

Roanoke Valley Area
METROPOLITAN PLANNING ORGANIZATION



Roanoke Valley-Alleghany
REGIONAL
commission

DRAFT REGIONAL PEDESTRIAN VISION PLAN

DRAFT September 18, 2014

Acknowledgements

REGIONAL COMMISSION STAFF

Cristina D. Finch, AICP, LEED AP
 Manager of Transit Planning and Programming
 Regional Pedestrian Vision Plan Project Manager
 Eddie Wells, AICP, CZA, Director of Community Development
 Bryan W. Hill, Transportation Planner I

REGIONAL PEDESTRIAN VISION PLAN STEERING COMMITTEE

Liz Belcher	Roanoke Valley Greenway Commission
Dan Brugh	New River Valley Metropolitan Planning Organization
Jeff Busby	Botetourt County, Planning Department
Chris Chittum	City of Roanoke, Department of Planning, Building and Development
Brian Epperly	Roanoke County, Transportation Department
Michael Gray	Virginia Department of Transportation, Planning Department
David Holladay	Roanoke County, Community Development Department
Mark Jamison	City of Roanoke, Transportation Division
Diana Lewis	Roanoke-Blacksburg Regional Airport
Carol J. Linkenhoker	Botetourt County, Planning Department
Kevin Price	Greater Roanoke Transit Company
Ryan Spitzer	Town of Vinton, Town Manager’s Office
Michael Todd	Department of Rail and Public Transportation
Benjamin W. Tripp	City of Salem, Planning Department
Gary Woodson	Town of Vinton, Public Works Department

RVAMPO POLICY BOARD

Chairman Billy Martin, Sr.
 Botetourt County Board of Supervisors
Vice Chair Jane Johnson
 Salem City Council

Doug Adams	Vinton Town Council
Al Bedrosian	Roanoke County Board of Supervisors
Bill Bestpitch	Roanoke City Council
Rob Cary	Virginia Department of Transportation
M. Rupert Cutler	City of Roanoke
Todd Dodson	Botetourt County Board of Supervisors
Ray Ferris	Roanoke City Council
Lisa Garst	Salem City Council
Efren Gonzalez	Roanoke-Blacksburg Regional Airport
Jane Johnson	Salem City Council
Charlotte Moore	Roanoke County Board of Supervisors
Wes Nance	Vinton Town Council
Lee Osborne	Roanoke Valley-Alleghany Regional Commission
Carl Palmer	Greater Roanoke Transit Company
Melinda Payne	City of Salem, Planning Department
Annette S. Perkins	Montgomery County Board of Supervisors
Ron Smith	Botetourt County
Bill Thomasson	Bedford County Board of Supervisors
Michael Todd	Department of Rail and Public Transportation

CONTENTS

1.0	INTRODUCTION	8
1.1	A Multimodal Transportation System	8
1.2	Concurrent Efforts	9
1.3	Study Area	10
1.4	Roles and Responsibilities	10
2.0	PEDESTRIAN VISION	11
2.1	Regional Values	11
2.2	Regional Goals	12
3.0	PLAN DEVELOPMENT PROCESS	12
3.1	Citizen Input	12
3.1.1	<i>Public Survey</i>	12
3.1.2	<i>Downtown Roanoke Plan Public Open House</i>	13
3.1.3	<i>Senior Citizens Coordinating Council Open House</i>	13
3.2	Transportation Technical Committee	13
3.3	MPO Policy Board	15
3.4	Media Coverage	16
4.0	WALKING IN THE ROANOKE VALLEY TODAY	17
4.1	Land Development Patterns	17
4.2	Activity Density	19
4.3	Existing Pedestrian Infrastructure	23
4.4	Interaction between Travel Modes	23
4.4.1	<i>Pedestrian-Transit</i>	23
4.4.2	<i>Pedestrian-Bicycle</i>	25
4.4.3	<i>Pedestrian-Vehicle</i>	26
5.0	PREVIOUSLY ADOPTED PEDESTRIAN-RELATED DOCUMENTS AND POLICIES	27
5.1	Local Plans Review	27
5.2	Existing Ordinance Review	33

5.2.1	<i>Bedford County</i>	33
5.2.2	<i>Botetourt County</i>	34
5.2.3	<i>Montgomery County</i>	35
5.2.4	<i>City of Roanoke</i>	38
5.2.5	<i>Roanoke County</i>	42
5.2.6	<i>City of Salem</i>	44
5.2.7	<i>Town of Vinton</i>	44
6.0	PEDESTRIAN INFRASTRUCTURE RECOMMENDATIONS	46
7.0	BEST PRACTICES: CREATIVE PEDESTRIAN ACCOMMODATIONS	91
8.0	FUNDING	95
9.0	IMPLEMENTATION STRATEGIES	95
	APPENDIX A: Public Survey Outreach and Results	107

LIST OF FIGURES

Figure 1: Roanoke Valley Area MPO 2040 Study Area Boundary	10
Figure 2: East Main Street, Salem	17
Figure 3: West Main Street, Salem	17
Figure 4: New mixed-use development designed for people walking, Daleville	18
Figure 5: New development easily accessible by multiple modes, Roanoke	18
Figure 6: Snapshot of Regional Activity Density	20
Figure 7: Snapshot of Draft Regional Multimodal Centers and Districts	21
Figure 8: Snapshot of Draft Regional Multimodal Centers and Districts	22
Figure 9: Make-shift pedestrian facilities at bus stops	24
Figure 10: Bus Stop at Edinburgh Square, Roanoke County	24
Figure 11: School Crossing, 9 th Street and Montrose Avenue, Roanoke	24
Figure 12: Church Crossing, Washington Avenue near N. Poplar Street, Vinton	24
Figure 13: Wise Avenue bus stop–pedestrian access coordination, Roanoke	25
Figure 14: Hershberger Road bike/pedestrian facility, Roanoke	25
Figure 15: Marked shared bike/pedestrian facility, France	26
Figure 16: Traveling with a temporary disability, Downtown Roanoke	26
Figure 17: Guide to Pedestrian Recommendation Maps	88
Figure 18: Map of Regional Pedestrian Transportation Infrastructure Projects	89
Figure 19: Towers Shopping Center’s redesigned parking lot accommodates pedestrians from a new bus stop on Colonial Avenue, Roanoke	91
Figure 20: A little more green and less concrete makes 6 th Street an attractive urban street for walking, Roanoke	91
Figure 21: A walking path is separated from the busy 4-lane roadway by a grass buffer with trees, Blacksburg	91

Figure 22: Adding no new impervious surfaces, Westside Boulevard was redesigned to accommodate pedestrians/bikes along a path separated from traffic by a concrete median and constructed within the existing street pavement, Roanoke 92

Figure 23: Adding no new impervious surfaces, Williamson Road was redesigned to accommodate pedestrians/bikes along a path, the “Mill Mountain Greenway”, separated from traffic by a landscaped median and constructed within the existing street pavement, Roanoke 92

Figure 24: A multi-use wide sidewalk indicates bicyclists yield to pedestrians, Washington State 92

Figure 25: Open drainage channels minimize expenses while still providing space for pedestrians along a 4-lane road, Sanford, FL..... 92

Figure 26: Clear designation for cars, pedestrians (red lane), bicyclists (black lane), and bus riders (bench) with an accessible concrete bus stop landing pad, Reddington Beach, FL..... 93

Figure 27: A busy four-lane road features a median crosswalk diversion with two sets of pedestrian signals, one for each leg of traffic, Buenos Aires 93

Figures 28-29: A pedestrian path connects to a crosswalk, a pair of bus stops, and on-road bike lanes, Montgomery County, MD..... 93

Figure 30: Accessible pedestrian waiting area at a bus stop, Montgomery County, MD..... 94

Figure 31: Simple pedestrian amenities at a bus stop, Montgomery County, MD..... 94

Figure 32: A car-free curb-free street is inherently ADA accessible; pavement textures and colors demarcate different areas for uses, Buenos Aires 94

LIST OF TABLES

Table 1: Local Plan Review Matrix	28
Table 2: Botetourt County Pedestrian Transportation Projects	48
Table 3: Montgomery County Pedestrian Transportation Projects.....	49
Table 4: Roanoke County Pedestrian Transportation Projects.....	50
Table 5: City of Roanoke Pedestrian Transportation Projects	58
Table 6: City of Salem Pedestrian Transportation Projects	81
Table 7: Town of Vinton Pedestrian Transportation Projects.....	85

1.0 INTRODUCTION

Walking is the most basic form of transportation. Most trips, whether they are taken by a car, bike, bus, trolley, or train, all involve walking at the beginning and end of the trip. Unlike these modes, however, walking by itself does not require the individual to pay fares, user fees, operating or maintenance costs. Pedestrian infrastructure is significantly less costly than that of its counterparts, and the amount of space required to accommodate a pedestrian is also much less. Unfortunately, many current land development practices and transportation investments greatly underutilize or completely ignore pedestrians in their investments, especially in places with greater mixes and proximity of land uses where walking to destinations would otherwise make sense.

The Roanoke Valley Area Metropolitan Planning Organization (RVAMPO) and member local jurisdictions have joined together to develop a plan to improve walking as a mode of transportation in the Roanoke Valley. The Regional Pedestrian Vision Plan for the Roanoke Valley Area Metropolitan Planning Organization (herein referred to as the Pedestrian Plan), is the region's first plan focusing specifically on promoting walking for everyday trips. With limited financial resources for pedestrian improvements, this plan identifies where pedestrian infrastructure investments are most needed based on the number of potential residents, employees, shoppers, diners, and other visitors to walk to access nearby destinations.

The purpose of the Pedestrian Plan is to provide a coordinated and strategic approach to making walking a more widely chosen form of transportation. Through the development of a regional pedestrian network, safe and attractive walking environments can exist to enable people to accomplish their daily tasks with greater ease.

1.1 A Multimodal Transportation System

In October 2013, the Virginia Department of Rail and Public Transportation published guidance for developing and designing multimodal transportation systems throughout the Commonwealth of Virginia. As such, the document entitled "Multimodal System Design Guidelines" (MMSDG) provided the framework for developing this Pedestrian Plan.

The Pedestrian Plan is one component of the Roanoke Valley's multimodal transportation system, which accounts for walking, biking, driving, and public transit as an interconnected transportation network that enables people to move around, without needing to rely completely on a personal vehicle. The pieces of the Roanoke Valley's multimodal transportation system are brought together in the Constrained Long-Range Multimodal Transportation Plan (CLRMT). As one element of the CLRMT, the Pedestrian Plan accomplishes the following functions:

- ▲ RECORD THE REGION'S VISION, GOALS, AND STRATEGIES FOR IMPROVING THE WALKING MODE OF TRANSPORTATION IN THE ROANOKE VALLEY AS IDENTIFIED THROUGH INPUT FROM CITIZENS AND LOCAL LEADERS
- ▲ SERVE AS A RESOURCE GUIDE FOR PEDESTRIAN ACCOMMODATION PLANNING IN THE ROANOKE VALLEY
- ▲ ENCOURAGE LOCAL GOVERNMENTS TO INCORPORATE WALKING ACCOMMODATIONS IN LOCAL ORDINANCES, POLICIES, PLANS, AND RELATED GUIDING DOCUMENTS
- ▲ IDENTIFY AND MAP ALL EXISTING WALKING ACCOMMODATIONS
- ▲ IDENTIFY AND MAP LOCATIONS WHERE WALKING ACCOMMODATIONS ARE NEEDED AND DESIRED
- ▲ PROVIDE EXAMPLES OF MODEL WALKING ACCOMMODATIONS

With this Plan as a foundation, it is expected that all transportation decision-makers, engineers, designers, planners, development reviewers, inspectors, and infrastructure maintenance staff will work to build and maintain the region's envisioned pedestrian transportation network so that walking conditions will improve greatly in a short time period as current practices and investments are adapted to create a more Livable Roanoke Valley.

1.2 Concurrent Efforts

Along with the development of this Pedestrian Plan, several other efforts are also taking place, which may not be completed by the adoption of this Plan, yet in their draft form, have had great influence over the Pedestrian Plan. As recommended in the MMSDG, and in preparation for the next CLRMTP, the RVAMPO Transportation Technical Committee has been working to identify multimodal districts, centers, and corridors for the RVAMPO study area.

- ▼ **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.
- ▼ **MULTIMODAL CORRIDOR:** A PUBLIC RIGHT-OF-WAY THAT ACCOMMODATES MULTIPLE TRANSPORTATION MODES AND INCLUDES THE ADJACENT LAND BETWEEN THE MULTIMODAL FACILITY (ROADWAY OR PATHWAY) AND THE BUILDINGS.

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

These concepts have shaped the recommendations of the Pedestrian Plan and will ultimately guide the recommendations of the CLRMTP.

Preparations have also begun to form VTRANS 2040, the next Statewide Multimodal Transportation Plan. This plan will be developed by the Secretary of Transportation's Office of Intermodal Planning and Investment in conjunction with the four state transportation modal agencies.

In 2004, the Commonwealth Transportation Board (CTB) adopted a Policy for Integrating Bicycle and Pedestrian Accommodations in the funding, planning, design, construction, operation, and maintenance of Virginia's transportation network. VDOT is following up on that Policy by developing a Plan to clarify the policy, provide staff with resources, improve outreach and coordination, and measure and evaluate progress. A draft Pedestrian Policy Plan was published in May 2014 and will be finalized in Fall 2014. It is an excellent resource outlining Virginia's existing policies, guidelines, processes, and programs. The Policy Plan provides the Vision and goals for the future of pedestrian accommodations in the Commonwealth and recommendations for achieving them.

1.3 Study Area

The Pedestrian Plan covers the Roanoke Valley Area Metropolitan Planning Organization 2040 Study Area which includes the Roanoke Census Defined Urbanized Area¹ and the contiguous geographic area(s) likely to become urbanized within the 25 year forecast period covered by the CLRMTP. Localities within the RVAMPO Study Area include the cities of Roanoke and Salem, the Towns of Fincastle, Troutville, and Vinton, and portions of Bedford, Botetourt, Montgomery, and Roanoke Counties. Figure 1 shows the MPO Study Area boundary, Roanoke Urbanized Area, and the jurisdictional boundaries.

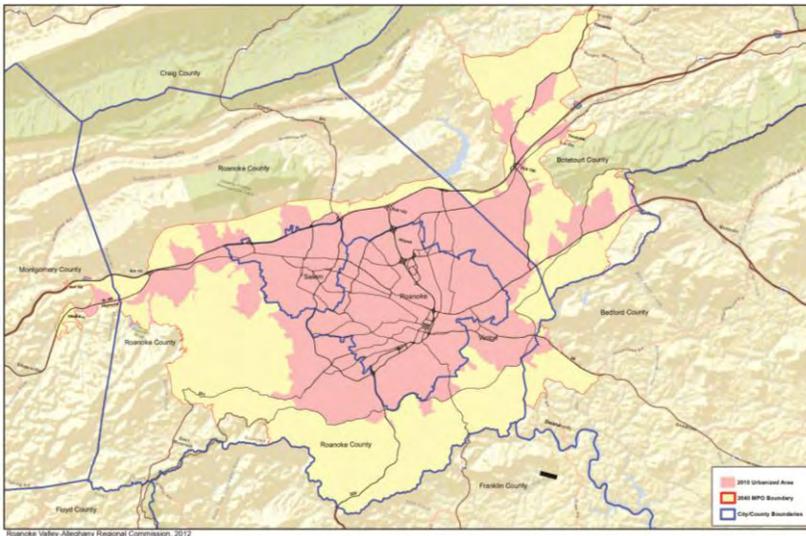


Figure 1: Roanoke Valley Area MPO 2040 Study Area Boundary

¹ An Urbanized Area is a statistical geographic entity, designated by the Census Bureau, consisting of a central core and adjacent densely settled territory that together contain at least 50,000 people, generally with an overall population density of at least 1,000 people per square mile.

1.4 Roles and Responsibilities

The Regional Commission, because it provides the staff for the RVAMPO, has taken on the role of facilitating the Pedestrian Plan’s development through the cooperation and involvement of interested stakeholders. The Commission, with the help of local governments and VDOT, is responsible for assessing progress towards the regional pedestrian vision via established performance measures.

While the Pedestrian Plan is intended to facilitate, promote, and provide general guidance on improving walking conditions in the region, within the MPO Study Area, the local governments and the Virginia Department of Transportation (VDOT), because they authorize new construction and maintenance activities within public right-of-way, are the ultimate responsible parties for ensuring the implementation of the recommended pedestrian infrastructure improvements. Valley Metro and the Greenway Commission are responsible for working with local governments to pursue pedestrian improvements related to public transit and greenways, respectively.

The RVAMPO Policy Board is responsible for approving federal funding for pedestrian projects consistent with the region’s pedestrian vision.

2.0 PEDESTRIAN VISION

The Roanoke Valley is a livable community, proud of its outdoor amenities and recognized for its outstanding quality of life. As such, the residents and employees of the Roanoke Valley envision a safe pedestrian environment where walking an integral part of daily life; nearby destinations are well-connected by pedestrian facilities that are conveniently located and well-maintained.

The Roanoke Valley will have a pedestrian transportation network that

- ▲ CONNECTS PEOPLE WITH REGIONAL AND LOCAL ACTIVITY CENTERS;
- ▲ CONNECTS WITH OTHER MODES OF TRANSPORTATION;
- ▲ PROVIDES SAFE ACCOMMODATIONS THAT CONTRIBUTE TO A PERSON'S ABILITY TO WALK SAFELY;
- ▲ ENCOURAGES PEOPLE TO WALK;
- ▲ PROVIDES WALKING FACILITIES DURING NEW RESIDENTIAL AND COMMERCIAL DEVELOPMENTS; AND,
- ▲ LIKE OTHER TRANSPORTATION MODES, IS CONSTRUCTED AND MAINTAINED AS A NATURAL, ROUTINE PART OF THE REGIONAL TRANSPORTATION SYSTEM.

2.1 Regional Values

Overwhelmingly, Roanoke Valley citizens value walking and feel that walkability (how friendly our region is to walking) is important. When considering the ability to walk, the Roanoke Valley area values safety, accessibility, health and mobility.

▼ SAFETY

It is important to be able to walk somewhere safely.

▼ ACCESSIBILITY

It is important to be able to walk around one's neighborhood and to walk to nearby destinations such as jobs, schools, libraries, and grocery stores.

▼ HEALTH

It is important to be able to walk for health and wellbeing.

▼ MOBILITY

It is important to be able to walk as an alternative to driving, since many people do not drive.

When considering how important it is for an area to be walkable, the Roanoke Valley values walkability in the following ways:

▼ DENSITY

Walkability is important in dense areas; elsewhere it is important where it is wanted and warranted.

▼ SOCIAL CONNECTIONS

Walkability is important because being able to walk around provides a sense of connectedness and community.

▼ ECONOMIC DEVELOPMENT

Walkability is important because it encourages downtown development and development within regional multimodal centers and districts.

Walkability is important because it supports Tourism Development.

▼ CULTURE

Walkability is important in order to enjoy our regional history.

▼ ENVIRONMENT

Walkability is important for the environment; it reduces the number of vehicles on the road, thus reducing vehicle emissions and air pollution; it reduces the need for parking, as such, impervious surfaces and storm water runoff is reduced.

Walkability is important in order to enjoy our Valley's viewsheds.

2.2 Regional Goals

Given the region's values and vision regarding walking, the technical staff and MPO Policy Board developed the following five goals:

Goal #1: Improve **SAFETY** for pedestrians. More people are seen walking in the Roanoke Valley because they feel safe due to new infrastructure which makes walking safer for people.

Goal #2: Enable **INDEPENDENT MOBILITY**, particularly within Multimodal Centers and Districts, where people do not have to rely on personal vehicles to get from one place to another. Walking is an easy decision because it is a pleasant experience.

Goal #3: Create a region where **ACTIVE LIFESTYLES** are the norm because our land use decisions and investment in transportation infrastructure complement each other and enable a natural tendency for people to walk every day. As a result, people feel healthier, more socially-connected and happy living and working in the Roanoke Valley.

Goal #4: Increase **BUSINESS** in Multimodal Centers and Districts; they are enjoyable places to work and patronize in part because they are in attractive well-connected walkable environments.

Goal #5: Clean the **ENVIRONMENT** by walking for more trips and driving less. The Roanoke Valley is an attainment area for air quality, and we want it to remain as such even as we continue to grow in population. As more citizens walk to accomplish

everyday tasks, they are able to enjoy the Valley's beautiful environment.

3.0 PLAN DEVELOPMENT PROCESS

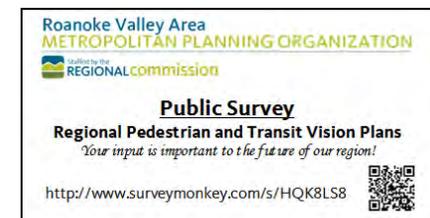
As detailed later in this document, the Pedestrian Plan's development began with a review of past work, including policies and plans, related to walking and pedestrian improvements. The Pedestrian Plan benefitted from the input of citizens, local technical staff, and decision-makers throughout its development. The combination of these perspectives defined the region's values towards walking, its vision and goals. Technical staff used citizen input and the previous plans information to formulate the Pedestrian Plan's infrastructure recommendations and strategies. The final Pedestrian Plan was adopted by the MPO Policy Board, which represents the seven jurisdictions that encompass the urban Roanoke Valley area.

3.1 Citizen Input

The public had several opportunities to provide input to the Pedestrian Plan. Citizen input provides the rationale for planning and making investments in pedestrian infrastructure and was valuable in the development of the Plan.

3.1.1 Public Survey

Over a four month period from September–December 2013, citizens had the opportunity to provide feedback regarding why they value walking, how often and



why they walk, and where they think improvements to pedestrian infrastructure are needed. Citizens shared their most pressing thoughts on walking with decision-makers. Surveys were conducted in person, on paper, and electronically. Citizens were notified of the survey opportunity via numerous sources which are listed in Appendix A along with the survey results. In addition to the public survey, coordination with other meetings and events enabled greater input.

3.1.2 Downtown Roanoke Plan Public Open House

The City of Roanoke maintains plans for each neighborhood in the City. Concurrent with the Pedestrian Plan, the City has been undertaking an update to the Downtown Roanoke Plan. On September 11, 2013, a public open house was held to allow citizens to provide feedback on their desires for the future of Downtown Roanoke. At that event, staff provided displays and administered the public survey via paper, computer, and personal interviews with participants.

3.1.3 Senior Citizens Coordinating Council Open House

On September 27-28, 2013, the Senior Citizens Coordinating Council conducted an Open House at Greene Memorial Methodist Church featuring member non-profit organizations and information sessions for the public. The event provided an opportunity for staff to talk with citizens and staff from other organizations about the Pedestrian Plan. People noted locations where pedestrian facilities are needed on large maps. Many people also filled out a public survey during the two-day event.

3.2 Transportation Technical Committee

The RVAMPO Transportation Technical Committee served as the Pedestrian Plan's Steering Committee. Updates, group discussions, and decisions took place during regularly scheduled

monthly meetings of the TTC in addition to the typical agenda. Additionally, on several occasions throughout the Plan's development, staff met individually with local government staff to review technical details and recommendations. The Committee was provided content for their review a week prior to meetings for review. Below is the timeline of TTC activities which has resulted in the Pedestrian Plan.



SEPTEMBER 2013

Review/Comment of Public Involvement Plan

Group activities on pedestrian values answering the questions:

Values: Is walkability important to our community, why/why not?

Vision: What do we want the future to be?

Goals: What goals should the region have for walkability?

OCTOBER 2013

Review of Pedestrian Values and Vision

Update on Public Involvement

Introduction to DRPT's Multimodal System Design Guidelines

Review Map of Existing Activity Density

Discussion of Multimodal Centers and Districts

NOVEMBER 2013

Follow-up on Pedestrian Values and Vision

Group Mapping Exercise: Place Dots on Large Maps Indicating Existing and Emerging Multimodal Centers and Districts

DECEMBER 2013

Review Multimodal Center Typology
Activity on Defining Roanoke Valley Multimodal Centers and Districts

JANUARY 2014

Summary of Completed Public Survey
Detailed Review of Identified Multimodal Centers and Districts

FEBRUARY 2014

Draft Maps of Regional Multimodal Centers and Districts
Distribution of public comments to decision-makers regarding walkability
Draft Walkability Goals
Initial presentation of Existing and Recommended Pedestrian Accommodations

MARCH 2014

Review Final Draft Multimodal Centers and Districts
Review Goals and Performance Measures
Distribution of Large-scale Existing and Proposed Pedestrian Accommodations for review; TTC members were asked:

1. Do you agree that the locations identified on the maps per the public comments and previous plan recommendations for proposed intersection, sidewalk, streetscape, off-road, and greenway projects are locations where infrastructure is needed?
2. Where else are on- or off-street pedestrian connections needed, particularly within and between multimodal centers and districts?

