILITIES
- ▲ \$0.75 FOR STUDENTS 11-18 YRS.
- ▲ FREE FOR CHILDREN 10 AND UNDER
- ▲ \$48 FOR A 31-DAY UNLIMITED PASS
- ▲ \$24 DISCOUNT 31-DAY UNLIMITED PASS
- ▲ \$14 FOR A 7-DAY UNLIMITED PASS
- ▲ \$7 DISCOUNT 7-DAY UNLIMITED PASS
- ▲ \$20 FOR A 15-RIDE PASS
- ▲ \$10 DISCOUNTY 15-RIDE PASS
- ▲ \$5 UNLIMITED RIDE 24-HOUR PASS
- ▲ \$2.50 DISCOUNT UNLIMITED RIDE 24-HOUR PASS

**Starline Trolley:**

- ▲ FREE

**S.T.A.R. Paratransit:**

- ▲ \$3.00 PER TRIP
- ▲ \$96 UNLIMITED MONTHLY PASS

**CORTRAN Seniors/Disabled:**

- ▲ \$4.00 PER TRIP

**Botetourt Seniors/Disabled:**

- ▲ \$6 MEDICAL TRIPS
- ▲ \$12.00 WHEELCHAIR ACCESS
- ▲ \$15.00 PERSONAL ENRICHMENT TRIPS

**School Bus:**

- ▲ FREE

**Ferrum Express:**

- ▲ FREE

**Greyhound and Megabus:**

- ▲ VARIES BY DESTINATION

**Smart Way Commuter:**

- ▲ \$4.00, FREE TRANSFER TO VALLEY METRO FIXED-ROUTE
- ▲ \$120 BASIC 31-DAY UNLIMITED RIDE PASS
- ▲ \$60 DISCOUNT BASIC 31-DAY UNLIMITED RIDE PASS
- ▲ \$54 BASIC 15-RIDE PASS
- ▲ \$27 DISCOUNT BASIC 15-RIDE PASS
- ▲ \$10 FOR 24-HOUR UNLIMITED RIDE PASS
- ▲ \$5 DISCOUNT 24-HOUR UNLIMITED RIDE PASS

**Smart Way Connector:**

- ▲ \$4.00 PER TRIP

Revenue generated from fares only covers a portion (approximately 23%) of the funding needed to operate the service. For the S.T.A.R. service, approximately 13% of the service cost is covered by fares. Thus, additional funds must be secured in order to provide any public transit service.

Funding sources may be used for expenses related to operating the service including drivers, capital expenses to buy equipment such as vehicles, or both. The Federal Government through the Federal Transit Administration (FTA) provides a substantial portion of the existing funding for public transportation through formulas as does the Commonwealth of Virginia through the Commonwealth Transportation Board and the Virginia Department of Rail and Public Transportation.

The following are the three primary formula-based federal funding sources:

- ▲ FTA SECTION 5307 (OPERATING AND CAPITAL)
- ▲ FTA SECTION 5339 (CAPITAL)

### ▲ FTA SECTION 5310 (OPERATING AND CAPITAL)

In addition, there are other funding sources for capital expenses available by competitive selection of projects. The following are the competitive funding sources:

- ▲ HB2
- ▲ REGIONAL SURFACE TRANSPORTATION PROGRAM
- ▲ TRANSPORTATION ALTERNATIVES PROGRAM

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## 3.1 FTA Section 5307

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This funding source is called the Urbanized Area Formula Funding program (49 U.S.C. 5307) which makes Federal resources available to urbanized areas for transit capital and operating assistance and for transportation related planning.

Provided directly to Valley Metro as the region's Designated Recipient, Section 5307 funds are determined based on a formula that takes into account these factors:

- ▲ URBANIZED AREA'S TOTAL POPULATION
- ▲ POPULATION DENSITY (PEOPLE PER SQUARE MILE)
- ▲ MILES OF FIXED-ROUTE TRANSIT SERVICE PROVIDED
- ▲ MILES TRAVELED BY BUS PASSENGERS

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## 3.2 FTA Section 5339

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This funding source is called the Bus and Bus Facilities Program (49 U.S.C. Section 5339) which provides Federal resources to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities. Like 5307, these funds are provided to Valley Metro as the region's Designated Recipient and the amount is based on the same factors as Section 5307. In FY 2014, Valley Metro received \$273,764 from FTA in Section 5339 funds along with a state match of \$29,973.

Given that most of Valley Metro's transit vehicles cost around \$400,000, the amount available each year is not sufficient to cover even one bus every year. To provide its service, Valley Metro currently has 37 buses (35' long) in addition to other specialized service vehicles. Each of those vehicles has a lifespan of 12 years. Mathematically, this funding source alone is not sufficient to sustain the vehicle capital needs of the transit services provided.

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## 3.3 FTA Section 5310

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This funding source is called the Enhanced Mobility of Seniors and Individuals with Disabilities Program (49 U.S.C Section 5310) which provides Federal resources "for the purpose of assisting private nonprofit groups in meeting the transportation needs of the elderly and persons with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to

meetings these needs”<sup>1</sup>. 5310 funds have most commonly been used to support regional RADAR services via the CORTRAN and S.T.A.R. programs. Most recently, under MAP-21, this program now provides funding for both capital and operating expenses.

The amount provided to the Roanoke urbanized area is based on a formula that considers the number of elderly individuals and individuals with disabilities in the urbanized area. In FY2016, \$221,623 was available to the Roanoke area.

The Virginia Department of Rail and Public Transportation (VDRPT) is the Designated Recipient of these funds for the Roanoke area. Grant requests are made through VDRPT by eligible recipients on an annual basis.

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### 3.4 State Funding

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The Virginia Commonwealth Transportation Board provides transit operating assistance through the Department of Rail and Public Transportation. The amount that each transit agency receives is also based on a formula that is based on performance according to an allocation methodology that was approved in 2013 and includes the following performance metrics:

- ▲ NET COST PER PASSENGER (50%)
- ▲ TOTAL OPERATING COSTS LESS DEPRECIATION RELATED TO TRANSIT ASSETS AND ANY OPERATING INCOME DERIVED FROM A SOURCE OTHER THAN TAXPAYERS DIVIDED BY RIDERSHIP
- ▲ CUSTOMERS PER REVENUE HOUR (25%)

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<sup>1</sup> "Enhanced Mobility of Seniors & Individuals with Disabilities - 5310." *Federal Transit Administration: Enhanced Mobility of Seniors & Individuals with Disabilities - 5310*. FTA, n.d. Web. 26 Mar. 2016.

- ▲ RIDERSHIP DIVIDED BY REVENUE HOURS
- ▲ CUSTOMERS PER REVENUE MILE (25%)
- ▲ RIDERSHIP DIVIDED BY REVENUE MILES
- ▲ TRANSIT SYSTEM SIZING
- ▲ BASED EQUALLY ON THE MOST RECENT ANNUAL RIDERSHIP AND MOST RECENT AUDITED OPERATING COST AVAILABLE NET OF DEPRECIATION, PROJECTS FUNDED IN OTHER DRPT PROGRAMS, AND NON-TRANSIT RELATED EXPENSES

Given that half of the funding is based on number of customers, the formula stresses the Commonwealth’s value of providing services that generate high ridership as opposed to providing services that provide coverage to most areas regardless of the number of people who might use the service.

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### 3.5 Local Funding

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In order to be eligible to receive federal and state funding, a local contribution must be part of the complete funding package. In the Roanoke Valley, the City of Roanoke, the City of Salem, and the Town of Vinton support public transportation provided through Valley Metro and the S.T.A.R service. Roanoke County, Botetourt County, Bedford County, and Montgomery County each provide local funds to support senior and disabled trips for their residents. Local partnerships have also been established with Downtown Roanoke Inc. and Carilion Clinic to provide funding for the Star Line Trolley. The Smart Way Commuter service is supported by the Towns of Blacksburg and Christiansburg, Montgomery County, and the Virginia Institute of Technology. Various partnerships also occur between Valley Metro and local businesses or residential areas to provide improvements to bus stops.



Additional revenue is generated locally through the rental of property owned by Valley Metro at Campbell Court as well as through advertising sold on the inside and outside of buses.

The amount and percent of funding from various sources over the last 10 years is shown in the following tables. The figures in this table do not reflect the Commonwealth's new operations funding allocation methodology which began in FY14 with a transition period. The new performance metrics will still be in a transition period in FY15 and will be fully operational in FY16. The percentages shown in FY13 and previously reflect a funding allocation methodology that was based on the transit agency's total operating cost relative to the total operating costs statewide for all transit providers. The new methodology aims to improve the effectiveness of public transportation funding.

Table 3.5-1 | Valley Metro Funding Amount by Source for All Services

Fiscal Year	Federal	State	Roanoke	Local	Operating Revenue	Other Revenue	Loss	Actual
<b>FY 05</b>	2,028,002	990,356	1,017,000	70,945	1,357,631	411,444	9,234	5,884,612
<b>FY 06</b>	2,169,284	1,127,219	1,193,161	76,757	1,610,130	473,990	4,648	6,655,189
<b>FY 07</b>	2,484,634	1,227,575	1,330,414	157,511	1,660,818	460,964	(382,182)	6,939,735
<b>FY 08</b>	2,624,073	1,255,844	1,316,071	165,970	1,938,194	429,057	(344,488)	7,384,722
<b>FY 09</b>	2,716,178	1,365,532	1,387,323	286,518	1,950,233	351,228	(120,040)	7,936,972
<b>FY 10</b>	2,766,527	1,072,412	1,112,953	300,687	1,904,502	326,866	(87,566)	7,571,514
<b>FY 11</b>	2,717,922	1,142,458	1,178,593	294,704	2,003,662	302,269	(449,300)	8,088,908
<b>FY 12</b>	2,768,557	1,404,369	1,648,504	361,735	2,131,742	351,026	(98,520)	8,764,553
<b>FY 13</b>	2,824,369	1,717,273	1,649,666	415,819	2,141,808	246,174	127,788	8,867,321
<b>FY 14</b>	2,729,241	2,137,899	1,594,438	352,183	2,195,833	296,919	96,910	9,209,605

Table 3.5-2 | Valley Metro Funding Percentage by Source for All Services

Fiscal Year	% Federal	% State	% City of Roanoke	% Local	% Operating Revenue	% Other Revenue
<b>FY 05</b>	34.46%	16.83%	17.28%	1.21%	23.07%	6.99%
<b>FY 06</b>	32.60%	16.94%	17.93%	1.15%	24.19%	7.12%
<b>FY 07</b>	35.80%	17.69%	19.17%	2.27%	23.93%	6.64%
<b>FY 08</b>	35.53%	17.01%	17.82%	2.25%	26.25%	5.81%
<b>FY 09</b>	34.22%	17.20%	17.48%	3.61%	24.57%	4.43%
<b>FY 10</b>	36.54%	14.16%	14.70%	3.97%	25.15%	4.32%
<b>FY 11</b>	33.60%	14.12%	14.57%	3.64%	24.77%	3.74%
<b>FY 12</b>	31.59%	16.02%	18.81%	4.13%	24.32%	4.01%
<b>FY 13</b>	31.85%	19.37%	18.60%	4.69%	24.15%	2.78%
<b>FY 14</b>	29.63%	23.21%	17.31%	3.82%	23.84%	3.22%

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### 3.6 Regional Surface Transportation Program

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As a result of the Roanoke urbanized area becoming a Transportation Management Area, the Roanoke Valley Transportation Planning Organization (RVTPO) undertook the responsibility of determining the use of federal surface transportation funds, RSTP funds, designated for the region. The amount of funds the region receives is based on population based on its relative share of the total population among all urbanized areas with over 200,000 people. Since the RSTP program began in FY 2013, the amount available to the region for allocation each year has been around \$4 million. Because the Roanoke Valley is a Transportation Management Area (TMA), which denotes a greater population and tax base, more responsibility is placed on local sources to support transit. Using some of the RSTP funds, the RVTPO has supported bus replacements for the region's transit services.

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### 3.7 Transportation Alternatives Program

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Similar to RSTP funds, the Roanoke Valley Transportation Planning Organization receives some Transportation Alternatives (TA) program funds to allocate to regional projects on a competitive basis. The total amount available to the RVTPO has been around \$250,000 each year. The RVTPO has funded active transportation (bike/walk) projects that support access to transit.

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### 3.8 HB2

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House Bill Two (HB2) was signed into Virginia law in 2014. This Bill initiated an objective scoring process to determine which new capital projects in the Commonwealth would receive transportation funding each year. The process is very competitive and transit capital investments compete with all other transportation capital projects. The first round using the new scoring process will be complete in June 2016.

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### 3.9 Six-Year Improvement Program / Transportation Improvement Program

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All federal and state funding for transit operating and capital projects are identified in the Commonwealth Transportation Board's Six-Year Improvement Program (SYIP). In developing the SYIP, each year, local governments and transit agencies work with citizens, transportation agencies, and other stakeholders to identify the projects that will help the localities, the region, and the Commonwealth achieve its goals. All projects receiving state or federal funding are listed in the SYIP.

Another document, the Transportation Improvement Program (TIP) is a four-year financial program that lists the transportation projects within the RVTPO region that will utilize federal funds. The TIP reflects the projects and priorities identified in the RVTPO Long-Range Transportation Plan. The TIP is approved by the RVTPO Policy Board every three years but amendments and adjustments occur continuously as new projects are added or existing projects are modified.

## 4.0 RELATED PLANS, STUDIES AND LOCAL ORDINANCES

Many other state, regional, and local plans, studies and ordinances have been adopted over the years that reference the value of transit or the need for additional transit services or infrastructure in the Roanoke Valley. These documents are listed below, and their content regarding transit is shared in the following sections. Table 4.0-1 provides a quick reference of the documents and the key elements they address.

