MEMORANDUM

TO: Members, Botetourt County Planning Commission
Members, Botetourt County Board of Supervisors

FROM: Nicole Pendleton, Planning Manager/Zoning Administrator

SUBJECT: Comprehensive Plan Amendments

DATE: November 14, 2016

CC: Gary Larrowe, County Administrator
David Moorman, Deputy County Administrator
Mike Lockaby, County Attorney
Jerod Myers, Planner

Planning staff have been working towards realizing updates to the Comprehensive Plan to better reflect local trends and conditions. This will allow the County to continue planning for the future with confidence, accuracy, and sensitivity to the needs of the community. The following memo is written in regards to two forthcoming amendments that are being considered at November public Planning Commission public hearings.

Building off the efforts of the "Exit 150 Market Study and Conceptual Land Use Plan" which was presented in June of 2015, Renaissance Planning is presenting the Gateway Crossing Area Plan, which serves to update the 2010 Comprehensive Plan and Future Land Use Map to better capitalize on roadway development in the area and to solidify the vision for how the area could develop over time through infill development and redevelopment. In addition, this plan designates two Urban Development Areas (UDAs) that are in conformance with Section 15.2-2223.1 of the Virginia State Code. The purpose of the UDA is to encourage compact, mixed-use development in those areas of the county where it is most appropriate. The UDA designation does not restrict development outside of the UDA.

The following timeline illustrates actions to date in 2016 regarding the proposed amendments:

- March: Board of Supervisors authorized application for assistance
- April: Award notification received
- June: Long-range work session with Planning Commission; members authorized proposed timeline for amendments; consultant conducted field visits and interviews with stakeholders and staff members
- August: UDA and Gateway Crossing Stakeholder Committee Kickoff Meeting
- September: Stakeholder Committee 2nd Meeting and Community Meeting with over 100 residents in attendance.
- October: At the October 11 work session, Renaissance Planning presented the proposed plan to the Planning Commission; members authorized public hearing of the Gateway

Crossing Area Plan amendment at the November 14 Planning Commission and November 22 Board of Supervisors meeting.

Following the meeting on October 11th, updates to the Gateway Crossing Plan have been made to strengthen and clarify several elements. Regarding land use and connectivity, text was added describing the addition of a signalized section on US Route 220 at the Howard Johnson Inn driveway crossover. The signal would have an additional benefit of providing access to parcels on the east side of US Route 220 between the highway and Interstate 81. A new signal at this location would also provide for a safer crossing of US Route 220 for pedestrians and Appalachian Trail hikers. A section further detailing access management was added, identifying key access issues in the US Route 220 corridor from Glebe Road to the new Gateway Crossing Road, and on Route 11 within the Gateway Crossing study area. The section concludes with a toolbox of options for improving access management in this area. The consultants also added a brief summary, which highlights next steps after the comprehensive plan update—the most important being to update the zoning ordinance to align development regulation with the vision created by the comprehensive plan. Renaissance Planning staff will be presenting the county with a high-level analysis of zoning challenges and opportunities and based on this report, staff is prepared to prepare a request for proposal for updates to the zoning ordinance in early 2017.

In addition to the above amendment, "*Chapter II: Population and Demographics*" of the 2010 Comprehensive Plan has been updated. This chapter provides an overview and analysis of trends that may shape the future of the County. Evaluating changes in a community's population over time helps a locality better understand current needs and can help the community anticipate future needs that should be addressed in the plan's goals, objectives and policies. The Chapter is objective in nature and opens with six key trends that should serve as "food for thought" regarding future policy actions. These trends include an aging population, polarized age demographics, educational attainment, a highly mobile workforce and housing. Of note, localities that comprise the Roanoke MSA were selected as peer comparisons, allowing Botetourt to benchmark itself against surrounding jurisdictions.

In collaboration with the above initiatives, Robert Beatty, GIS Technician, has been working to update maps found in the 2010 Comprehensive Plan. With your recommendation and the Board of Supervisors approval, the attached maps will be formally adopted. Further maps will be updated and presented for adoption as their corresponding chapter is updated and approved.

Pending discussion at the Planning Commission Public Hearing, staff respectfully asks for your recommendation for these amendments to the Comprehensive Plan.

Attachment

BOTETOURT COUNTY, VA

GATEWAY CROSSING AREA PLAN

DRAFT | November 2016

BOTETOURT
COUNTY OF VIRGINIA

BOTETOURT COUNTY, VA

GATEWAY CROSSING AREA PLAN

prepared by:

RENAISSANCE PLANNING

on behalf of:

BOTETOURT COUNTY OF VIRGINIA

DRAFT November 2016

Contents

1. INTRODUCTION

1.1 Area Plan Purpose

Gateway Crossing is the front door to Botetourt County. It is where three major routes – U.S. 220, U.S. 11, and Interstate 81 – come together, and is also a key passage between ridges for the world famous Appalachian Trail. The area has been a critical juncture for travelers and local residents for decades. As the county grew, the area's main arteries for traffic became increasingly congested, hindering its development potential. But changes are coming to Gateway Crossing. The Virginia Department of Transportation is rebuilding the exit 150 interchange. This project is designed to improve safety and traffic flow along U.S. routes 220 and 11. This major project will also improve access to land for new development. As a result, the county decided that the timing was right to take a closer look at how the land around the interchange may develop over time and create a vision for the future of this critical area. The purpose of this area plan is to clarify the county's preferred vision for the Gateway Crossing district and to establish policy for future development of the area so that the vision may be realized.

1.2 Gateway Crossing District Goals

This area plan builds on a study conducted in 2015 of market potential for various types of development. This study, named the Exit 150 Market Study and Conceptual Master Plan (hereafter referred to as the Exit 150 study) also yielded a vision for how the area could develop over time through infill development and redevelopment. The overarching vision is of a walkable district with a mixture of uses including housing and locally-serving shops and offices to the west of Interstate 81, and both local and highway-serving shops, hotels, and services to the east of Interstate 81. New sidewalks, greenways, bicycle lanes, and a local street network would knit the area together and better connect it to the Roanoke Valley region. This vision points to six key goals for the future development of Gateway Crossing.