Introduction to Multimodal Through Corridors and Placemaking Corridors

APRIL 2014

Discussion of Draft Pedestrian Strategies
Discussion of Corridor Maps
Small Group Review of Existing and Proposed Pedestrian Accommodations

MAY 2014

Discussion/brainstorming on pedestrian infrastructure funding options and strategies, pedestrian projects prioritization process, implementation responsibilities

JUNE 2014

Draft Maps of Pedestrian Infrastructure Recommendations
Localities were provided tables and maps of the recommended projects and asked to prioritize each project based on the determined ranking system.

AUGUST 2014

Initial Review of Draft Pedestrian Plan

3.3 MPO Policy Board

The MPO Policy Board had a unique opportunity to help shape the content of the Plan and the course of the planning process through discussions and visioning activities conducted during regular meetings.

SEPTEMBER 2013

Introduction to the Pedestrian Plan process

In pairs, Board Members answered the questions:

Values: Is walkability important to our community, why/why not?

Vision: What do we want the future to be?

Goals: What goals should the region have for walkability?

OCTOBER 2013

Update on Public Involvement

Review of Values and Vision statements

Introduction to DRPT Multimodal System Design Guidelines (Web Movie 2)

Review Map of Existing Activity Density

Discussion and Identification of Multimodal Centers and Districts

JANUARY 2014

Overview of Public Survey response

Update on the development and TTC review of Multimodal Centers and Districts

MARCH 2014

Distribution of public comments to decision-makers regarding walkability

Presentation on public survey responses

Presentation of Multimodal Center and District development

MAY 2014

Update and review of draft goals, strategies, and performance measures

SEPTEMBER 2014

Review of Draft Pedestrian Plan

3.4 Media Coverage

On two occasions, WSLs 10 featured work being undertaken as part of the Pedestrian Plan on TV broadcasts and their online news feed. The October 29, 2013 broadcast advertised the public survey.

Survey to help make Roanoke Valley more walking & public transit friendly

Posted: Oct 29, 2013 4:17 PM EST
Updated: Nov 12, 2013 4:17 PM EDT

By Katie Love, Reporter - bio | email

Leaders with the Roanoke Valley Alleghany Regional Commission need your help finding ways to make the area more friendly for walkers and public transportation users.

They're asking people in Roanoke, Salem, Vinton, and Bedford, Botetourt, Montgomery and Roanoke counties to take a survey.

The survey is part of the Regional Pedestrian and Transit Vision Plans.

The goal is to make walking and public transit easier to use.

"We are now considered a large urban area by state standards," regional planner, Cristina Finch says. "So, as we try to plan for the future as our region continues to grow, we need to start thinking about how people get around our region, not just about driving."

The survey has 25 questions. You can take it [here](#).

The May 27, 2014 broadcast highlighted work to define multimodal centers and districts as well as provided two example locations in the region where pedestrian accommodations are recommended, the area around the Lewis Gale Medical Center and Plantation Road between Exit 146 and Williamson Road.

The May 27 broadcast was also publicized on the Regional Commission's facebook page.

Roanoke Valley shows need for more pedestrian-friendly areas

Posted: May 27, 2014 6:27 PM EST
Updated: Jul 23, 2014 1:28 PM EST

By Katie Love, Reporter - bio | email



The Roanoke Valley-Alleghany Regional Commission makes a push to make our region more walkable.

Surveys from more than 500 people in our community points to a need of being more pedestrian-friendly.

The commission identified 25 target areas in the region to either improve or add sidewalks, crosswalks, and stop lights.

It includes Plantation Road in Roanoke, the Lewisgale Hospital area in Salem, and Tanglewood Mall.

"We are trying to help to make the Roanoke Valley a healthier environment," Regional Planner Cristina Finch says. "So the way we work on that is through transportation and making areas more convenient for walking."

The next step is to prioritize which projects should be done first.



4.0 WALKING IN THE ROANOKE VALLEY TODAY

4.1 Land Development Patterns

The way in which local governments permit land to be developed plays a significant role in people's ability and willingness to walk. Land in the Roanoke Valley developed prior to the auto-oriented development boom of the mid-20th century generally features these walking-friendly characteristics:

- ▲ NARROWER STREETS WITH SHORTER CROSSING DISTANCES
- ▲ CONNECTED STREETS
- ▲ SIDEWALKS
- ▲ TREES PROVIDING SHADE ALONG SIDEWALKS
- ▲ BUILDINGS CLOSE TO THE STREET
- ▲ BUILDING FRONT DOORS CONNECTED BY A SIDEWALK TO A SIDEWALK ALONG THE STREET
- ▲ PARKING ON THE STREET, NEXT TO OR BEHIND BUILDINGS

It is unrealistic to expect that all parts of the Roanoke Valley will be retrofitted or newly developed to be pedestrian active places. The region is mountainous and often the landscape causes significant challenges to developing walkable environments. 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 walking infrastructure is an expensive and difficult task. Unfortunately, adding pedestrian infrastructure to an auto-oriented development may meet safety goals, but often results in an environment that is still less walking-friendly than if the location were developed with pedestrians in mind from the beginning.

In the following example, two types of developments exist along the same street. Both developments feature sidewalks and decorative lighting, yet the number of people who walk in these places varies greatly. The reason is solely due to the land development patterns. The buildings in the first picture are closer to the sidewalk with front doors accessible from the main sidewalk. The road is more narrow thus easier to cross, and vehicle parking exists on-street, next to, or behind buildings.



Figure 2: East Main Street, Salem

In contrast, the buildings in the second picture 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.



Figure 3: West Main Street, Salem

The first picture clearly shows a place that was developed for people while the other was developed for cars.

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



Figure 4: New mixed-use development designed for people walking, Daleville

The City of Roanoke, as part of its revised zoning process, now 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: New development easily accessible by multiple modes, Roanoke

During the site's development, City staff worked with the developer to ensure a pedestrian connection (via a sidewalk and staircase) was 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.

Local governments have a great responsibility to make conscious decisions about what they are permitting within their boundaries including the types of development, where they are located, their design and configuration on a site, and if they include pedestrian connections to and along adjacent roads and off-road transportation corridors.

4.2 Activity Density

As part of a long-range planning exercise, the desire to make some parts of the Roanoke Valley friendlier for walking, led to a review of the density of people throughout the region. The distance between where people reside or work and where they need or want to go is a critical factor in people's willingness to walk to accomplish that trip. Transportation investments in pedestrian infrastructure are most warranted where they have the potential to make walking trips easy for many people.

To help identify the region's multimodal centers and districts, the concept of activity density was mapped. Activity density is defined in the MMSDG to be the number of residents plus employees per acre. This concept can be applied to any place in the Commonwealth. The purpose of mapping activity density is to show where the concentrations of people, and thus activity, are located, which therefore helps to identify where walking for trips is possible and likely. The proximity of people to places is one key determinant of whether or not someone would walk.

As shown in the following map, much of the Roanoke Valley is low density with 10 or fewer people per acre. In many of these areas, it is not likely that people would choose to walk to get somewhere due to the longer travel distances. A focus on the areas with higher concentrations of residents and employees guides the recommendations for pedestrian infrastructure. In reviewing the activity density, along with local knowledge of destinations and the relationship between residential areas and businesses, technical staff defined regional multimodal centers and districts in which a key concept is how easy is it to walk within those places either now or desired in the future. The following map shows the region's draft multimodal centers and districts, which in the Legend show an intensity classification for

Multimodal Centers from P1 (Rural or Village Center) to P-6 (Urban Core). While technical staff continues to use these areas for planning, they are still in draft form and may be modified until they are formally adopted as part of the Constrained Long-Range Multimodal Transportation Plan in 2015.

Figure 6: Snapshot of Regional Activity Density

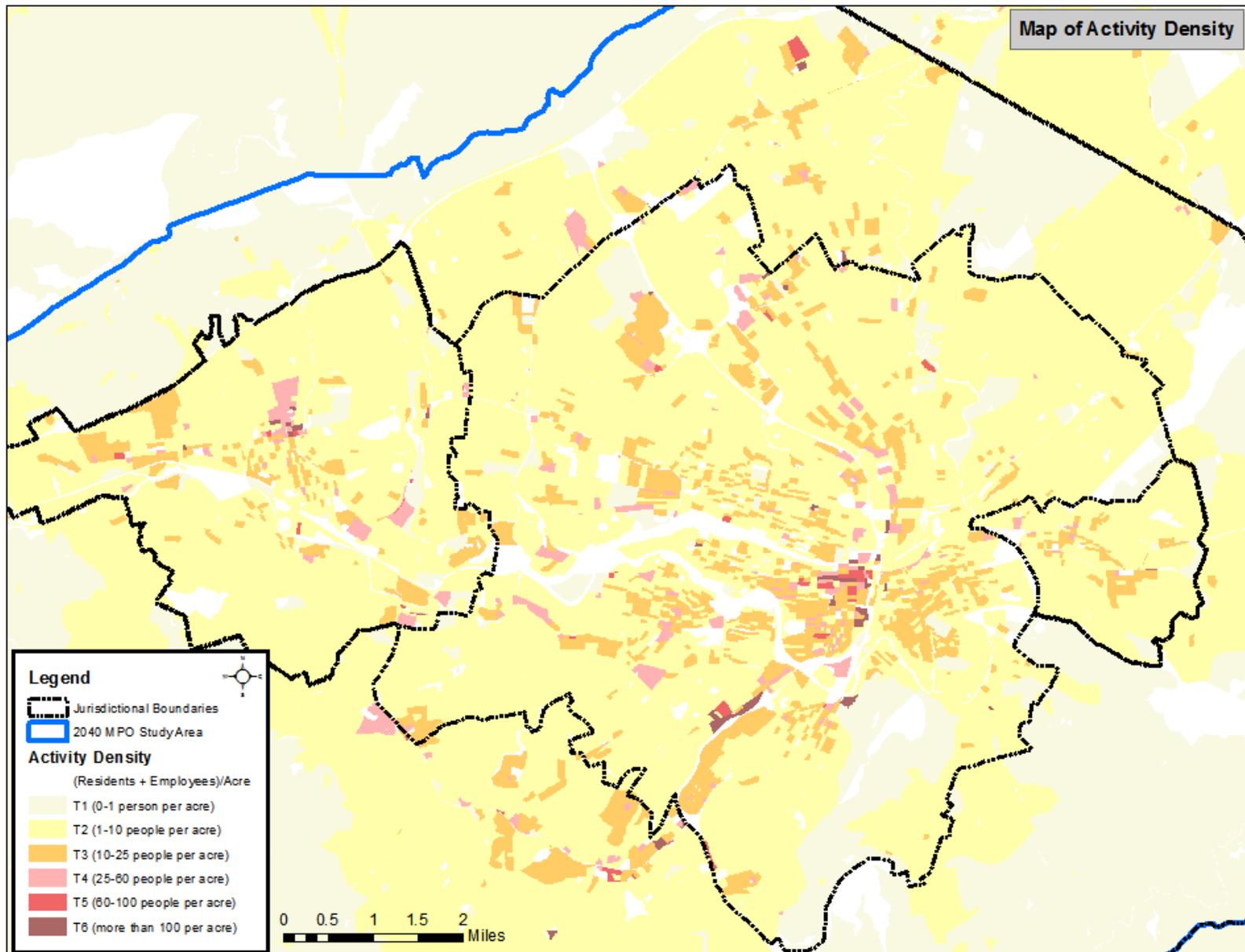


Figure 7: Snapshot of Draft Regional Multimodal Centers and Districts

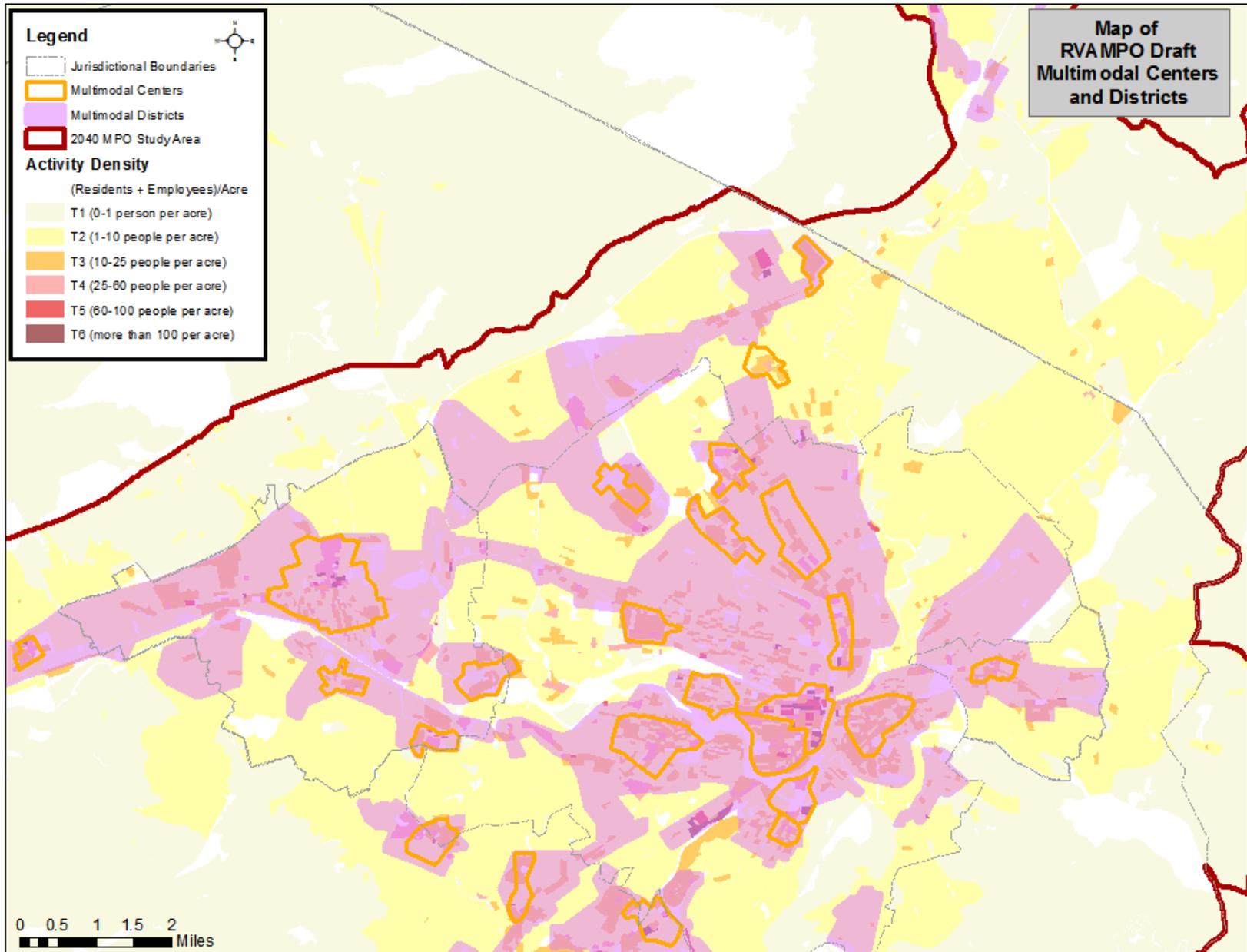
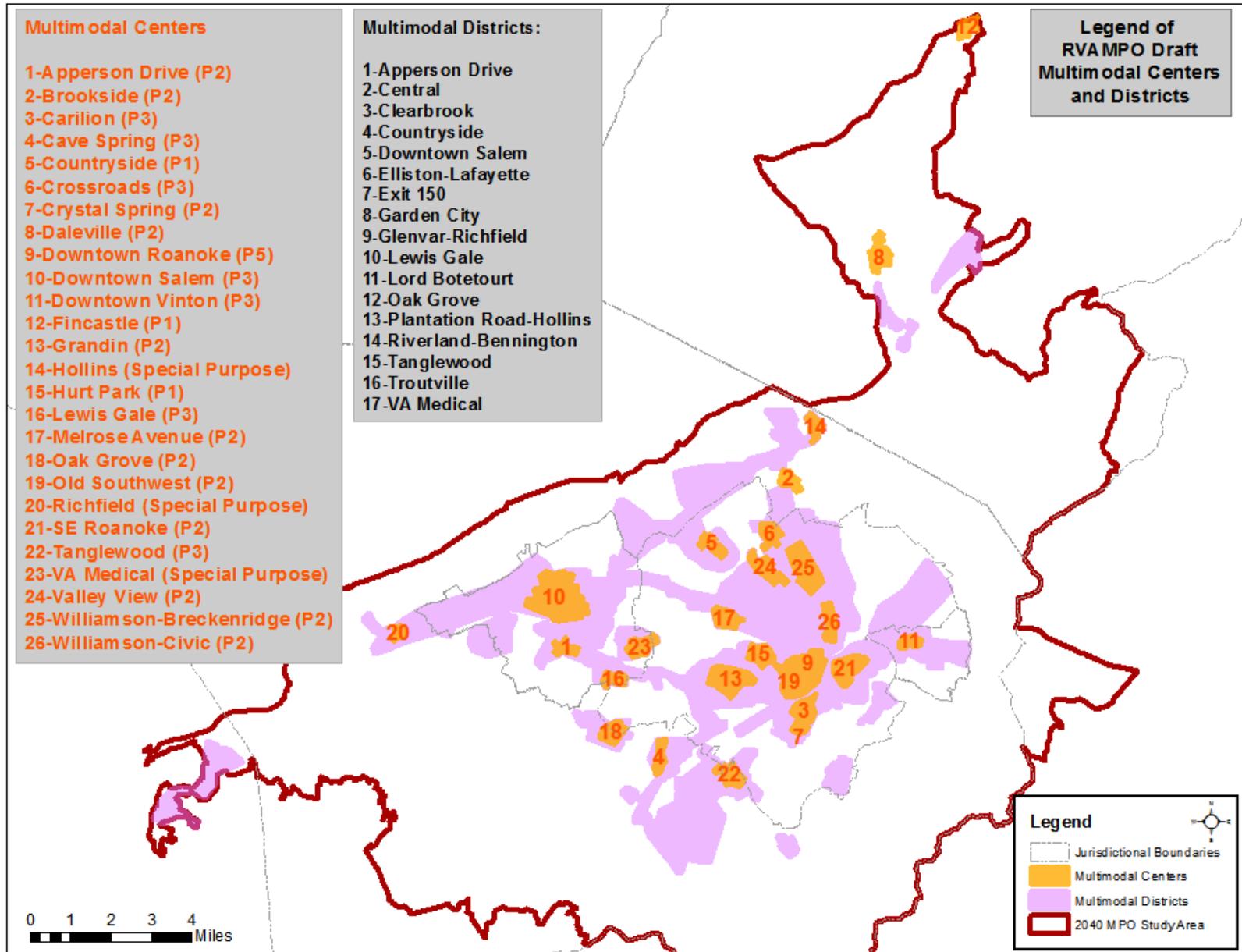
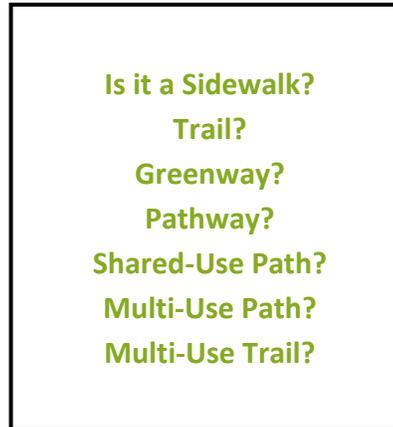


Figure 8: Snapshot of Draft Regional Multimodal Centers and Districts



4.3 Existing Pedestrian Infrastructure

While there are many words used to describe the surface on which people walk, for the purpose of the Pedestrian Plan, a simple paved surface versus natural surface distinction is made among existing accommodations. The purpose of this distinction is the paved accommodation can be used by anyone including people using mobility devices such as walkers and wheelchairs, whereas a natural surface accommodation is not accessible to everyone. A paved accommodation has a hard surface such as concrete or asphalt; a natural surface accommodation may consist of dirt, gravel or crushed stone.



Although an investment to provide natural surface walking facilities has been an important component to the region’s draw as an outdoors destination, natural surface trails are not created for transportation, and thus are only reflected in the Roanoke Valley Greenways Plan.

Many times it is obvious where additional infrastructure is needed due to the presence of a dirt path along a road. Other times the need for an accommodation is less obvious because people may be walking on roadway shoulders or through parking lots which do not display worn paths. People can often safely walk on local streets which feature no designated walking facility when safety precautions are taken such as drivers operate at slow speeds, walkers wear reflective gear and walk opposite to traffic, etc.

4.4 Interaction between Travel Modes

Every traveler is a pedestrian at some point during their trip. The following sections relate the pedestrian to other primary transportation modes.

4.4.1 Pedestrian-Transit

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 suggest that people with disabilities try using the fixed-route service when they can’t 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 along multimodal corridors are not accessible due to lack of infrastructure. An investment in the region’s bus stops is needed.

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 the following figure.



Figure 9: Make-shift pedestrian facilities at bus stops

The picture below shows bus stops 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 ADA ramps.



Figure 10: Bus Stop at Edinburgh Square, Roanoke County

In many places throughout the region, crosswalks are striped at unsignalized 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 on multimodal corridors should also be provided. Where

crosswalks are marked, ADA ramps are also needed. Figure 11 shows a crosswalk near a school and at a bus stop in need of an ADA ramp.



Figure 11: School Crossing, 9th Street and Montrose Avenue, Roanoke

Figure 12 shows the need to connect pedestrian accommodations given that the ADA ramps are located the corner and the crosswalk is midblock in front of the church. A bus stop is also present in front of the church.



Figure 12: Church Crossing, Washington Avenue near N. Poplar Street, Vinton

New pedestrian accommodations constructed next to bus stops should always consider ADA accessibility 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 following picture 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 ADA ramp was installed to accommodate wheelchairs crossing at the intersection.



Figure 13: Wise Avenue bus stop–pedestrian access coordination, Roanoke

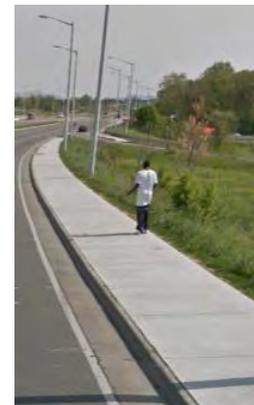
Along streets where transit service is provided and on-street parking exists, a common conflict is the ability for a pedestrian to get from the bus stop onto the bus without having to walk between or around parked cars. If the bus stop does not generate sufficient activity, it may be preferable to relocate 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 the bus stop.

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 as well as bus stops that were near high activity paratransit pick-up locations and recommended pedestrian improvements.

4.4.2 Pedestrian-Bicycle

Bicyclists and pedestrians are often lumped together for good reason as oftentimes infrastructure is constructed to accommodate both types of travelers in the same space. In the Roanoke Valley, this is most often done on paved off-road facilities, commonly referred to as greenways. Although it is provided less frequently, the same accommodation can be located along roadways where a wide paved space is constructed for both bicyclists and pedestrians. The Multimodal System Design Guidelines generally recommend a shared space separated from vehicle traffic along Multimodal Through Corridors. The City of Roanoke’s Street Design Guidelines also recommend shared spaces along arterial streets.

When the City of Roanoke provided pedestrian accommodations along Hershberger Road, a six-lane arterial that crosses over an interstate, the engineers designed a wider-than-typical sidewalk on one side to also accommodate bicycles. Due to the location, it



was not desirable to accommodate bicycles on the street; instead, the engineers took advantage of the maximum amount of space available to coordinate improvements for both types of travelers. It is imperative that projects be approached with a holistic mindset to accomplish as many improvements as possible, particularly if the additional cost is not burdensome.

Figure 14: Hershberger Road bike/pedestrian facility, Roanoke

In other places, shared bicyclist/pedestrian spaces are visibly marked. Such markings are helpful to instruct people that bicyclists and pedestrians are permitted to use the accommodation and to provide guidance on where each should travel.



Figure 15: Marked shared bike/pedestrian facility, France

On-road bike accommodations have also become a place where people using motorized scooters will travel. Where sidewalks do not exist or are not accessible, people using mobility devices are required by law to travel in the direction of traffic, which often takes place on a roadway shoulder or in a bicycle lane. Places where this is occurring are good indications that new or improved pedestrian infrastructure may be needed.