- ▲ VTRANS 2040
- ▲ VTRANS 2040: VIRGINIA MULTIMODAL TRANSPORTATION PLAN 2025 NEEDS ASSESSMENT
- ▲ MULTIMODAL SYSTEM DESIGN GUIDELINES
- ▲ LIVABLE ROANOKE VALLEY PLAN
- ▲ DOWNTOWN ROANOKE INTERMODAL TRANSPORTATION STUDY
- ▲ RVTPO CONSTRAINED LONG RANGE TRANSPORTATION PLAN
- ▲ RVTPO CONGESTION MANAGEMENT PROCESS PLAN
- ▲ RVTPO BUS STOP ACCESSIBILITY STUDY
- ▲ RVTPO PEDESTRIAN VISION PLAN
- ▲ RVTPO BIKEWAY PLAN
- ▲ RVTPO PASSENGER RAIL STUDY
- ▲ RVTPO PLANNING FOR ELDERLY AND DISABLED MOBILITY STUDY
- ▲ AGE WAVE STUDY: DEMOGRAPHIC ANALYSIS OF THE ROANOKE VALLEY-ALLEGHANY REGION OF VIRGINIA
- ▲ COORDINATED HUMAN SERVICES MOBILITY PLAN
- ▲ ROUTE 419 CORRIDOR STUDY
- ▲ BEDFORD COUNTY ZONING ORDINANCE
- ▲ BEDFORD COUNTY TRAFFIC IMPACT STUDY GUIDELINES
- ▲ MONTGOMERY COUNTY 2025 COMPREHENSIVE PLAN
- ▲ MONTGOMERY COUNTY 2025: ELLISTON AND LAFAYETTE VILLAGE PLAN
- ▲ MONTGOMERY COUNTY ZONING ORDINANCE
- ▲ ROANOKE, VIRGINIA COMPREHENSIVE PLAN VISION 2001-2020
- ▲ ZONING ORDINANCE OF THE CITY OF ROANOKE, VIRGINIA
- ▲ GLENVAR COMMUNITY PLAN
- ▲ HOLLINS AREA PLAN
- ▲ ROANOKE COUNTY, VIRGINIA 2005 COMMUNITY PLAN
- ▲ COMPREHENSIVE PLAN OF THE CITY OF SALEM, VIRGINIA
- ▲ VINTON AREA CORRIDORS PLAN
- ▲ ROANOKE VALLEY CONCEPTUAL GREENWAY PLAN
- ▲ RVARC RURAL TRANSPORTATION PROJECT PRIORITIES
- ▲ 2035 RURAL LONG-RANGE TRANSPORTATION PLAN

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### 4.1 VTRANS 2040

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Preparations have also begun to form the next Statewide Vision and Multimodal Transportation Plan, VTRANS 2040. This plan will be developed by the Secretary of Transportation’s Office of Intermodal Planning and Investment in conjunction with the state’s transportation modal agencies. VTrans 2040 specifically considers needs in regions throughout the state and seeks to identify projects that will meet those needs. Looking forward in

the same timeframe, 25 years from now to the year 2040, the content of this Transit Vision Plan serves as input into the Roanoke Valley 2040 Constrained Long-Range Multimodal Transportation Plan and VTrans 2040.

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## 4.2 VTRANS 2040: Virginia Multimodal Transportation Plan 2025 Needs Assessment

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The Needs Assessment is a key component of VTrans 2040 in that it identifies deficiencies within the existing transportation network at the local and regional levels and aggregates them to a statewide perspective. Needs are identified within three areas:

- Corridors of Statewide Significance (COSS)
- Regional Networks
- Urban Development Areas (UDA)

Identifying what the deficiencies are within each of these areas is essential to identifying projects to address the need. In order for a project to receive capital funding through the HB2 process and receive any state or federal funding, it must meet a need identified in this assessment.

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## 4.3 Multimodal System Design Guidelines

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In October 2013, the Virginia Department of Rail and Public Transportation adopted Multimodal System Design Guidelines (MMSDG) that was developed for all places in the Commonwealth to use locally and regionally for the purpose of creating multimodal transportation networks. As recommended in the MMSDG, and in preparation for the Roanoke Valley's next Constrained Long-Range Multimodal Transportation Plan, the

RVTPO Transportation Technical Committee identified regional multimodal centers and districts that were based on activity density. The number of people living and working in a given area determines its activity density. These multimodal centers and districts identify where in the region multimodal transportation (specifically walking, biking, and taking transit) is most likely to occur and where related infrastructure is most needed. The foundation of these areas is their walkability. The RVTPO Policy Board approved the regional multimodal center and district boundaries in January 2015.

The MMSDG go a step further to outline six corridor types: Multimodal Through Corridor, Transit Boulevard, Boulevard, Major Avenue, Avenue, and Local Street. Draft multimodal corridors for the RVTPO study area will be finalized once this Transit Vision Plan is complete and the transit corridors can be overlaid onto pedestrian and bicycle corridors to fully understand the multimodal transportation network.

These multimodal concepts have contributed to the understanding of additional regional transit service needs and have reinforced feedback provided by the public.

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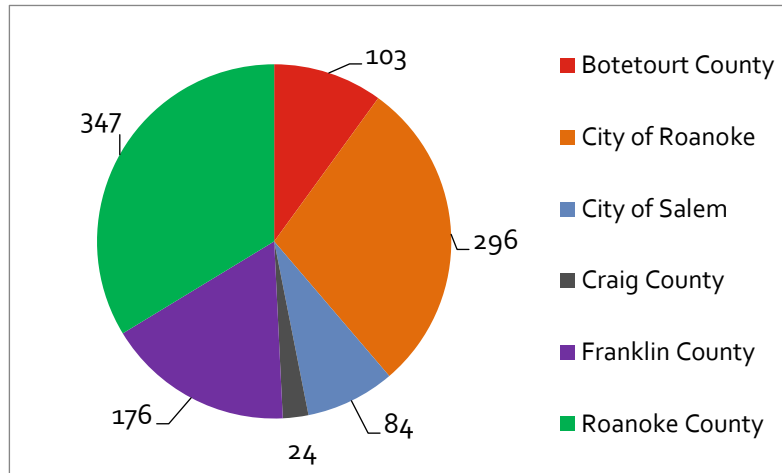
## 4.4 Livable Roanoke Valley Plan

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As mentioned in Part 1, The Livable Roanoke Valley (LRV) Plan (adopted 2014) is the overarching plan guiding the efforts of this Transit Vision Plan. The LRV Plan outlines a Vision for the Future, Livability Guiding Principles, Goals, Strategies and Actions. The Transit Vision Plan has been developed within the LRV framework acknowledging that transit is a tool for helping the community accomplish its livability vision and goals.

A statistically valid survey was conducted for the LRV Plan in which 1,030 people participated throughout the Roanoke Valley.

Figure 4.1-1 | Regional Distribution of Livable Roanoke Valley Survey Participants



When asked if providing public transportation for more citizens is a “top priority”, 45% of respondents said yes; 43% said providing passenger rail is a top priority. Improving the mobility of travelers and the workforce is included as a key action toward a Livable Roanoke Valley.

#### 4.5 Downtown Roanoke Intermodal Transportation Study, 2015

The Downtown Roanoke Intermodal Transportation Study analyzed the current and future needs associated with transit and passenger rail in Downtown Roanoke. At the request of the City of Roanoke and Valley Metro, the study was funded by the RVTPO using RSTP funds in 2013. Wendel Architects and their team of consultants were hired to do the study. The team had

completed similar work for a new station being planned for Blacksburg and more recently completed a similar study for a proposed intermodal station in Bedford.

The public was involved in the Study, participating in two public meetings held at Campbell Court at the beginning and draft recommendation stages.

Figure 4.5-1 | Intermodal Study Public Meeting Advertisement



Come out to Campbell Court (31 Campbell Ave, SW) on Monday, August 17th anytime between 4:00 - 7:00 p.m. Wendel Architects and City staff will be on hand to discuss the draft of the Intermodal Transportation Study. You can read the report on the City's web page: [http://www.roanokeva.gov/.../\\$FILE/Roanoke%20Intermodal%20Stu...](http://www.roanokeva.gov/.../$FILE/Roanoke%20Intermodal%20Stu...)

[www.roanokeva.gov](http://www.roanokeva.gov)

ROANOKEVA.GOV

The Study, which was finalized in November 2015, recommends a new intermodal station be constructed across from the current transfer center within the block bounded by Norfolk Avenue, Salem Avenue, the MLK Bridge, and Jefferson Street.

The new facility location is based primarily on the fixed location of the passenger rail platform, the availability of land next to the platform, the need to provide connections between passenger rail and regional and local transit services, as well as the need to continue providing local transit to serve Downtown Roanoke.

As a regional icon, which many residents and visitors will utilize on their way to/from the Roanoke Valley or in the course of their day-to-day travels, the alternatives for the recommended facility

show welcoming buildings, amenities, and travel spaces with attractive modern designs, ample space for pedestrian movement, and easy transferring between transportation modes and vehicles.

The sketches below show some of the design alternatives. The recommendations show design options that would enable bicycles to be loaded onto and off of buses from their regularly assigned location in the station. Some design alternatives suggest using the existing Campbell Court facility as well as a new site adjacent the platform; other design alternatives suggest accommodating all travel activities on the new site leaving the Campbell Court facility available for future redevelopment.

*Figure 4.5-2 | Downtown Roanoke Intermodal Station Options*



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## 4.6 Constrained Long-Range Transportation Plan, 2011

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The Roanoke Valley Constrained Long-Range Transportation Plan from 2011 highlighted the need for transit service to become a more important part of the long-range planning process in order to provide the broadest range of transportation alternatives and mobility options to the region. The Plan includes the following related goals/objectives/strategies:

**Goal Six:**

- Anticipate transportation needs of retiring Baby Boom population in projects selected for CL RTP 2035.

**Objective:** Target future areas that are projected to have a concentration of “carless households in retirement age ranges.

- Strategy: Investigate feeder system (e.g. taxi, jitney-style, or other paratransit feeder system) that targets concentrations of “future carless households” to the current fixed route transit system. Integrate concept into regional transit development plan by 2012.
- Strategy: Investigate bicycle sharing/renting systems that could serve as a transit feeder system. Integrate concept into regional bicycle plan by 2010.

**Objective:** Investigate daily bus service between Roanoke Valley and Smith Mountain Lake to connect retired lake residents with regional airport and other transportation connections.

The Plan acknowledges the need to utilize technology and real-time information to communicate with riders. Additionally, the Plan specifically recommends the consideration of 15 minute peak service on overcrowded routes such as those to Valley View

Mall or adding a PM Peak shuttle or express bus that services only Campbell Court and Valley View.

The Plan’s Vision List of Projects includes Transit and Transit Accessibility Improvements to support bus shelters, bus pullouts, bus stop accessibility, and other transit enhancements. Where new park and ride lots are proposed, evaluation of the need to include bus shelters is recommended.

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## 4.7 RVTPO Congestion Management Process Plan, 2014

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The Roanoke Valley Transportation Planning Organization (RVTPO) became a Transportation Management Area (TMA) MPO as a result of Census 2010. As such, this plan is the first ever Congestion Management Process (CMP) Plan for the RVTPO Study Area. Since the RVTPO TMA Study Area is relatively small, 210,111 in population, compared to large metropolitan areas, conventional definitions of congestion and conventional congestion reduction strategies may not always apply to the RVTPO. In the CMP Plan, 10 Areas of Emphasis were identified and transit strategies developed for each area.

**Congestion Management Plan Transit Strategies**

**Area of Emphasis #1 – Elm Avenue and I-581**

- Consider developing a park and ride lot and commuter transit service to serve commuters from the east. Possible locations could be the East Vinton Plaza or the River Park Shopping Center in Vinton.
- Evaluate current Valley Metro routes 35 and 36 to determine if any modifications in the routes could reduce traffic congestion from Vinton and Roanoke County via VA Route 24.



- Evaluate Valley Metro routes 41 and 42, which cross the Elm Avenue bridge, to determine if any changes could increase the number of passengers; and reduce SOV trips across Elm Avenue by making a more direct instead of roundabout route and increasing service frequency.
- Also consider the possibility of rerouting this transit route to eliminate the Elm Avenue congested interchange area in order to save running time spent in traffic and avoid the bus being late to make transfers due to traffic congestion.
- Consider the possibility of the bus entering downtown through less congested streets. As shown in the Bus Stop Activity Index Map, there are four bus stops within a quarter-mile radius of the interchange that all experienced low activity during the 2010-2011 National Transit Database Survey.

#### Area of Emphasis #2 – Hollins to Hershberger

- Beginning in 2013, RVAMPO staff embarked on the development of the *Regional Transit and Pedestrian Vision Plans*. More specifically, the transit vision plan will investigate: the existing transit network; perceived deficiencies in the current system; gaps in regional transit service; and potentially recommend extensions to service. From the first of September to December 31, 2013, RVAMPO planners have administered a *Regional Pedestrian and Transit Vision Plans Survey* online, through social media, neighborhood and civic groups, senior living facilities, etc. Responses will be analyzed in 2014 and incorporated into the vision plans, illustrating the public vision for transit and walking in the region. During this process, the region will explore what the best form of transit is for the Hollins CDP and identify long-term sustainable funding that will support successful transit services to its residents, visitors, and employees.
- An additional goal of the Transit Vision Plan is to encourage a conversation with regional decision-makers about funding for a transit system that will better serve the Roanoke region

specifically, in this case, to the Hollins to Hershberger congestion management Area of Emphasis.

- Valley Metro routes 25 and 26 currently have transit stops on Hershberger Road and on Plantation Road, south of Hershberger. As transit routes are amended in the future to better serve the Roanoke area, recommendations from the Hollins Area Plan (and accompanying community surveys), the *Plantation Road Corridor Study*, and the future *Regional Transit Vision Plan* (anticipated adoption in 2014), will make the case for fixed-route transit for: Plantation Road between I-81 and Hershberger Road; Williamson Road from Hershberger to Hollins University; Valleypointe Parkway; and Peters Creek Road.