1. Develop a mixed use center that is an attractive gateway to Botetourt County.
2. Create a walkable district connected by trails and a network of walkable and bike-friendly streets.
3. Revitalize Gateway Crossing as an economic hub of Botetourt County.
4. Update the county's development policies and codes to support the Gateway Crossing vision.
5. Unlock new development opportunities by providing street access from Routes 220 and 11.
6. Build a stronger connection to the Appalachian Trail to leverage this unique asset.

1.3 Relationship to the County Comprehensive Plan

This area plan will become an amendment to the county's comprehensive plan upon its adoption by the Board of Supervisors. It will supersede previously adopted policies, such as the future land use map adopted in 2011, for the Gateway Crossing study area. It will also amend the comprehensive plan to designate urban development areas, which are described in chapter 2.4.

1.4 Planning Process

The Gateway Crossing Area Plan builds upon the vision of the Exit 150 study. This study identified market-supported development opportunities in this district and illustrated a conceptual land use plan for the area. This vision, while enjoying broad support, has not officially been adopted as county policy. Setting policy is a key outcome of this area plan. Therefore, the planning process for the area plan picked

up where the Exit 150 study left off. The county engaged a stakeholder committee through meetings and a design charrette meeting, and held an open public meeting, during the development of the Exit 150 study. For the area plan, the county reconvened a Stakeholder Committee to provide its consulting team with guidance on key elements of this plan, such as the future land use map, the connectivity plan, and the design principles. The members of the Stakeholder Committee are listed in the table below.

Name	Affiliation
Todd Dodson,	Board of Supervisors, Amsterdam District
Mac Scothorn,	Board of Supervisors, Valley District
Joyce Kessinger	Botetourt County Economic Development Authority
Lyn Hayth	CEO, Bank of Botetourt
Bill Thurman	Chair, Planning Commission, Valley District
Hiawatha Nicely	Planning Commission, Amsterdam District
B Painter	Developer and study area property owner
Andy Kelderhouse	President, Fralin and Waldron
Les Talbot	Study area property owner
Steve Mabry	Study area property owner
Andrew Downs	Regional Appalachian Trail Conservancy Regional Director

The county also held an open house on September 19, 2016 at the Greenfield Education and Training Center to share initial land use, connectivity, and design concepts and gather feedback. More than 60 people attended the open house and shared their thoughts on the future of Gateway Crossing. A summary of their ideas is provided below:

- Having a mix of land uses in the area is important, especially for attracting younger people.
- The Appalachian Trail is a key asset that brings a lot of business to the area.
- The Appalachian Trail could use a safer crossing of Route 220; a bridge would be preferable.
- A new public park connected to an Appalachian Trail trailhead is an exciting possibility.
- A regional tourist information center would be a good use of land in this area. It could provide information about the county's history, the Appalachian Trail, and other tourist attractions.
- Clean industries are desirable.
- The U.S. Bike Route 76 also comes close to the Gateway Crossing district on Routes 11 and 779 (Catawba Road), bringing the potential for more tourists to the area.
- Providing sufficient water and sewer capacity to serve the Gateway Crossing area is important.
- Several vacant properties on Route 220 between Interstate 81 and Commons Parkway are development opportunities.
- Attractive development in Gateway Crossing is important for drawing people into the county.
- Access and visibility are keys to business success in Gateway Crossing.
- Access and traffic congestion are keys for residential success in Gateway Crossing.

- The Pilot service station is an important tax revenue generator and it will be difficult to access after the VDOT project is complete. Maintaining a left turn from Route 220 south to Route 11 north is important.
- New development in the Gateway Crossing area will bring additional traffic that will need to be accommodated.
- Botetourt County has great mountain views that are important to its residents. Future development should fit within the landscape and minimize disruption of view sheds.
- The county could use more affordable housing options, especially with new jobs coming.
- Consider accommodating a branch of the local community college in Gateway Crossing.
- The area could use more upscale restaurants.

2. PLANNING CONTEXT

2.1 Comprehensive Plan

Botetourt County adopted its first comprehensive plan in 1975. The county adopted the current version in 2004 and updated it in 2011. The current plan has a 2030 planning horizon.

The 2011 update emphasizes the desire for managed growth, and that growth along 220 and I-81 should be largely commercial development that caters not just to through travelers, but transforms the area into a place. That place has since been designated as Gateway Crossing.

Comprehensive Plan Vision

"Envision a community where County residents are attaining higher educational and economic goals; are enjoying a quality of life marked by safety and security, environmental protection, quality business and residential development, and a variety of recreational and cultural opportunities; and are pleased with the value and cost of government services." (Comprehensive Plan, Page 1)

Land Use Elements

The land use section of the comprehensive plan acknowledges the importance of the County's agricultural heritage and rural, small town character. The plan states that the county "should mitigate rapid growth along US 220 to preserve the rural character north of Daleville, and promote more growth around incorporated towns." (page 35)

The plan calls for balanced and compatible growth, development that respects rural and natural areas, and recommends focusing future growth towards Urban Development Areas. The plan emphasizes infill development, discourages scattered development, highlights the importance of protecting view sheds, and encourages cluster development as well as mixed use centers with multi-modal connections. It also calls for the continual review and update of the plan, zoning, and subdivision ordinances, in coordination with the county's towns. New growth is encouraged close to existing towns and centers in a compatible, context sensitive manner, with coordination and careful planning.