4.4.3 Pedestrian-Vehicle

Every driver is a pedestrian as they walk from their origin to their vehicle and from their vehicle to their destination. During site design of parking lots, it is important for designers to evaluate the nearby destinations and the routes that pedestrians will likely take to get there so that infrastructure can be incorporated into the facility's construction. When pedestrian accommodations are not considered in the design of parking lots and their connection to destinations, the result is locations inaccessible for people with disabilities, dirt paths worn from foot traffic, or additional short-distance vehicle trips. The ability for people to park their vehicle and walk the rest of the way is especially critical in Multimodal Centers and around regional venues where driving for short trips is not possible or desirable.

As mentioned in the Pedestrian–Transit section, a natural component of walking is the need to cross the street to get to one's destination. In the previous example, the destination was a bus stop, but more commonly, the destination is a building. The picture below shows a person with a temporary disability traveling from their car to a nearby building. Fortunately, sidewalks and ramps exist to assist him as he travels.



Figure 16: Traveling with a temporary disability, Downtown Roanoke

In order to avoid crashes, it is useful if drivers know where to expect to see pedestrians so they know to reduce their speed or stop. High activity crossings or places where pedestrian visibility is desired often feature simple amenities such as marked crosswalks, walk/don't walk signals, flashing warning lights, HAWK signals, or pedestrian signs. Intersections and marked crosswalks are common places where drivers expect to see pedestrians. At unmarked locations, pedestrians crossing the street assume more risk and responsibility for avoiding vehicles. The Manual on Uniform Traffic Control Devices provides the national standards on when and how to provide markings, signs, and traffic signals along public roads including those related to pedestrians.

5.0 PREVIOUSLY ADOPTED PEDESTRIAN-RELATED DOCUMENTS AND POLICIES

5.1 Local Plans Review

Local plans were reviewed to identify adopted policies, recommendations, and projects related to pedestrian facilities. This review encompassed a wide variety of planning areas from locality wide comprehensive plans to plans for village centers and neighborhoods. Staff looked for references to each of the 12 topics in listed below. A summary of the actual texts from the plans can be found in Table 1.

- 1. Bicycle Accommodation:** plan identified a need for bike lanes, bikeways, bicycle safely, sharrows, or off road path specifically for bicycle use
- 2. Crosswalks:** plan identified the need for a crosswalks at specific locations; general statement about the need for crosswalks
- 3. Design Guidelines:** plan made reference to Federal, State, or local design guidelines or plan recommended the development and adoption of guidelines related to pedestrian needs
- 4. Intersection Improvements:** plan identified the need for improvements at specific intersections; plan made a general statement about the need for intersection improvements related to pedestrians
- 5. New or redevelopment required/suggested improvements:** plan identified a requirement, either adopted or recommended,

for new development to include provisions for pedestrians and/cyclists

- 6. Pedestrian Safety:** plan identified a specific or general reference to improving pedestrian safety
- 7. Sidewalk:** plan identified a need for sidewalk installation or improvements at specific locations or made a general statement about the need for sidewalks
- 8. Streetscape:** plan identified a need for streetscape improvements at specific locations or made a general statement about the need for streetscapes (trees, signage, benches, lighting, etc.)
- 9. Traffic Calming/Speed Reduction Measure:** plan identified a need for traffic calming or speed reduction at specific locations or made a general statement about the need for traffic calming
- 10. Traffic Signal:** plan identified a need for traffic signal improvements at specific locations or made a general statement about the need for pedestrian signals
- 11. Trail/Greenway:** plan identified locations for trails/greenways or made a general statement of need for additional trails/greenways
- 12. Village Centers Adopted or Proposed:** plan recommended an area to be considered a village center or similar small planning area.

5.2 Existing Ordinance Review

Local subdivision ordinances and zoning ordinances are local government's tools to regulate land development. Such ordinances for local governments in the Roanoke Valley were reviewed to identify adopted regulations related to pedestrian facilities. A list of the ordinances reviewed is below followed by the findings from the ordinance review. The purpose of this review is to help local governments identify where improvements in their ordinances can be made to better accommodate pedestrians and provide examples of language from other local governments in the region.

- ▼ BEDFORD SUBDIVISION ORDINANCE, 2000
- ▼ BEDFORD ZONING ORDINANCE, 1999
- ▼ BOTETOURT SUBDIVISION ORDINANCE, 2009
- ▼ BOTETOURT ZONING ORDINANCE, 2002
- ▼ MONTGOMERY SUBDIVISION ORDINANCE, 1991
- ▼ MONTGOMERY COUNTY ZONING ORDINANCE, 1999
- ▼ ROANOKE CITY SUBDIVISION ORDINANCE, 2007
- ▼ CITY OF ROANOKE, ZONING ORDINANCE, 2013
- ▼ ROANOKE COUNTY SUBDIVISION ORDINANCE, 2002
- ▼ ROANOKE COUNTY ZONING ORDINANCE, 1999
- ▼ CITY OF SALEM SUBDIVISION ORDINANCE, 2005
- ▼ CITY OF SALEM ZONING ORDINANCE, 2005
- ▼ TOWN OF VINTON, SUBDIVISION ORDINANCE
- ▼ TOWN OF VINTON, ZONING ORDINANCE, 1995

5.2.1 Bedford County

BEDFORD SUBDIVISION ORDINANCE, 2000

Article 6 - Street and Sidewalks

6.4.7 In business and industrial developments, the streets and other accessways shall be planned in connection with the grouping of buildings, location of rail facilities, and the provision of alleys, truck loading and maneuvering areas, and walks and parking areas so as to minimize conflict of movement between the various types of traffic, including pedestrian.

Division 2 - General Street Design Standards

6.7 Adoption of state highway department standards.

All design standards of the Virginia Department of Transportation are hereby adopted by reference; such design standards shall govern streets dedicated to public use unless otherwise specified by this ordinance.

Division 5 - Curb, Gutter and Sidewalks

6.24 Sidewalks.

In all townhouse or multi-family developments or in any developments with a density of greater than three units per acre sidewalks are required on both sides of the road.

BEDFORD ZONING ORDINANCE, 1999

Does not address pedestrian, sidewalk, etc.

BOTETOURT SUBDIVISION ORDINANCE, 2009

Sec. 21-27. Provisions for nonresidential development.

(b)(2) Streets shall be adequate to accommodate the type and volume of traffic anticipated to be generated thereon, and shall comply with current department of transportation standards.

Sec. 21-134. Streets.

(a) General requirements. Except where specifically waived elsewhere herein, or permitted by the zoning ordinance, each lot within a subdivision shall be served by a publicly dedicated and state maintained street. New streets shall conform to the standards and regulations of the state department of transportation and to this section. All approvals and inspections of streets will be coordinated with the Virginia Department of Transportation, the Botetourt Comprehensive Plan and any applicable proffers or special exception conditions.

5.2.2 Botetourt County

BOTETOURT ZONING ORDINANCE, 2002

Article II. - District Regulations Generally

Division 7. Planned Unit Development (PUD)

Sec. 25-188. Special review procedures

(c)(3) The existing and proposed pedestrian circulation system, including sidewalks, trails and bike paths, and the relationship with the vehicular circulation system, indicating proposed treatments of points of conflict.

Division 8. Traditional Neighborhood District (TND)

Sec. 25-203. Size and designated areas.

(b)(4) Buffer areas may be required. Although connectivity of streets, sidewalks, and pathways is generally preferred, buffer areas may be required when necessary to separate the TND from adjacent properties zoned for residential or agricultural uses, and may be included within one or more of the core, edge or workplace areas.

Sec. 25-207. Commercial and industrial lot and building requirements.

(f) Required yards for commercial uses.

1. Front. Minimum: None. A sidewalk of at least eight (8) feet shall be provided along all lot frontages in which the setback is less than fifteen (15) feet.

Maximum: None; however, all building setbacks shall be designed so as to achieve the purpose and intent of the district to create streets that are framed by buildings and thus comfortable for pedestrians.

2. Side. Minimum: None. Maximum: None; however, all building setbacks shall be designed so as to achieve the purpose and intent of the district to create streets that are framed by buildings and thus comfortable for pedestrians.

3. Rear. Minimum: Thirty-five (35) feet when served by a rear alley; no rear setback required when the rear of the lot also functions as a primary access point for pedestrian traffic. Maximum: None; however, all building setbacks shall be designed so as to achieve the purpose and intent of the district to create streets that are framed by buildings and thus comfortable for pedestrians.

Sec. 25-208. Civic use requirements.

(b) Required yards for civic uses.

1. Front. Minimum: None. A sidewalk of at least eight (8) feet shall be provided along all lot frontages in which the setback is less than fifteen (15) feet. Maximum: None; however, all building setbacks shall be designed so as to achieve the purpose and intent of the district to create streets that are framed by buildings and thus comfortable for pedestrians.

2. Side. Minimum: None. Maximum: None; however, all building setbacks shall be designed so as to achieve the purpose and intent of the district to create streets that are framed by buildings and thus comfortable for pedestrians.

3. Rear. Minimum: Thirty-five (35) feet when served by a rear alley; no rear setback required when the rear of the lot also functions as a primary access point for pedestrian traffic.

Maximum: None; however, all building setbacks shall be designed so as to achieve the purpose and intent of the district to create streets that are framed by buildings and thus comfortable for pedestrians.

Sec. 25-210. Streets, alleys, paths, blocks and parking.

(c) Street design. Street sections in traditional neighborhood districts shall be designed to serve multiple purposes, including movement of motor vehicle traffic, pedestrian and bicycle movement, areas for public interaction, definition of public space and sense of place, and areas for placement of street trees, street furniture and landscaping. Streets shall be designed to balance the needs of all users and promote efficient and safe movement of all modes of transportation.

(e) Sidewalks. In the core area, sidewalks shall be provided on both sides of the street. Paved area of sidewalk in core area shall be not less than six (6) feet wide, with total sidewalk area width not less than twelve (12) feet. In the edge area and in workplace areas, sidewalks shall be provided on both sides of the street. Paved area of sidewalk in edge and workplace areas shall be not less than four feet wide, with total sidewalk area width not less than eight feet.

(f) Pedestrian and/or bicycle routes. Pedestrian and bicycle routes shall be provided to connect all uses, so that pedestrians and bicyclists can move comfortably and safely from any site within the TND to any other site within the TND. Pedestrian traffic shall be accommodated through the provision of sidewalks and paths. Bicycle traffic shall be accommodated through the provision of designated, well-marked bicycle lanes and/or paths suitable for bicycle traffic.

Article IV. - Supplemental Regulations, Division 1. Use Regulations

Sec. 25-445. Large format retail uses.

(2) Access.

a. Entrances to the site must be kept to a minimum, and must be placed in such a way as to maintain safety, efficient traffic circulation, and to limit the impact on any adjacent properties and land uses.

b. Parking aisles leading to customer entrances must be separated by pedestrian walkways with paved sidewalks, low intensity lighting, and landscape strips planted with grass and/or shrubs, between the parking surface and the pedestrian sidewalk.

c. Paved sidewalks, a minimum of eight (8) feet in width, must be provided along the facades of buildings with customer entrances or building facades abutting customer parking spaces. When provided outside of the primary building envelope, vending machines, newspaper/magazine stands and similar vending facilities must be within vestibules or in kiosks designed consistent with the architecture of the principal structure, and constructed using the same finish materials.

5.2.3 Montgomery County

MONTGOMERY SUBDIVISION ORDINANCE, 1991

Sec. 8-152. New streets.

(a) Public streets. New public streets are permitted in all subdivisions. Public streets shall be designed and constructed in accordance with the minimum standards of the Virginia Department of Transportation, except that the surface pavement layer shall be asphalt concrete. All site related improvements required by VDOT or the county for vehicular ingress and egress, including but not limited to traffic signalization and control shall also be designed and constructed in accordance with the minimum standards of Virginia Department of Transportation. Street construction plans must be approved by the Virginia Department of Transportation prior to approval of the final plat.

MONTGOMERY COUNTY ZONING ORDINANCE, 1999

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

(1)e. A system of relatively narrow, interconnected streets with sidewalks, bikeways, and transit that offer multiple routes for motorists, pedestrians, and bicyclists and provides for the connection of those streets to existing and future developments.

(5) TND Subarea Standards and Uses.

(a) Neighborhood Core Requirements

3. Crosswalks shall be incorporated within the project, at intersections where new streets are proposed, within parking lots, or other needed pedestrian connections subject to VDOT approval. Crosswalks shall be designed to be an amenity to the development, e.g. heavy painted lines, pavers, edges, and other methods of emphasizing pedestrian use, including bulb-outs and other pedestrian designs to shorten walking distances across open pavement. Medians may be used in appropriate areas to encourage walking and to act as a refuge for crossing pedestrians;

(7) Non-residential and mixed use lot and building standards

(ii)(d) Required yards for commercial uses.

1. Front. Minimum: None. A sidewalk of at least eight (8) feet shall be provided along all lot frontages in which the setback is less than fifteen (15) feet. Maximum: None; however, all building setbacks shall be designed so as to achieve the purpose and intent of the district to create streets that are framed by buildings and thus comfortable for pedestrians.

2. Side. Minimum: None. Maximum: None; however, all building setbacks shall be designed so as to achieve the purpose and intent of the district to create streets that are framed by buildings and thus comfortable for pedestrians.

3. Rear. Minimum: Thirty-five (35) feet when served by a rear alley; no rear setback required when the rear of the lot also functions as a primary access point for pedestrian traffic. Maximum: None; however, all building setbacks shall be designed so as to achieve the purpose and intent of the district to create streets that are framed by buildings and thus comfortable for pedestrians.

10. Streets, alleys, sidewalks, street trees, street furnishing and utilities.

(c) Street design. Street sections in PUD-TND districts shall be designed to serve multiple purposes, including movement of motor vehicle traffic, public transit, pedestrian and bicycle movement, areas for public interaction, definition of public space and sense of place, and areas for placement of street trees, street furniture and landscaping. Streets shall be designed to balance the needs of all users and promote efficient and safe movement of all modes of transportation.

1. Sidewalks shall be provided on both sides of the street in Neighborhood Center and Residential Neighborhood Subareas and separated from the roadway by a planting strip and/or designated parallel parking. In the Neighborhood Center, sidewalks along the public right-of-way shall be a minimum of ten (10) feet in width. Where outdoor restaurant seating or similar uses are provided on the sidewalk, sidewalks shall be a minimum of 16 feet in width. In all cases, a minimum of five (5) feet clear zone shall be provided. If a planting strip is provided, it shall be a minimum of 6 feet in width.

2. Pedestrian and/or bicycle routes, lanes, or paths shall be provided to connect all uses and reduce motor vehicle use. Street design shall provide for the safety of pedestrians and bicyclists. Separate bicycle lanes shall be a minimum of four (4) feet in width.

3. Streetscape or pedestrian amenities, such as street trees, bulb-outs, benches, landscape elements, and public art shall be provided to contribute to the area's streetscape environment.

(f) Street trees: Canopy Street trees shall be planted on both sides of the street and shall be spaced according to species and to the standards established in the landscape section of this ordinance (10-43). Where applicable, street trees shall be placed within the roadway median according to the standards established in section 10-43 unless VDOT standards would prohibit otherwise. No understory trees shall be used as street trees. A consistent variety and species of street tree shall be maintained by street, but adjacent streets shall diversify species as a precaution against blight. Street trees planted within the Neighborhood Center area and other areas subject to heavy foot traffic, shall be protected using design measures (such as tree grates) to protect the tree root system. Street trees shall be planted along all streets at an average center to center spacing based on the mature spread of the particular street tree.

(g) Pedestrian scale lighting. Pedestrian scale decorative street lights ten feet (10') to fifteen feet (15') in height) shall be installed with a maximum average spacing of seventy-five (75) feet on center on each side of the street and travel lanes within all areas of the district.

1. In order to minimize light pollution, light shall be directed downward to the immediate area being lighted and away from any living quarters.

2. Street lights shall be dark sky compatible. Lighting shall be designed and installed to be fully shielded (full cutoff) and shall have a maximum lamp wattage of two hundred fifty (250) watts HID (or lumen equivalent) for commercial lighting, 100 watts incandescent, and twenty-six (26) watts compact fluorescent for residential lighting (or approximately one thousand six hundred (1,600) lumens). In residential areas, light should be shielded such that the lamp itself or the lamp image is not directly visible outside the property perimeter.

3. Floodlights or directional lights (maximum one hundred (100)-watt metal halide bulbs) may be used to illuminate alleys, parking garages and working (maintenance) areas, but must be shielded or aimed in such a way that they do not shine into other lots, the street, or direct light out of the TND.

4. Floodlighting shall not be used to illuminate building walls (i.e. lights should not be placed on the ground so that a beam of light is directed upward).

5. Site lighting shall be of a design and height and shall be located so as to illuminate only the lot.

6. No flashing, traveling, animated, or intermittent lighting shall be visible from the exterior of any building whether such lighting is of temporary or long-term duration.

(h) Street furnishings shall include but not be limited to decorative street signs, benches, trash receptacles, water fountain and other appropriate decorative pedestrian oriented features in the Neighborhood Center subarea.

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

(8) Lot and setback standards:

(ii) Lot standards for non-residential uses and mixed use buildings

(d) Required yards for commercial uses.

1. Front. Minimum: None. A minimum eight (8) foot wide sidewalk shall be provided along all lot frontages in which the setback is less than fifteen (15) feet. Maximum: None; however, all building setbacks shall be designed so as to achieve the purpose and intent of the district to create streets that are framed by buildings and thus comfortable for pedestrians.

2. Side. Minimum: None, unless adjacent to a residential structure in which case a minimum setback of ten (10) feet' shall be required. Maximum: None; however, all building setbacks

shall be designed so as to achieve the purpose and intent of the district to create streets that are framed by buildings and thus comfortable for pedestrians.

3. Rear. Minimum: None Maximum: None; however, all building setbacks shall be designed so as to achieve the purpose and intent of the district to create streets that are framed by buildings and thus comfortable for pedestrians.

4. Accessory buildings. Required Setback for accessory buildings and garages shall not be closer than five (5) feet to a side or rear lot line; accessory buildings and garages are not permitted in front yards.

(12) Site and building design

(b) Site design—Non-residential, mixed use and multi-family units.

3) Clear pedestrian pathways shall be provided between buildings on the same lot and between buildings on adjacent lots to ensure a continuous pedestrian pathway throughout the district;

4) Crosswalks shall be incorporated within the project, at intersections where new streets are proposed, within parking lots, or other needed pedestrian connections as approved by the County, VDOT or the County's designee. Crosswalks shall be designed to be an amenity to the development, e.g. heavy painted lines, pavers, edges, and other methods of emphasizing pedestrian use. Bulb-outs and other pedestrian designs may be used to shorten walking distances across open pavement. Medians may be used in appropriate areas to encourage walking and to act as a refuge for crossing pedestrians;

5) Where residential neighborhoods abut commercial, office or mixed use developments, appropriate transitional features shall be used and may include landscaping, open space or parks, or streets with clearly designed pedestrian features

Sec. 10-34. PUD-COM Planned Unit Development-Commercial District.

(f) Streets.

1. Streets serving dwellings shall be subject to the standards of the PUD-RES district.

2. Public streets shall be designed and constructed in accordance with the minimum standards of the Virginia Department of Transportation.

Special Districts

Sec. 10-35. PUD-RES Planned Unit Development-Residential District.

(7) Use Limitations

(f) Streets.

1. Streets serving single-family attached dwellings, multifamily dwellings, commercial and office uses may be dedicated to public use or may be retained under private ownership. Not more than three (3) single-family dwellings may be served by a single pipestem access easement or driveway directly connected to a public street.

2. Public streets shall be designed and constructed in accordance with the minimum standards of the Virginia Department of Transportation.

5.2.4 City of Roanoke

ROANOKE CITY SUBDIVISION ORDINANCE, 2007

Section 3 1.1-400. Standards for streets.

(a) The specific street design standards herein apply to streets with a projected Average Daily Traffic (ADT) of 4,000 or less. For street design and construction standards not explicitly set forth herein, and any street with a projected ADT which exceeds

4,000, the applicable standards of the VDOT Subdivision Street Design Requirements, 2005, shall apply.

(b) Whenever a subdivision is classified as a major subdivision, the subdivider shall provide street improvements as set forth in Table 400-1 below.

(c) Curb and gutter, planted strips, street trees, and sidewalks shall be provided on both sides of a new street. Where lots are being established on only one side of a new street, and where topographic conditions would preclude future establishment of lots on the undeveloped side of the street, sidewalks shall not be

required on the side of the street where no lots are being created. Where a subdivision takes place only on one side of an existing street, such improvements shall be required only on the side on which the subdivision takes place.

(d) Required street improvements shall have minimum dimensions as set forth in Table 400-2 below.

ROANOKE CITY TABLE 400-1. REQUIRED STREET IMPROVEMENTS

CONDITION/LOCATION	IMPROVEMENTS REQUIRED
<p>Subdivision which requires creation of a new street in the following zoning districts: <i>RA, R-1, R-7, R-5, R-3, RM-1, RM-2, RMF, and ROS.</i></p> <p>Subdivision along an existing street, within the following zoning districts: <i>R-7, R-5, R-3, RM-1, RM-2, and RMF.</i></p>	<ul style="list-style-type: none"> • Street paving • Curb and gutter • Planted strip • Large deciduous street trees • Street lighting • Sidewalks
<p>Subdivision within the following zoning districts: <i>CN, CG, CLS, MX, D, I-1, I-2, IN, and AD.</i></p>	<ul style="list-style-type: none"> • Street paving • Curb and gutter • Large deciduous street trees, except the Subdivision Agent may approve small deciduous trees in the CN or D district where the area available is inadequate for large trees. • Planted strip or extended width sidewalk • Street lighting • Sidewalks
<p>Subdivision along existing street in an RA, R-12, or ROS district.</p>	<ul style="list-style-type: none"> • Street paving • Curb and gutter • Street trees
<p>Subdivision on a private street in a MXPUD, PUD or INPUD district.</p>	<ul style="list-style-type: none"> • Requirements for asphalt street paving, curb and gutter, planted strips, street trees, street lighting, and sidewalks shall be specified on a PUD development plan approved by City Council.

ROANOKE CITY TABLE 400-2. REQUIRED STREET IMPROVEMENTS:

SPECIFICATIONS AND DIMENSIONS FOR LOCAL STREETS

<u>TYPE OF IMPROVEMENT</u>	<u>STREETS WITH PROJECTED ADT LESS THAN 1,500</u>	<u>STREETS WITH PROJECTED ADT 1,500 TO 4,000</u>
Minimum right-of-way width	50 feet	58 feet
Minimum paved way. Parking on both sides of the street	26 feet	34 feet
Minimum width of planted strip or extended-width sidewalk (back of curb to edge of sidewalk)	6 feet	6 feet
Minimum width of sidewalk	4 feet in the R-12 and R-7 districts; 5 feet in all other districts	5 feet
Curb design	VDOT CG-6	VDOT CG-6
Maximum pedestrian crossing distance ¹	26 feet	20 feet
Maximum street grade	16%	16%
Maximum grade of intersection approach	5%	5%
<i>1. This regulation shall apply only to a newly-created street</i>		

(e) A reduced-width right-of-way may be permitted where the sidewalk and planted strip are located on private properties within a public access easement running parallel to the right-of-way line, and perpetual maintenance of the sidewalk and planted strip is provided for by an owners' association.

CITY OF ROANOKE, ZONING ORDINANCE, 2013

Section 36.2-318 Pedestrian access requirement applies in Districts CN, CG, CLS, IN, and UF

Sec. 36.2-318. Pedestrian access.

In districts where indicated as applicable in Section 36.2-316, designated pedestrian pathways of a minimum unobstructed width of five (5) feet shall be provided and clearly defined from the public sidewalk, or the public right-of-way where there is no public sidewalk, to the public entrance of any principal building. Such pedestrian pathways shall be handicapped accessible, surfaced with concrete, asphalt, bituminous pavement, brick or stone pavers, or a permeable paver system, and shall be distinguished and separated from driveways and parking spaces

by landscaping, berms, barriers, grade separation or other means to protect pedestrians from vehicular traffic. Where any such walkway crosses a motor vehicle travel lane, raised crosswalks shall be provided.

Sec. 36.2-332. Neighborhood Design Overlay District (ND).

(a) Purpose. The Neighborhood Design Overlay District (ND) is intended to promote quality City design by coordinating the development of designated Rehabilitation and Conservation Areas. The City finds and determines that the standards of the ND Overlay District promote compatibility between buildings and structures in the City's traditional neighborhoods, maintain property values, and promote pedestrian-friendly, walkable streets.