#### Area of Emphasis #3 – Salem

- In December 2012, Valley Metro streamlined the transit service provided by routes 81 and 82 (in Roanoke) and routes 91 and 92 (in Salem), combining them into one continuous service and eliminating the need for a transfer at Goodwill opposite Lakeside Plaza. At this time, the service was extended to the Salem Walmart (West Main Street and Turner Road). The route currently provides a straight line service from Campbell Court to the Salem Walmart; however, on the return, the route veers south on S. College Avenue providing service to Lewis Gale, the VA Hospital, and the Salem Civic Center before returning to East Main Street and heading to Campbell Court.
- In order for this transit line to be a viable alternative and to reduce single-occupant vehicle use in the corridor, the route would ideally provide continuous return service from Salem Walmart to Campbell Court with a separate route created for service to the Hospitals and Civic Center. Such an adjustment requires additional funds to provide this service and is being explored in the ongoing regional transit visioning process (2013-2014).

- Without the improvements implemented in December 2012, discussed above, routes 91 and 92 were already experiencing high ridership and adding more riders could create congestion on the buses. An additional strategy to address this concern is to increase the frequency of this route from every 60 to every 30 minutes as well as increasing the size of the transit vehicle, which is currently 35-feet long (Valley Metro and the Transit Vision Plan will explore these options).
- Several businesses and residential areas beyond the Salem Walmart are also in need of transit service, and extending fixed-route service would reduce vehicle trips on West Main Street. A route adjustment to extend routes 91/92 to Ritchfield Retirement Center may be the answer. Early responses from the Regional Transit Vision Plan public outreach efforts have shown a need for this extension of service.

Area of Emphasis #4 – Cave Spring Corners

- The Virginia Statewide Transit / TDM Plan Update released by the Virginia Department of Rail and Public Transportation in 2012 identifies the Cave Spring Census-Designated Place (CDP) as an existing medium urban area. Roanoke City, Salem City, and the Town of Vinton also are classified as existing medium urban areas; however, unlike these areas, the Cave Spring CDP does not have the same level of transit service.
- Some transit services have been tried in Roanoke County in the past and not continued for reasons such as lack of funding or ridership. Current plans such as the Route 419 Corridor Study indicate a desire for transit in the Cave Spring CDP. To support these recommendations, a 2012 technical memorandum to the VA Statewide Transit / TDM Plan Update provides data that gives evidence to the need and demand for public transit services in that Cave Spring CDP could take the form of fixed-route, circulator, Urban Bus

Rapid Transit, Commuter/Express Bus, and/or Regional Bus Rapid Transit.

- The region needs to revisit the conversation with regional decision-makers about funding for a transit system that will better serve the Roanoke region, specifically in this case to the Cave Spring congestion management Area of Emphasis.

Area of Emphasis #5 –Route 419/U.S. 220

- While Tanglewood Mall itself is a big trip generator, many trips simply pass through the area on the way to another destination. Transit strategies to alleviate congestion along Route 419 in the Tanglewood area need to consider the many directions in which trips are approaching and passing through this congested area.
- Trips coming from or going towards Franklin Road North and Ogden Road already have the option of transit service. However, trips from Route 419 North, I-581/U.S. 220 North and South do not have an option of transit service.
- Therefore, the ability of transit to alleviate traffic congestion given the current transit network is very limited in the Tanglewood area and providing new transit services along the corridors mentioned would help.
- However, additional transit service should not simply be added to the current transit system. Such efforts have been tried in the past and have not succeeded in part because the addition of new service in this area will require a comprehensive look at the entire network, how it operates, and the types of services that should be added (local, commuter express, etc.) as opposed to piecemeal additions here and there.
- The following map shows the current bus stops and routes in the Tanglewood/Route 419 area. Activity at existing bus stops was determined through a National Transit Database survey in 2010-2011. Given that Tanglewood Mall is currently considered to be at the end-of-the-line, the last stop itself experiences relatively high activity; however, the

stops along Route 419 do not. To go from Tanglewood/419 to the northern part of the system takes one-hour; and it takes half an hour to get into Campbell Court and another half an hour to get to Valley View Mall, for example. Driving takes approximately 10-15 minutes.

- In order for transit to be a reasonable alternative for people, service from one end of the network to the other needs to be competitive. While it would not be expected that taking transit would be as fast as driving, travel times could be improved by using express services or more direct routes. Changes to the routes in the future should also consider the time of day service is needed at Tanglewood Mall given the operating hours of its businesses.

Area of Emphasis #6 – Apperson and Route 419

- Limited transit service exists around Apperson Drive and Route 419. One-way transit service connects Lewis Gale Medical Center to the VA Hospital. A transfer between route 91 and route 72 enables people traveling from Salem to go into Roanoke and vice-versa. However, most of the traffic congestion at this intersection is caused by vehicles passing through. Transit service needs to be improved in other places that will have a resulting positive effect on managing traffic congestion at Apperson Drive and Route 419. Transit can be improved to provide two-way connections and missing links to employment and retail centers. The City of Roanoke, the City of Salem, Roanoke County and Valley Metro could enter into discussions on the provision of transit service for the entire Route 419/Electric Road corridor. Examples of potential service could include the use of varying sized buses to provide specialized trips for commuters into downtown Roanoke, or to commercial centers in Salem and Roanoke County.
- Multimodal transit, pedestrian and car/vanpool interactions could be facilitated by the development of a new multimodal park and ride lot/multimodal transfer center

near Downtown Salem and Roanoke College. This would allow for downtown workers, college faculty and students to park once and walk, bike or take transit for other trips. This concept may be further explored in the ongoing regional pedestrian and transit vision planning process anticipated to be completed by July 2014.

- As a complement to the aforementioned concept; and in order to service long-distance commuters between the Roanoke and New River Valleys, The Route 419 Corridor Plan specifically recommends extending the Smart Way Bus service to include the Orange Market Park and Ride lot (on Route 419, off I-81 at exit 140), with an accessory location near East Main Street in Salem. Such a commuter service extension would make transit a real option for people who live in Christiansburg/Blacksburg and work at places such as Roanoke College, the VA Hospital, and Lewis Gale Medical Center.

Area of Emphasis #7 – Route 24/Vinton

- The existing transit service in Vinton is somewhat circuitous. Service along Route 24 varies from two-way to one-way, where inbound service is provided via Bedford Road and Cleveland Road. This one-way inbound service, makes it difficult for residents who live in that corridor to take the bus to Lake Drive Plaza. Two-way service is preferred over one-way service to get the combined effect of being able to travel in both directions to and from a destination. Routes in Vinton should be evaluated to consider using transit to alleviate congestion on Route 24 by making short local trips easier to accomplish on public transit.
- The majority of traffic on Route 24 in the morning and the afternoon results mainly from commuters from Roanoke, Bedford or Franklin counties accessing jobs west of Vinton. Existing transit service is time-consuming for regional commuters because of the number of local stops. Regional transit commuter services as well as park-and-ride lots

should be explored to determine if the availability of such services would encourage people to not use a single-occupant vehicle to commute to work thus reducing the number of vehicles on Route 24 and improving traffic congestion.

*Area of Emphasis #8 – Orange Avenue/Challenger Corridor*

- As shown in the bus stop activity index map, public transit service in the Orange Ave/Challenger Corridor is limited. A short section between Kimball Avenue and Hollins Road is used to provide north-south service between Campbell Court and Crossroads Shopping Center. Similarly a section between Gus Nicks Boulevard and King Street provides access to some businesses on Orange Avenue for people traveling from Vinton and less directly, from Downtown Roanoke. At a minimum, morning and afternoon commuter transit service should be explored that is direct and express from the Bonsack area into Downtown Roanoke. Regular fixed-route transit service to the businesses near the U.S. 220/U.S. 460 intersection should also be explored.
- Several businesses within the Blue Hills Industrial Park have repeatedly expressed interest in all-day public transit service for their employees, and this service should be explored with the City of Roanoke, Valley Metro, and the businesses.
- Like the configuration shown in the picture, when Orange Avenue is widened to six-lanes, consideration should be given to providing a morning and afternoon restriction on the right-lane for turning movements, public transit, and high occupancy vehicles.

*Area of Emphasis #9 – I-81 Exit 150 and U.S. 11*

- Currently, no transit services exist for people that need to commute to a job without the use of a personal vehicle. Transit service in Botetourt County is limited to van services for medical or shopping trips for senior citizens and disabled persons and is provided by the County's parks and

recreation department. The Botetourt County 2010 Comprehensive Plan recommends developing transportation systems that shorten vehicle trips, and are focused around receptive mixed-use, population and growth centers, with an overall goal of lessening congestion. Broader transit services in Botetourt County should be explored.

- Specifically, Botetourt County should explore development of a commuter transit service that provides connections from areas with commercial centers and large residential developments, such as those in Daleville.
- It is not possible for people without personal vehicles in the Roanoke Valley who do not live in Botetourt County to travel to places in Botetourt County because services such as those provided for senior citizens and people with disabilities are limited to Roanoke County, the Cities of Roanoke and Salem, and the Town of Vinton. A regionally integrated public transit service should be established to enable such mobility at least within the urban areas of the region.

*Area of Emphasis #10 – Grandin Road and Brandon Avenue*

- As shown in the bus stop activity index map, transit service exists on portions of Brandon Avenue and Grandin Road, but they are not continuous, so their usefulness and ability to substitute for personal vehicle trips is limited. The current north-south transit service (Routes 65/66) on Grandin Road is limited because it stops at Patrick Henry High School, which is an unnecessary endpoint on weekends and evenings when there are few school activities. These routes also are circuitous between the high school and Campbell Court in that they loop through neighborhoods such as Norwich, Raleigh Court along Maiden Lane, and Hurt Park. The fact that it takes 30 minutes to travel from Patrick Henry High School to Downtown Roanoke will deter most choice riders given that the alternative, driving, takes 10 minutes. Routes 65/66 should be evaluated in the context of the greater transit network to see if they can be made less

- circuitous and if Patrick Henry High School is still a good end point for this transit line.
- Similarly, routes 71/72 cover a portion of Brandon Avenue from Lewis Gale Medical Center to Carlton Road. However, people who want to continue towards Towers Shopping Center or Carilion Roanoke Memorial Hospital must first go into Downtown Roanoke and then back out. A continuous east-west route between Lewis Gale Medical Center and Carilion Roanoke Memorial Hospital should be evaluated within the context of modifications made to the greater transit system. Such a route would have greater opportunities for replacing some single vehicle trips along Brandon Avenue.

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#### 4.8 Bus Stop Accessibility Study, 2013

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The Bus Stop Accessibility Study (BSAS) was conducted to identify ways to make it safer and easier for pedestrians to get to and from bus stops and to make bus stops themselves easier and safer to use, particularly for pedestrians with disabilities. The BSAS developed an original methodology to compare the activity of bus stops across the system using National Transit Database survey data including the number of boarding and alightings at each stop and the number of times the bus passed the stop during the survey period.

The Study also analyzed paratransit trips were analyzed to identify the more frequent pick-up locations, the existence of fixed-route transit nearby, and where applicable, the types of infrastructure improvements needed to enable a person with a disability to use the fixed-route transit service. Field visits were conducted at 30 of the most active bus stops and recommendations provided for improving their accessibility. Campbell Court, because it is the only transfer hub, is naturally

the most active stop in the system. The Study discusses the challenges pedestrians, especially those with disabilities, face when transferring between buses at Campbell Court and looks to the Downtown Roanoke Intermodal Transportation Study to provide recommendations on how to improve the transfer experience.

The BSAS recommendations as well as the bus stop activity index are tools that can help decision-makers prioritize improvements to bus stops. The Bus Stop Accessibility Study was recognized by the Federal Highway Administration and the Federal Transit Administration in 2015 with a Transportation Planning Excellence Award.

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#### 4.9 Roanoke Valley Pedestrian Vision Plan, 2015

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The region's first plan to promote walking as a more widely chosen form of transportation was adopted by the Roanoke Valley Transportation Planning Organization in 2015. The Roanoke Valley Pedestrian Vision Plan delves into the land use and development practices as well as infrastructure investments that are needed to create safe and attractive walking environments where people will feel comfortable accomplishing their daily tasks with ease.

The Plan highlights that walking is the fundamental basis for multimodal transportation as it is a component in every trip, regardless of the other modes used. Where pedestrian systems are lacking, transit services will also be limited in their use. The Plan identifies where pedestrian improvements are needed throughout the Roanoke Valley and specifically highlights 200 locations where improvements to transit accessibility are

needed. Many of the needed improvements may be relatively low-cost such as adding ADA curb ramps and crosswalks; others may be more substantial such as adding pedestrian refuge islands and crossing signals. The Pedestrian Vision Plan notes the local priority preferences as provided by local staff and prioritizes the regional significance of pedestrian projects based on their location near dense activity centers where walking to get from one place to another is likely due to proximity.

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#### 4.10 Bikeway Plan for the Roanoke Valley Area Metropolitan Planning Organization, 2012 Update

The region's Bikeway Plan was updated in 2012 and reflects on the importance of connecting bicycle transportation with transit to facilitate greater mobility options for people. The Plan cites where bicycle facilities have been incorporated at Campbell Court and on buses. The Bikeway Plan identifies many proposed priority and vision locations in need of bicycle accommodations that would support connections between bus stops and final destinations.

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#### 4.11 RVTPO Passenger Rail Study, 2008

Connect Roanoke to Lynchburg via passenger rail; bus connector service to passenger rail service in Lynchburg and Clifton Forge.

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#### 4.12 RVTPO Planning for Elderly and Disabled Mobility Study, 2005

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**Section 5: Recommendations and Next Steps - Increase Knowledge and Use of Existing Transportation Options**

Educational campaigns to encourage public transportation use; increase investment in public transportation systems to expand and improve services for the elderly.

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#### 4.13 Age Wave Study: Demographic Analysis of the Roanoke Valley-Alleghany Region of Virginia, 2013

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**Recommendations: Needs**

- Improve options and coordination of transportation services for the elderly.
- Enhance regional cooperation for age related service providers.
- Identify increased funding for existing age related service providers

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#### 4.14 Coordinated Human Service Mobility Plan, 2013

The Coordinated Human Service Mobility Plan was approved in 2013 for the Roanoke-Valley Alleghany (Planning District Commission 5) region which extends from Franklin County to Alleghany County. The Plan reviews the transportation needs of individuals with disabilities, older adults, and people with low incomes. The Plan provides strategies for meeting those needs and prioritizes transportation services for funding and implementation. The recommendations of this plan are the basis of funding requests through the FTA 5310 program. The following strategies are identified as ways to meet unmet needs in transportation services.