Mixed Use Centers and Urban Development Areas

The county in 2011 called for promoting growth in Urban Development Areas (UDAs). UDAs are a planning tool that helps local governments in Virginia create great places by focusing capital investments on target growth areas. Virginia authorized UDAs in 2007 (Virginia Code § 15.2-2223.1.) as a requirement

for certain high growth localities, such as Botetourt County, to designate areas "sufficient to meet projected residential and commercial growth in the locality for an ensuing period of at least 10 but not more than 20 years." In 2012, however, the state amended the Code to define UDAs more broadly and make them optional. UDAs now can be any areas designated by a locality in their comprehensive plan for higher density development that incorporate the principles of Traditional Neighborhood Development (TND). These principles embody classic characteristics of traditional communities such as:

- Walkable neighborhood centers
- Interconnected streets and blocks
- Diversity of land uses and housing types
- Easy access to jobs, housing and recreation by a variety of travel options (auto, bus, walk, bike)

Mixed Use Centers

"Mixed-use centers bring together medium-to high-density residential and non-residential uses within a walkable, bicycle-friendly, and/or transit-accessible development framework. Uses can be mixed vertically, within buildings; or horizontally, when tightly clustered in a pedestrian-friendly arrangement. Due to the diversity of uses and activities, mixed-use centers are typically vibrant destinations that attract attention due to their level of activity. Fundamentally, a mixed-use center should provide a full service environment and diverse land uses (residences, offices, retail, service, entertainment, civic, and open space) for residents, employees, and visitors." (Comprehensive Plan, page 51)

In 2016 the county proposed designating Daleville Town Center and Gateway Crossing as Urban Development Areas. This designation will become official once the county amends its comprehensive plan to identify these areas as UDAs. This action is consistent with the comprehensive plan, which identified both areas as Mixed Use Target Areas. These are areas where the county envisions a mix of medium and high density residential and non-residential uses within a walkable and bicycle-friendly area. The plan further defines the Gateway Crossing Area as Regional Mixed Use, calling it an area that may be appropriate for housing, office development, hotels, movie theaters, and region-serving retail uses such as department stores and specialty stores. Therefore, the Mixed Use Target Areas are generally consistent with intent of Urban Development Areas and designating them as such is appropriate.

Once the county designates UDAs, it will also open an additional avenue through which the county can qualify for transportation funding under the state's new Smart Scale project selection process. Transportation projects are eligible for funding through Smart Scale if they relate to a designated need in a Corridor of Statewide Significance or Regional Network, or a UDA. Members of the Stakeholder Committee and the public raised concerns about access management and traffic flow along Route 220. The UDA designation could help the county secure funding for improvements to this critical arterial highway, which connects the two proposed UDAs.

Transportation and Streetscape Design Standards

The transportation section of the comprehensive plan highlights the importance of key gateways, such as Gateway Crossing, for shaping the impressions that people form about Botetourt County. Both their function and aesthetics are important. The plan states that "generally, future development along Botetourt County's primary highways should increasingly be a mixture of land uses conditioned upon the provision

or existence of adequate public facilities, the preservation of highway capacity, and improvements to access control." (Page 54). Mixed use development and interconnectivity of new streets are important strategies for achieving this desire. Mixed use development allows people to meet some of their needs within their community without needing to travel on the primary highway system, such as Routes 220 and 11. Transportation planners call this concept internal capture. Interconnected streets are also important because they provide people with multiple ways of getting from point A to point B, rather than funneling all travel onto major highways. This area plan, by encouraging a mix of uses in Gateway Crossing, and by encouraging a network of interconnected streets, will help the county meet its goal of providing safe and efficient mobility for all modes of transportation. (page 62)

The county's comprehensive plan also calls for streetscape design standards. The standards are not specified in the comprehensive plan. But this area plan supports the comprehensive plans call for streetscape design standards for the Gateway Crossing area. The plan states that "applied to I-81, at Exit 150, streetscape design standards can greatly improve the aesthetics and sense of safety for the area surrounding the interchange. This would improve the gateway into the Botetourt community from the south, and help change the overall character of land uses. Visually cohesive streetscapes use a variety of techniques including landscaping, undergrounding of utilities, and other streetscape improvements along street frontages that reflect adjacent land uses." (Page 50)

2.2 Botetourt County 2017-2021 Capital Improvements Plan

The Capital Improvements Plan (CIP) guides continued investment in the county's physical infrastructure and facilities and is reviewed and adopted annually. It reflects priorities for growth and development outlined in the comprehensive plan. The 2017-2021 budget[1] does not include any streetscape, bicycle, or pedestrian improvements in the Gateway Crossing area. The CIP is a tool that the county can use to implement some of the ideas embodied in this plan, such as a new park space with parking, local trails, and signage for an enhanced Appalachian Trail trailhead, or for the network of shared use paths envisioned in this area plan.

2.3 Exit 150 Market Study and Conceptual Master Plan

The Exit 150 Study produced two main outcomes. The first is an assessment of potential future demand for land uses in the Gateway Crossing District. The second is a conceptual land use plan for the area. This area plan builds on the Exit 150 study, translating those market opportunities and development concepts into county policy. This section provides a summary of the market study component. The conceptual master plan is described in chapter 4.

The market assessment found that within the study area, which is slightly smaller than the area covered by this area plan, there are 360 acres of underutilized or unimproved properties. Of these acres, 229 are agriculturally zoned and 57 are zoned residential. There are 268 acres, encompassing 72 properties, that have substantial improvements. Of this group, 13 properties on less than 50 acres are considered to have moderate redevelopment potential. In summary, the Exit 150 study found substantial development and redevelopment opportunities in Gateway Crossing. However, some of these opportunities, such as

[1] http://www.co.botetourt.va.us/government/documents/finance/FY17_advertised_budget_CIP.pdf

large tracts of undeveloped land off Tinker Mountain Road, will require improved access before they can be developed.