(c) Design standards. In considering an application for a zoning permit, the Zoning Administrator shall apply the following standards for construction of, an addition to, or the exterior modification of a dwelling in the ND:

(g) A sidewalk at least three (3) feet in width shall be provided between the front porch of a new dwelling and the street. The sidewalk shall be constructed of an impervious material customarily used for sidewalks in the district.

Sec. 36.2-630. General development standards

The provision and location of all pedestrian and vehicular traffic related facilities, including sidewalks, curbs and gutters, frontage roads, and acceleration and deceleration lanes, shall be as required by the Agent to the Planning Commission, provided that the property's development directly generates the need for such infrastructure and provided further that the infrastructure required is in proportion to the level of pedestrian and vehicular activity generated by the development. Such determination by the Agent shall be based upon a quantifiable need documented by analysis of existing and post-development conditions, such as traffic or drainage studies.

5.2.5 Roanoke County

ROANOKE COUNTY SUBDIVISION ORDINANCE, 2002

Does not address pedestrians, sidewalks, etc.

ROANOKE COUNTY ZONING ORDINANCE, 1999

Sec. 30-82-13.1. Single Family Dwelling, Attached and Detached (Cluster Subdivision Option)

(E) Open space and conservation area requirements.

4. A sidewalk or trail shall be provided to and through the provided open space or conservation areas except for the following areas:

- a. Environmentally sensitive areas that may include locations of species listed as endangered, threatened or of special concern; historic structures and sites; delineated wetlands or riparian zones outside the FEMA study area;
- b. Unsafe areas including but not limited to sink holes, cliffs and areas prone to rock slides; and
- c. Other areas if approved by the zoning administrator.

The location of any such trail shall be clearly marked, and the trail shall be constructed of a surface material that is appropriate to the terrain, and distinguishable to the user.

Sec. 30-91-2.3. Location of Parking.

(C) All required off-street parking spaces shall be located on the same lot as the structure or use, except under the following conditions:

2. Such required spaces are within five hundred (500) feet walking distance of a building entrance or use and such spaces do not require pedestrians to cross a road with a speed limit of thirty-five (35) miles per hour or greater.

Sec. 30-91-3.5. Shared Parking.

(A) Shared parking is encouraged for different structures or uses, or for mixed uses, in any zoning district. At the applicant's request, shared parking may be provided, subject to the following conditions:

4. Uses sharing the parking facility do not need to be contained on the same lot, but shall be a maximum of five hundred (500) feet from the closest parking space in the parking lot which is to be used and allow for safe, convenient walking for most parkers, including safe pedestrian crossings, signage, and adequate lighting.

Sec. 30-91-6. Stacking Spaces and Drive-Through Facilities.

(A) 1. Stacking spaces and lanes for drive-through stations shall not impede on and off site traffic movements, shall not cross or pass through off street parking areas, and shall not create a potentially unsafe condition where crossed by pedestrian access to a public entrance of a building.

Sec. 30-91-4. Parking Area Design Standards.

Sec. 30-91-4.2. Circulation.

(A) In general, parking areas shall be designed to facilitate unimpeded flow of on-site traffic in circulation patterns readily recognizable and predictable to motorists and pedestrians. Parking areas shall be arranged in a fashion to encourage pedestrian access to buildings, and to minimize internal vehicular movements.

(B) Sidewalks measuring at least five (5) feet in width shall connect all parking areas to building entrances. Sidewalks shall also be located around buildings.

Sec. 30-92-5. Standards and Specifications.

(B) Buffer yards.

1. Buffer yards shall be reserved solely for screening and landscaping. No proposed building, building addition, structure, parking area or any other type of physical land improvement

shall be located in a buffer yard. Notwithstanding the above, a driveway entrance or a public road may cross a buffer yard if it is necessary for safe and convenient access to the building site. In addition, buffer yards may be used for greenways.

5. Where deemed appropriate by the county zoning administrator, buffer yards may be allocated for the present or future use as a greenway.

Sec. 30-92-6. Applicability of Regulations and Requirements.

(C) Parking Areas

1. New parking areas shall include planting islands and landscaped medians in combination with low impact design techniques that are planned, designed and located to channel traffic, facilitate storm water management, improve the appearance of parking areas and define and separate parking areas and aisles. In addition to accommodating vehicles, parking areas shall also provide for safe pedestrian and bicycle circulation.

4. c. Landscaped medians shall include sidewalks measuring at least five (5) feet wide to facilitate safe pedestrian circulation to and from destination(s).

Sec. 30-93-1. Purpose.

(A) 6. Ensure that signs do not obstruct fire-fighting efforts, and do not create traffic hazards by confusing or distracting motorists or by impairing drivers' ability to see pedestrians, obstacles, or other vehicles or to read traffic signs.

Sec. 30-93-4. Prohibited Signs.

(A) 12. Any sign that due to its size, location or height obstructs the vision of motorists or pedestrians at any intersection, or similarly obstructs the vision of motorists entering a public right-of-way from private property.

Sec. 30-100-8. Establishment of Sight Triangles.

(A) To promote visibility for pedestrians and the operators of motor vehicles, a clear sight triangle shall be established at the

intersecting rights-of-way of any two (2) public streets. The legs of this sight triangle shall be twenty (20) feet in length. They shall begin at the point of intersection of the two (2) street rights-of-way, and shall extend twenty (20) feet along each right-of-way line. The triangle shall be formed by connecting the endpoints of these two (2) lines.

5.2.6 City of Salem

CITY OF SALEM SUBDIVISION ORDINANCE, 2005

Sec. 78-614. Coordination of streets with existing streets.

(b) Access points to and from the subdivision and the arrangement of streets within the proposed subdivision and their relationship to adjoining, existing streets shall be such as to minimize the effects of traffic, noise, light and danger to pedestrians and children caused by vehicular traffic to and from the proposed subdivision.

Sec. 78-624. Handicap access.

(a) Curb cut ramps for handicap access shall be provided at each intersection, for all streets within and adjacent to a subdivision, regardless of whether a sidewalk is installed at that location.

CITY OF SALEM ZONING ORDINANCE, 2005

Sec. 106-226.6. Development regulations, all districts.

(E) Streets and sidewalks. Streets and sidewalks in all floodplain districts shall be designed to minimize their potential for increasing and aggravating the levels of flood flow. Drainage openings shall be required to minimize flood flows without significantly increasing flood heights or established elevations identified floodplain districts.

Sec. 106-314.2. Mixed use structure.

(B) General Standards:

3. The office or commercial use type must occupy at least the first floor of the structure, and should be configured so as to be pedestrian friendly.

Sec. 106-402.13. Interior landscaping standards for parking lots.

(A) 5. Within the interior of the parking lot, landscaping should be used to delineate vehicular and pedestrian circulation patterns, improve stormwater quality and to promote stormwater management objectives. Clear and legible signs and other techniques should be used to further direct the flow of both vehicular and pedestrian traffic within the lot.

Sec. 106-406.17. Establishment of sight triangles.

(A) To promote visibility for pedestrians and the operators of motor vehicles, a clear sight triangle shall be established at the intersecting right-of-ways of any two public streets. The legs of this sight triangle shall be 25 feet in length. They shall begin at the point of intersection of the two street right-of-ways, and shall extend 25 feet along each right-of-way line. The triangle shall be formed by connecting the endpoints of these two lines.

5.2.7 Town of Vinton

TOWN OF VINTON, SUBDIVISION ORDINANCE

Sec. 3. General requirements for subdivision of land.

(a)(6) Blocks, in general, shall not be longer than 1,000 feet or less than 300 feet between street intersections; provided, however, [that] in instances where topography or existing peculiar conditions require it, a longer or shorter block may be approved by the planning commission. A crosswalk shall be provided between cross streets in blocks 800 feet or more long.

TOWN OF VINTON, ZONING ORDINANCE, 1995

Division 7. CB Central Business District

Sec. 4-33. Intent of district.

Pursuant to the general purposes of this appendix, the intent of the CB central business district is to provide for the day-to-day and specialty shopping and service needs of the community. It is intended to be a compact, densely developed and well-defined area having a strong pedestrian orientation and urban shopping area character that is compatible with adjacent residential neighborhoods. The permitted uses and regulations of the district are intended to promote an attractive pedestrian environment with retail, personal service and office establishments at street level and with minimal disruption from vehicle oriented land uses and features that would detract from a safe, convenient and economically viable pedestrian environment. The district is intended to promote continuity of a storefront character with minimum interruption by driveways and vehicle traffic across public sidewalk areas. The district regulations are also intended to preserve the predominant scale of the central business area, promote retention and appropriate use of existing structures and encourage that new development be compatible with the area.

Division 10. PD Planned Development District

Sec. 4-54. General development standards.

(b)(2) Common open space shall have horizontal dimensions of not less than 50 feet, except areas devoted to pedestrian trails, bikeways or leisure trails shall not be less than ten feet in horizontal dimensions.

(b)(3) Common open space shall be arranged, together with streets and walkways, to provide a continuous and interconnected system which is accessible from all dwelling units within the development without having to cross privately owned property.

Division 12. Public/Open Space District

Sec. 4-63. Uses permitted by right.

(i) Bicycle and pedestrian paths and trails.

6.0 PEDESTRIAN INFRASTRUCTURE RECOMMENDATIONS

There are many more pedestrian infrastructure needs than those identified in the Regional Pedestrian Vision Plan. This Plan is intended to demonstrate the regional backbone infrastructure needed for pedestrian transportation in the region. Local governments are encouraged to use this regional pedestrian transportation network to further explore the needed local pedestrian transportation connections within each of the multimodal centers and districts and to future developments as they arise near such multimodal areas and corridors. In particular, further identifying local connections to schools, libraries, healthcare facilities, grocery stores, and shopping centers are recommended.

The region desires a pedestrian transportation system that is accessible to people of all ages and abilities. For that reason, only accommodations (e.g. sidewalks, greenways, crossings, etc.) intended to be ADA compliant are recommended in the Pedestrian Plan.

Citizen input, previously adopted plans, and technical staff input contributed to the transportation infrastructure recommendations presented in the following tables. Regionally, the highest priority pedestrian projects are those that are located within multimodal centers because that is where the greatest concentration of residents and employees are located. One of the criteria for defining multimodal centers was that trips within that area could be accomplished by roughly a 10-minute or less walk. Medium priority regional pedestrian projects are those located within multimodal districts because it is within these areas that traveling without a car is or should be possible. Walking is a critical component of being able to travel without a car, especially when accessing transit for longer distance trips. As

such, pedestrian projects within multimodal districts are given a medium regional priority. Beyond multimodal districts, the population is less dense with fewer mixes of land uses and walking for transportation is less likely due to the longer distances. For these reasons, pedestrian infrastructure projects outside of multimodal districts are low priorities.

Representatives on the Transportation Technical Committee coordinated with the appropriate staff and prioritized projects within their jurisdiction. These lists are intended to help localities document their local pedestrian priorities and strategize the order in which projects could be pursued via the various funding opportunities available. To prioritize projects, staff considered the following factors:

- ▼ ALREADY “ON THE BOOKS” IN TIP, SYIP, LRTP
- ▼ LOCATED IN A MULTIMODAL DISTRICT OR CENTER
- ▼ PROVIDES A CONNECTION BETWEEN MULTIMODAL CENTERS AND DISTRICTS
- ▼ PRIORITY IN ANOTHER PLAN
- ▼ PROXIMITY TO HIGH ACTIVITY GENERATORS
- ▼ SAFETY ISSUE
- ▼ CITIZEN DEMAND
- ▼ POLITICAL SUPPORT
- ▼ REGIONAL PROJECT (2 OR MORE LOCALITIES IMPACTED)
- ▼ COMPLETES OR LINKS EXISTING FACILITIES
- ▼ EXISTING SHORT-TERM OPPORTUNITY, NOW OR NEVER

The recommended improvements have been grouped into three categories: intersection, paved surface, and streetscape. The three categories are intended to be general to allow for further detailing of improvements during project development and design. The three categories can broadly be described as follows.

▲ INTERSECTION RECOMMENDATIONS

Intersection recommendations are noted in the maps with a line which indicate complete intersection or point locations, not necessarily direction of travel or precise improvement location. These locations denote where pedestrians are likely cross the street, that the existing infrastructure is inadequate, and as a result some type of improvement is needed. In the cases where the recommendation is related to one or a pair of bus stops, these locations are unique in that they represent where a transportation mode change occurs and a pedestrian becomes a transit rider and vice versa. The appropriate accommodations at each of these locations may involve different elements. All locations need to be ADA accessible and needed accommodations could include ADA ramps, landing pads, benches, shelters, crosswalks, pedestrian refuges, pedestrian signals, signage, etc.

▲ PAVED SURFACE RECOMMENDATIONS

This Plan recommends that transportation accommodations be ADA compliant which entails a paved surface. Such recommendations may be provided in common terms such as sidewalks, greenways, and shared-use paths. Accompanying each paved surface recommendation, where feasible, it is desirable to plant trees along the accommodation to provide shading. Where possible, accommodations should be separated from vehicle traffic by means of a planting strip along roads or located completely off-road.

▲ STREETScape RECOMMENDATIONS

Streetscapes typically include more amenities than simply a paved surface accommodation. Streetscapes have a greater relationship with the adjacent buildings. Such amenities may include wider walkways, benches, trees in tree wells, on-street dining or shopping spaces, trash receptacles, etc.

More information regarding each recommendation is included in the Description column of the tables. Maps showing the recommendations are provided after the tables. It is possible that not all recommendations are displayed on the maps. Therefore, the maps should be used as a reference and the tables as the complete listing of recommendations.

Table 2: Botetourt County Pedestrian Transportation Projects

<i>Botetourt County</i>		<i>Type: 1=Intersection, 2=Hard Surface, 3=Streetscape</i>			
FID	LOCATION	DESCRIPTION	SOURCE	LOCALITY PRIORITY	TYPE
328	Rt 220 Appalachian Trail crossing	Pedestrian crossing signage	Botetourt Co staff	H	1
184	Rt 11 Appalachian Trail crossing	Pedestrian improvements at Appalachian Trail crossing	RVARC	H	1
565	Rt 220 and Town Blvd/Marketplace Dr	Pedestrian crossing improvements	RVARC staff	H	1
329	Rt 11 from Rt 811 to Campus Drive (Hollins Univ)	Pedestrian	Botetourt Co staff	H	2
13	Rt 220 from Market Ridge to Azalea	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
29	Rt 11 in Troutville	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
53	Rt 220 Tinker Mill Rd to Rt 11	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
280	Rt 220 from Azalea to Tinker Mill	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
314	New Road from Exit 150 ramp to U.S. 220	Sidewalk	Exit 150 improvement project	H	2
251	Glebe Rd to Greenfield Connector	Trail connection	Botetourt County staff	H	2
564	Town Blvd/Marketplace Drive	Pedestrian connection	RVARC staff	H	2
36	Rt 11 and Rt 220 at I-81 Exit 150	Sidewalk and streetscape	Regional Pedestrian and Transit Vision Plan Survey 2013	H	3
143	Catawba Rd and Etzler Rd	Sidewalk along Catawba and Etzler Rd to Greenfield Elementary	Botetourt Co staff/TTC	M	2
141	Catawba Road	Sidewalk on Catawba Road from Glebe Road to Rt 220	Botetourt Co staff/TTC	M	2
252	Botetourt/Roanoke Co	Trail connection	Botetourt County staff	M	2

<i>Botetourt County</i>					
<i>Type: 1=Intersection, 2=Hard Surface, 3=Streetscape</i>					
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
	Greenway Connector				
257	Glade Creek Greenway County line to BRP line	Greenway hard surface	Roanoke Valley Greenway Plan 2007	L	2
54	Rt 220 from Greenfield to Glebe Rd	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
279	Rt 220 from Market Ridge to Glebe Rd	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
142	Glebe Road from Orchard Lake to Catawba Rd	Sidewalk along Glebe Rd from Rt 220 to Catawba Road	Botetourt Co staff/TTC	L	2
281	Glebe Road from Rt 220 to Orchard Lake	Sidewalk along Glebe Rd from Rt 220 to Catawba Road	Botetourt Co staff/TTC	L	2
250	Blue Ridge Greenway	Trail connection	Botetourt County staff	L	2

Table 3: Montgomery County Pedestrian Transportation Projects

<i>Montgomery County</i>					
<i>Type: 1=Intersection, 2=Hard Surface, 3=Streetscape</i>					
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
111	Rt 11 / Rt 460 from Lafayette St to North Fork Rd	Off road path	Route 11/460 Corridor Plan	L	2

Table 4: Roanoke County Pedestrian Transportation Projects

<i>Roanoke County</i>		<i>Type: 1=Intersection, 2=Hard Surface, 3=Streetscape</i>			
FID	LOCATION	DESCRIPTION	SOURCE	LOCALITY PRIORITY	TYPE
544	Rt 419 West Main and Daugherty	intersection improvements	Roanoke County staff	H	1
545	Rt 419 West Main and Alleghany	intersection improvements	Roanoke County staff	H	1
445	Plantation Road at Walmart NH Market/Food Lion	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
446	Hershberger Road at Edinburgh Square	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
447	Hershberger Road at Friends Way	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
542	Rt 419 Tanglewood/Elmview	pedestrian intersection improvement	Roanoke County staff	H	1
171	Brambleton Ave and Ranchcrest Dr	Pedestrian intersection improvements	Roanoke County staff	H	1
175	Rt 419 Electric Road and Starkey Rd	Pedestrian intersection improvements	Roanoke County staff	H	1
177	Rt 419 Electric Road and Ogden Rd	Pedestrian intersection improvements	Roanoke County staff	H	1
178	Rt 419 Electric Rd and South Peak	Pedestrian intersection improvements	Roanoke County staff	H	1
194	Brambleton Rd and Electric Road east side	Pedestrian intersection improvements	RVARC staff	H	1
195	Garst Mill Rd and Brambleton Ave southside	Pedestrian intersection improvements	RVARC staff	H	1
102	Plantation Rd, Gander Way and Friendship Lane	Signalized pedestrian crossing	Hollins Area Plan 2008	H	1
201	RR Grwy - East County	Greenway hard surface	Roanoke Valley Greenway Plan 2007	H	2
290	Rt 419 from Starkey to Hidden Ln	Install sidewalks	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2

Roanoke County			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
292	Rt 419 from Brambleton to Multinodal Ctr line	Install sidewalks	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
567	Friendship Lane from Plantation to Tinker Creek Gwy	Pedestrian connection from Plantation to Hollins University	Roanoke County staff	H	2
1	Williamson Rd from Plantation to Peters Creek	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
6	Ogden Rd from Electric to Colonial	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
7	Brambleton Ave- Rosecrest/Mudlick Gwy - City limit	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
11	Rt 419 Electric Rd from Ogden to city limit	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
12	Plantation Rd from I-81 to Williamson Rd	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
14	Williamson Rd from Middleton to Greenway	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
34	Rt 419 Electric Rd from Stoneybrook to Woodmar	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
113	Williams Rd from Hollins Campus to Plantation Rd	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
115	Rt 419 Electric Rd at Tanglewood area	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
182	Buck Mountain Rd from Starkey to Merriman	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
190	Peters Creek from Williamson Rd to Barrens Rd	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2

Roanoke County			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
277	Williamson Rd from Clubhouse to Middleton	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
278	Williamson Rd from Peters Creek to Greenway	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
295	Rt 419 Electric Rd from Woodmar to Keagy	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
537	Merriman Rd from Buck Mountain to Library	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
538	Brambleton Ave from Arlington Hills to city limit	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
539	Brambleton Ave from Arlington Hills to city limit	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
9	Garst Mill Rd from Oakcliff to Brambleton	Sidewalk	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
183	Starkey Rd from Hunting Hills Dr to Merriman	Sidewalk	Roanoke County staff	H	2
293	Garst Mill Rd from Brambleton Ave to Larson	Sidewalk	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
260	Rt 460 /West Main St, Daugherty to Ft Lewis Church	Install sidewalk, streetscape	Glenvar Community Plan 2012	H	3
543	Rt 220 Bus and Crumpacker	intersection improvement	Roanoke County staff	M	1
187	Rt 419 Electric Rd and Keagy Rd	Pedestrian intersection improvements	Roanoke County staff	M	1
211	Tinker Creek Greenway county line to I-81	Greenway hard surface	Roanoke Valley Greenway Plan 2007	M	2
217	RR Grwy - West River Rd to Grn Hill Park	Greenway hard surface	Roanoke Valley Greenway Plan 2007	M	2
218	RR Grwy - Getty Ln to West River Rd	Greenway hard surface	Roanoke Valley Greenway Plan 2007	M	2

Roanoke County			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
226	Mudlick Creek Greenway Brandon to RRG	Greenway hard surface	Roanoke Valley Greenway Plan 2007	M	2
302	Lick Run Greenway Valley Pt to Thirlane	Greenway hard surface	Roanoke Valley Greenway Plan 2007	M	2
533	Lick Run Greenway Valley Park to Woodhaven	Greenway hard surface	Roanoke Valley Greenway Plan 2007	M	2
196	Roanoke River Greenway from River Bend to Co line	Greenway natural surface	Roanoke Valley Greenway Plan 2007	M	2
123	Rt 419 from Cave Spring MMD to Wentworth	Install sidewalks	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
530	Rt 220 Business	Intersection of Rt 460 and Bus 220 to county line	Roanoke Co staff	M	2
529	Rt 11 from Co Line to Campus Drive	Pedestrian	Botetourt Co staff	M	2
318	Rt 419 from Promenade Park to railroad tracks	Pedestrian connection	419 Plan	M	2
10	Rt 419 Electric Rd from Colonial to 3600 Electric	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
18	Rt 11 / Valley Gateway Shopping Center	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
33	Starkey Rd from Ogden Rd to Penn forest	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
35	Washington Ave from Goode Park Rd to Mt View	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
275	Williamson Rd from Abney to Roanoke City	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
276	Williamson Rd from Abney to Clubhouse	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2

Roanoke County			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
289	Merriman Rd from Knowles to Rt 221	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
294	Rt 419 Electric Rd from Wentworth to Stoneybrook	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
536	Merriman Rd from Chaparral to Knowles	Pedestrian improvements	Roanoke County staff	M	2
39	Plantation Circle from Plantaion Rd to school	Pedestrian improvments connect school	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
116	Colonial Ave from Ogden to Electric Rd	Pedestrin improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
191	Plantation Rd from Williamson Rd to Richardson	Sidewalk	Roanoke County staff	M	2
288	Starkey Rd from Electric Rd to Hunting Hills Dr	Sidewalk	Roanoke County staff	M	2
532	Peters Creek from Barrens to Wood Haven	sidewalk	Roanoke County staff	M	2
534	West Main Ft Lewis to Technology	sidewalk	Roanoke County staff	M	2
540	Garst Mill from Halevan to county line	sidewalk		M	2
548	Wood Haven from Peters Creek to Valley Pointe	sidewalk	Roanoke County staff	M	2
557	Chapparral Dr from Penn Forest to Merriman Rd	sidewalk	Roanoke Co staff	M	2
207	Carvin Creek Greenway	Greenway hard surface	Roanoke Valley Greenway Plan 2007	L	2
220	Mudlick Creek Greenway Grandin to garst mill	Greenway hard surface	Roanoke Valley Greenway Plan 2007	L	2

<i>Roanoke County</i>			<i>Type: 1=Intersection, 2=Hard Surface, 3=Streetscape</i>		
FID	LOCATION	DESCRIPTION	SOURCE	LOCALITY PRIORITY	TYPE
224	Mudlick Creek Greenway Crystal Ck to Cresthill	Greenway hard surface	Roanoke Valley Greenway Plan 2007	L	2
229	Barnhardt Creek Grwy - Rt 419 to Reserve Point Ln	Greenway hard surface	Roanoke Valley Greenway Plan 2007	L	2
230	Barnhardt Creek Grwy from Crestmoor to Rt 419	Greenway hard surface	Roanoke Valley Greenway Plan 2007	L	2
559	Ft Lewis Church Rd to Roanoke River Greenway	ped connect from Ft Lewis Church road to RRG	Roanoke Co staff	L	2
563	Rt221 from Cotton Hill Rd to Chatsworth	Pedestrian connection	Roanoke County	L	2
566	Cove Rd from 419 to Green Ridge Rd	Pedestrian connection	Roanoke County staff	L	2
3	Rt 220 South at Hunting Hills Shopping Ctr	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
23	Merriman Rd from Chaparral to Library	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
31	Feather Rd from Washington to Hardy Rd	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
119	Rt 419 Electric Rd from City Limit to Cove Rd	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
535	Rt 220 South from Stable to Will Carter	sidewalk	Roanoke County staff	L	2
541	Rt 419 from Keagy to Salem	sidewalk	Roanoke County staff	L	2
546	Thirlane Rd to Wood Haven	sidewalk		L	2
547	Wood Hven from Thirlane to Valley Pointe	sidewalk	Roanoke County staff	L	2
549	Rt 419 Electric Rd and I-81	sidewalk	Roanoke County staff	L	2
550	Rt 419 Electric Rd I-81 to Rt 311	sidewalk	Roanoke County staff	L	2