- Continue to support capital and operating needs of coordinated human

- service/public transportation providers.
- Support new mobility management and coordination programs among public transportation providers and other human service agencies providing transportation.
- Expand availability of demand-response service and specialized transportation services to provide additional fixed-route transit or targeted shuttle services for older adults, people with disabilities, veterans, and people with lower incomes.
- Provide flexible transportation options and more specialized transportation services or one-to-one services through the use of volunteers.
- Provide targeted shuttle services to access employment opportunities.
- Expand outreach and information on available transportation options in the region.
- Establish a ride/car-sharing program for long-distance medical transportation and other trip purposes.
- Implement new public transportation services and operate existing public transit services on a more frequent basis.
- Expand access to taxi and other private transportation operators.
- Roanoke Valley – Alleghany Regional Commission (PDC 5) Coordinated Human Service Mobility Plan 30
- Establish or expand programs that train customers, human service agency staff, medical facility personnel, and others in the use and availability of transportation services.
- Bring new funding partners to public transit/human service transportation.
  
- Various potential projects are listed for each strategy with ideas on how they can be implemented.

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#### 4.15 Route 419 Corridor Study, 2010

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In the summer of 2008, the Roanoke Valley Area Metropolitan Planning Organization (RVAMPO) and the Salem District of the Virginia Department of Transportation (VDOT) agreed to cooperatively develop a multimodal transportation plan for the Route 419 Corridor. Through the Virginia Multimodal Grant Program and VDOT on-call consultant contracts, the firms of Kimley-Horn and Associates and the Renaissance Planning Group were contracted to support the planning process.

Study Area Description - Route 419 is a 9.5-mile, 4-lane divided state highway that extends west from the US 220 Expressway in southern Roanoke County, along the limits of the City of Roanoke, then northwest through the City of Salem, and terminating just north of I-81. The corridor is fronted by a variety of land uses, including commercial, residential, and industrial.

Vision and Goals - The vision and goals of the Route 419 Multimodal Corridor Plan are based on analysis of existing conditions, comments from local officials and citizens, as well as priorities of the Commonwealth of Virginia.

##### ***Executive Summary***

Route 419 will provide safe and efficient mobility for drivers, pedestrians, bicyclists, and transit riders, while providing adequate access to businesses and residential areas.

##### ***Executive Summary: Recommended Improvements – Multimodal Improvements – Transit Service***

Establish commuter transit service along the entire length of Route 419. Extend the route of the Smart Way to serve the Orange Market Park and Ride and extend Valley Metro routes 61 and 62 to service the Cave Spring Corners area.

##### ***Recommendations: Transit Service - Routing***

Bus service should operate along the length of Route 419 between the intersection with Route 311 at its northern terminus and the southern terminus at Tanglewood mall.

There are a few sites along 419 that are very close to multimodal access, but are not currently serviced directly by transit. These sites are the Orange Market Park and Ride Lot and the intersection with U.S. 221.

**Recommendations: Transit Service - Match Capacity with Demand**

Transit service along 419 should operate as a limited bus service aimed at commuters in order to maintain a proper cost to revenue ratio. With the low density, auto oriented landscape, and lower rates of transit-dependent populations around 419, it is unlikely that bus service along the corridor would be used adequately for non-work related trips.

In order to further streamline the cost to revenue ratio, a smaller bus will be used to match bus capacity with rider demand. In this regard, 40 foot standard buses will not be utilized along Route 419, instead small buses with 30 seats or less will be used.

**Recommendations: Transit Service - Operation**

The new route should also coordinate transfer times with the other transit services operating in the area. In particular, transfer points currently exist at the intersection with 460 where service is provided by Valley Metro routes 81, 82, 91, and 92.

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#### 4.16 Bedford County Zoning Ordinance

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**Sec. 30-67-1 (c)(6) - PD-1 Planned development district.**

**Purpose.** Public transit options as viable alternatives to the automobile by allowing building types, densities and land use groupings that support transit.

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#### 4.17 Bedford County Traffic Impact Study Guidelines

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**Contents Narrative – F) Future Conditions w/Development.** The applicant may incorporate projected new approach and turn lanes, and pedestrian, transit, and paratransit transportation modes to be provided by the applicant or otherwise assured to the County through approved site plan, subdivision plans, rezonings, or special use permits.

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#### 4.18 Montgomery County 2025 Comprehensive Plan

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**Transportation Resources: Goals**

**TRN 3.0 Mass Transit:** Create a better mass transit system (rail, bus, trolley, carpool) that allows for mobility of all citizens.

**TRN 3.2 Future Service:** Encourage the provision of a mass transit service in commercial areas and between jurisdictions and between MSAs (Blacksburg and Roanoke) to alleviate congestion and decrease the number of personal car trips.

**TRN 3.2.2 Valley Metro Service:** Establish clear benchmarks to measure the success or failure of Valley Metro’s demonstration project for express bus service between Blacksburg and downtown Roanoke.

**TRN 3.3 Villages and Public Transportation:** Evaluate the provision of public transportation between the six villages (which includes Elliston) and the urban centers (Christiansburg, Blacksburg and Radford).



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#### 4.19 Montgomery County 2025: Elliston and Lafayette Village Plan

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***The Villages of Elliston and Lafayette: The Plan***

**ELV 11.0: Transportation** - Develop a safe, orderly, and efficient mixed modal transportation network of roads, bikeways, and walkways in Elliston, Lafayette, and the Elliston Lafayette Village Expansion Area to serve the varied needs of village and village expansion area residents.

**Action Steps:** Work with other transportation authorities and departments to develop mass transit connections between the two villages, the New River Valley and the Roanoke Valley.

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#### 4.20 Montgomery County Zoning Ordinance

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***Sec. 10-32. - PUD-TND Planned Unit Development-Traditional Neighborhood Development District.***

f. Public transit as a viable alternative to the automobile by organizing appropriate building densities.

***Sec. 10-32.1. - Traditional Neighborhood Development Infill District.***

(1) The objectives of the TND-Infill District are to:

e. Make public transit a viable alternative to the automobile by organizing appropriate building densities.

***Sec. 10-41. - Supplemental district regulations. (1) Accessory uses and structures.***

(b) Residential accessory uses and structures shall be limited to the following and to any other use or structure the zoning administrator determines to be similar in scope, size and impact

as those listed herein, and are in compliance with all other provisions of this chapter:

19. Bus shelter or bus stand.

***Sec. 10-41. - Supplemental district regulations. (1) Accessory uses and structures.***

(c) Commercial and industrial accessory uses and structures shall be limited to the following and to any other use or structure the zoning administrator determines to be similar in scope, size and impact as those listed herein, and are in compliance with all other provisions of this chapter:

9. Bus shelter or bus stand.

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#### 4.21 Roanoke, Virginia Comprehensive Plan Vision 2001-2020

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***Chapter 3.4 – Infrastructure: Transportation, Technology, Utilities – Policies: Policy Approach – Transportation (second paragraph)***

The public transit system is an important element of an urban transportation plan and should provide access to employment nodes, recreation, and cultural venues, as well as retail and commercial areas. As Roanoke becomes more economically diversified, the traditional pattern with downtown as the hub may need to be expanded to include east/west and north/south routes linked directly to employment or retail nodes.

***Chapter 3.4 – Infrastructure: Transportation, Technology, Utilities –***

***Policies IN P1. Regional transportation planning.***

Roanoke will participate in regional transportation planning through the MPO to appropriately develop regional plans that support compact urban development, discourage sprawl, and emphasize multimodal forms of transportation that prioritize facilities for bicycles, pedestrians, rail, and transit as well as

accommodate automobiles. Cooperative planning on the local, regional, and state levels should include design features that maintain or improve connectivity of streets while maintaining neighborhood integrity and minimizing negative visual and noise impacts.

**IN P2. Transportation system.**

Roanoke will provide a transportation system that is an integrated, multimodal network of automobile, bicycle, pedestrian, and transit facilities. Interconnected street systems should be encouraged in new development and be maintained in existing development. New roadways through existing urban areas should be designed to minimize impact on the City's urban fabric and complement Roanoke's neighborhoods.

**IN P3. Land use and transportation plans.**

Transportation and land use planning will be integrated to promote compact urban development and reduce the frequency and length of automobile trips. Bicycle facilities and pedestrian improvements will be a fundamental part of land use and transportation planning. Future commercial development along arterial roads will be focused at major intersections rather than strip commercial development along corridors.

**IN P4. Parking.**

Roanoke will encourage on-street parking wherever possible and discourage excessive surface parking lots. Maximum parking standards for development outside of downtown will be established. Off-street parking will be encouraged to the side or rear of buildings. Carpooling, park-&-ride lots, and transit will be encouraged to reduce parking demand.

**Chapter 3.4 – Infrastructure: Transportation, Technology, Utilities – Actions – Transit System**

**IN A11.** Develop programs to increase the ridership of Valley Metro.

**IN A12.** Encourage employers to establish motor pools for work-related trips during the day so employees can walk or bike to work.

**IN A13.** Continue programs that provide public transportation to disabled citizens; consider expansion of service to employment and medical centers.

**IN A14.** Explore streetcars or other mass transit systems.

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## 4.22 Zoning Ordinance of the City of Roanoke, Virginia

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**Sec. 36.2-652. - Minimum parking (c).**

Reduction for proximity to public transit. Where a nonresidential use is located within one thousand two hundred (1,200) feet of a public transit route, the total number of required off-street parking spaces, unassigned to specific persons, may be reduced to eighty (80) percent of that otherwise required as set forth in Table 652-2.

**Sec. 36.2-314. - Purposes of multiple purpose districts (c).**

The purpose of the CG District is to permit motor vehicle dependent uses that are generally developed as single use developments on individual lots, subject to landscaping, access, and signage standards. Such development is generally characterized by individual curb cuts, access drives, and signage. It is intended that this district be applied primarily along heavily traveled arterial streets, with an emphasis on clustering such development at major intersections. While recognizing the motor vehicle traffic generated by the uses permitted in this district, it is the intent of the regulations of the district to encourage and recognize pedestrian access and public transit forms of transportation by locating parking to the side and rear of buildings and minimizing conflict through landscaping and signage standards. The uses permitted in this district generally

require a high volume of traffic along the frontage of the establishment and include horizontally oriented buildings. Such permitted uses include general retail establishments, offices, service establishments, motor vehicle related sales and service, eating establishments, and entertainment uses. The CG District is also intended to accommodate travel-oriented uses such as hotels, motels, and gasoline stations.

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## 4.23 Glenvar Community Plan

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### **8.4.4.3 Transit Extension**

Currently, the closest Valley Metro stop is at Spartan Square in the City of Salem. Roanoke County should consider expanding public transit service into the Glenvar Community. Extending bus routes along West Main Street (Route 11/460) to Daugherty Road would provide access to job opportunities and an alternative mode of transportation for the residents of Richfield Retirement Community.

Roanoke County should consider a Smart Way Bus Stop near the Center for Research and Technology and Exit 132.

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## 4.24 Hollins Area Plan, 2008

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As a component of the Roanoke County Comprehensive Plan, the Hollins Area Plan provides information related to existing services and future transit needs. The Plan notes the area is served by CORTRAN and by Valley Metro in the Hershberger Road/Plantation Road/Edinburg Square area and by the Hollins Express. The Plan notes that “RADAR operated a ‘red line’ bus service along Williamson Road and Plantation Road mainly designed to provide transportation from the City of Roanoke into Roanoke County for employees who worked in the Hollins area. This service was funded by the Job Access & Reverse Commute

program and was discontinued due to underutilization after approximately 18 months in early 1997.”

The Plan cites the need for multimodal accommodations in general throughout the Hollins area to provide citizens with more transportation options. Specifically, the Plan includes the following transit recommendations:

### **4.7.1 Transit Extension**

- In light of commercial growth along the Plantation Road corridor including Gander Mountain, Camping World and Tractor Supply in addition to existing employment and institutional destinations including Wachovia, ITT, Double Envelope and Hollins University, the provision of van service to the Hollins area may be viable for workers and students. The Job Access and Reverse Commute program is still considered to be the best option among available programs. 14 to 20 passenger vans could be utilized to shuttle patrons to and from work and school locations with run hours determined by shift changes. Federal dollars account for half of such a program’s funding and local or private funding would provide the other 50 percent for the operation under Job Access and Reverse Commute.

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## 4.25 Roanoke County, Virginia 2005 Community Plan

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### **Chapter 4 – Community Facilities, Goal C, i, b. Strategy: Traffic Management Strategies –**

- Endorse shuttle transit service from fringe parking areas to urban centers or major destinations
- Advocate public transit, working with Valley Metro and RADAR

**Chapter 7 – Planning Area Analysis, County-Wide  
Neighborhood Themes and Concerns, Public Facilities, Regional  
Cooperation Themes –**

Maintain and improve the intergovernmental cooperation among the localities within the Valley. Expansion of these cooperative efforts should include transit and development procedures.

4.26 Comprehensive Plan of the City of Salem,  
Virginia

**Chapter IV Goals, Objectives and Strategies: V. Land Use and  
Community Appearance**

Objective: Reprogram underutilized major corridors for higher intensity uses. Strategy: Develop transit and streetscape plans for particular corridors to encourage pedestrian traffic and commercial activity.

4.27 Vinton Area Corridors Plan

**Chapter 8 – Goals, Recommendations and Implementation  
Strategies, 8.8.9 Valley Metro –**

The County should evaluate the need to extend the current Valley Metro bus routes serving the Town of Vinton to Eastern Roanoke County. Extending the bus routes along Washington Avenue (Route 24) in Roanoke County would ensure access to commercial centers, increase ridership, provide an alternative mode of transportation for the aging population and link Eastern Roanoke County into the Valley's aspiring multimodal transportation network.

4.28 Roanoke Valley Conceptual Greenway  
Plan, 2007 Update

**Goal 1: Transportation**

- Provide corridors that bicyclists, pedestrians and others can use to get from one place to another as an alternative to motor vehicle use.