The Exit 150 Study also assessed market demand for different types of commercial and residential land uses, especially in the context of its location in the larger Roanoke catchment area that includes 31,000 households. The assessment found gaps in many retail categories, except for grocery. It also found that the strategic location of Gateway Crossing would appeal to the population living north, who would normally drive to Valley View or Tanglewood regional retail centers further south. The presence of Interstate 81 and its 50,000 daily travelers in this area are also a major generator of market demand, and may drive the development of additional hotel rooms. The Exit 150 Study also found substantial residential demand in this area, stating that "market rate apartments in an attractive, mixed use environment may be the winning formula for future development in the Exit 150 area." (Page 1-7). A summary of the market supportable development opportunities is listed below. It is important to note, however, that this study preceded numerous business location announcements in 2016 that are expected to bring up to 1,000 new jobs within the next 10 years.

Table 1 - Market Supportable Development Opportunities. Source: Exit 150 Study

Use	Quantity	Requisite Conditions
RETAIL MARKET POTENTIAL		
Auto Parts	22,000 to 28,000 square feet (1 to 2 stores)	Convenience
Florists, used merchandise, and miscellaneous	9,000 to 16,000 square feet (4 to 8 stores)	In shopping center environment
Full-and limited service restaurants	20,000 to 30,000 square feet (4 to 8 establishments)	Suitable visibility, access and environment, national chains
Electronic and appliances	5,000 to 12,000 square feet (1 store)	Convenience, access and visibility
Sporting goods	22,000 to 33,000 square feet (1 store)	Suitable visibility and access
Office supplies	4,800 to 7,000 square feet (1 store)	Convenience
Building materials, lawn and garden supplies	12,000 to 17,500 square feet (1 store)	Convenience
Groceries	Upgrade offerings, but no new stores	Perceived weakness in the marketplace
Pharmacies and drugs	15,000 to 25,000 square feet (1 store)	Convenience, access and visibility
General merchandise	500 to 700 square feet (1 store)	Convenience
Clothing and Clothing Accessories	5,000 to 9,000 square feet (1 to 2 stores)	Convenience, access and visibility
Specialty retail (fashion center/outlet mall)	100,000 to 150,000 square feet (multiple stores)	Suitable visibility and access, must be unique

Use	Quantity	Requisite Conditions
		retail destination in the marketplace
HOTEL MARKET POTENTIAL		
Upper midscale hotel	80 to 150 rooms; 1 to 2 new or repositioned	Suitable visibility, access and environment, transient stopping point
MULTI-FAMILY RESIDENTIAL MARKET POTENTIAL		
Apartment and townhouses	25 to 50 average annual units	Access and environment, lack of local housing choices

2.4 Urban Development Areas

Background

Urban Development Areas (UDAs) are a planning tool that helps local governments in Virginia focus capital investments on target growth areas. Upon adoption of this area plan, Botetourt County will designate the Gateway Crossing district and Daleville Town Center as urban development areas (UDAs) consistent with Section 15.2 – 2223.1 of the Virginia State Code.[2] The purpose of the UDAs is to encourage compact, mixed use development in those areas of the county where it is most appropriate. The UDA designation does not restrict development outside of the UDAs.

There are several benefits to designating UDAs in Botetourt County. Taking this step can improve the efficiency of services and infrastructure by encouraging growth in areas where existing or planned infrastructure can accommodate it. Also, concentrating growth and development in these zones may reduce development pressure in other areas of the county, thus allowing for the preservation of rural character and open space It also opens an additional avenue through which the county can qualify for transportation funding under the state's new Smart Scale project selection process. Transportation projects are eligible for funding through Smart Scale if they relate to a designated need in a Corridor of Statewide Significance or Regional Network, or a UDA. Designating one or more UDAs will also allow Botetourt County to fulfill a stated goal of its comprehensive plan, which is "to promote Urban Development Areas in the place or places where a variety of land uses, facilities, and services exist and are planned to support the County's future growth, with emphasis placed on infill development."[3]

The county is also facing many of the same issues faced by other suburban and rural counties in Virginia. The aging population and declining average household size is expected to increase demand for different

[2] Botetourt County's UDA is consistent with the definition of an urban development area in Virginia State Code. An urban development area is "an area designated by a locality that is (i) appropriate for higher density development due to its proximity to transportation facilities, the availability of a public or community water and sewer system, or a developed area and (ii) to the extent feasible, to be used for redevelopment or infill development."

[3] Botetourt County Comprehensive Plan 2010. Page 43.

types of housing than the traditional single-family detached house, which accounts for the vast majority of housing in Botetourt County. In many localities across Virginia, these trends are leading to the development of walkable neighborhoods with a variety of housing types that have easy access to shops, jobs, and entertainment. Supporting more of this type of development in Botetourt County will support economic development, and provide new housing for people that will be moving to the area for the new jobs recently announced at the Botetourt Center at Greenfield and in Daleville.

UDA Geography

The Urban Development Areas cover the Daleville Town Center area and the Gateway Crossing district that is the subject of this area plan. The county identified the UDAs through a study in 2016 funded by the Office of Intermodal Planning and Investment's Urban Development Area Technical Assistance Grant Program.

Traditional Neighborhood Design Principles

Urban Development Areas are intended to encourage development that makes use of traditional design principles, which are important for the county because they emphasize walkability and a mixture of housing types and commercial uses. Demand for development with these features is growing not just in Virginia, but across the nation. growing nationwide and in Virginia. It is the county's policy to encourage within the UDAs the following traditional town design principles:

- Pedestrian-friendly road design
- Interconnection of new local streets with existing local streets and roads
- Connectivity of road and pedestrian networks
- Preservation of natural areas
- Mixed-use neighborhoods and a mixture of housing types
- Reduction of front and side yard building setbacks
- Reduction of subdivision street widths and turning radii at subdivision street intersections to calm traffic on local streets, as permissible by VDOT standards.
- Public gathering spaces, such as plazas and small parks.

These principles are not new to Botetourt County. The county has a TND zoning designation that has been applied in Daleville Town Center.

The geography for the UDAs is illustrated in the figure below.