Roanoke County			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
551	Thompson Memorial from Rt 311 to I-81/Salem Limits	sidewalk	Roanoke County staff	L	2
552	Daugherty from West Main to school	sidewalk	Roanoke County staff	L	2
553	Colonial Ave from Rt 419 to Brambleton	sidewalk	Roanoke County staff	L	2
554	Penn Forest Blvd from Colonial to Starkey	sidewalk	Roanoke County staff	L	2
172	Brambleton Ave and Colonial Ave	Pedestrian intersection improvements	Roanoke County staff	Unknown	1
173	Postal Dr / Berry and Electric Road	Pedestrian intersection improvements	Roanoke County staff	Unknown	1
174	Brambleton Ave and Harris Ave	Pedestrian intersection improvements	Roanoke County staff	Unknown	1
176	Starkey Rd and Ogden Rd	Pedestrian intersection improvements	Roanoke County staff	Unknown	1
181	Colonial Rd and Electric Rd	Pedestrian intersection improvements	Roanoke County staff	Unknown	1
186	Rt 419 Electric Road and Grandin Road	Pedestrian intersection improvements	Roanoke County staff	Unknown	1
188	Peters Creek Rd and Northside HS Drive	Pedestrian intersection improvements	Roanoke County staff	Unknown	1
189	Peters Creek Rd and Barrens Rd	Pedestrian intersection improvements	Roanoke County staff	Unknown	1
193	Brambleton Rd and Pleasant Hill Dr	Pedestrian intersection improvements	RVARC staff	Unknown	1
320	Colonial Rd at Ogden Rd	Pedestrian intersection improvements	RVARC staff	Unknown	1
100	Peters Creek Rd and Williamson Rd intersection	Signalized pedestrian crossing	Hollins Area Plan 2008	Unknown	1
101	Plantation Rd and Williamson Rd intersection	Signalized pedestrian crossing	Hollins Area Plan 2008	Unknown	1

Roanoke County			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
258	Glade Creek Greenway	Greenway hard surface	Roanoke Valley Greenway Plan 2007	Unknown	2
291	Rt 419 from Hidden Ln to Brambleton Ave	Install sidewalks	Regional Pedestrian and Transit Vision Plan Survey 2013	Unknown	2
300	Cresthill Dr Mud Lick Greenway to Garst Mill Rd	Pedestrian connection	RVARC staff	Unknown	2
32	Mountain View Rd from Washington to BRP	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	Unknown	2
120	Cove Rd from Green Ridge to Peters Creek	Pedestrian Improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	Unknown	2
59	Grandin Rd corridor from Beverly to Hope	Sidewalk	Roanoke County staff	Unknown	2
192	Bridle Ln / Sugarloaf / Keagy loop	Sidewalk	Roanoke County staff	Unknown	2
296	Grandin Rd corridor from Hope to Airview	Sidewalk	Roanoke County staff	Unknown	2
297	Grandin Rd corridor from Airview to Electric	Sidewalk	Roanoke County staff	Unknown	2
99	Rt 460 /West Main St, Alleghany to Countyline	Install sidewalk, streetscape	Glenvar Community Plan 2012	Unknown	3
261	Rt 460 /West Main St, Daugherty to Alleghany	Install sidewalk, streetscape	Glenvar Community Plan 2012	Unknown	3

Table 5: City of Roanoke Pedestrian Transportation Projects

City of Roanoke		Type: 1=Intersection, 2=Hard Surface, 3=Streetscape			
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
62	Garden City Blvd between Ray and Victory St	Install crosswalk	Garden City Neighborhood Plan 2005	H	1
332	Shenandoah Avenue at VA Care Center	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
340	Edgewood Street at Westover Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
341	Memorial Avenue at Faquier Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
342	Memorial Avenue at Chesterfield Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
343	Memorial Avenue at Brunswick Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
344	Memorial Avenue at Oxford Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
345	Memorial Avenue at Wasena Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
346	13th Street at Cleveland Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
347	Patterson Avenue at 18th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
348	Patterson Avenue at 16th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
349	Patterson Avenue at 14th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
350	13th Street at Patterson Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
351	Patterson Avenue at 12th	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
	Street				
352	13th Street at Campbell Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
353	Memorial Avenue at Winborne Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
370	Colonial Avenue at Towers Shopping Center	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
377	Franklin Road at Woods Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
378	Franklin Road at Walnut Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
379	Franklin Road at Albemarle Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
380	Franklin Road at Highland Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
381	Franklin Road at Mountain Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
382	Jefferson Street at Albemarle Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
385	Tazewell Avenue at 7th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
386	Tazewell Avenue at 9th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
387	9th Street at Dale Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
388	9th Street at Elm Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
389	9th Street at Highland Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
390	9th Street at Montrose	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
	Avenue				
391	9th Street at Penmar Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
405	13th Street at Montrose Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
406	13th Street at Dale Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
408	Wise Avenue and Indian Village Lane	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
410	Dale Avenue at Vernon Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
411	Dale Avenue at 19th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
419	Jamison Avenue at 4th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
431	Orange Avenue at King Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
433	Williamson Road at Rutherford Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
443	Plantation Road and Preston Avenue/Columbia Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
444	Plantation Road at CEI-Roanoke	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
451	Towne Square Boulevard at Office Max	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
452	Rutgers Street at Crossroad Shopping Center	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
453	Hershberger Road and Bean Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
454	Williamson Road and Floraland Drive	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
455	Williamson Road and Angell Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
456	Williamson Road and Oakland Boulevard	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
457	Williamson Road and 10th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
458	Williamson Road and Lyndhurst Street/Fugate Road	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
461	Williamson Road and Forest Hill Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
462	Williamson Road and Thurston Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
463	Williamson Road and Compton Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
469	10th Street and Patterson Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
473	Campbell Avenue and 6th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
474	Campbell Avenue and 5th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
475	Campbell Avenue and 3rd Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
476	Salem Avenue and 3rd Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
487	Salem Turnpike and Delta	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
	Drive/24th Street				
488	Salem Turnpike and Delta Drive	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
489	Salem Turnpike and 30th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
501	Melrose Avenue and 35th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
504	Melrose Avenue and Palmetto Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
505	Melrose Avenue and Forest Park Boulevard	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
506	Melrose Avenue and 23rd Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
518	Ferncliff Avenue at William Fleming High School	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
521	Valley View Blvd N Northwest at Best Western	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
522	Valley View Blvd N Northwest at Pier One Imports	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
148	Brandon Avenue at Stratford Park	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
30	Brandon Ave /Franklin/McClanahan	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	1
179	Franklin Rd and Duke of Gloucester	Pedestrian intersection improvements	Roanoke City staff	H	1
313	Brandon-Main-Sherwood intersection	Pedestrian intersection improvements	RVARC staff	H	1

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
321	Franklin Rd at Penarth Rd	Pedestrian intersection improvements	RVARC staff	H	1
322	Franklin Rd at U.S. 220	Pedestrian intersection improvements	RVARC staff	H	1
180	Franklin Rd Townside Blvd	Pedestrian intersection improvements - consolidate bus stops here	Roanoke City staff	H	1
254	Grandin Rd corridor Gilford to Beverly	Arterial and collector streets should have ... curb, gutter and sidewalk.	Greater Deyerle Neighborhood Plan 2006	H	2
227	RR Grwy - City Limit to Mud Lick Grwy	Greenway hard surface	Roanoke Valley Greenway Plan 2007	H	2
233	Murray Run Greenway Ogden to Brandon/RRG	Greenway hard surface	Roanoke Valley Greenway Plan 2007	H	2
235	Garden City Greenway Riverside to Imlay	Greenway hard surface	Roanoke Valley Greenway Plan 2007	H	2
239	Lick Run Greenway, Hershberger to Peters Creek	Greenway hard surface	Roanoke Valley Greenway Plan 2007	H	2
241	Lick Run Greenway along Norfolk Ave	Greenway hard surface	Roanoke Valley Greenway Plan 2007	H	2
271	Lick Run Greenway, Frederick to Hershberger	Greenway hard surface	Roanoke Valley Greenway Plan 2007	H	2
285	Murray Run Greenway along Ogden Rd	Greenway hard surface	Roanoke Valley Greenway Plan 2007	H	2
286	Murray Run Greenway, VWCC to Park Lane	Greenway hard surface	Roanoke Valley Greenway Plan 2007	H	2
60	Franklin Rd from Willow Oak to west city limit	Install sidewalks	Franklin Road/Colonial Avenue 2004	H	2
75	Hershberger Rd from Cove to Peters Creek Rd	Install sidewalks	Peters Creek North Neighborhood Plan 2002	H	2
284	Franklin Rd corridor Aamco	Install sidewalks	Franklin Road/Colonial Avenue 2004	H	2

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
	to Willow Oak				
319	Riverland Rd from Garden City to Star Trail lot	Pedestrian connection	Roanoke City staff	H	2
8	Brambleton Ave from Brandon to Murray Run	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
16	Brandon Ave from Carlton Rd to Edgewood St	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
28	Cove Rd from Peters Creek to Hershberger Rd	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
42	King Street from Orange Ave to Gus Nicks Blvd	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
287	Brambleton Ave from Murray Run to Wedgewood	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
305	10th St from Orange Ave to Williamson Rd	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
63	Liberty Rd near 581	Install sidewalk, streetscape	Harrison/Washington Park Neighborhood Plan 2003	H	3
93	Hershberger Rd from Williamson Rd to Plantation Rd	Install sidewalk, streetscape, crosswalks	Williamson Road Area Plan 2004	H	3
96	Liberty Rd from I-581 to Plantation Rd	Install sidewalk, streetscape, crosswalks	Williamson Road Area Plan 2004	H	3
97	Williamson Rd from Orange to north city limit	Install sidewalk, streetscape, crosswalks	Williamson Road Area Plan 2004	H	3
4	Rt 419 Towers Mall Area	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	3
5	Colonial Ave from 23rd to Dogwood	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	3

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
26	Elm Ave from Jefferson St to 4th St SE	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	3
150	10th St from Orange Ave to Williamson Rd	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	3
85	McClanahan St from Jefferson St to Franklin Rd	Streetscape	South Roanoke Neighborhood Plan 2008	H	3
144	Bennington St and Garden City Blvd	Intersection safety improvements	Roanoke City staff/TTC	M	1
149	Brandon Ave at Stratford Park	Pedestrians accessing transit	Roanoke City staff/RVARC staff	M	1
337	Brandon Avenue at Westland Road	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
338	Brandon Ave at The Ridge Apartments	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
357	Brambleton Avenue at Ashby Street	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
358	Brambleton Avenue at Red Rock Road	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
361	Ogden Road at Circle Brook	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
363	Ogden Road at Honeywood/Windward	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
368	Franklin Road at Reserve Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
369	Franklin Road at Edinburgh Street	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
371	Colonial Avenue at The Roanoker	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
383	Campbell Avenue at 7th	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
	Street				
384	Campbell Avenue at 8 1/2 Street	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
392	9th Street at Pechin Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
393	9th Street at Morehead Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
394	9th Street at Buena Vista Boulevard	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
402	Bennington Street at Redwood Road	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
403	Bennington Street at Riverdale Road	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
407	Wise Avenue at 14th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
427	Gus W Nicks Blvd at Eastern Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
428	King Street at Mecca Street/Atherly Street	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
430	King Street at Glade Creek	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
438	Hollins Road at Blue Ridge Behavioral	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
440	Hollins Road and Plantation Road	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
441	Plantation Road and Huntington Boulevard	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
442	Plantation Road and Fleming Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
459	Williamson Road and Bowman Street	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
460	Williamson Road and Liberty Road	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
465	Orange Avenue and 8th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
466	Orange Avenue and 10th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
468	10th Street and Salem Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
470	Patterson Avenue and 8th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
486	Gainsboro Road and Loudon Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
491	Salem Turnpike and Westwood Boulevard	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
496	Melrose Avenue and Overbrook Street	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
497	Melrose Avenue and Van Buren Street	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
498	Melrose Avenue and Monroe Street	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
499	Melrose Avenue and Westside Boulevard	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
500	Melrose Avenue and Fentress Street	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
502	Melrose Avenue near Country Club (ABC store)	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
508	Cove Road and Fairland Road	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1

<i>City of Roanoke</i>			<i>Type: 1=Intersection, 2=Hard Surface, 3=Streetscape</i>		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
519	Ferncliff Avenue near Hoback	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
523	10th Street and Staunton Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
74	Franklin Rd intersection with Elm Ave	Pedestrian intersection improvements	Old Southwest neighborhood Plan 2009	M	1
209	Tinker Creek Greenway	Greenway hard surface	Roanoke Valley Greenway Plan 2007	M	2
222	Mudlick Creek Greenway Garst Mill - Old Garst Mill	Greenway hard surface	Roanoke Valley Greenway Plan 2007	M	2
61	5th St NW Loudon Ave to Orange Ave	Install sidewalks	Gainsboro Neighborhood Plan 2010	M	2
81	Piedmont St and Riverland from Walnut to 9th St SE	Install sidewalks	Riverland/Walnut Hill Neighborhood Plan 2004	M	2
310	Garden City Blvd near Yellow Mountain Rd	Pedestrian connection	RVARC staff	M	2
311	Yellow Mountain Rd near Garden City Blvd	Pedestrian connection	RVARC staff	M	2
0	Peters Creek Rd from Cove to I-581	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
20	Shenandoah Ave from 5th St to west city limit	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
44	Salem Tpke from 30th St to city limit	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
49	Plantation Rd from Orange to north city limit	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
52	Wise Ave from Vinton to Campbell Ave	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
268	Melrose Ave from Pilot to	Pedestrian improvements	Regional Pedestrian and Transit Vision	M	2

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
	west city limit		Plan Survey 2013		
147	Edgewood St	Sidewalk along Edgewood	Roanoke City staff/TTC	M	2
92	Rutgers St NW from Towns Square to Hershberger	Install sidewalk, streetscape, crosswalks	Williamson Road Area Plan 2004	M	3
71	9th St SE from Bullitt to Riverland Rd	Install sidewalks, streetscape	Morningside/Kenwood/Riverdale Plan 2003	M	3
72	Riverland Rd /Bennington - 9th St SE to Riverdale	Install sidewalks, streetscape	Morningside/Kenwood/Riverdale Plan 2003	M	3
2	Orange Ave corridor from Blue Hills to 24th	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	3
269	Melrose Ave from 22nd to Victoria	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	3
88	Cove Rd from Lafayette Blvd to Hershberger Rd NW	Streetscape safety improvement strategy	Villa Heights/Fairland Neighborhood Plan 2005	M	3
56	13th St SE	Traffic-calming strategies should be incorporated into improvements. The priority should be on installing trees and providing an improved pedestrian environment.	Belmont-Fallon Neighborhood Plan 2003	M	3
57	9th St SE	Traffic-calming strategies should be incorporated into improvements. The priority should be on installing trees and providing an improved pedestrian environment. Ninth Street should be reconfigured into an urban boulevard.	Belmont-Fallon neighborhood Plan	M	3
145	9th ST SE and Jamison	Intersection safety improvements	Roanoke City staff/TTC	L	1
146	9th ST SE and Bullitt	Intersection safety improvements	Roanoke City staff/TTC	L	1
169	Ring Road at bus stop	Pedestrians accessing transit	Roanoke City staff	L	1

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
339	Edgewood Street at Windsor Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
354	Brambleton Avenue at Welch Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
355	Brambleton Avenue at Clifford Street	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
356	Brambleton Avenue at Rosewood Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
359	Colonial Avenue at Woodland Drive	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
360	Colonial Avenue at Wright Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
362	Colonial Avenue at Pasley Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
364	Franklin Road at Toyota Dealership	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
365	Franklin Road at Roberts Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
366	Franklin Road at Beechwood Street	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
367	Broadway Avenue at Avenham Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
372	Colonial Avenue at Clearfield Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
373	Colonial Avenue at Colonial Hills Office Building	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
374	Brandon Avenue at Malcolm Street	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
375	Main Street at Summit Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
376	Main Street at Kerns Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
395	Garden City Boulevard at Thommasson Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
396	Garden City Boulevard at Findlay Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
397	Garden City Boulevard at Hartsook Boulevard	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
398	Garden City Boulevard at Davenport Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
399	Garden City Boulevard at Gearhart Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
400	Garden City Boulevard at Ray Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
401	Garden City Boulevard at Carico Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
404	Bennington Street at Brownlee Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
429	King Street at Parkway House of Prayer	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
432	Orange Avenue at Granby Street	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
434	Hollins Road at Mohawk Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
435	Hollins Road at Missouri Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
436	Hollins Road at Mason Mill Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
437	Hollins Road and Shull Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
439	Hollins Road and Old Mountain Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
448	Hershberger Road and Hubert Road/Winsloe Drive	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
449	Hershberger Road and Hazleridge Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
450	Airport Road at Nelms Lane	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
464	Burrell Street and Douglass Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
467	10th Street and Moorman Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
471	Salem Avenue and 8th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
472	Salem Avenue and 6th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
477	5th Street and Harrison Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
478	Gainsboro Road and Madison Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
479	Williamson Road and Wells Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
480	Kimball Avenue and Rutherford Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
481	Shenandoah Avenue and Cherry Hill Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1

<i>City of Roanoke</i>			<i>Type: 1=Intersection, 2=Hard Surface, 3=Streetscape</i>		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
482	Shenandoah Avenue and 36th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
483	Shenandoah Avenue and Westwood Boulevard	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
484	Shenandoah Avenue and 8th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
485	Shenandoah Avenue and 6th Street	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
490	Salem Turnpike at Structural Steel Co.	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
494	Melrose Avenue and Peck Street	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
495	Melrose Avenue and Gun Club Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
503	Melrose Avenue and Old Country Club Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
507	Lafayette Boulevard and Florida Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
509	Cove Road and Abbott Street	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
510	Hershberger Road at Valley View Garden Apartments	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
512	Peters Creek and Hershberger Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
513	Peters Creek Road and Food Lion Driveway	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
514	Cove Road and Lynnhope Drive	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1

<i>City of Roanoke</i>			<i>Type: 1=Intersection, 2=Hard Surface, 3=Streetscape</i>		
FID	LOCATION	DESCRIPTION	SOURCE	LOCALITY PRIORITY	TYPE
515	Cove Road and Willow Walk Drive	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
516	Cove Road and Ranch Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
517	Cove Road and Routt Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
520	Hershberger Road and Ordway Drive	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
524	10th Street and Rugby Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
525	10th Street and Hunt Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
526	10th Street and Greenhurst Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
527	10th Street and Courtland Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
528	10th Street and Greenland Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
25	Franklin Rd / Williamson Rd int	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	1
41	Marshall Ave and 7th St intersection	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	1
46	3rd St and Franklin Rd int	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	1
165	Hershberger Rd and Rutgers St	Pedestrian improvements	Roanoke City staff	L	1
166	Williamson Rd and Hershberger	Pedestrian improvements	Roanoke City staff	L	1
40	Campbell Ave and 8th St intersection	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	1

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
19	Orange Ave /Plantation/Kimball	Pedestrian intersection improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	1
70	Melrose Ave & Salem Tpke	Pedestrian intersection improvements	Loudon-Melrose/Shenandoah West Neighborhood Plan	L	1
73	Ferinand Ave intersection with Elm Ave	Pedestrian intersection improvements	Old Southwest Neighborhood Plan 2009	L	1
77	Brandon Ave intersection with Edgewood	Pedestrian intersection improvements	Greater Raleigh Court Neighborhood Plan 2007	L	1
78	Brandon Ave intersection with Carter Rd	Pedestrian intersection improvements	Greater Raleigh Court Neighborhood Plan 2007	L	1
79	Brandon Ave intersection with Grandin Rd	Pedestrian intersection improvements	Greater Raleigh Court Neighborhood Plan 2007	L	1
80	Brandon Ave intersection with Brambleton Ave	Pedestrian intersection improvements	Greater Raleigh Court Neighborhood Plan 2007	L	1
86	Broadway Ave and Franklin Rd intersection	Pedestrian intersection improvements	South Roanoke Neighborhood Plan 2008	L	1
163	Town Square Blvd and Airport Rd	Pedestrian intersection improvements	Roanoke City staff	L	1
164	Town Square Blvd and Rutgers St	Pedestrian intersection improvements	Roanoke City staff	L	1
167	Valley View and Ring Road	Pedestrian intersection improvements	Roanoke City staff	L	1
168	Valley View and Ring Road	Pedestrian intersection improvements	Roanoke City staff	L	1
315	Orange Ave at Gus Nicks	Pedestrian intersection improvements	RVARC staff	L	1
316	Orange Ave at Hollins Rd	Pedestrian intersection improvements	RVARC staff	L	1
323	Valley View Ring Road at entrance	Pedestrian intersection improvements	RVARC staff	L	1
324	Valley View Blvd at Movie Theater	Pedestrian intersection improvements	RVARC staff	L	1

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
325	Valley View Blvd at Mall main entrance	Pedestrian intersection improvements	RVARC staff	L	1
326	Valley View Blvd at Ring Road	Pedestrian intersection improvements	RVARC staff	L	1
327	Valley View Ring Road at main entrance	Pedestrian intersection improvements	RVARC staff	L	1
303	Greenway crossing at Williamson and Elm	Pedestrian intersection improvements - evaluate potential to relocate along railroad under Elm	Regional Pedestrian and Transit Vision Plan Survey 2013	L	1
89	Wasena Ave at Main Street intersection	Stamped crosswalk across Main St	Wasena Neighborhood Plan 2003	L	1
221	Mudlick Creek Greenway Beverly to Patrick Henry HS	Greenway hard surface	Roanoke Valley Greenway Plan 2007	L	2
223	Mudlick Creek Greenway Grandin to Brandon	Greenway hard surface	Roanoke Valley Greenway Plan 2007	L	2
225	RR Grwy - Mud Lick Grwy to Bridge St	Greenway hard surface	Roanoke Valley Greenway Plan 2007	L	2
231	Barnhardt Creek Grwy from City Limit to Crestmoor	Greenway hard surface	Roanoke Valley Greenway Plan 2007	L	2
84	Broadway Ave from Longview Ave to Franklin Rd	Install sidewalk	South Roanoke Neighborhood Plan	L	2
66	Gus Nicks Blvd from Orange to Washington St	Install sidewalks	Hollins/Wildwood Area Plan	L	2
155	Avalon Ave to Valley View	Neighborhood ped connection from Avalon to Valley View	Roanoke City staff	L	2
253	I-581 Pedestrian Bridge	Pedestrian bridge	VDOT	L	2
304	Franklin Rd-Reserve to 220	Pedestrian connection	Roanoke City staff	L	2

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
	Entrance Ramp				
312	Brandon Avenue - Brambleton to 23rd	Pedestrian connection	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
317	Orange at Plantation	Pedestrian connection	13th Street/Hollins Road improvement project	L	2
154	Valley View Ave to movie theater	Pedestrian connection from Valley View Ave to neighborhood	Roanoke City staff	L	2
153	I - 581 north end ped crossing at Valley View	Pedestrian crossing from Fairland to Valley View	Roanoke City staff	L	2
22	Colonial Ave from Dogwood Ln to Hartland Rd	Pedestrian improvements	Roanoke City staff	L	2
38	Valley View Blvd /Ring Rd connector	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
48	Dale Ave from Vinton to 19th	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
50	Valley View Ring Rd	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
51	Valley View Blvd NW	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
170	Ring Rd	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
270	Salem Tpke from 24th St to 30th	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
283	Dale Ave from 19th to 13th	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
121	Peters Creek Rd from Longwood to Cove	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
24	Brandon Ave from Mud Lick	Sidewalk	Regional Pedestrian and Transit Vision	L	2