**Objective:**

- Provide connections between mass transit sites and make arrangements for safe storage of greenway system users' bicycles (or other belongings) while they are using the transit system.

4.29 RVARC Rural Transportation Project  
Priorities, 2012

US 220 widening in Botetourt and Alleghany Counties; increase Amtrak to daily service in Clifton Forge; rural demand response public transportation throughout region; improve/expand park-and-ride facilities in Roanoke, Botetourt, and determine demand for region; construction of bridges in Botetourt County, along with roadway improvements; various other roadway improvements throughout region.

4.30 RVARC 2035 Rural Long-Range  
Transportation Plan

Expand Valley Metro service outside of the Cities of Roanoke and Salem; complete a feasibility study on developing a regional service between Bedford, Lynchburg, and Roanoke; feasibility study for demand response service from Clifton Forge in Roanoke Valley and New Castle into Roanoke Valley; feasibility

study for express service from Fincastle to Roanoke; focus on key freight corridors; expand/add park-and-ride.

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#### 4.31 RCIT/Blue Hills Transportation Survey Analysis Report

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Per the request of businesses in the Roanoke Centre for Industry and Technology (RCIT) Business Park, a study was done to better understand the transportation interests of employees at businesses within RCIT. The report also addresses the identified need of businesses that the lack of transit service to the Park hinders their ability to hire employees. The report was complete in February 2014 and supported the initiation of the route 31X demonstration project in January 2016.

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#### 4.32 Bonsack Area Public Transit Survey Analysis Report

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A follow-up survey to the RCIT/Blue Hills Transportation Survey Analysis was requested as Botetourt County and Roanoke County became involved in conversations about a potential service along Route 460 East. The purpose of the report is to identify from local businesses their interest and need of transit services. Several businesses indicated their desire for service to recruit employees that otherwise would be challenged to get to work. One business even mentioned that a couple employees would walk from the Route 460/King St. stop to work in Bonsack. The report was completed in December 2014.

Table 4.0-1: Local Plan Review Matrix

		BLUE BOX: YES, WHITE BOX: NO										
<u>DOCUMENT</u>	<u>LOCALITY / ENTITY</u>	<u>ALTERNATIVE TO AUTOMOBILE</u>	<u>BUILDING TYPES/DENSITIES</u>	<u>DEVELOPMENT REVIEW</u>	<u>ENCOURAGE PROVISION OF TRANSIT SERVICE</u>	<u>LAND USE TRANSPORTATION COORDINATION</u>	<u>ALLOWS FOR MOBILITY</u>	<u>MULTIMODAL CONNECTIONS</u>	<u>PROVISION OF TRANSIT MODES BY APPLICANT</u>	<u>ZONING ORDINANCE</u>	<u>COMPREHENSIVE PLAN</u>	
<b>VTRANS 2040</b>	Commonwealth of Virginia	Blue	Blue	White	Blue	Blue	Blue	Blue	White	White	White	
<b>VTRANS 2040: Virginia Multimodal Transportation Plan 2025 Needs Assessment</b>	Commonwealth of Virginia	Blue	Blue	White	Blue	Blue	Blue	Blue	White	White	White	
<b>Multimodal System Design Guidelines</b>	VA Dept. of Rail and Public Transp.	Blue	Blue	White	Blue	Blue	Blue	Blue	White	White	White	
<b>Livable Roanoke Valley Plan</b>	RVARC	Blue	White	White	Blue	White	Blue	Blue	White	White	White	
<b>Downtown Roanoke Intermodal Transportation Study, 2015</b>	City of Roanoke/ Valley Metro	Blue	White	White	Blue	Blue	Blue	Blue	White	White	White	
<b>Constrained Long Range Transportation Plan</b>	RVTPO	Blue	White	White	Blue	Blue	Blue	Blue	White	White	White	
<b>Congestion Management Process Plan</b>	RVTPO	Blue	White	White	Blue	Blue	Blue	Blue	White	White	White	
<b>Bus Stop Accessibility Study, 2013</b>	RVTPO	Blue	White	White	Blue	White	White	White	White	White	White	
<b>Pedestrian Vision Plan, 2015</b>	RVTPO	Blue	Blue	White	Blue	Blue	Blue	Blue	White	White	White	
<b>Bikeway Plan, 2012</b>	RVTPO	Blue	White	White	Blue	Blue	Blue	Blue	White	White	White	
<b>Passenger Rail Study, 2008</b>	RVTPO	Blue	White	White	Blue	White	Blue	White	White	White	White	
<b>Planning for Elderly and Disabled Mobility, 2005</b>	RVTPO	White	White	White	Blue	White	Blue	White	White	White	White	
<b>Age Wave Study: Demographic Analysis of the</b>	RVARC	White	White	White	Blue	White	Blue	White	White	White	White	



BLUE BOX: YES, WHITE BOX: NO											
<u>DOCUMENT</u>	<u>LOCALITY / ENTITY</u>	<u>ALTERNATIVE TO AUTOMOBILE</u>	<u>BUILDING TYPES/DENSITIES</u>	<u>DEVELOPMENT REVIEW</u>	<u>ENCOURAGE PROVISION OF TRANSIT SERVICE</u>	<u>LAND USE TRANSPORTATION COORDINATION</u>	<u>ALLOWS FOR MOBILITY</u>	<u>MULTIMODAL CONNECTIONS</u>	<u>PROVISION OF TRANSIT MODES BY APPLICANT</u>	<u>ZONING ORDINANCE</u>	<u>COMPREHENSIVE PLAN</u>
<b>RCIT/Blue Hills Transportation Survey Report</b>	City of Roanoke, Valley Metro	Blue			Blue		Blue	Blue			
<b>Bonsack Area Public Transit Survey Analysis Report</b>	Botetourt County, Roanoke County, Valley Metro	Blue			Blue		Blue	Blue			
<b>Route 419 Multimodal Corridor Plan, 2010</b>	Roanoke County	Blue			Blue			Blue			
<b>Bikeway Plan for the Roanoke Valley Area Metropolitan Planning Organization 2012 Update</b>	RVTPO	Blue			Blue		Blue	Blue			
<b>Glenvar Community Plan, 2012</b>	Roanoke County	Blue			Blue		Blue	Blue			
<b>Hollins Area Plan, 2008</b>	Roanoke County	Blue			Blue	Blue	Blue	Blue			
<b>Roanoke County, VA 2005 Community Plan</b>	Roanoke County	Blue			Blue	Blue	Blue	Blue			Blue
<b>Comprehensive Plan of the City of Salem, VA, 2012</b>	City of Salem	Blue	Blue	Blue	Blue	Blue	Blue	Blue			Blue
<b>Vinton Area Corridors Plan, 2010</b>	Town of Vinton	Blue			Blue		Blue	Blue			
<b>2007 Update to the Conceptual Greenway Plan for the Roanoke Valley</b>	RVARC	Blue			Blue		Blue	Blue			





## 5.0 LAND DEVELOPMENT AND PUBLIC TRANSPORTATION

The way in which local governments permit land to be developed plays a significant role in people's ability and willingness to take public transportation. Land in the Roanoke Valley developed prior to the automobile-oriented development boom of the mid-20<sup>th</sup> century generally features these transit-friendly characteristics:

- ▲ CONNECTED STREETS
- ▲ BUILDINGS CLOSE TO EACH OTHER
- ▲ BUILDINGS CLOSE TO THE STREET
- ▲ DENSITY - MORE PEOPLE ACCOMMODATED IN A GIVEN AREA
- ▲ SIDEWALKS
- ▲ TREES PROVIDING SHADE ALONG SIDEWALKS
- ▲ BUILDING FRONT DOORS CONNECTED BY A SIDEWALK TO A SIDEWALK ALONG THE STREET
- ▲ PARKING NEXT TO OR BEHIND BUILDINGS

These characteristics contribute to an environment where transit is easily accessible to people because pedestrian infrastructure is present and connects destinations to transit stops, walking to/from transit stops feels comfortable and safe, and walking distances are minimized.

It is unrealistic to expect that all parts of the Roanoke Valley will be retrofitted or newly developed to be transit-accessible places. However, where transit service may be needed or desired in the future, a place for buses to stop to pick-up/drop-off people, or turn around must be considered. Places and streets designed

with cul-de-sacs are particularly challenging because they prohibit connectivity, increase inefficiency in service provision, and may not physically allow a bus to turn around.

*Local governments have a great responsibility to make conscious decisions about the land developments they are permitting within their boundaries; it is critical to guide the types of development, where they are located, their design and configuration on a site, and if they include transit access and pedestrian/bicycle connections to existing or proposed transit.*

In the Roanoke Valley, much land has already been developed at low densities with the intent that people should only drive to get to and from those locations. Trying to retrofit these areas to provide transit, pedestrian, and bicycle infrastructure is an expensive and difficult task. Unfortunately, adding such infrastructure to an automobile-oriented development may meet multimodal transportation and safety goals, but often results in an environment that is still less transit-friendly than if the location were developed with transit access in mind from the beginning.

In the example shown in **Figures 5.0-1 and 5.0-2**, two types of development exist along the same street. Both developments feature sidewalks and decorative lighting, yet the level of comfort for people to use transit in these places varies greatly. The reason is solely due to the land development patterns. The buildings in **Figure 5.0-1** are closer to the sidewalk with front

doors accessible from the main sidewalk. The road is narrower thus easier to cross; more opportunities for crossing the street at signalized locations exists; and, vehicle parking exists on-street, next to, or behind buildings.

In contrast, the buildings in **Figure 5.0-2** are located farther from the sidewalk, and parking lots are built in between sidewalks and buildings. The road is wider and designed primarily for the movement of vehicles with no on-street parking. There are fewer places to cross the street and crossing the street takes more time and feels less comfortable.

**Figure 5.0-1** clearly shows a place that was developed for people while the environment in **Figure 5.0-2** was developed for cars. People's interest and comfort level for using public transportation is greater in an environment that is built for them to comfortably walk as opposed to an environment that is built for cars. In environments built for cars, the provision of public transportation requires transit vehicles to travel longer distances to reach destinations and often utilize off-street transit stops to provide safe or convenient access to destinations. Providing transit services in environments designed for cars results in higher cost to provide the service and generally lower ridership.

Environments built for people to easily walk between nearby destinations lend themselves naturally to being transit-friendly environments. Providing public transportation in pedestrian and bicycle friendly environments results in greater ridership for less cost.

*Figure 5.0-1 | East Main Street, Salem*



*Figure 5.0-2 | West Main Street, Salem*



New developments within the Roanoke Valley urban area are being designed and constructed for people, acknowledging that people enjoy walking to places. The following picture shows how the Daleville Town Center, a mixed-use development in Botetourt County, is being developed for people and marketed for its walkability.

*Figure 5.0-3 | New mixed-use development designed for people walking, Daleville*



The City of Roanoke, as part of its zoning process, requires new commercial buildings to be constructed near the street with parking to the side or rear, making the business easily accessible to people from their car or from the sidewalk. One example is the New Horizons building recently constructed on Melrose Avenue shown in the following figure.

*Figure 5.0-4 | New development easily accessible by multiple modes, Roanoke*



During the site's development, City staff worked with the developer to ensure that pedestrian connections (via a sidewalk and a staircase) were made from the building's front door to the main sidewalk which also connects to a sheltered bus stop. The

parking was conveniently located to the side of the building. The result is an attractive business, visible to passersby, that is easy to access via many modes of transportation.

## 5.1 Activity Density

As part of a long-range planning exercise, the desire to make some parts of the Roanoke Valley friendlier for multimodal transportation (i.e. walking, taking public transportation, and biking) led to a review of the density of people throughout the region. Where dense activity exists, many people live or work in close proximity, and the opportunity to provide a well-used transit service is greater. The distance between where people reside or work and where they need or want to go is related to people's ability to walk which is a critical factor in people's interest in using public transportation.

To help identify the areas in the region where multimodal transportation is desirable either currently or in the future, the concept of activity density (number of residents + employees per acre) was mapped. **Figure 5.1-1** shows the regional activity density, which is low to moderate overall. Much of the Roanoke Valley is low density with 10 or fewer people per acre. State guidance indicates that most people, as part of their daily activities, are unwilling to walk more than roughly 10 minutes to get from one place to another. Given the existing low density in many of these areas, it is not likely that people would choose to walk to get somewhere due to the longer travel distances, which is where public transportation becomes very useful.

The map shows what is known intuitively, that Downtown Roanoke has the greatest activity density in the region. Using this activity density concept, along with local knowledge, the

local technical staff determined Multimodal Centers and Districts per the following definitions:

- ▼ MULTIMODAL DISTRICT: ANY PORTION OF A CITY OR REGION WITH LAND USE CHARACTERISTICS THAT SUPPORT MULTIMODAL TRAVEL, SUCH AS HIGHER DENSITIES AND MIXED USES, AND WHERE IT IS RELATIVELY EASY TO MAKE TRIPS WITHOUT NEEDING A CAR AS GAUGED BY THE NUMBER OF BUS ROUTES AVAILABLE AND SAFE WALKING OR BIKING PATHS – EITHER CURRENTLY OR PROPOSED IN THE FUTURE.
- ▼ MULTIMODAL CENTER: A SMALLER AREA OF EVEN HIGHER MULTIMODAL CONNECTIVITY AND MORE INTENSE ACTIVITY, ROUGHLY EQUIVALENT TO A 10-MINUTE WALK OR A ONE-MILE AREA.

A focus on these areas that demonstrate higher concentrations of residents and employees in close proximity guides the recommendations for improving the pedestrian network. Connecting multimodal centers and districts with public transportation would enable people to travel farther without a personal vehicle. **Figures 5.1-2 and 5.1-3** show the region's multimodal centers and districts. The legend in **Figure 5.1-3** indicates an intensity classification for Multimodal Centers from P1 (Rural or Village Center) to P-6 (Urban Core). The definitions of these classifications are available in DRPT's Multimodal System Design Guidelines.