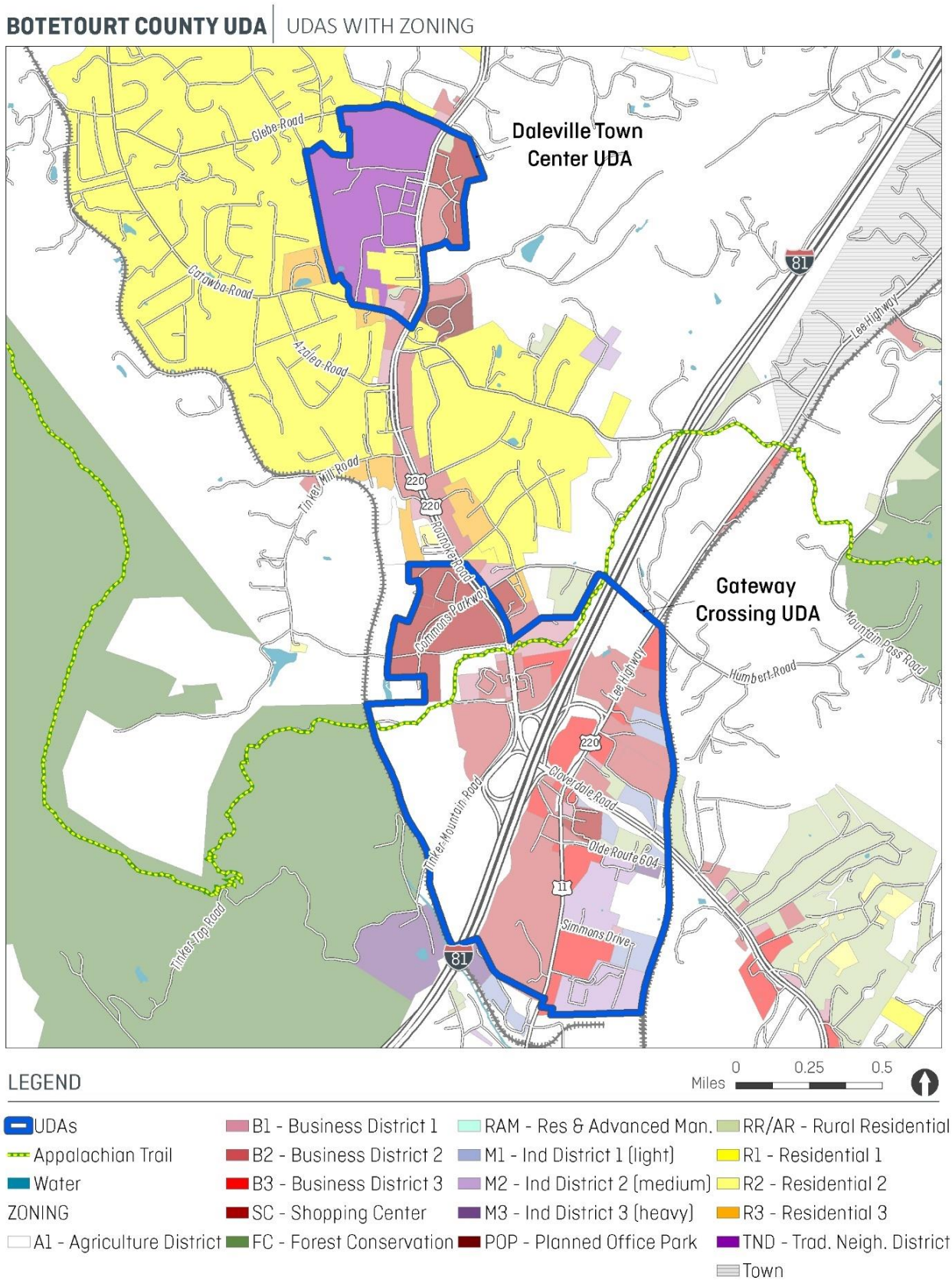

Figure 1 - Botetourt County Urban Development Areas

2.5 Exit 150 Improvement Project

The Exit 150 interchange, which connects Interstate 81 with U.S. Routes 220 and 11 in southern Botetourt County, is the key feature in the study area. The Commonwealth Transportation Board's statewide transportation plan (VTrans) identifies Interstate 81 and Route 220 as Corridors of Statewide Significance.[4] The purpose of the project is to improve safety and traffic flow at the interchange, which connects these key facilities. According to VDOT, the project entails the following changes to the area[5]:

- Relocating the northbound I-81 entrance ramp (from northbound Route 220 onto northbound I-81) to a new location adjacent to the Exit 150B off-ramp.
- Creating a dedicated Exit 150B off-ramp with NB Route 220 to improve traffic flow at the Route 11/220/220A intersection.
- Modifying Exit 150A to allow right turns onto Route 11 southbound only and eliminating hazardous merge/weaves.
- Constructing a roundabout at the Exit150B/Route 11 intersection to improve traffic flow, enhance safety and increase capacity.
- Building a new road, Gateway Crossing, to connect the new Route 11 roundabout to Route 220 Alternate.
- Modifying business access on Route 11 by installing a raised median and reducing the number of entrances.
- Modifying the entrances onto Route 11 as right-in/right-out only.
- Acquiring the Travel Center America property and a portion of the Painter parcel, which contains the business tenant known as Gene's Trading Post, which necessitates the relocation of this business.

In term of land development, a new road called Gateway Crossing will open access to several acres of developable land north of U.S. 220 and east of U.S. 11. The development potential in this specific area, plus the development interest that may emerge due to improved traffic flow through this area, are in part what created the impetus for this area plan.

2.6 Regional Transportation Plans

The Roanoke Valley Transportation Planning Organization (TPO) is responsible for transportation planning within the Roanoke urbanized area, which includes much of southern Botetourt County, including the Gateway Crossing area. This section describes the TPO's plans that could affect transportation in the study area in the future.