<i>City of Roanoke</i>			<i>Type: 1=Intersection, 2=Hard Surface, 3=Streetscape</i>		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
	Rd to city limits		Plan Survey 2013		
152	Valley View Mall ped bridge trail	Trail from 581 ped bridge to VV Ring Road	Roanoke City staff/RVARC staff	L	2
90	Airport Rd from Barns Ave NW to Municipal	Install sidewalk, streetscape, crosswalks	Williamson Road Area Plan 2004	L	3
91	Municipal Rd NW from Airport Rd to Aviation Dr	Install sidewalk, streetscape, crosswalks	Williamson Road Area Plan 2004	L	3
94	Aviation Dr from Towne Square to Municipal	Install sidewalk, streetscape, crosswalks	Williamson Road Area Plan 2004	L	3
95	Valley View Blvd from Edinburgh to I-581	Install sidewalk, streetscape, crosswalks	Williamson Road Area Plan 2004	L	3
272	Valley View Blvd from Edinburgh to Hershberger	Install sidewalk, streetscape, crosswalks	Williamson Road Area Plan 2004	L	3
273	Aviation Dr from Hershberger to Towne Square	Install sidewalk, streetscape, crosswalks	Williamson Road Area Plan 2004	L	3
274	Airport Rd from Towne Square to Municipal	Install sidewalk, streetscape, crosswalks	Williamson Road Area Plan 2004	L	3
67	Campbell Ave from 7th St SW to 18th St SW	Install sidewalks, streetscape	Hurt Park/Mountain View Neighborhood Plan 2003	L	3
68	Patterson Ave from Campbell to 21st St SW	Install sidewalks, streetscape	Hurt Park/Mountain View Neighborhood Plan 2003	L	3
306	Salem Ave from 5th St SW to Shaffers Blvd	Install sidewalks, streetscape	Hurt Park/Mountain View Neighborhood Plan 2003	L	3
307	13th St SW from Cleveland to Jackson	Install sidewalks, streetscape	Hurt Park/Mountain View Neighborhood Plan 2003	L	3
308	Patterson Ave from Campbell to 21st St SW	Install sidewalks, streetscape	Hurt Park/Mountain View Neighborhood Plan 2003	L	3

City of Roanoke			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
45	Elm Ave from Jefferson St to Ferdinand Ave	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	3
82	Old Jefferson St from Williamson to Wiley Drive	Pedestrian system, streetscape	Roanoke City staff/TTC	L	3
83	Reserve Ave from Jefferson St to Franklin Rd	Pedestrian system, streetscape	South Jefferson Redevelopment Plan 2001	L	3
37	Jefferson St from McClanahan to Bullitt	Streetscape	Regional Pedestrian and Transit Vision Plan Survey 2013	L	3
64	Orange Ave 10th to 518	Streetscape	Harrison/Washington Park Neighborhood Plan 2003	L	3
65	Burrell St from Orange to Liberty	Streetscape	Harrison/Washington Park Neighborhood Plan 2003	L	3
69	10th St SW from Campbell to Shenandoah Ave	Streetscape	Hurt Park/Mountain View Neighborhood Plan 2003	L	3
76	Brandon Ave from West City Limit to Carlton	Streetscape	Greater Raleigh Court Neighborhood Plan 2007	L	3
98	Orange Ave from I-581 to Hollins Rd	Streetscape	Williamson Road Area Plan 2004	L	3
58	Brandon Ave & Edgewood St Deyerle Village Center	Streetscape improvements	Greater Deyerle Neighborhood Plan 2006	L	3
87	Lafayette Blvd NW from Melrose Ave to Cove Rd NW	Streetscape safety improvement strategy	Villa Heights/Fairland Neighborhood Plan 2005	L	3
55	Tazewell Ave SE	Traffic-calming strategies should be incorporated into improvements. The priority should be on installing trees and providing an improved pedestrian environment.	Belmont-Fallon Neighborhood Plan	L	3
118	Shenandoah from city limit	Pedestrian improvements	Regional Pedestrian and Transit Vision	Unknown	2

<i>City of Roanoke</i>			<i>Type: 1=Intersection, 2=Hard Surface, 3=Streetscape</i>		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
	to Peters Creek Rd		Plan Survey 2013		
27	Franklin Rd from Rt 220 to Market Ave	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	Unknown	3
511	Peters Creek Road near Tennessee Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1

Table 6: City of Salem Pedestrian Transportation Projects

<i>City of Salem</i>		<i>Type: 1=Intersection, 2=Hard Surface, 3=Streetscape</i>			
FID	LOCATION	DESCRIPTION	SOURCE	LOCALITY PRIORITY	TYPE
134	Rt 419 Electric Rd and Braeburn	Crosswalk/signal/signage	City of Salem	H	1
135	Rt 419 Electric Rd and Keagy Rd	Crosswalk/signal/signage	City of Salem	H	1
136	Rt 419 and Apperson Dr	Crosswalk/signal/signage	City of Salem	H	1
335	Apperson Drive at Yorkshire Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
420	East Main Street at Lakeside Plaza and Goodwill	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
228	RR Grwy - Rotary Park to City Limit	Greenway hard surface	Roanoke Valley Greenway Plan 2007	H	2
232	Barnhardt Creek Grwy - RR Grwy to City Limit	Greenway hard surface	Roanoke Valley Greenway Plan 2007	H	2
245	Union Street from Main to Eddy	Pedestrian connection	Salem City staff	H	2
43	Rt 419 Electric Rd from Keagy to Apperson	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
114	East Main from Thompson Memorial to Rt 419	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
556	Rt 419 Electric Rd from Lynchburg Tpk to East Main	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
128	Apperson Dr from Multimodal line to 419	Sidewalk	City of Salem	H	2
133	Braeburn Dr from Ridgewood to Apperson Dr	Sidewalk	City of Salem	H	2
264	Apperson Dr from Colorado to Multimodal Ctr line	Sidewalk	City of Salem	H	2
131	Apperson Dr from Colorado to 419	Streetscape	City of Salem	H	3
139	Commerce Dr and Texas St	Crosswalk/signage	City of Salem	M	1

<i>City of Salem</i>			<i>Type: 1=Intersection, 2=Hard Surface, 3=Streetscape</i>		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
137	Roanoke Blvd and Hemlock/VA Center	Crosswalk/signal	City of Salem	M	1
140	Idaho St and Texas St	Crosswalk/signal/signage	City of Salem	M	1
47	Roanoke Blvd and 8th Street	Pedestrians accessing transit	Valley Metro/RVARC Staff	M	1
331	Roanoke Blvd at East Salem Elementary	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
334	East Main Street at Brand Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
336	Keagy Road at McDonalds	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
492	East Main Street and Bellevue Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
493	East Main Street and Otter Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
185	Apperson Drive and Keagy Road	Pedestrian intersection improvements	Salem City staff	M	1
215	Mason Creek Gwy from Lburg Tpk to East Main St	Greenway hard surface	Roanoke Valley Greenway Plan 2007	M	2
216	Mason Creek Greenway from RR Gwy to Roanoke Blvd	Greenway hard surface	Roanoke Valley Greenway Plan 2007	M	2
558	Mason Creek Gwy from East Main St to HRB Trail	Greenway hard surface	Roanoke Valley Greenway Plan 2007	M	2
243	Mill Lane from Tidewater to Carolyn	Pedestrian connection	Salem City staff	M	2
249	Keagy from Rt 419 to Crestmoor	Pedestrian connection	Salem City staff	M	2
122	Diuguids Dr	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
555	Rt 419 Electric Rd from Apperson to Roanoke	Pedestrian improvements	Regional Pedestrian and	M	2

City of Salem				Type: 1=Intersection, 2=Hard Surface, 3=Streetscape	
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
	Blvd		Transit Vision Plan Survey 2013		
124	Texas from Idaho to Lynchburg Tpke	Sidewalk	City of Salem	M	2
127	Colorado St from Rowan to Front	Sidewalk	City of Salem	M	2
132	Lancing Dr and Margaret from 419 to Apperson	Sidewalk	City of Salem	M	2
263	Colorado St from 7th to Rowan	Sidewalk	City of Salem	M	2
265	Lynchburg Tnpk 419 to East Main Street	Sidewalk	City of Salem	M	2
266	Idaho from Lynchburg Tpke to Texas	Sidewalk	City of Salem	M	2
259	Rt 11 / Rt 460/West Main St	Install sidewalk, streetscape	Salem City staff	M	3
129	Appreson Dr and Colorado St junction	Streetscape	City of Salem	M	3
138	Salem Tpke and Electric	Crosswalk/signal/signage	City of Salem	L	1
330	Roanoke Boulevard at GE	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
333	East 4th Street at Delaware Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
421	East Main Street at Parkdale Drive	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
422	East Main Street at Pinehurst Street	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
212	RR Grwy - Riverside Drive	Greenway hard surface	Roanoke Valley Greenway Plan 2007	L	2
262	Dry Creek Greenway, Marshall to Carrollton	Greenway hard surface	Roanoke Valley Greenway Plan 2007	L	2
242	Gish Branch Gwy from N Mill Rd to Kessler Mill Rd	Greenway natural surface	Roanoke Valley Greenway Plan 2007	L	2
561	Eddy Ave from Piedmont Avenue to Front	Infill missing sidewalk gaps	RVARC staff	L	2

City of Salem			Type: 1=Intersection, 2=Hard Surface, 3=Streetscape		
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
	Avenue				
244	Shanks St from main St to Marshall	Pedestrian connection	Salem City staff	L	2
246	Kimball and Franklin to N Buck	Pedestrian connection	Salem City staff	L	2
247	Orchard from Apperson to Upland	Pedestrian connection	Salem City staff	L	2
17	Wildwood Road from W Main St to I-81	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
21	Roanoke Blvd from Mason Creek Gwy to Electric Rd	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
117	Apperson Dr from city limit to Electric	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
267	Rt 419 Electric Rd from East Main St to City Limit	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	L	2
125	Corporate Blvd from Lynchburg Tpke to Texas St	Sidewalk	City of Salem	L	2
126	Roanoke Blvd from Texas to Rt 419 (Electric Rd)	Sidewalk	City of Salem	L	2
130	Colorado St to King	Sidewalk	City of Salem	L	2
301	Apperson Dr and Riverland Dr	Pedestrian intersection improvements	RVARC staff	Unknown	1
309	Dry Creek Greenway, Marshall to Fourth	Greenway hard surface	Roanoke Valley Greenway Plan 2007	Unknown	2
255	Lynchburg Tnpk from Electric Rd St to city limit	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	Unknown	2
298	Roanoke Blvd from VA MedCtr Rd to VA CareCtr Rd	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey	Unknown	2

<i>City of Salem</i>				<i>Type: 1=Intersection, 2=Hard Surface, 3=Streetscape</i>	
<u>FID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
			2013		
299	Roanoke Blvd from Mason Creek Grwy to VA MedCtr Rd	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	Unknown	2
569	East Main Street and Lynchburg Turnpike	Crosswalk/signal/signage	City of Salem	H	1
568	Rt 419 Electric Rd and Springfield Ave	Crosswalk/signal/signage	City of Salem	M	1
570	Rt 419 Electric Rd and Green Ridge Rd	Crosswalk/signal/signage	City of Salem	L	1

Table 7: Town of Vinton Pedestrian Transportation Projects

<i>Town of Vinton</i>				<i>Type: 1=Intersection, 2=Hard Surface, 3=Streetscape</i>	
<u>ID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
103	Hardy Rd and Vinyard Rd intersection	Crosswalks	Vinton Area Corridors Plan 2010	H	1
105	Hardy Rd and Clearview Dr intersection	Crosswalks	Vinton Area Corridors Plan 2010	H	1
107	Washington Ave and Pollard intersection	Crosswalks	Vinton Area Corridors Plan 2010	H	1
156	Walnut Ave and 8th St	Intersection improvement at 8th and Walnut, ped, turning, signage	Vinton staff	H	1
159	Hardy Road and Wolf Creek Greenway	Pedestrian crossing for Wolf Creek Greenway across Hardy Road	Vinton staff	H	1
412	Virginia Avenue at 2nd Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
413	Virginia Avenue at 3rd Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
414	South Pollard Avenue at Cedar	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1

Town of Vinton				<i>Type: 1=Intersection, 2=Hard Surface, 3=Streetscape</i>	
<u>ID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
	Avenue				
415	East Cleveland Avenue at S Poplar Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
416	East Cleveland Avenue at S Blair Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
426	Washington Avenue and N Blair Street	Pedestrians accessing transit	Valley Metro/RVARC staff	H	1
157	Virginia Ave and 4th St	Pedestrian improvements at intersection	Vinton staff	H	1
560	Hardy Road at school	Pedestrian crossing at school	Vinton staff	H	1
237	Glade Creek Greenway from Glade to Berkley	Greenway hard surface	Roanoke Valley Greenway Plan 2007	H	2
110	Walnut Ave from Lee St to west town limit	Install sidewalk	Vinton Area Corridors	H	2
108	Hardy Rd from Pollard to Bypass Rd	Install sidewalk, eliminate dirt path	Vinton Area Corridors Plan 2010	H	2
15	Bypass Rd from Hardy Rd to Washington	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
112	Virginia Ave from 1st St to west town limit	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
162	Washington Ave from Bypass to Pollard	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	H	2
160	Washington Ave and Meadow St	Crosswalk improvements, signage	Vinton staff	M	1
161	Washington Ave and N Poplar St, church crosswalk	Crosswalk improvements, signage	Vinton staff	M	1
104	Hardy Rd and Niagara Rd intersection	Crosswalks	Vinton Area Corridors Plan 2010	M	1

<i>Town of Vinton</i>				<i>Type: 1=Intersection, 2=Hard Surface, 3=Streetscape</i>	
<u>ID</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>	<u>LOCALITY PRIORITY</u>	<u>TYPE</u>
106	Washington Ave and Bypass Rd intersection	Crosswalks	Vinton Area Corridors Plan 2010	M	1
425	Washington Avenue at Mitchell Road	Pedestrians accessing transit	Valley Metro/RVARC staff	M	1
158	Virginia Ave and Pollard St	Pedestrian safety intersection improvements	Vinton staff	M	1
109	Hardy Rd from Bypass Rd to Cardinal	Install sidewalk	Vinton Area Corridors Plan 2010	M	2
282	Washington Ave from Bypass Rd to Goode Park Dr	Pedestrian improvements	Regional Pedestrian and Transit Vision Plan Survey 2013	M	2
409	Walnut Avenue at Booker Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
417	Bedford Road at E Cleveland Avenue	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
418	Hardy Road at Spruce Street	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
423	Hardy Road at Bypass Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
424	Washington Avenue at N Preston Road	Pedestrians accessing transit	Valley Metro/RVARC staff	L	1
531	Hardy Rd from Cardinal to Feather Rd	Install sidewalk	Vinton Area Corridors Plan 2010	L	2

Figure 17: Guide to Pedestrian Recommendation Maps

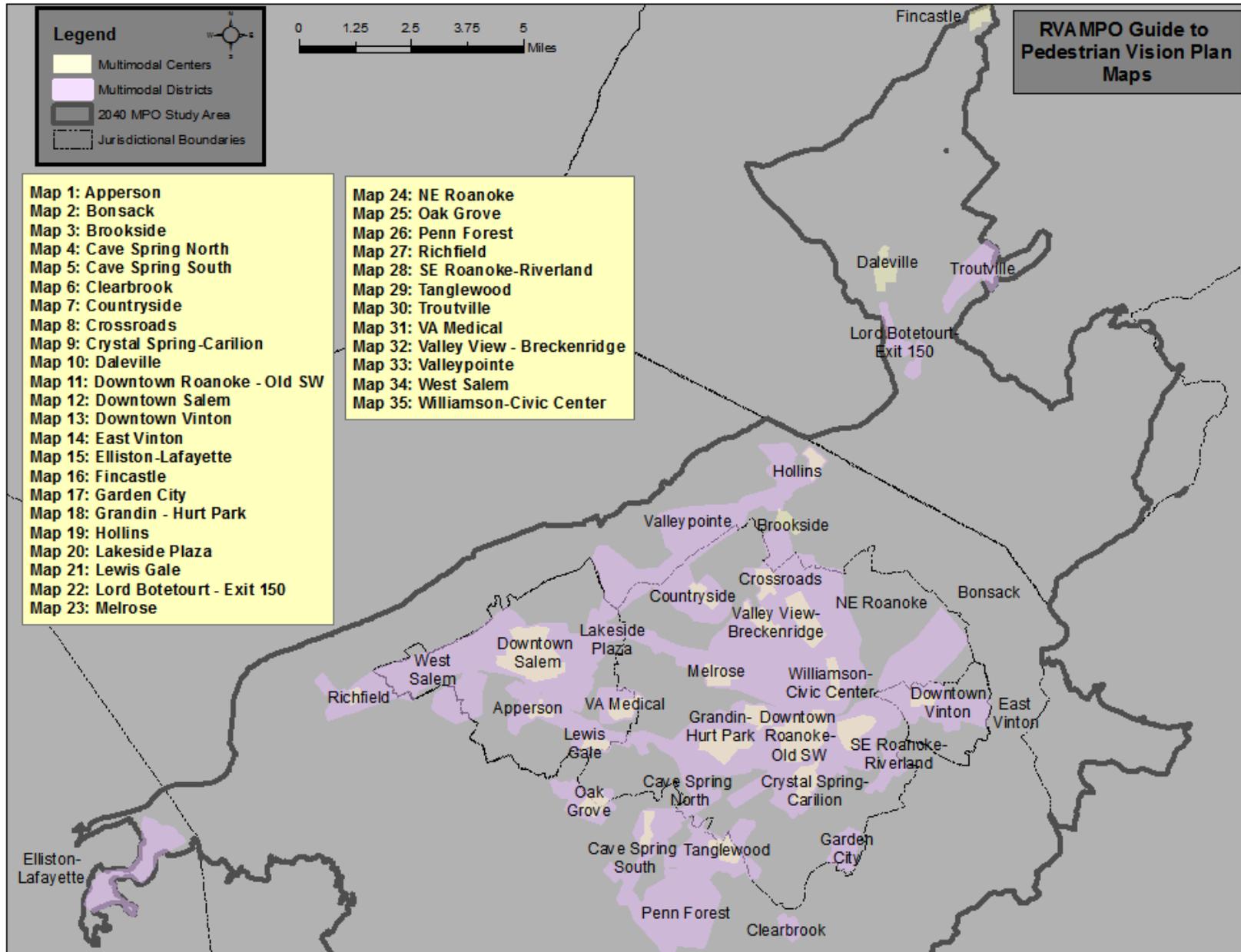
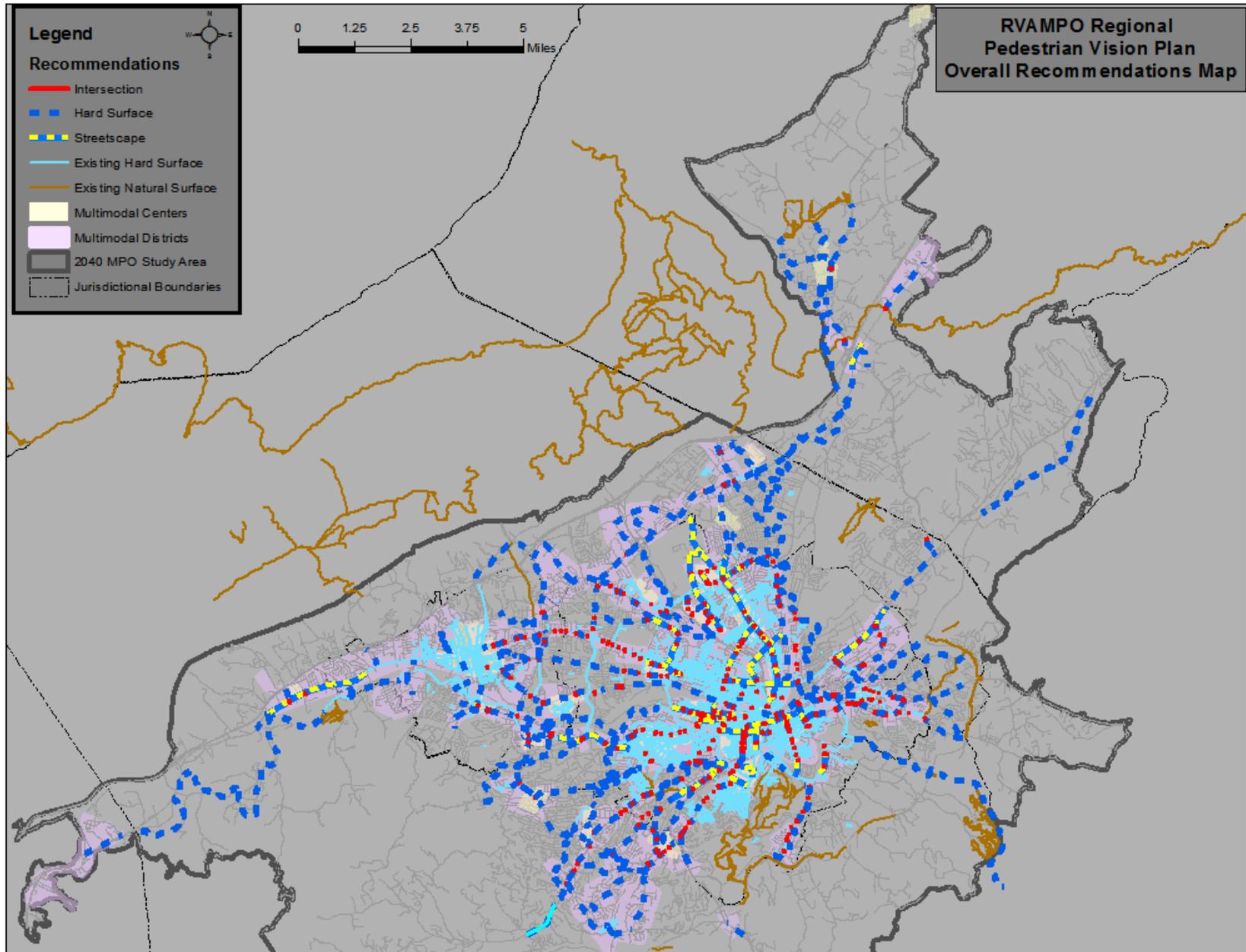
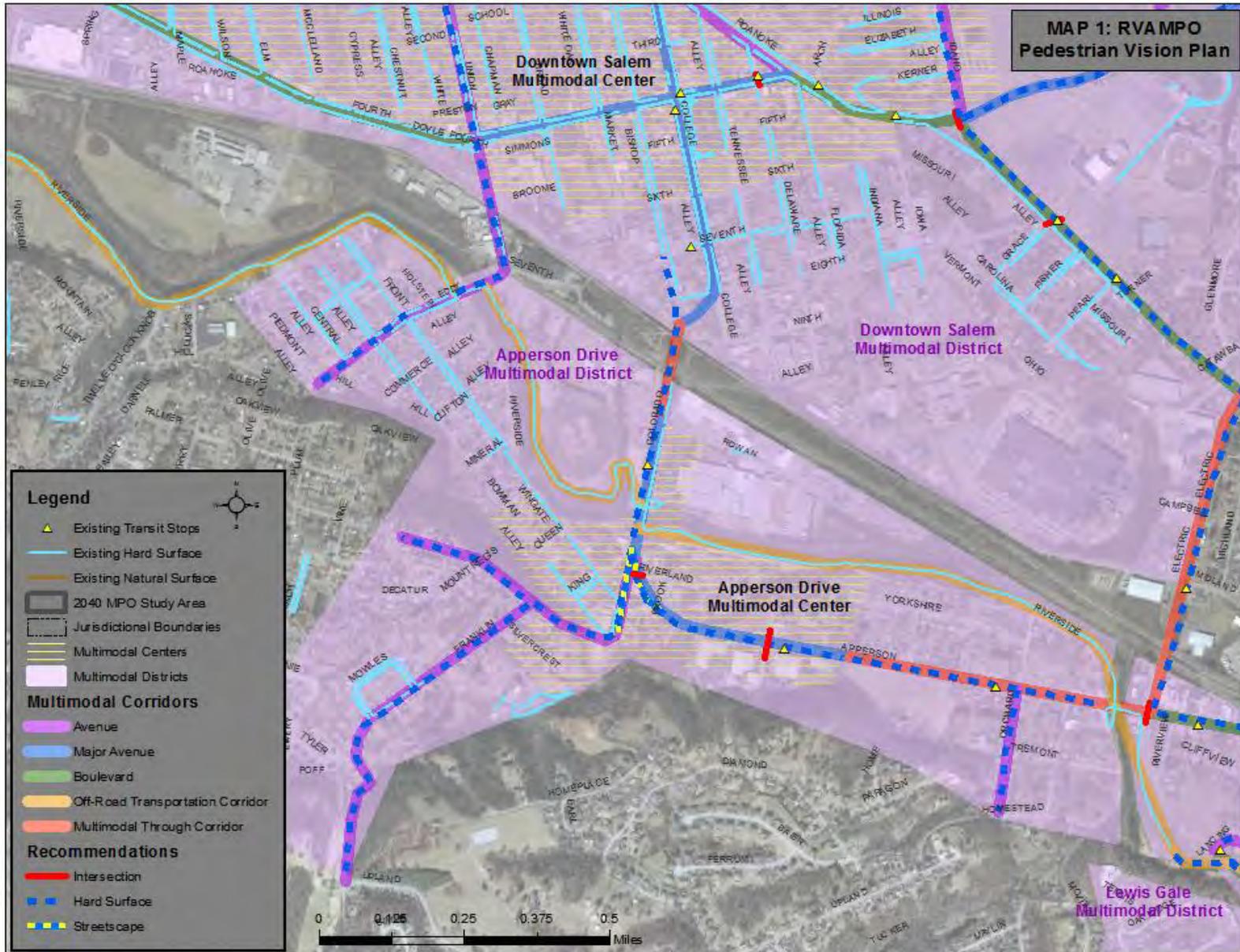


Figure 18: Map of Regional Pedestrian Transportation Infrastructure Projects



The map below shows an example of the detailed maps that will be provided in the Final Plan. There will be approximately 35 such maps.