Figure 5.1-1 | Snapshot of Regional Activity Density

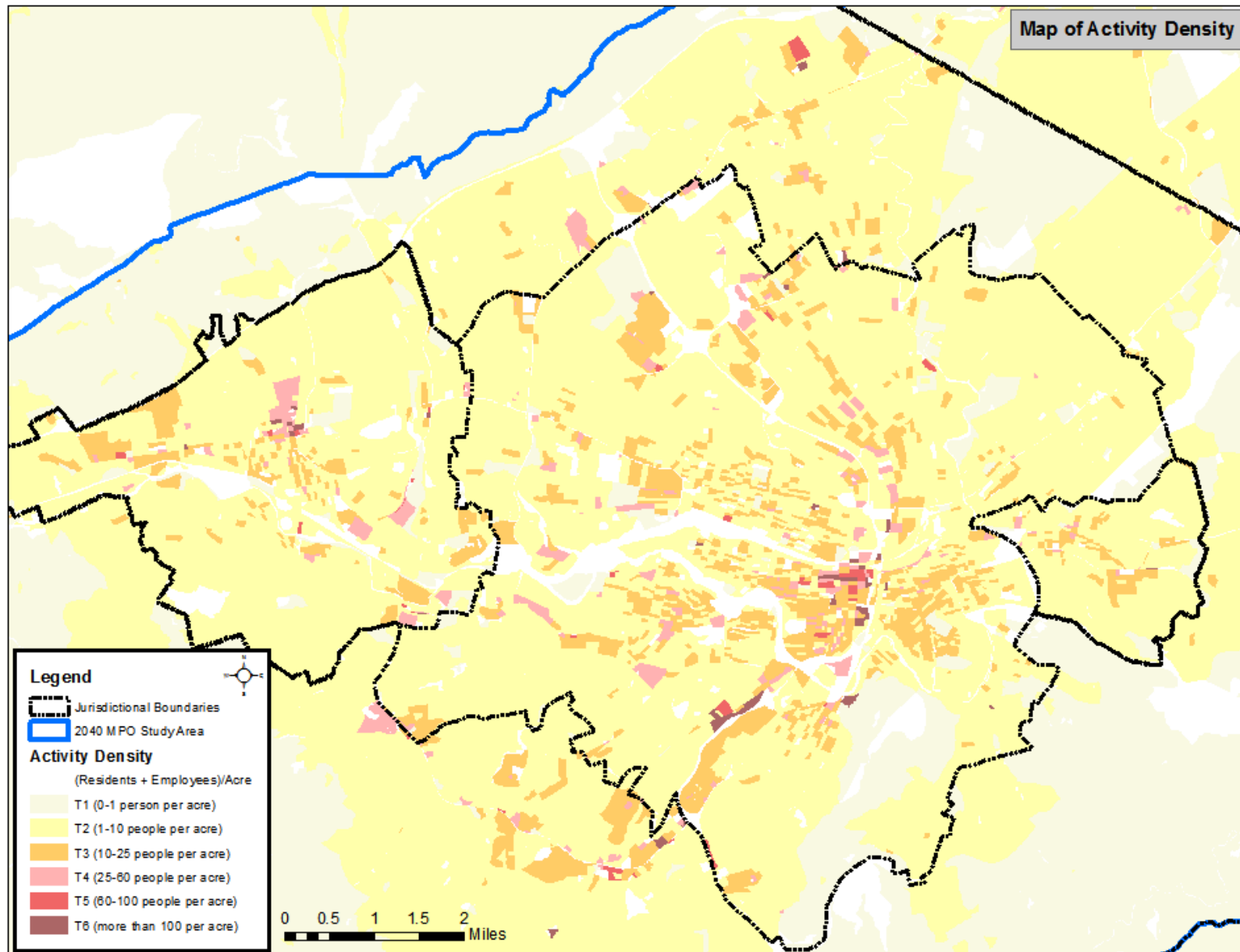


Figure 5.1-2 | Snapshot of Regional Multimodal Centers and Districts

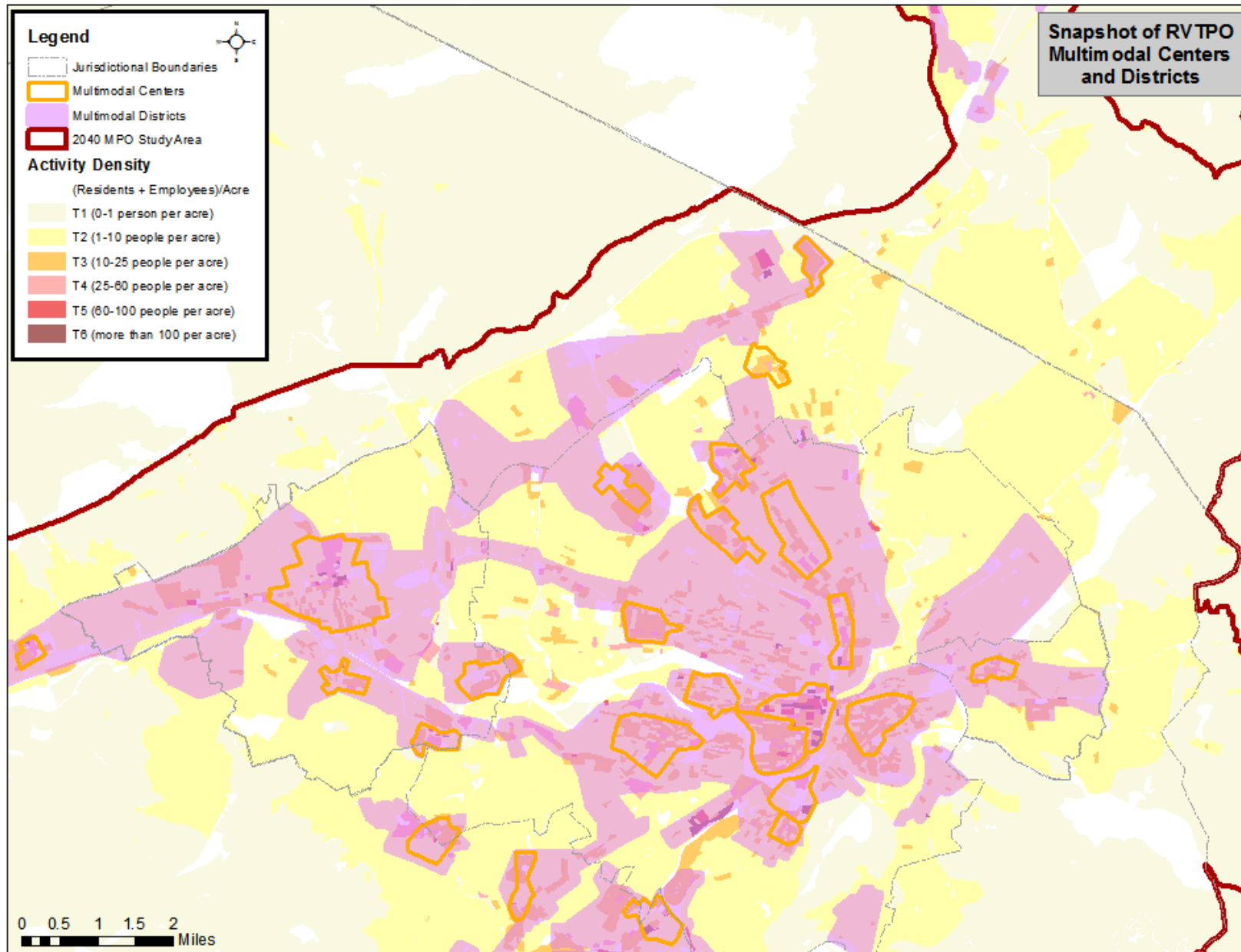
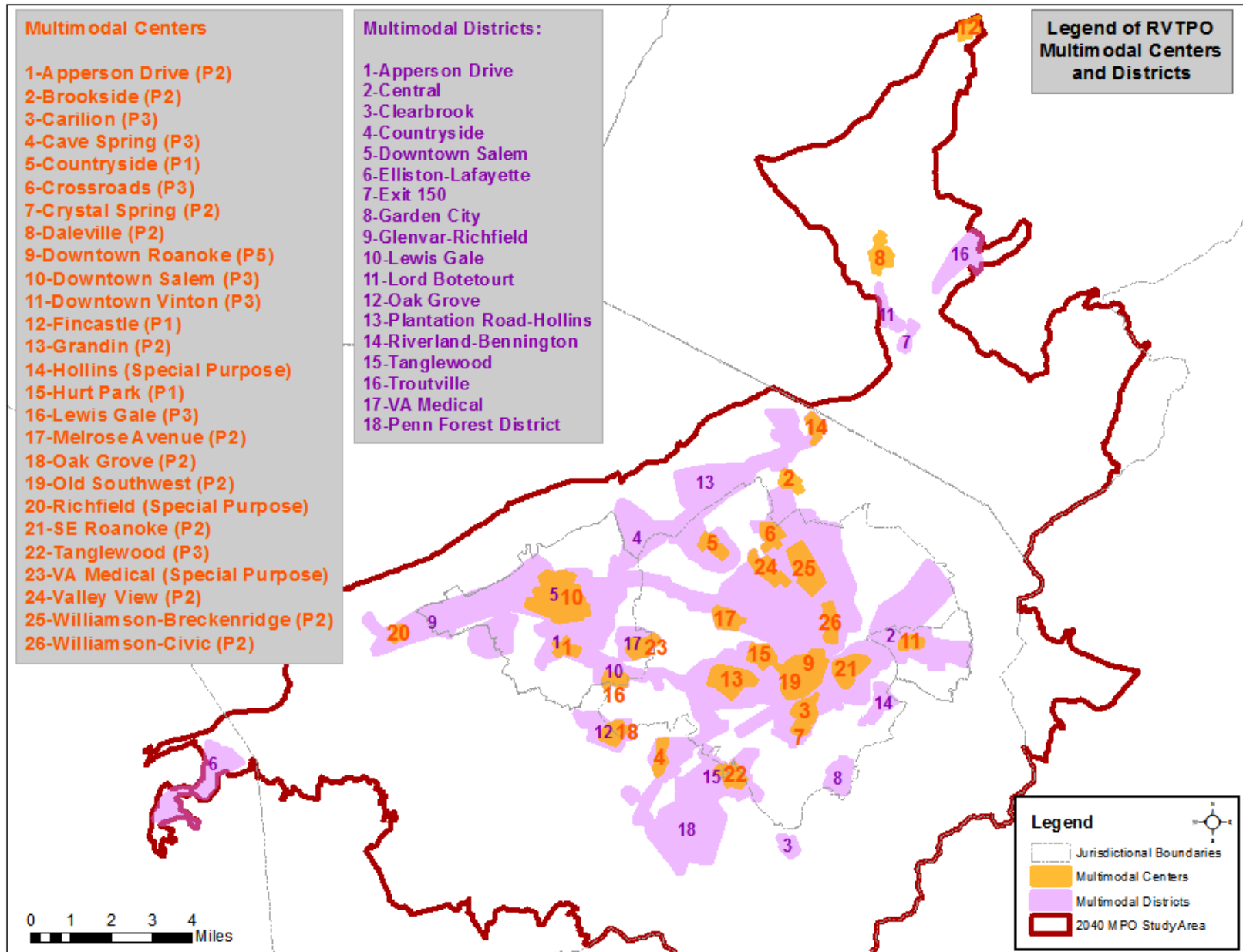


Figure 5.1-3 | Legend of Regional Multimodal Centers and Districts





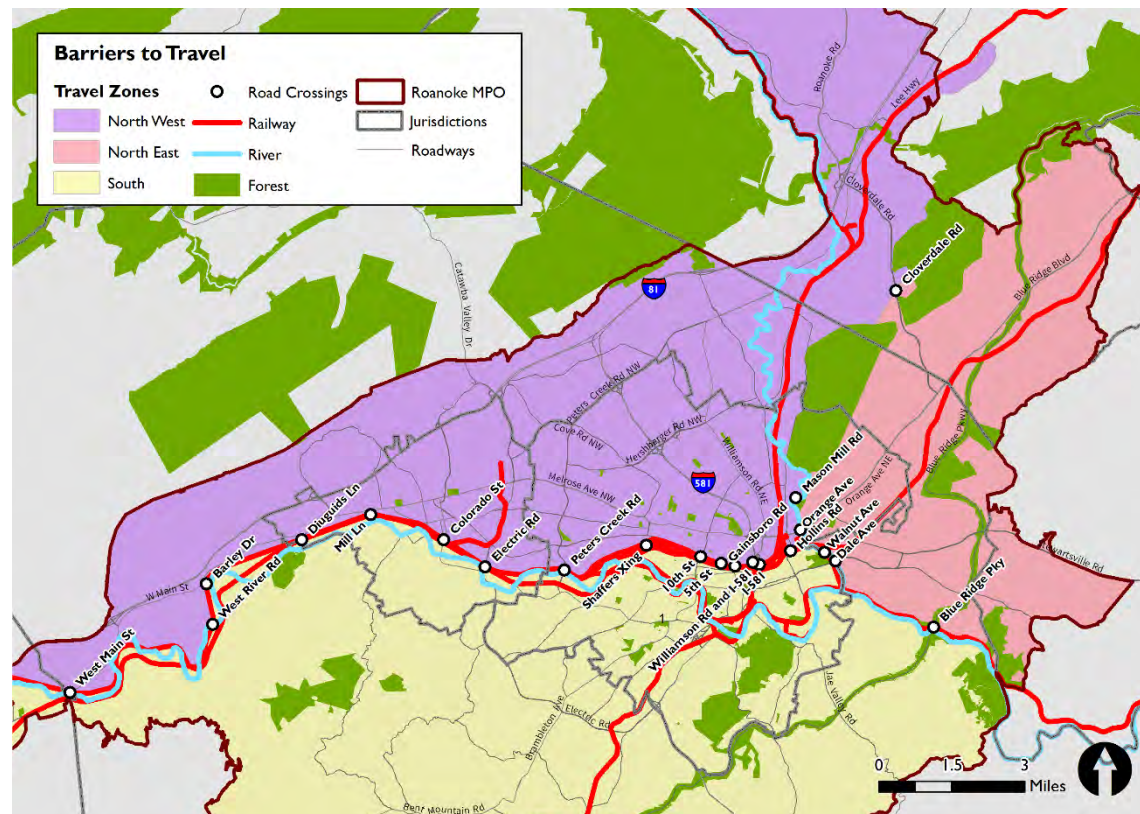
## 6.0 ROADWAY NETWORK CONSIDERATIONS

The Roanoke Valley is blessed to have many beautiful natural features such as the Roanoke River, Mill Mountain, Read Mountain, and many creeks. The region also has many railroads which, along with the natural features, create barriers to traveling from one part of the region to the next for buses and cars. Figure 6.0-1 shows where road crossings exist to physically enable getting between three regional zones: South, North West,

and North East. As seen in the map, many circles converge in or near Downtown Roanoke. Much traffic naturally flows through Downtown Roanoke, as the center of the region, and where it is physically possible to get from one zone to another.