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[4] VTrans identifies Route 220 as the North Carolina to West Virginia Corridor and Interstate 81 as the Crescent Corridor.
[5] Virginia Department of Transportation. I-81 Exit 150 Improvement Project. Accessed September 22, 2016. http://www.virginiadot.org/projects/salem/i-81_exit_150_improvement_project.asp

Regional Pedestrian Vision Plan (2015)

The Regional Pedestrian Vision Plan [6] provides recommendations for hard surface transportation accommodations that are accessible to people with disabilities (compliant with the Americans with Disabilities Act). The Pedestrian Vision Plan recommends a hard surface sidewalk project on the new Gateway Crossing Drive, from the Exit 150 ramp to U.S. 220. This is listed as a high local priority project (shown on map). The plan calls for including trees along the accommodation to provide shading. It also calls for separating vehicle traffic from pedestrian facilities with a planting strip where feasible.

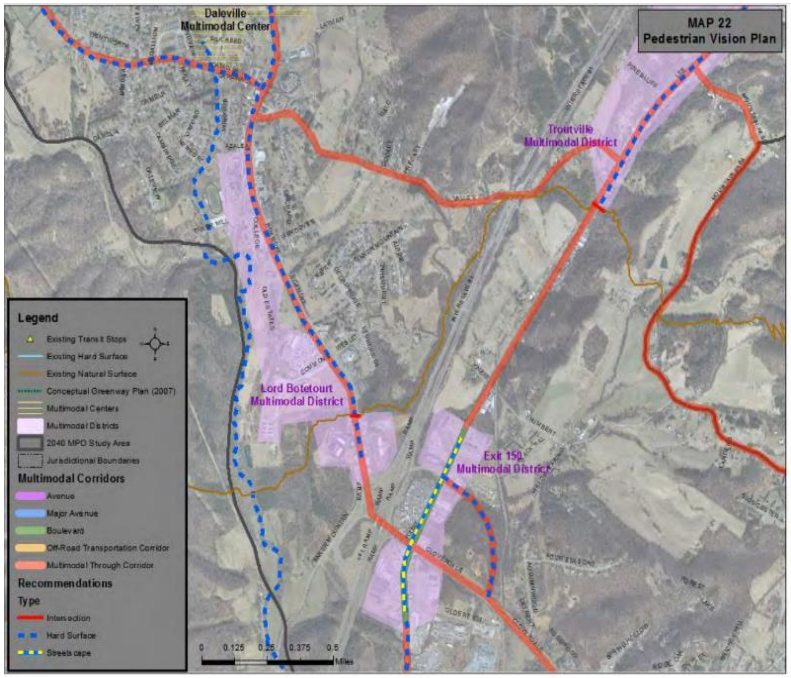


Figure 2 - Regional Pedestrian Vision Plan Map - Botetourt County

Along with the development of the Pedestrian Plan, and as recommended by the Virginia Department of Rail and Public Transportation's Multimodal System Design Guidelines, the TPO identified multimodal districts, centers, and corridors for the TPO study area. A Multimodal District is defined as an area of a locality or region whose land use characteristics can support multimodal travel, higher densities, and mixed uses; and where it is easier to make trips without reliance upon a car due to the amount of bus routes and safe walking or biking paths currently and in the future. The TPO has identified much of the Gateway Crossing area as a Multimodal District.

Regional Transit Vision (2016)

The TPO's Regional Transit Vision[7] recommends study of a potential park and ride lot near U.S. 220 and Exit 150. This lot could support future access to transit. The Transit Vision Plan also provides policy tools for active transit-supportive transportation (transit trips beginning and ending on foot or bicycle). Among the policy tools called for in the plan that could help implement the Gateway Crossing Area Plan are transit-supportive district and design standards or guidelines. The former could entail the creation of an overlay zoning district that encourages land uses and form supportive of transit, such as higher densities, mixed land use, pedestrian amenities, and access to public transit. Design standards or guidelines could be applied in the area to encourage pedestrian-friendly streets and development near future transit stations or stops.

[6] http://rvarc.org/transportation/bicycle-pedestrian-greenways/regional-pedestrian-vision-plan/
[7] http://rvarc.org/transportation/transit/

Roanoke Valley Area Metropolitan Planning Organization Congestion Management Process Plan 2013/14

Exit 150 is one of ten Areas of Emphasis for congestion listed in the TPO's Congestion Management Process Plan (CMP)[8]. In addition to the highway strategies which are part of the Exit 150 interchange project, the CMP suggests that transit-friendly and walkable mixed-use developments will lessen vehicle miles traveled by enabling more walking and bicycling trips that would otherwise require a vehicle.

A transit strategy for Exit 150 encourages exploring a broader range of transit services (in addition to County van services), to lessen congestion. Specifically, the CMP calls for commuter transit services that would connect to large commercial areas such as Daleville Town Center.

Transportation Improvement Program for the Roanoke Valley Transportation Planning Organization – Federal Fiscal Years FY2015-2018

Transportation improvement projects must be in a region's transportation improvement program (TIP) to be eligible for federal funding. The TPO's FY15-18 Transportation Improvement Program highlights the Exit 150 Access Management Project as one of 10 regional projects, citing that the measures to improve the safety and capacity of the existing intersection and northbound interstate movements will directly impact U.S. 11, 220 and 220 Alternate.

3. EXISTING CONDITIONS

Transforming the Gateway Crossing area into a walkable and attractive mixed use neighborhood is a long-term endeavor that will require incremental improvements and patience. This is because much of the area is already developed in an auto-oriented manner with fast-moving traffic, wide streets, few sidewalks or bicycle paths, and separated land uses that necessitate driving and contributes to congestion in the area. This section highlights some of the challenges, but also some opportunities, to transforming this area into an attractive front door to Botetourt County.