7.0 BEST PRACTICES: CREATIVE PEDESTRIAN ACCOMMODATIONS

The following pictures are intended provide examples of how pedestrians are creatively being accommodated in the Roanoke Valley and in places around the world. Opportunities to improve the walking, waiting, and crossing spaces for pedestrians are present in all upcoming infrastructure projects planned along roads or on private properties in the Roanoke region. Working with designers for both public and private improvements to incorporate pedestrian accommodations into every design will go a long way to making safer places for people to walk.



Figure 19: Towers Shopping Center's redesigned parking lot accommodates pedestrians from a new bus stop on Colonial Avenue, Roanoke



Figure 20: A little more green and less concrete makes 6th Street an attractive urban street for walking, Roanoke



Figure 21: A walking path is separated from the busy 4-lane roadway by a grass buffer with trees, Blacksburg



Figure 22: Adding no new impervious surfaces, Westside Boulevard was redesigned to accommodate pedestrians/bikes along a path separated from traffic by a concrete median and constructed within the existing street pavement, Roanoke



Figure 23: Adding no new impervious surfaces, Williamson Road was redesigned to accommodate pedestrians/bikes along a path, the "Mill Mountain Greenway", separated from traffic by a landscaped median and constructed within the existing street pavement, Roanoke



Figure 24: A multi-use wide sidewalk indicates bicyclists yield to pedestrians, Washington State



Figure 25: Open drainage channels minimize expenses while still providing space for pedestrians along a 4-lane road, Sanford, FL



Figure 26: Clear designation for cars, pedestrians (red lane), bicyclists (black lane), and bus riders (bench) with an accessible concrete bus stop landing pad, Reddington Beach, FL



Figures 28-29: A pedestrian path connects to a crosswalk, a pair of bus stops, and on-road bike lanes, Montgomery County, MD

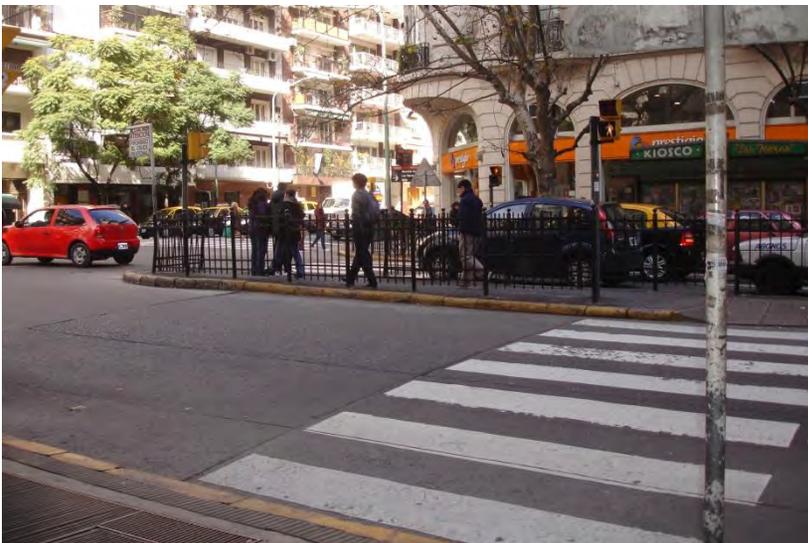


Figure 27: A busy four-lane road features a median crosswalk diversion with two sets of pedestrian signals, one for each leg of traffic, Buenos Aires



Figure 30: Accessible pedestrian waiting area at a bus stop, Montgomery County, MD

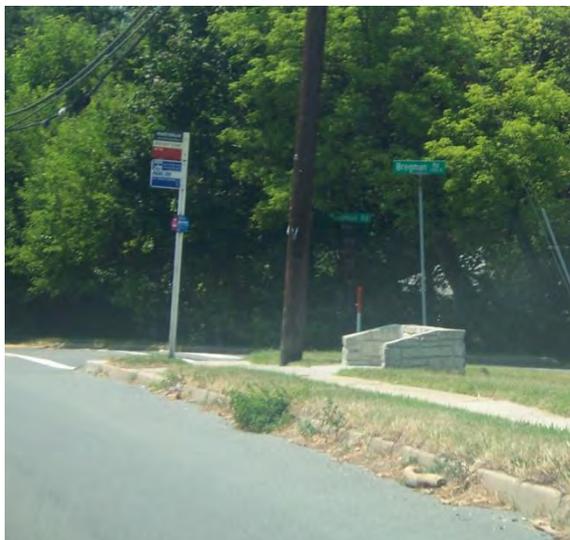


Figure 31: Simple pedestrian amenities at a bus stop, Montgomery County, MD



Figure 32: A car-free curb-free street is inherently ADA accessible; pavement textures and colors demarcate different areas for uses, Buenos Aires

8.0 FUNDING

Possibly the greatest challenge to any transportation project is securing the funding for design, right-of-way acquisition, and construction. In Virginia, projects are identified in the Commonwealth Transportation Board's Six-Year Improvement Program (SYIP) which allocates the funding for any surface transportation project. In developing the SYIP, each year, local governments work with citizens, transportation agencies, and other stakeholders to identify the projects that will help the locality, 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 4-year financial program that lists the transportation projects within the RVAMPO region that will utilize federal funds. The TIP reflects the projects and priorities identified in the RVAMPO CLRMTP. The TIP is approved by the RVAMPO Policy Board every three years but amendments and adjustments occur continuously as new projects are added or existing projects are modified.

Within the government, the following programs exist to fund pedestrian infrastructure.

- ▲ LOCAL GOVERNMENT CAPITAL IMPROVEMENT PROGRAMS
- ▲ REVENUE SHARING PROGRAM
- ▲ PRIMARY AND SECONDARY ROAD PROGRAMS
- ▲ REGIONAL SURFACE TRANSPORTATION PROGRAM
- ▲ TRANSPORTATION ALTERNATIVES PROGRAM
- ▲ HIGHWAY SAFETY IMPROVEMENT PROGRAM
- ▲ RECREATIONAL ACCESS PROGRAM
- ▲ LITTER FUNDS

▲ SHARE THE ROAD SIGN PROGRAM

One of the simplest ways to accomplish pedestrian accommodations is for local governments to require developers to build the necessary infrastructure at the time of construction. This is especially important in areas where pedestrian traffic is likely to occur based on the surrounding current or future land uses. The multimodal centers and districts already identified by the region are a good starting point for identifying places where pedestrian accommodations should naturally occur with new development.

9.0 IMPLEMENTATION STRATEGIES

A number of strategies have been identified that will guide the region as it works towards accomplishing each goal and ultimately its vision for a more pedestrian-friendly Roanoke Valley. The following tables correspond to each goal. They list the related strategies, the responsible parties for implementing the strategy, the expected output of the strategies, and the ultimate outcomes.

Measuring the success of investments and actions has become a state and national priority as they relate to meeting goals and desired outcomes. The Roanoke Valley Area MPO, as part of its typical Work Program, tracks several performance measures, many of which relate to the vision and goals of the Pedestrian Plan. Those measures are listed according to their tracking number in parenthesis. In addition, new measures are recommended in addition to existing measures, which will aid in the measurement of progress. The Regional Commission, as staff to the RVAMPO, will be responsible for coordinating data tracking among regional and local staff.

GOAL #1: IMPROVE SAFETY FOR PEDESTRIANS. MORE PEOPLE ARE SEEN WALKING IN THE ROANOKE VALLEY BECAUSE THEY FEEL SAFE DUE TO NEW INFRASTRUCTURE WHICH MAKES WALKING SAFER FOR PEOPLE.

	<u>STRATEGIES</u>	<u>RESPONSIBLE PARTIES</u>	<u>OUTPUTS</u>	<u>OUTCOMES</u>	<u>PERFORMANCE MEASURES</u>
1	Construct hard surface walking facilities where many people need/want to walk.	-Developers of new developments -Local Government (Planning and Engineering staff) -VDOT (Planning and Engineering staff)	More linear feet of hard surface walking facilities.	More people walk.	(3.2) Number of Pedestrians by Location (3.3) Number of Greenway Users by Location (8.1) # and % of residents who walk to work (New) Linear feet of public walkways (sidewalks and paved greenways) constructed in Multimodal Centers (New) Linear feet of public walkways constructed in Multimodal Districts (New) Linear feet of public walkways that provide a connection between Multimodal Districts
2	Maintain pedestrian infrastructure including walking facilities, pedestrian signals, crosswalks, etc.	-Local Governments(Traffic Engineering staff) -VDOT (???)	Existing pedestrian infrastructure in good working order and upgraded to accommodate the mobility needs of people with disabilities.	People are able to use existing infrastructure without difficulty.	(2.10) Annual pedestrian fatalities (2.11) Annual pedestrian injuries (New) Total Number of Curb Ramps
3	Install crosswalks, pedestrian signals, and pedestrian safety signage at identified locations, particularly within multimodal districts and centers.	- Local Governments(Planning and Traffic Engineering staff) -VDOT (???)	Marked pedestrian crossings with clear indications on when and where pedestrians are	People feel comfortable crossing the street.	(New) Total Number of Crosswalks (New) Total Number of Pedestrian Signals

	<u>STRATEGIES</u>	<u>RESPONSIBLE PARTIES</u>	<u>OUTPUTS</u>	<u>OUTCOMES</u>	<u>PERFORMANCE MEASURES</u>
			expected to cross the street.		
4	Install lighting along sidewalks, at crosswalks, and public transit stops.	-Developers of new developments -Local Governments(Traffic Engineering staff) -VDOT(???) -Valley Metro	Greater visibility in the dark where pedestrians walk and wait.	-More people feel comfortable walking in the dark. -No crimes due lack of visibility.	(New) Number of public transit stops with nearby lighting.
5	Provide ADA landing pads at public transit stops.	-Developers of new developments -Valley Metro -Local Governments(Traffic Engineering staff) -VDOT (???)	Number of public transit stops that have an ADA accessible place to wait.	All public transit stops are ADA accessible; people with disabilities have a safe place to wait at public transit stops.	(New) Number of ADA accessible public transit stops.
6	Provide ADA accessible routes from nearby local streets to public transit stops.	-Developers of new developments -Local Governments(Traffic Engineering staff) -VDOT (???)	Number of public transit stops that have a safe walking connection to nearby streets.	All public transit stops have a connection to a nearby street; people with disabilities have a safe place to travel from a stop to a nearby local street.	(New) Number of public transit stops connected to a public walkway.

	<u>STRATEGIES</u>	<u>RESPONSIBLE PARTIES</u>	<u>OUTPUTS</u>	<u>OUTCOMES</u>	<u>PERFORMANCE MEASURES</u>
7	Educate pedestrians and drivers about laws, use of the road, etc.	-RideSolutions -VDOT (???) -Local Law Enforcement -Parents	Campaigns and material distributed to educate pedestrians and drivers.	Pedestrians cross the road at marked locations; drivers yield to pedestrians in crosswalks.	(2.10) Annual pedestrian fatalities (2.11) Annual pedestrian injuries
8	Work with schools and parents to enable students to walk to school.		-Safe Routes to School Plans written. -Safe Routes to School events held at schools.	More students walk to school.	
9	Provide Crossing Patrols at schools where needed.	Schools	All schools that need crossing patrols have them.	Students feel comfortable crossing the street near schools.	
10	Implement adopted local and state pedestrian accommodation policies and street design guidelines, which provide information on buffer distances between pedestrian facilities and vehicle travel lanes, sidewalk width, etc.).	Local Governments (Engineering and Traffic Engineering staff) VDOT (???)	Pedestrian facilities designed to reflect the suggested width, separation from vehicle traffic, etc.	More people walking because the design of the pedestrian facility creates a comfortable place to walk.	

	<u>STRATEGIES</u>	<u>RESPONSIBLE PARTIES</u>	<u>OUTPUTS</u>	<u>OUTCOMES</u>	<u>PERFORMANCE MEASURES</u>
11	Identify high crime areas and address public concerns about the safety of walking.	Local Governments (Planning staff) and Local Law Enforcement	Meetings with neighborhood groups regarding safety of walking.	Citizens in high crime areas feel safe walking in their neighborhood.	

GOAL #2: ENABLE INDEPENDENT MOBILITY, PARTICULARLY WITHIN MULTIMODAL CENTERS AND DISTRICTS, WHERE PEOPLE DO NOT HAVE TO RELY ON PERSONAL VEHICLES TO GET FROM ONE PLACE TO ANOTHER. WALKING IS AN EASY DECISION BECAUSE IT IS A PLEASANT EXPERIENCE.

	<u>STRATEGIES</u>	<u>RESPONSIBLE PARTIES</u>	<u>OUTPUTS</u>	<u>OUTCOMES</u>	<u>PERFORMANCE MEASURES</u>
1	Provide pedestrian connections between primary destinations (residential, employment, services, and retail), particularly within Multimodal Centers and Districts.	-Developers of new developments -Local Government (Planning and Engineering staff) -VDOT (Planning and Engineering staff)	More places within Multimodal Centers and Districts are connected by walking facilities.	More people walk for trips within Multimodal Centers and Districts	(New) Linear feet of public walkways (sidewalks and paved greenways) constructed in Multimodal Centers (New) Linear feet of public walkways constructed in Multimodal Districts (3.2) Number of Pedestrians by Location
2	For federally-funded pedestrian projects, incorporate into project selection procedures greater prioritization based on the number of potential users as indicated by a project's location within or connecting Multimodal Centers and Districts.	-TTC -MPO Policy Board	Federally-funded pedestrian projects are selected in part based on their location with respect to higher density areas defined by the region's multimodal centers and districts.	Pedestrian improvements are made where many people are likely to take advantage of them because of their proximity to work or home.	Revised project selection procedures.
3	Incorporate into project selection procedures greater prioritization for funding maintenance	-Local Governments (Traffic Engineering) -VDOT (Roadway Maintenance)	Maintenance projects are selected in part based on their location	Pedestrian infrastructure in high activity areas are in a good state of repair.	Revised project selection procedures.

	<u>STRATEGIES</u>	<u>RESPONSIBLE PARTIES</u>	<u>OUTPUTS</u>	<u>OUTCOMES</u>	<u>PERFORMANCE MEASURES</u>
	of pedestrian facilities based on density of users as indicated by a project's location within or connecting Multimodal Centers and Districts.		with respect to higher density areas defined by the region's multimodal centers and districts.		
4	Implement the Regional Pedestrian Vision Plan's network of pedestrian accommodations.	-Developers of new developments -Local Governments (Planning and Engineering staff) -VDOT (???)	The proposed pedestrian network is constructed as envisioned.	More people in the region are able and comfortable walking for transportation.	
5	Coordinate the Regional Pedestrian Vision Plan with plans for other modes – bikes, transit, and automobiles.	RVARC	-Develop Bike, Hike and Bus Maps (existing multimodal system maps) -Develop future multimodal system vision map as part of the Long-Range Transportation Plan. -Multimodal Interactive Online Maps	People are able to seamlessly use multiple modes for traveling in the Roanoke Valley.	MPO Policy Board adopts the LRTP Multimodal System Plan

GOAL #3: CREATE A REGION WHERE ACTIVE LIFESTYLES ARE THE NORM BECAUSE OUR LAND USE DECISIONS AND INVESTMENT IN TRANSPORTATION INFRASTRUCTURE COMPLEMENT EACH OTHER AND ENABLE A NATURAL TENDENCY FOR PEOPLE TO WALK EVERY DAY. AS A RESULT, PEOPLE FEEL HEALTHIER, MORE SOCIALLY-CONNECTED AND HAPPY LIVING AND WORKING IN THE ROANOKE VALLEY.

	<u>STRATEGIES</u>	<u>RESPONSIBLE PARTIES</u>	<u>OUTPUTS</u>	<u>OUTCOMES</u>	<u>PERFORMANCE MEASURES</u>
1	Revise subdivision/zoning ordinances to encourage or require pedestrian facilities be constructed along with new development within or between Multimodal Districts as recommended in this Pedestrian Vision Plan.	-Local Governments (Zoning and Development Review staff) -VDOT (???)	New developments in and near to Multimodal Districts are built with pedestrian infrastructure along roads and connected to buildings.	People are able to walk to new developments within and near current or future Multimodal Districts.	(New) Inventory of language in local ordinances that include requirements for building pedestrian facilities in places where it has been identified that people will need or want to walk along public roadways or to provide a connection with adjacent land parcels.
2	Include pedestrian improvements in project budgets for roadway projects that include federal funding (should be a part of the normal budget and not considered as an extra or special project).	-Local Governments VDOT (???)	Pedestrian accommodations are always considered and commonly included in roadway projects in the MPO Area, per the recommendations of this Plan.	People in the Roanoke Valley are more able to walk to places because the region's roadway projects have included accommodations for pedestrians.	(New) # and % of construction projects in the Transportation Improvement Program that include pedestrian accommodations.
3	Develop incentives for existing businesses within Multimodal Districts to build	Local Governments (Planning, Stormwater, and Economic Development staff)	-Incentives for building pedestrian facilities. -Missing pedestrian	More people in Multimodal Districts are able to walk to nearby places.	(3.2) Number of Pedestrians by Location

	<u>STRATEGIES</u>	<u>RESPONSIBLE PARTIES</u>	<u>OUTPUTS</u>	<u>OUTCOMES</u>	<u>PERFORMANCE MEASURES</u>
	pedestrian facilities.		facilities are constructed on existing developments.		
4	Create bike and car sharing programs.	RideSolutions	Bikes and cars are available for a reasonable hourly fee at convenient locations for short trips within the region.	In many places, people don't need to own a bike or car and as a result are walking more because when needed they have the option to use a bike or a car.	Existence of bike and car share programs.

GOAL #4: INCREASE BUSINESS IN MULTIMODAL CENTERS AND DISTRICTS; THEY ARE ENJOYABLE PLACES TO WORK AND PATRONIZE IN PART BECAUSE THEY ARE IN ATTRACTIVE WELL-CONNECTED WALKABLE ENVIRONMENTS.

	<u>STRATEGIES</u>	<u>RESPONSIBLE PARTIES</u>	<u>OUTPUTS</u>	<u>OUTCOMES</u>	<u>PERFORMANCE MEASURES</u>
1	Promote pedestrian friendly building/site design (focus on the front door not the parking lot) for new developments within and near Multimodal Districts.	Local Governments (Planning and Development Review staff)	The front door of buildings is located near the street and is connected to a pedestrian facility along the street.	People commonly walk to and between buildings, particularly within Multimodal Districts.	(New) Inventory of language in local ordinances that include requirements for building pedestrian facilities in places where it has been identified that people will need or want to walk along public roadways or to provide a connection with adjacent land parcels.
2	Promote complimentary land uses to allow trip chaining without having to use auto to travel between destinations.	Local Governments (Zoning and Economic Development staff)	A mix of residential and different types of business in close proximity so people don't have to drive to get from one place to another.	People can meet their daily needs easily because goods and services are accessible without a car near to where they live or work.	(New) Change in Activity Density
3	Encourage provision of pedestrian amenities (benches, wayfinding, sidewalks) in Multimodal Districts.	Local Governments (Zoning and Development Review staff) Valley Metro for existing bus stops	More pedestrian amenities in Multimodal Districts.	More people walking for trips within Multimodal Districts.	(3.2) Number of Pedestrians by Location (New) Linear feet of public walkways (sidewalks and paved greenways) constructed in Multimodal Centers (New) Linear feet of public walkways constructed in Multimodal Districts

	<u>STRATEGIES</u>	<u>RESPONSIBLE PARTIES</u>	<u>OUTPUTS</u>	<u>OUTCOMES</u>	<u>PERFORMANCE MEASURES</u>
4	Promote pedestrian-oriented places, particularly within Multimodal Centers, where available public spaces, including parking spaces and streets, are re-purposed for pedestrian uses such as dining, shopping, walking, and socializing.	Local Governments (Planning staff)	-Pedestrian plazas and wider sidewalks that allow for pedestrian-oriented uses. -ADA accessible bus stops with curb-side bus pickup, benches, and/or bus shelters.	Multimodal Centers are vibrant walkable places where people congregate and businesses thrive.	(3.2) Number of pedestrians by location (New) Number of transit stops connected to a public walkway. (New) Number of businesses in Multimodal Centers and Districts (New) Number of employees in Multimodal Centers and Districts (New) Number of residents in Multimodal Centers and Districts

GOAL #5: CLEAN THE ENVIRONMENT BY WALKING FOR MORE TRIPS AND DRIVING LESS. THE ROANOKE VALLEY IS AN ATTAINMENT AREA FOR AIR QUALITY, AND WE WANT IT TO REMAIN AS SUCH EVEN AS WE CONTINUE TO GROW IN POPULATION. AS MORE CITIZENS WALK TO ACCOMPLISH EVERYDAY TASKS, THEY ARE ABLE TO ENJOY THE VALLEY'S BEAUTIFUL ENVIRONMENT.

	<u>STRATEGIES</u>	<u>RESPONSIBLE PARTIES</u>	<u>OUTPUTS</u>	<u>OUTCOMES</u>	<u>PERFORMANCE MEASURES</u>
1	Continue participation in the Ozone Early Action Plan.	RVARC RideSolutions	Items done as part of Early Action Plan . . .	Roanoke Valley remains in attainment of air quality standards.	(9.1) Annual # of Days when Ozone Levels were Above 8-hour Standard
2	Encourage the use of alternative forms of transportation.	RVARC RideSolutions Valley Metro	-Meetings with employers. -Advertising and marketing of transit services.	More people use alternative forms of transportation.	(4.1) Annual Unlinked Passenger Transit Trips (4.2) Annual Unlinked Passenger Transit Trips Per Capita (4.7) Annual Smart Way Connector Bus Ridership (5.2) # of members in Ride Solutions program (8.1) # and % of residents who walk to work
3	Develop and implement outreach/education campaign to employers to encourage walking.	RideSolutions	Meetings with employers.	More people walk to work.	(8.1) # and % of residents who walk to work
4	Develop and implement outreach/education campaign to the public to encourage walking.	RideSolutions	Marketing efforts towards the public.	More people walk.	(3.2) Number of Pedestrians by Location (3.3) Number of Greenway Users by Location

APPENDIX A: Public Survey Outreach and Results

The public survey conducted was a joint effort to receive input for two regional plans: Pedestrian Vision Plan and Transit Vision Plan. The following organizations were communicated with electronically. They communicated with their constituents about the survey opportunity.