The following sections review in more detail additional roadway considerations or changes in the roadway network that have occurred since the last major fixed-route network restructuring. These considerations may be useful when developing future transit service options.

Figure 6.0-1 | Barriers to Travel Map



## 6.1 At-grade Railroad Crossings

The railroad is the foundation for Roanoke’s existence; as such, many railroads and railroad crossings exist throughout the Valley. Efficient public transportation service is greatly facilitated by using roads where bridges have been constructed over railroads. Just like personal vehicles, buses can be delayed at railroad at-grade crossings. This affects buses ability to maintain their schedule and rider’s ability to make timely transfers. Whenever possible, buses should be routed onto bridges to avoid delays cause by trains traveling through at-grade roadway crossings.

Valley Metro currently utilizes many bridges to avoid schedule delays due to trains stopping traffic and buses at railroad crossings. However, there are still some bus routes that cross train tracks:

### ▲ 8<sup>TH</sup> STREET NEAR WALNUT STREET IN VINTON

- ACTIVE RAILROAD
- AFFECTS ROUTES 31/32

*The closest alternate bridge crossing would be through Downtown Vinton to Gus Nicks Boulevard.*

### ▲ TWO TRACKS ON CAMPBELL AVENUE SE NEAR 3<sup>RD</sup> STREET

- ONE ACTIVE RAILROAD; ONE INFREQUENTLY USED RAILROAD.
- PRIMARILY AFFECTS ROUTE 31/32; POTENTIALLY AFFECTS ALL BUSES GOING TO/FROM THE VALLEY METRO ADMINISTRATION BUILDING AND MAINTENANCE GARAGE

*The closest alternate bridge crossing is Elm Avenue.*

### ▲ FRANKLIN ROAD NEAR 3<sup>RD</sup> STREET

- ACTIVE RAILROAD
- AFFECTS ROUTES 35/36

*The closest alternate bridge crossing is Elm Avenue.*

### ▲ 24<sup>TH</sup> STREET RAILROAD TUNNEL (SCHAFFER’S CROSSING)

- ACTIVE RAILROAD
- ALTHOUGH THIS IS NOT AN AT-GRADE CROSSING, THE TUNNEL ITSELF IS NARROW AND DOES NOT ALLOW SUFFICIENT WIDTH FOR VALLEY METRO BUSES TO PASS UNDER THE RAILROAD TRACKS. NEARBY BUS ROUTES 65/66 TURN AROUND AT 18TH STREET RATHER THAN CONTINUING THROUGH THE TUNNEL.

### ▲ MAIN STREET NEAR KESSLER MILL ROAD

- INACTIVE RAILROAD
- AFFECTS ROUTES 91/92

*There are no nearby alternate bridge routes.*

### ▲ OLD JEFFERSON STREET NEAR RESERVE AVENUE

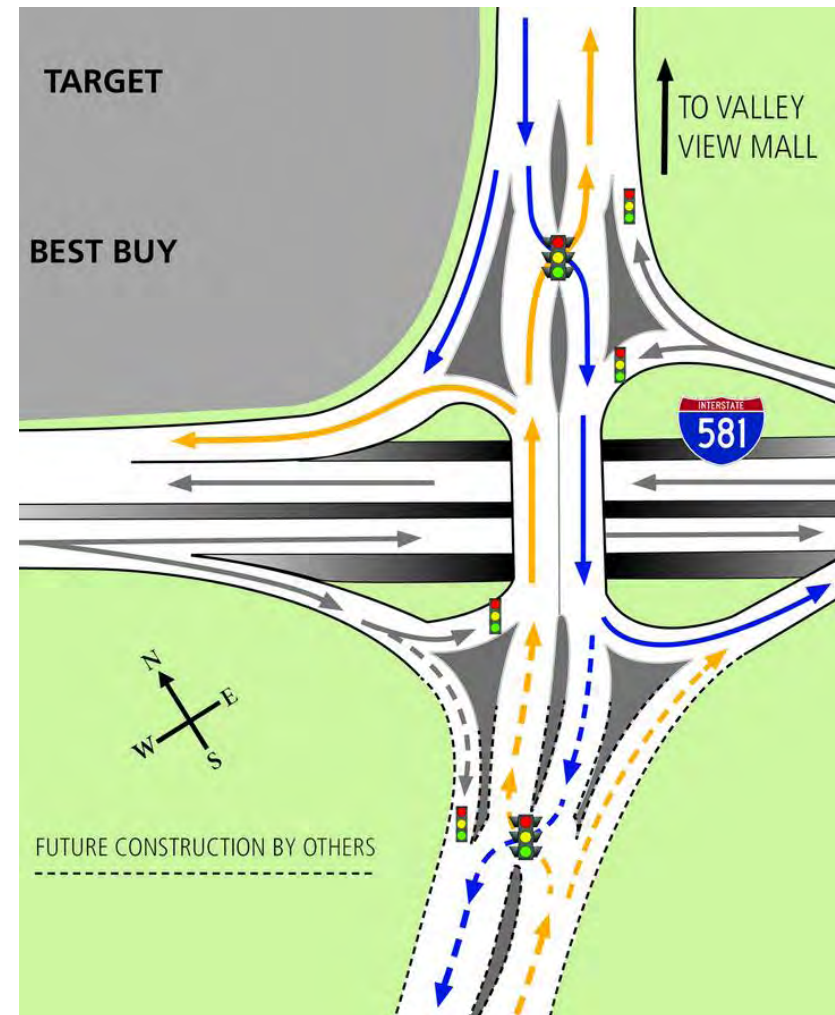
- ACTIVE RAILROAD
- AFFECTS THE TROLLEY
- DUE TO THE TROLLEY STOP BEING LOCATED ON OLD JEFFERSON STREET IN FRONT OF ROANOKE CARILION MEMORIAL HOSPITAL, TROLLEYS MUST CROSS THE RAILROAD TRACKS NEAR RESERVE AVENUE.

*The closest alternate bridge crossing is Jefferson Street which would necessitate the relocation of the trolley stop one block away from the current location onto Jefferson Street.*

## 6.2 Valley View Interchange

Valley View Boulevard at I-581 will be a complete interchange by Fall 2016. Until this time vehicles on I-581 south have not been able to exit onto Valley View Boulevard nor have vehicles on Valley View Boulevard been able to travel north onto I-581. In addition, the City of Roanoke is seeking state and federal funding to complete Valley View Boulevard from the interchange with I-581 to roads in the neighborhoods next to Hershberger and Cove Roads. This missing link will open up land on the west side of I-581 for new development. The City has been undergoing planning exercises for how that land, referred to as Evans Spring, would ideally be developed. Depending on the future land use and development intensity, direct transit service to this area may be needed in the future.

Figure 6.2-1 | Valley View Interchange Project Map



### 6.3 Aviation Drive and Towne Square Boulevard Intersection

In July 2011, Towne Square Boulevard, which previously terminated at Sam's Club, was connected to Aviation Drive. This connection enables easier movements between the Towne Square/Crossroads shopping area, the airport, and Valley View Mall. Presently two bus routes from Campbell Court terminate at the Kroger shopping center at Towne Square Boulevard and Rutgers Street and two routes return to Campbell Court via Williamson Road and via Plantation Road/Hollins Road. A potential opportunity exists to better connect the Towne Square shopping area and Valley View Mall due to this new roadway connection. The roadway improvement also creates the opportunity for a local transit connection to the Roanoke-Blacksburg Regional Airport, which is now a short drive from the closest transit routes.

*Figure 6.3-1 | Aviation Drive prior to Intersection Improvements*



*Google Earth photography April 30, 2011*

*Figure 6.3-2 | Aviation Drive post Intersection Improvements*



*Google Earth October 24, 2011*

### 6.4 Peters Creek Road Extension

In the mid-1990's, Peters Creek Road was extended from Melrose Avenue to Brandon Avenue. New development has been directed to front connecting streets rather than on the extension of Peters Creek Road itself. This portion of Peters Creek Road is a good connector but lacks the adjacent activity that would itself demand transit service.

*Figure 6.4-1 | Peter's Creek Road Prior to Extension*



*Google Earth Photography April 2, 1996*

*Figure 6.4-2 | Peters Creek Road Post Extension*



*Google Earth Photography September 16, 2003*

## 6.5 2<sup>nd</sup> Street/Gainsboro Road and Wells Avenue

The 2<sup>nd</sup> Street/Gainsboro Road bridge over the railroad in Downtown Roanoke, the connection of the bridge to Orange Avenue and the extension of Wells Avenue to Gainsboro Road was also a development in the mid-1990's. The bridge and connections eliminated a railroad crossing and made it much easier for all vehicles, including buses, to get into and out of Downtown Roanoke.

*Figure 6.5-1 | 2<sup>nd</sup> Street prior to bridge construction*



*Google Earth photography March 23, 1995*

*Figure 6.5-2 | 2<sup>nd</sup> Street post bridge construction*



*Google Earth photography December 30, 2002*

## 6.6 Special Events in Downtown Areas

Traditional downtown areas, such as Downtown Roanoke, Downtown Salem, and Downtown Vinton, are key hubs of daily and special event activity for the region. Access into and out of downtowns are easily accomplished via many routes due to their grid street network. The higher density of activity and the presence of sidewalks make public transportation an easy option for people traveling to downtowns.

Operational challenges exist for any vehicle including buses, whenever streets are closed. For special events often held in downtown areas, disruptions to transit operations affect the ability to provide consistent, reliable, and timely service. Although the transit operators have learned to adapt to roadway network changes during special events, identifying ways to

minimize the need to alter transit operations on a regular basis or the extent of the service alterations should be pursued.

#### 6.6.1 Downtown Salem

In Downtown Salem, Main Street is the primary transit corridor, and no other alternate corridor would be preferred for daily transit service. During special events, Main Street may be closed between Thompson Memorial Avenue and 4<sup>th</sup> Street. Such closures are relatively few throughout the year and transit service is easily adjusted on those days by utilizing nearby streets. The grid street network of Downtown Salem enables this easy adjustment.

#### 6.6.2 Downtown Vinton

In Downtown Vinton, S. Pollard Street is the main street through town connecting Virginia Avenue and Washington Avenue. S. Pollard Street between Virginia Avenue and Washington Avenue as well as Washington Avenue between Vale Avenue and Bypass Road are sometimes closed for special events. Buses are able to avoid Pollard Street by staying on Hardy Road. Closing Washington Avenue would also require using Hardy Road though the use of it is a much longer detour.

#### 6.6.3 Downtown Roanoke

All transit routes currently converge in Downtown Roanoke where transfers between routes are facilitated at the Campbell Court Transfer Station. Buses travel into and out of the Station from Campbell Avenue and Salem Avenue. The streets used for special events in Downtown Roanoke are shown in blue in the following map. Each of these streets is a transit corridor: Jefferson Street, Franklin Road, Campbell Avenue, and Salem Avenue. Closing these streets in Downtown Roanoke alters

transit operations; however, sufficient alternate routes exist due to the grid street nature of Downtown Roanoke to continue services.

The biggest challenge to transit operations during special event street closures is the altering of the ingress and egress of buses from Campbell Court that causes significant disruption inside the transfer station due to buses not being able to drop off or pick up customers at their usual platform location. Because all buses must enter from Campbell Avenue and exit onto Salem Avenue, all the buses end up facing the same way. The normal operation is for buses next to each other to be facing in opposite directions so that the passenger door opens to a boarding platform. When buses in Campbell Court are oriented in the same direction, less than two feet may exist between buses and passengers must squeeze between buses in order to board/alight buses and transfer routes. The challenge is compounded when facilitating transfers for people with disabilities because it is not possible to deploy the lift ramp with such limited space.