3.1 Land Use and Environmental Conditions

The Gateway Crossing area is a major transportation hub where Interstate 81, U.S. highways, and rail lines converge and cross. Interstate 81 and Route 220 are listed as Corridors of Statewide Significance in the statewide transportation plan, which means they serve an important role not just locally, but in connecting people and businesses across the entire state. The area naturally built up around land uses that rely on the great transportation access including industrial and service uses, such as gas stations and restaurants. Much of the flat land has been developed, and terrain may complicate development on other parcels that have not yet been developed. Figure 3 shows land uses and land cover in the area. This shows that the area has largely been developed except for a few key parcels that will likely play a key role in the future of the area. These include properties along Tinker Mountain Road, the new Gateway Crossing road, and between Route 11 and Interstate 81.

[8] http://rvarc.org/wp-content/uploads/2014/01/CMP-Plan_Final-Draft.pdf

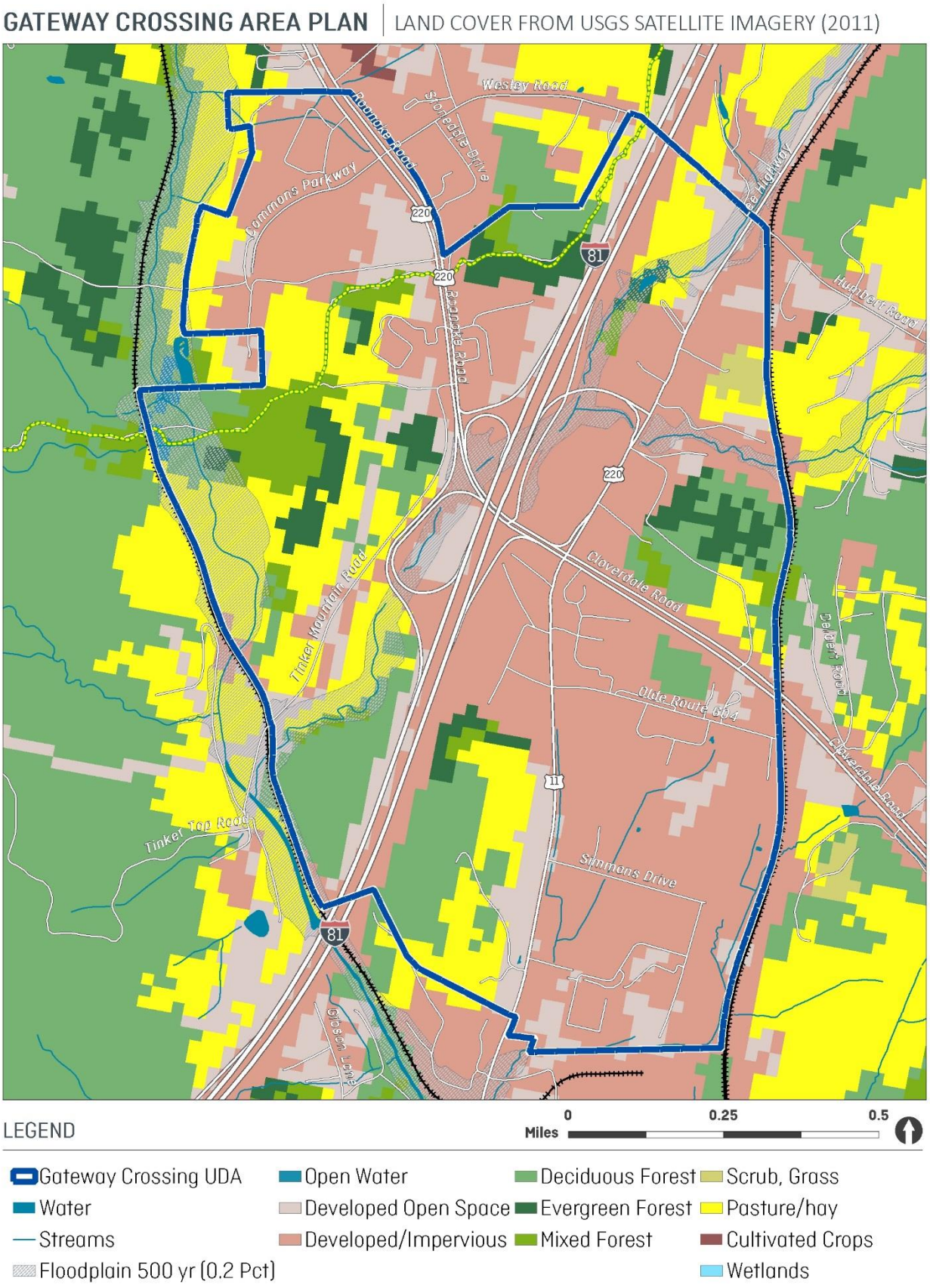


Figure 3 - Land Use, Land Cover - USGS Satellite imagery (2011)

Figure 3 shows some of the key environmental features of the Gateway Crossing area, including slopes of 25 percent or steeper (shown in orange) and floodplains (shown in blue). These areas, plus the Appalachian Trail right of way, are considered “constrained” for development. This does not mean that development cannot or will not happen, but that it will likely be more difficult and could entail a higher cost than development in the unconstrained areas. Constrained acres are either within the 500-year floodplain or have a grade of 25 percent or more. Constrained areas account for 21 percent (155 acres) of the total 741 acres included in the Gateway Crossing area. Meanwhile, unconstrained acres account for 47 percent (345 acres) of the area. Major highways and road right of ways owned and managed by the Commonwealth of Virginia cover 21 percent of the land area (152 acres). The remaining 12 percent (88 acres) are federally-owned lands that buffer the Appalachian Trail. These figures are summarized in Table 2 and illustrated in Figure 4 below.