- ▲ BLUE RIDGE BICYCLE CLUB
- ▲ BLUE RIDGE INDEPENDENT LIVING CENTER (NEWSLETTER, FACEBOOK, DISABILITY ADVOCATES EMAIL DISTRIBUTION LIST)
- ▲ BLUE RIDGE INTER-AGENCY COUNCIL ON HOMELESSNESS
- ▲ CHAMBER OF COMMERCE TRANSPORTATION COMMITTEE
- ▲ CITY OF ROANOKE (MYROANOKE EMAIL LIST, ECONOMIC DEVELOPMENT BIZNEWS, DOWNTOWN PLAN FACEBOOK PAGE, PLANNING DEPARTMENT WEBPAGE)
- ▲ CITYWORKS FACEBOOK, TWITTER
- ▲ COUNCIL OF COMMUNITY SERVICES NON-PROFIT E-NEWSLETTER
- ▲ GREENWAY COMMISSION
- ▲ KIWANIS CLUB
- ▲ LOUDON-MELROSE/SHENANDOAH WEST TRANSFORMATION PLAN CONSULTANT
- ▲ REGIONAL BICYCLE ADVISORY COMMITTEE
- ▲ ROANOKE CHAPTER OF INTERNATIONAL MOUNTAIN BIKING ASSOCIATION
- ▲ ROANOKE REGIONAL HOUSING NETWORK

- ▲ REGIONAL COMMISSION (WEBSITE, FACEBOOK)
- ▲ RIDESOLUTIONS (MEMBER LIST, WEBSITE, FACEBOOK)
- ▲ ROANOKE COUNTY (COMMUNITY DEVELOPMENT E-NEWSLETTER, PLANNING SERVICES FACEBOOK)
- ▲ SENIOR NETWORKING GROUP EMAIL LIST

Paper surveys provided to the following libraries:

1. South County Library
2. Glenvar Library
3. Hollins Library
4. Vinton Library
5. Salem Library
6. Gainsboro Library
7. Jackson Park Library
8. Melrose Library
9. Raleigh Court Library
10. Williamson Road Library

Business cards with the web address of the survey were delivered to the following senior living and rehabilitation centers:

Pheasant Ridge Nursing Rehab

4435 Pheasant Ridge Rd., Roanoke, VA 24014

Brandon Oaks Retirement Village

3804 Brandon Ave., SW, Roanoke, VA 24018

Friendship Health and Rehab Center and Friendship Retirement Community

327 Hershberger Rd, #1, Roanoke, VA 24012

Salem Health and Rehab Center

1945 Roanoke Blvd., Salem, VA 24153

Our Lady of the Valley

Jefferson Street across from St. Andrew's Catholic Church

Emeritus Senior Living

1127 Persinger Rd., SW, Roanoke, VA 24015

Emeritus at Cave Spring

3585 Brambleton Ave., Roanoke, VA 24018

Summerville at Ridgewood Gardens

- 2001 Ridgewood Dr., Salem, VA 24153
Hermitage in Roanoke (formerly Roanoke United Methodist Home)
 1009 Old Country Club Rd., Roanoke, VA 24017
Edinburgh Square Retirement Community
 129 Hershberger Rd., NW, Roanoke, VA 24012
Magnolia Ridge Residential Care & Assisted Living
 1007 Amherst St., SW, Roanoke, VA 24015
Elm Park Estates
 4230 Elm View Road, Roanoke, VA 24018
Hamilton Haven of Roanoke
 2720 Cove Rd., NW, Roanoke, VA 24017
Candis Home For Adults
 1619 Hanover Ave., NW, Roanoke, VA 24017
Local Office on Aging
 706 Campbell Ave., SW, Roanoke, VA 24016
Kirk Family YMCA
 520 Church Avenue, SW, Roanoke, VA 24016
Melrose Towers
 3038 Melrose Ave., NW, Roanoke, VA 24017
Jamestown Place
 1533 Pike Lane, SE, Roanoke, VA 24014
Morningside Manor
 1020 13th St., SE, Roanoke, VA 24013

Regional Pedestrian and Transit Vision Plans Survey																																																								
<p>If you need additional accommodations in order to complete this survey, please contact Cristina Finch at 540-343-4417 or cfinch@rvarc.org. You may also take the survey online at: http://www.surveymonkey.com/s/HQK8LS8.</p>	<p style="text-align: center;">Roanoke Valley Area METROPOLITAN PLANNING ORGANIZATION</p> <p style="text-align: center; font-size: small;">Staffed by the REGIONALcommission</p>																																																							
<p>1. In what locality do you reside?</p> <p><input type="checkbox"/> Bedford County <input type="checkbox"/> Botetourt County <input type="checkbox"/> Montgomery County <input type="checkbox"/> Roanoke County <input type="checkbox"/> City of Roanoke <input type="checkbox"/> City of Salem <input type="checkbox"/> Town of Vinton <input type="checkbox"/> Other (please specify)</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	<p>10. How would you classify your walking (or rolling if you use a wheelchair or mobility scooter) ability in terms of the following?</p> <p><input type="checkbox"/> I have no difficulty walking a quarter-mile or more. <input type="checkbox"/> I can walk a couple blocks but more is difficult for me. <input type="checkbox"/> I can walk a block but more is difficult for me. <input type="checkbox"/> I am unable to walk a block.</p>																																																							
<p>2. What is your residence zip code?</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	<p>11. On average, how many DAYS per week do you walk (roll) for the following reasons?</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2"></th> <th colspan="6">Days</th> </tr> <tr> <th>0</th> <th>1</th> <th>2</th> <th>3-4</th> <th>5</th> <th>6-7</th> </tr> </thead> <tbody> <tr> <td>To get to work/school</td> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>To get something to eat</td> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>To get to stores/do errands</td> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>To get to medical appointments</td> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>To exercise</td> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>To visit friends or go out for fun</td> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>		Days						0	1	2	3-4	5	6-7	To get to work/school							To get something to eat							To get to stores/do errands							To get to medical appointments							To exercise							To visit friends or go out for fun						
	Days																																																							
	0	1	2	3-4	5	6-7																																																		
To get to work/school																																																								
To get something to eat																																																								
To get to stores/do errands																																																								
To get to medical appointments																																																								
To exercise																																																								
To visit friends or go out for fun																																																								
<p>3. In what locality do you work?</p> <p><input type="checkbox"/> Not applicable, I don't work <input type="checkbox"/> Bedford County <input type="checkbox"/> Botetourt County <input type="checkbox"/> Montgomery County <input type="checkbox"/> Roanoke County <input type="checkbox"/> City of Roanoke <input type="checkbox"/> City of Salem <input type="checkbox"/> Town of Vinton <input type="checkbox"/> Other (please specify)</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	<p>12. Please list the top three locations where "regionally significant" pedestrian accommodations are most needed (not local neighborhood streets). Include specific street segments and/or intersections for reference.</p> <p>1 <div style="border: 1px solid black; height: 30px; width: 100%;"></div></p> <p>2 <div style="border: 1px solid black; height: 30px; width: 100%;"></div></p> <p>3 <div style="border: 1px solid black; height: 30px; width: 100%;"></div></p>																																																							
<p>4. What is your work zip code?</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	<p>13. Do you think local governments should allocate more money to improve public transit services?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>																																																							
<p>5. What is your age?</p> <p><input type="checkbox"/> Under 18 <input type="checkbox"/> 18-25 <input type="checkbox"/> 26-35 <input type="checkbox"/> 36-45 <input type="checkbox"/> 46-55 <input type="checkbox"/> 56-65 <input type="checkbox"/> Over 65</p>	<p>14. Please share why you think public transit is or is not important in the Roanoke Valley.</p> <div style="border: 1px solid black; height: 100px; width: 100%;"></div>																																																							
<p>6. Do you own a car?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>																																																								
<p>7. Do you have a mobility disability and/or use a wheelchair, scooter, or other mobility device?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>																																																								
<p>8. Do you think local governments should allocate more money to construct/improve pedestrian facilities?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>																																																								
<p>9. Please share why you think walkability is or is not important to the Roanoke Valley.</p> <div style="border: 1px solid black; height: 100px; width: 100%;"></div>																																																								

15. In the past year, have you used public transit (such as Valley Metro, Smart Way, RADAR)?

- Yes No

16. What public transit service did you use?

- Valley Metro local fixed routes
 Starline Trolley
 Smart Way Commuter Bus
 Smart Way Commuter Bus to Amtrak
 RADAR – STAR service (City of Roanoke, Salem, and Vinton residents).
 RADAR – County of Roanoke (CORTAN) service
 Other (please specify)

17. In the past year, how often did you use public transit?

- Less than once a month
 1-3 times per month
 Once or twice a week
 About every day

18. On average, how many DAYS per week do you use public transit for the following reasons?

	Days					
	0	1	2	3-4	5	6-7
To get to work/school						
To get something to eat						
To get to stores/do errands						
To get to medical appointments						
To exercise						
To visit friends or go out for fun						

19. If you use public transit to get to work, please indicate the main reason by checking the appropriate box below.

- Not applicable; I don't use public transit to get to work.
 It is my only way to get to work.
 The cost of parking my car is too much.
 It is environmentally-friendly.
 Other (please specify)

20. What factor(s) discourage you from using public transit? Select all that apply.

- Not Applicable: I frequently use public transit.
 The bus doesn't come near my home.
 The bus doesn't go where I need to go.
 The bus doesn't come often enough for me to use it.
 The bus ride to where I need to go is too long.
 I don't understand how the bus system works.
 I worry about my personal safety.
 Other (please specify)

21. If it were convenient and affordable, would you consider using public transit?

- Not Applicable: I currently use public transit.
 Yes No

22. List the top three activity centers or destinations you feel should be better connected via the public transit network. Include specific street segments and/or intersections for reference.

1

2

3

23. What one public transit or pedestrian accommodation, service or idea is so important that you would be disappointed if it were not included in the final plan?

24. What is the most important message you would like to share with decision-makers about walking?

25. What is the most important message you would like to share with decision-makers about public transit?

26. Please list any other comments or suggestions about walking or public transit.

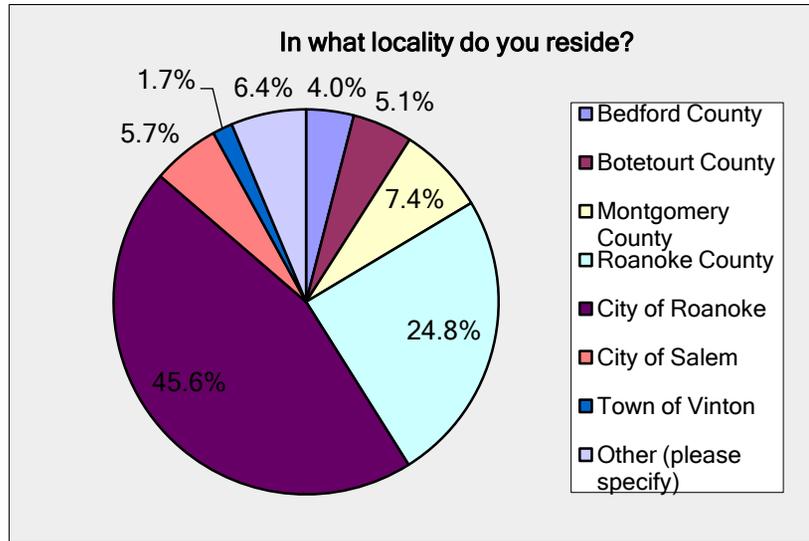
Thank you for completing this survey! Please send to:

Fax: 540-343-4416
 E-mail: cfinch@rvarc.org
 Mail: P.O. Box 2569, Roanoke, VA 24010

Summary of Public Survey Responses

1. Survey Responder - Place of Residence

LOCALITY	% of Current MPO Population	Response Percent	Response Count
Bedford County	0.2%	4.0%	19
Botetourt County	5.7%	5.1%	24
Montgomery County	0.3%	7.4%	35
Roanoke County	32.0%	24.8%	117
City of Roanoke	46.2%	45.6%	215
City of Salem	11.8%	5.7%	27
Town of Vinton	3.9%	1.7%	8
Other (please specify)		6.4%	30
<i>Alleghany County</i>		0.2%	1
<i>Blacksburg</i>		0.4%	2
<i>Christiansburg</i>		0.8%	4
<i>Craig County</i>		0.4%	2
<i>Ferrum</i>		0.2%	1
<i>Franklin County</i>		1.7%	8
<i>Giles County</i>		0.2%	1
<i>Lynchburg</i>		0.2%	1
<i>Overseas</i>		0.2%	1
<i>Pulaski</i>		0.4%	2
<i>Radford</i>		0.4%	2
<i>West Virginia</i>		0.2%	1
answered question			470
skipped question			1

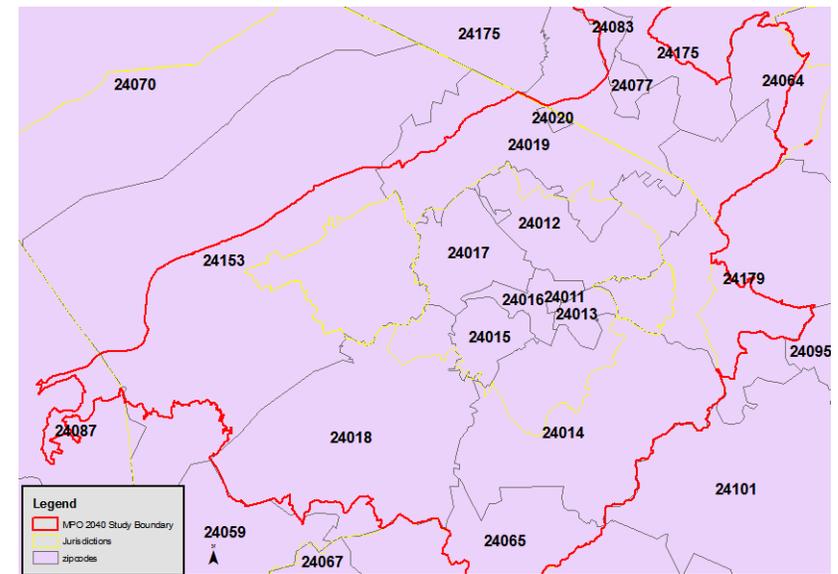


2. Survey Responder - Residence by Zip Code

Responses	Zip Code
82	24018
72	24015
47	24014
37	24153
28	24019
24	24016
22	24012
19	24060
17	24073
16	24179
13	24013
13	24017
11	24020
9	24175

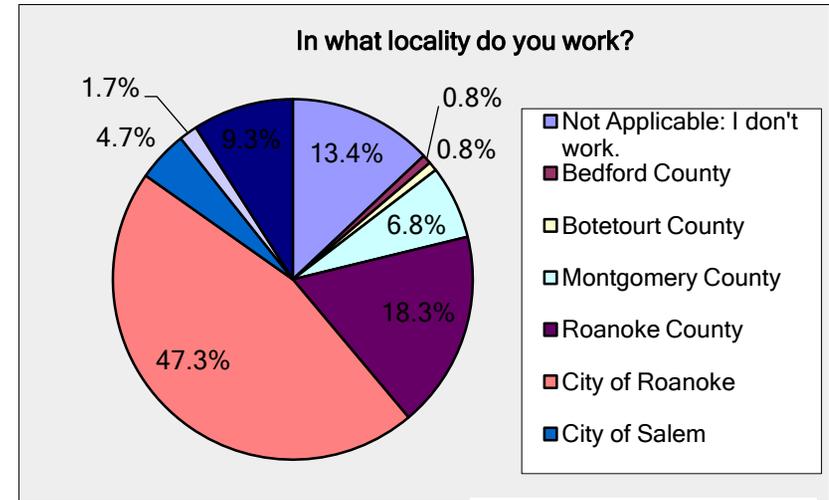
Zip Codes with 5 or fewer responses:

24064	20189	24162
24011	24059	24426
24121	24065	24503
24151	24066	24551
24523	24070	24740
24083	24088	27204
24101	24092	
24077	24122	
24087	24127	
24095	24128	
24149	24134	
24174	24141	
24301	24143	



3. Survey Responder – Place of Work

Job Location	Response Percent	Response Count
Not Applicable: I don't work.	13.4%	63
Bedford County	0.8%	4
Botetourt County	0.8%	4
Montgomery County	6.8%	32
Roanoke County	18.3%	86
City of Roanoke	47.3%	223
City of Salem	4.7%	22
Town of Vinton	1.7%	8
Other (please specify)	9.3%	44
<i>At Home</i>	0.8%	4
<i>All</i>	0.6%	3
<i>Various states</i>	0.2%	1
<i>Overseas</i>	0.2%	1
<i>Alleghany County</i>	0.2%	1
<i>Town of Blacksburg</i>	0.8%	4
<i>City of Radford</i>	0.8%	4
<i>Craig County</i>	0.2%	1
<i>Town of Dublin</i>	0.2%	1
<i>Franklin County</i>	0.2%	1
<i>Town of Hillsville</i>	0.2%	1
<i>City of Lynchburg</i>	0.6%	3
<i>Floyd County</i>	0.2%	1
<i>New River Valley</i>	0.2%	1
<i>Town of Rocky Mount</i>	0.4%	2
Total Job Location Responses		471



4. Survey Responder –
Place of Work by Zip Code

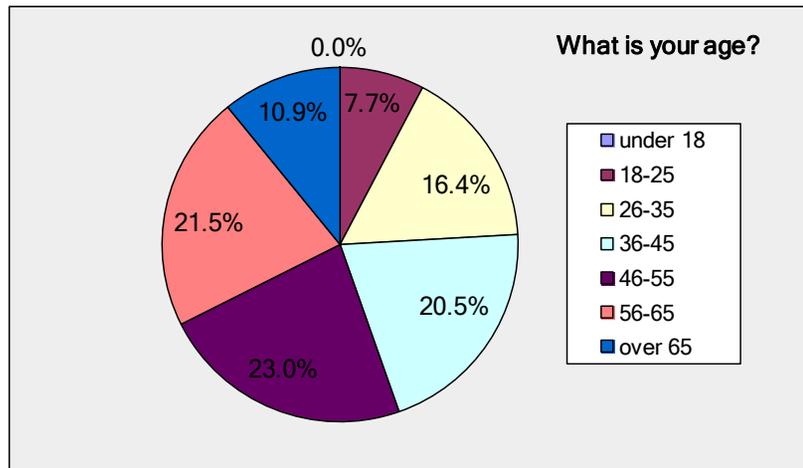
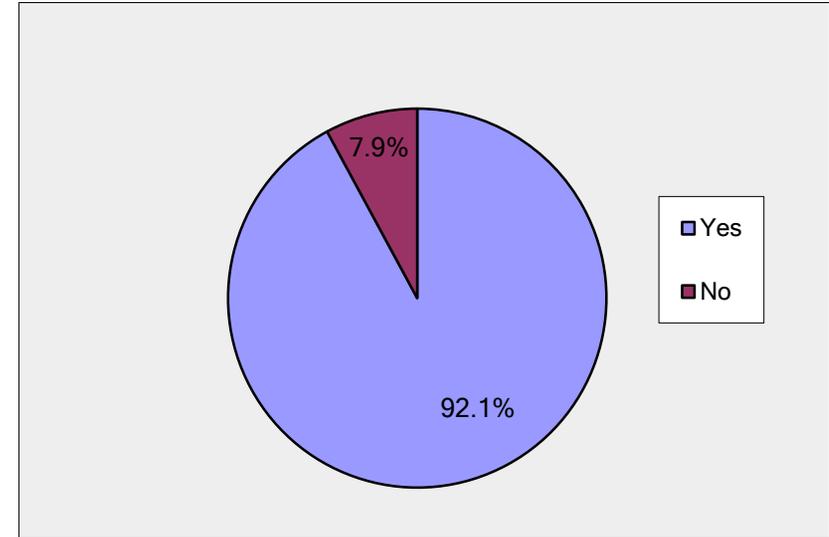
Zip codes with 5 or fewer responses

Responses	Zip Code
50	24019
49	24011
45	24018
43	24016
38	24012
26	24153
19	N/A
17	24014
16	24061
14	24020
13	24060
12	24015
11	24179
9	24013
9	24017

24073	20189
24042	24005
24142	24022
24151	24038
24502	24043
24001	24070
24010	24083
24077	24084
Varies	24106
	24120
	24121
	24127
	24343
	24422
	24523

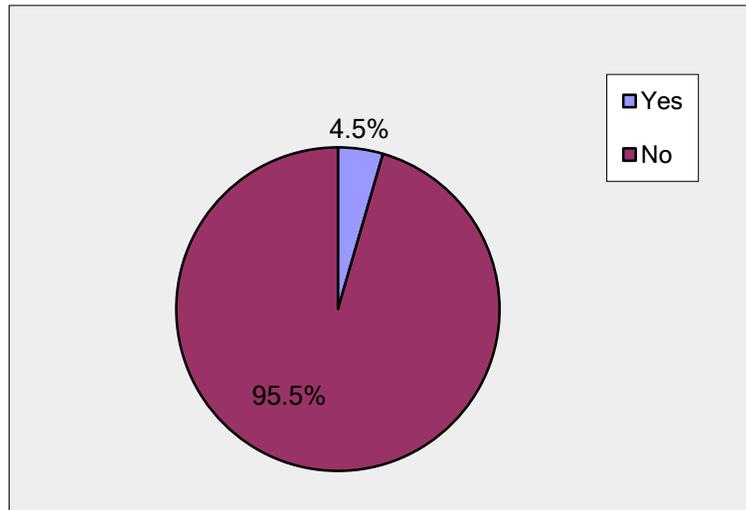
5. Responses by Age – What is your age?

Age Bracket	Response Percent	Response Count
under 18	0.0%	0
18-25	7.7%	36
26-35	16.4%	77
36-45	20.5%	96
46-55	23.0%	108
56-65	21.5%	101
over 65	10.9%	51
<i>answered question</i>		469
<i>skipped question</i>		2

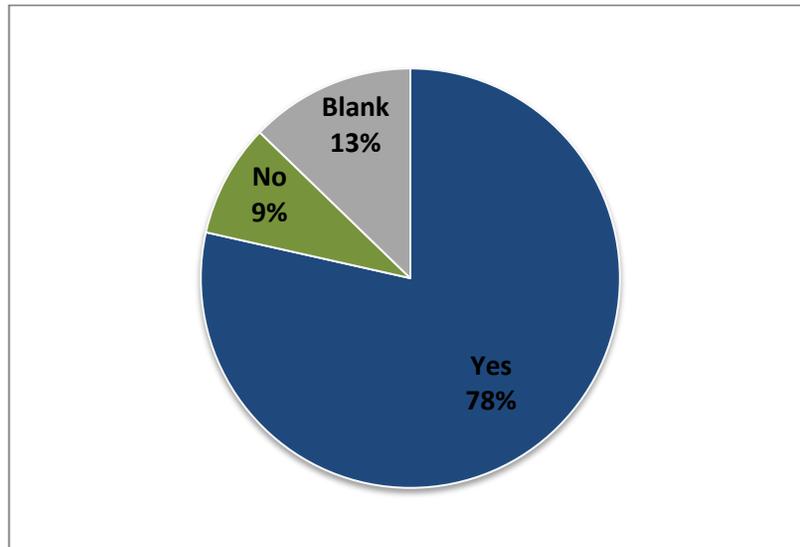


6. Vehicle Ownership – Do you own a car?

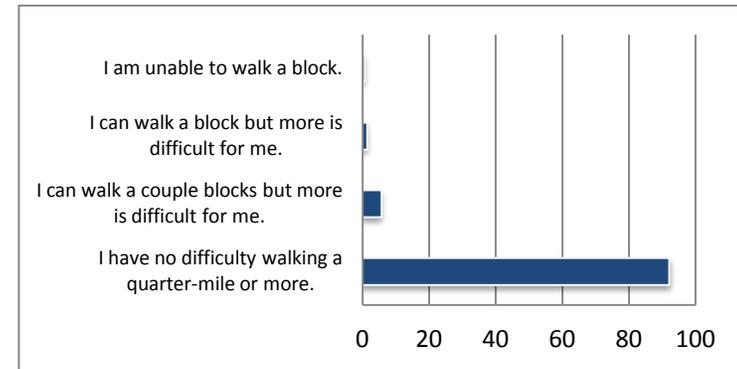
7. Do you have a mobility disability and/or use a wheelchair, scooter, or other mobility device?



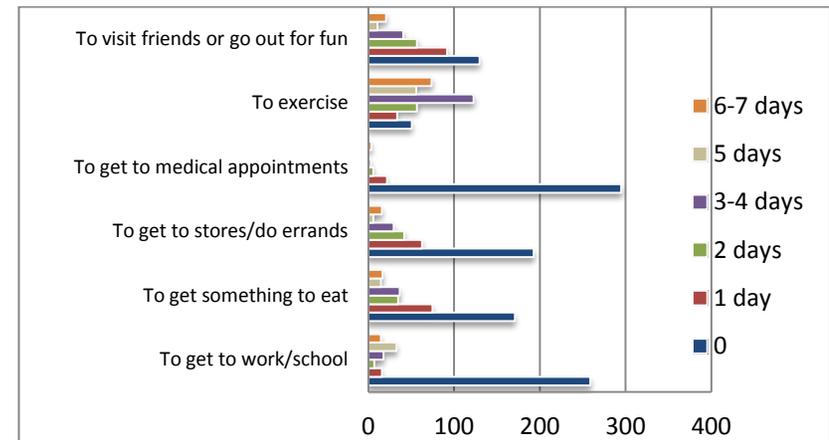
8. Do you think local governments should allocate more money to construct/improve pedestrian facilities?



9. How would you classify your walking (or rolling if you use a wheelchair or mobility scooter) ability in terms of the following?



10. On average, how many DAYS per week do you walk (roll) for the following reasons?



In addition, many pages worth of answers regarding why people think walkability is or is not important to the Roanoke Valley; the top three locations where “regionally significant” pedestrian accommodations are most needed, and the most important message to share with decision-makers about walking are available at the Regional Commission.