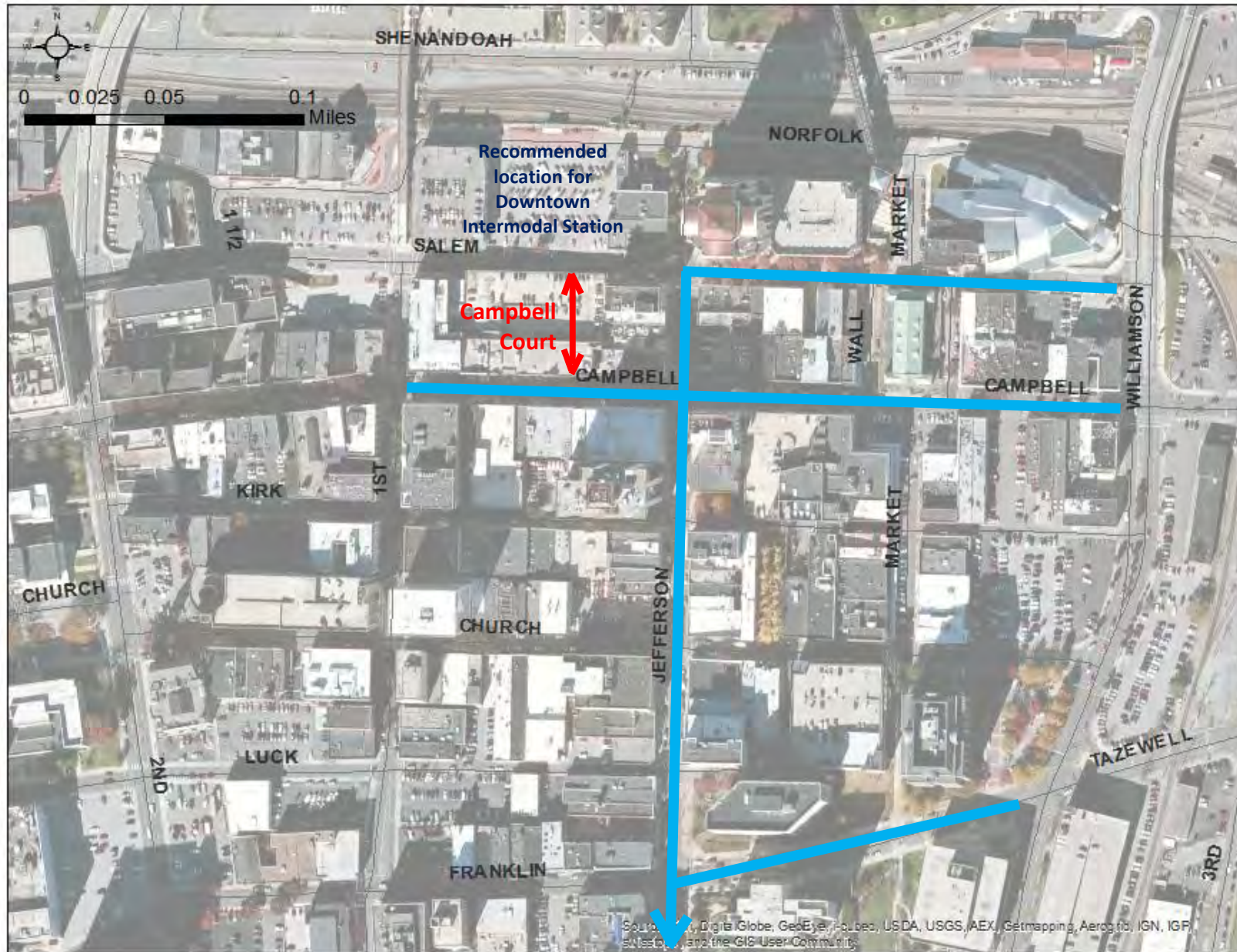
Special events and road closures will continue to be a common occurrence in Downtown Roanoke. Significant improvements to passenger boarding/alighting and consistency in transit transfer operations during special events is needed for transit to be a more attractive option for people going to special events or traveling throughout the region during special events in Downtown Roanoke.

As mentioned previously, the Downtown Roanoke Intermodal Transportation Study recommends relocating Campbell Court to a new facility on property on the north side of Salem Avenue between the MLK Bridge and Jefferson Street. Unlike the current facility, the layout options for the recommended new

facility would enable all buses to enter/exit the facility the same way regardless of any special event street closures. ADA accessibility during transfers would be maintained and consistency of bus service and bus placement within the transfer facility would be accomplished at all times. Some buses traveling to the facility would still need to use an alternate street during special events; but as stated, there are sufficient alternate routes in Downtown Roanoke to continue reliable transit service while providing a transportation option for people attending special events.



Figure 6.5.3-1 | Downtown Roanoke Streets used for Special Events



## 7.0 INTERACTION BETWEEN TRAVEL MODES

The following sections relate transit to other primary transportation modes: pedestrian, bicycle, cars, passenger rail, air transportation, and intercity bus.

### 7.1 Transit - Pedestrian

Transportation investments in pedestrian infrastructure are vital for enabling people to use transit. A transit stop that is disconnected from pedestrian infrastructure to provide access to it will have limited usefulness.

Adequate pedestrian facilities, such as sidewalks, landing pads, and curb ramps enable people to ride public transit because they allow people to physically access bus stops and wait for the bus in a safe location. Without pedestrian facilities, some people will access the bus stop even under poor conditions; other people will instead drive their car, call for paratransit services, depend on another person for a ride, or not travel at all.

Paratransit services support people with disabilities who cannot use the fixed-route system. These services are very costly because the service can only support a few trips per hour when compared with fixed-route service. However, it is impractical to

*A 10-minute walk is generally the maximum that people will practically walk in the course of daily activities.*

suggest that people with disabilities try using the fixed-route service when they cannot physically get there in a safe way. Fixed-route service provides the option of freedom and mobility on one's own schedule that paratransit service does not allow, which is the main motivation for people to choose fixed-route over paratransit. Many bus stops are not accessible due to lack of infrastructure. An investment in pedestrian access to the region's bus stops is needed as noted particularly in the 2013 Bus Stop Accessibility Study.

*Figure 7.1-1 | Lifts on buses benefit people with disabilities as they move around the region on Valley Metro*



People are more likely to choose riding public transit when they feel safe walking to the bus stop, crossing the street, and waiting for the bus. Pedestrian amenities at transit stops such as benches or shelters are essential because they make riding

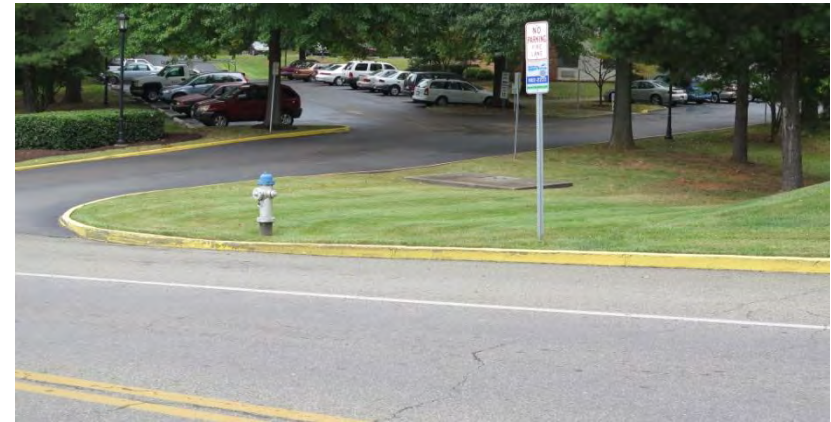
public transit a more comfortable and enjoyable experience. In some places where benches are not provided, people have resorted to building one themselves as shown in next figure.

*Figure 7.1-2 | Makeshift pedestrian facilities at bus stops*



The next figure shows a bus stop in front of Edinburgh Square, a retirement community in North Roanoke County. The location is one of many bus stop pairs in the region that lack adequate facilities including sidewalk connections, landing pads and curb ramps.

*Figure 7.1-3 | Bus Stop at Edinburgh Square, Roanoke County*



In many places throughout the region, crosswalks are striped at un-signalized locations often specifically for crossings near schools or churches. To facilitate an integrated multimodal system, crosswalks to bus stops or to connect bus stop pairs – as in two bus stops located across the street from each other – should also be provided. Where crosswalks are marked, curb ramps are also needed. The next picture shows a crosswalk in a residential area near a school and at a bus stop in need of a curb ramp.

*Figure 7.1-4 | School Crossing, 9th Street and Montrose Avenue, City of Roanoke*



The figure below shows the need to connect pedestrian accommodations given that the curb ramps are located at the corner and the crosswalk is midblock in front of the church. A bus stop is also present in front of the church.

*Figure 7.1-5 | Church Crossing, Washington Avenue near N. Poplar Street, Vinton*



New pedestrian accommodations constructed next to bus stops should always consider accessibility, per the Americans with Disabilities Act (ADA), and incorporate landing pads at the bus stop. Such additions are a small increase in the overall cost of a project and can be accomplished easily during construction. The

next figure shows a new sidewalk that will entail additional work to make the bus stop accessible because the space between the sidewalk and the curb at the bus stop was not paved and no curb ramp was installed to accommodate wheelchairs crossing at the intersection.

*Figure 7.1-6 | Wise Avenue bus stop–pedestrian access coordination, City of Roanoke*



Along streets where transit service is provided and on-street parking exists, a common conflict is the ability for a pedestrian to get from the bus stop onto the bus without having to walk between or around parked cars. If the bus stop does not generate sufficient activity, it may be preferable to relocate the bus stop and provide the space for parking. However, where bus stops generate activity, and it makes sense to have them in a particular location, parking must be removed to allow people with disabilities to use the bus stop. Anywhere a bus stop exists, adequate space must be provided for the bus to pull up to and depart the bus stop. The following picture shows a trolley stop in Downtown Roanoke that is inaccessible to people with disabilities because of the on-street parking barrier that prevents the trolley from pulling up to the curb to pick up passengers.

Figure 7.1-7 | On-street parking blocks access to trolley stop



The use of bus loading/unloading signs show the type of signage that reserves on-street space for transit vehicles and could help more people's ability to use transit in Downtown Roanoke.

Figure 7.1-8 | Bus Loading/Unloading Signage on Campbell Avenue





As mentioned previously, a valuable resource for identifying the improvements needed at bus stops is the Bus Stop Accessibility Study completed by the Regional Commission in September 2013. The Study reviewed the most active bus stops based on their Bus Stop Activity Index, a factor of ridership and frequency of usage, as well as bus stops that were near high activity paratransit pick-up locations and recommended pedestrian improvements. There are nearly 900 bus stops in the region. The Regional Pedestrian Vision Plan notes a couple hundred locations where relatively low-cost improvements are needed to enable pedestrian accessibility to transit.

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## 7.2 Transit - Bicycle

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The ability to take a bicycle onto a transit vehicle extends the distance people can travel more than simply traveling by transit or by bicycle. Valley Metro's 2006 model buses were the first to feature bike racks. Subsequently, Valley Metro installed bike racks on the older buses as well. Bike racks on buses are now a standard feature. With the exception of the trolleys, a bicycle can be placed on any Valley Metro bus, including the longer distance Smart Way buses, for no additional fee. The process to put a bicycle on a bike rack is fairly simple, and bike racks can carry two bicycles at one time. When the bike rack is in use, buses entering Campbell Court must use a specialized bus lane as opposed to their normally designated bus lane. When Campbell Court was opened in 1983, the design and space configuration did not account for the future need of buses with bike racks. The additional length that the bike rack adds to the bus presents space challenges when buses are maneuvering through Campbell Court. Riders wanting to place a bicycle on a bus at Campbell Court must wait for buses ahead of theirs to depart before placing their bicycle on the bike rack.

*Figure 7.2-1 | The 2006 model Valley Metro buses were the first to feature bicycle racks*



*Figure 7.3-1 | A Smart Way bus serves riders at the Berglund Center Park and Ride Lot*



### 7.3 Transit - Cars

People transfer between cars to transit and vice-versa in several places throughout the region. Smart Way riders commonly transfer between cars and transit when using the Smart Way Commuter bus or the Smart Way Connector bus. Free parking is provided to transit riders at the Exit 140 Park and Ride lot, the Gainsboro Garage, and the Berglund Center. People also often park their cars in a Carilion parking facility in Downtown Roanoke or near Roanoke Carilion Memorial Hospital and take the trolley to their final destination. In addition, people have the opportunity to be dropped off at any of the nearly 900 transit stops in the region.

During special events at the Berglund Center, Valley Metro often provides shuttles from parking garages in Downtown Roanoke. Likewise, for events at the Salem Civic Center, overflow parking is provided at GE and people ride a shuttle to the event.

The Exit 140 Park and Ride lot and the bus stop it contains are currently under design for improvements. The design will better facilitate multimodal connections by incorporating a bus shelter, sidewalks, bicycle parking, and enabling two buses to be present at one time. The improvements being made to Exit 140 provide a good example for how to develop other park and ride lots and transit transfer facilities.

### 7.4 Transit - Passenger Rail Transportation

The greatly anticipated return of passenger rail service to Roanoke will add another component of multimodal transportation to the Roanoke Valley. The location of the passenger rail platform along Norfolk Avenue between the MLK and Market Pedestrian Walkway Bridges and its proximity to the region's transportation hub, Campbell Court, enables the

opportunity for people to easily transfer between passenger rail and transit. Such an opportunity may be favorable to passengers as an inexpensive option over long-term parking fees.

*Figure 7.4-1 | Passengers in Lynchburg board the Smart Way Connector headed to Bedford/Roanoke/New River Valley*



Passenger rail inherently will generate long-term parking needs as passengers leave their cars to travel on the train. Space is valuable in Downtown Roanoke near the boarding platform. Many parking lots and garages already exist nearby, and the demand for space by employees of downtown businesses will continue to exist. The proximity of transit will provide people with an alternative to connect with the train, thus reducing the space needed to store cars for extended periods of time in Downtown Roanoke.

## 7.5 Transit - Air Transportation

The Roanoke-Blacksburg Regional Airport is currently accessible via the Smart Way Commuter bus that connects Downtown Roanoke, Christiansburg, and Blacksburg. Many citizens have noted a need for a better local transit connection as well given that the nearest stop is currently a 1/3-mile away at the Kroger on Towne Square Boulevard. Residents and employees would benefit from a direct stop at the airport. In addition, visitors traveling to the Roanoke Valley may desire a car-free visit. Being able to access key destinations in the Roanoke Valley via transit would enable that possibility.

## 7.6 Transit - Intercity Bus Transportation

Intercity bus transportation via the Smart Way Commuter Bus provides connections with regional destinations such as Downtown Roanoke, Christiansburg and Blacksburg. Other services such as Megabus or Greyhound enable people to travel farther distances. The connection between local transit and services such as the Smart Way are essential because they provide seamless public transportation to jobs, education, shopping, etc. that people in the Roanoke Valley and New River Valley may use on a daily basis. Co-locating these local and regional services, as they are today at Campbell Court, enables their convenient use for daily trips.

Transit connections are also currently possible with Megabus via the Smart Way at the I-81 Exit 118B park-n-ride lot and with Greyhound at Campbell Court. Megabus travels along the I-81 corridor between Knoxville and Washington D.C. and stopping at Exit 118 enables minimal deviation off its main route and



facilitates transfers with local Blacksburg Transit, Radford Transit, and Smart Way routes.

*Figure 7.6-1| Passengers switch buses at the Megabus station in Washington D.C.*



Greyhound benefits from the interconnectedness with all local transit at Campbell Court. However, unlike the local transit services or the Smart Way, Greyhound is not commonly used by people for their daily trips. Therefore, like the Megabus service, it is not essential that Greyhound be located in Downtown Roanoke though it is important that Greyhound be accessible via local transit in the Roanoke Valley.