Table 2 - Summary of UDA Acres

Category	Acres	Percent
Unconstrained (green area on following map)	345	47%
Constrained (steep slopes and floodplain)	155	21%
Roads ROW	152	21%
Federally Owned Land/AT	88	12%
Total	741	100%

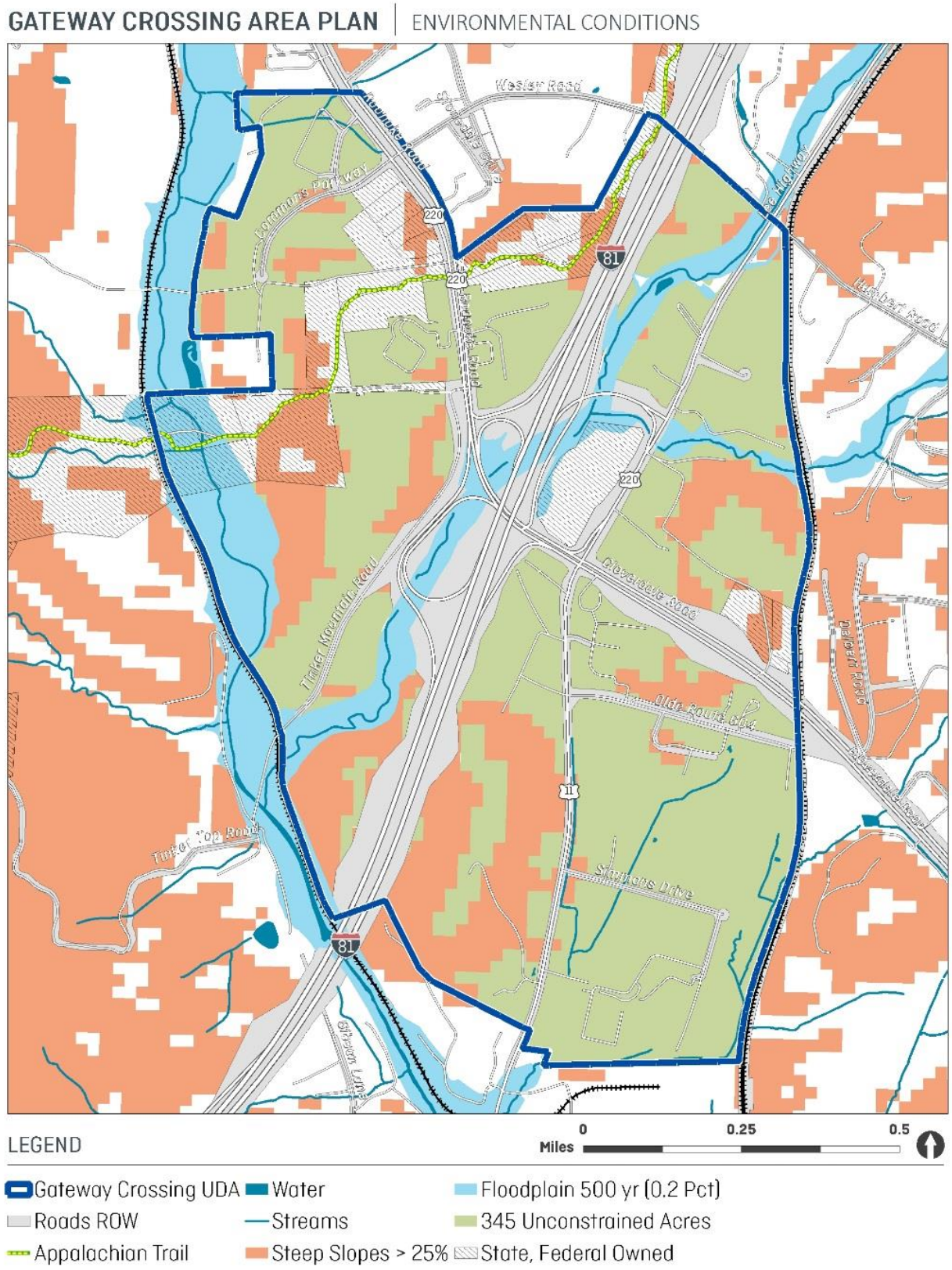


Figure 4 - Environmental Conditions

3.2 Zoning

Zoning districts are land use regulations intended to protect and promote the health, safety, and general welfare of current and future county residents by providing specific standards for how parcels of land may be used; lot dimensions, setbacks, and coverage; building size and height; and other related issues. The existing zoning in this area is nearly all for commercial and businesses, and at lower densities which do not currently support some of the more mixed use, town center type of development called for by both the Exit 150 study, and the UDA traditional neighborhood principles. The county's TND district does represent a model worth consideration in the future, or some variation of it designed with this UDA area specifically in mind.[9]

Table 3 - Zoning Summary

Zoning	Name	Observation	Uncons-trained Acres	Cons-trained Acres	Total Acres
A1	Agricultural District	Many uses allowed, but very rural setback requirements and low density oriented. Single family residential only.	58	61	119
AR (RR)	Rural Residential	Largely the same as A1 but 1.5-acre minimum lot for single family residential and 1.25 in a subdivision	5	4	9
B1	Business District B-1	Local, smaller, lighter traffic, and neighborhood compatible commercial development.	7	0	7
B2	Business District B-2	Community and service oriented commercial development, generates more traffic.	110	69	179
B3	Business District B-3	Heavy commercial, more intensive, higher access and traffic, occasionally trucking and noise and 24-hours.	46	3	49
M1	Industrial M-1	Light industrial uses that do not pose serious problems of compatibility. Requires water and sewer.	20	5	25
M2	Industrial M-2	Medium industrial is for uses that need isolation to mitigate impacts of noise, odor, dust, or smoke. Need road access and careful planning.	52	2	54
M3	Industrial M-3	Heavy industrial. For uses more impactful than M2. Should be close to other similar uses, have high road access, and carefully planned to avoid nuisance to residential and retail commercial development.	2	-	2
SC	Shopping Center District	Shopping center focused. A version of B1 or B2, but that provides a broader range of facilities and services appropriate to the general need of the area.	45	11	56
Totals			345	155	500

[9] The zoning table and map show approximate acres per zoning category within the Gateway Crossing study area. The acres were calculated using GIS, by extracting the zoning coverage based on the study area boundary, removing road right of way and federally owned lands from the calculation, and then overlaying with environmentally constrained layers described in section 3.2 above.

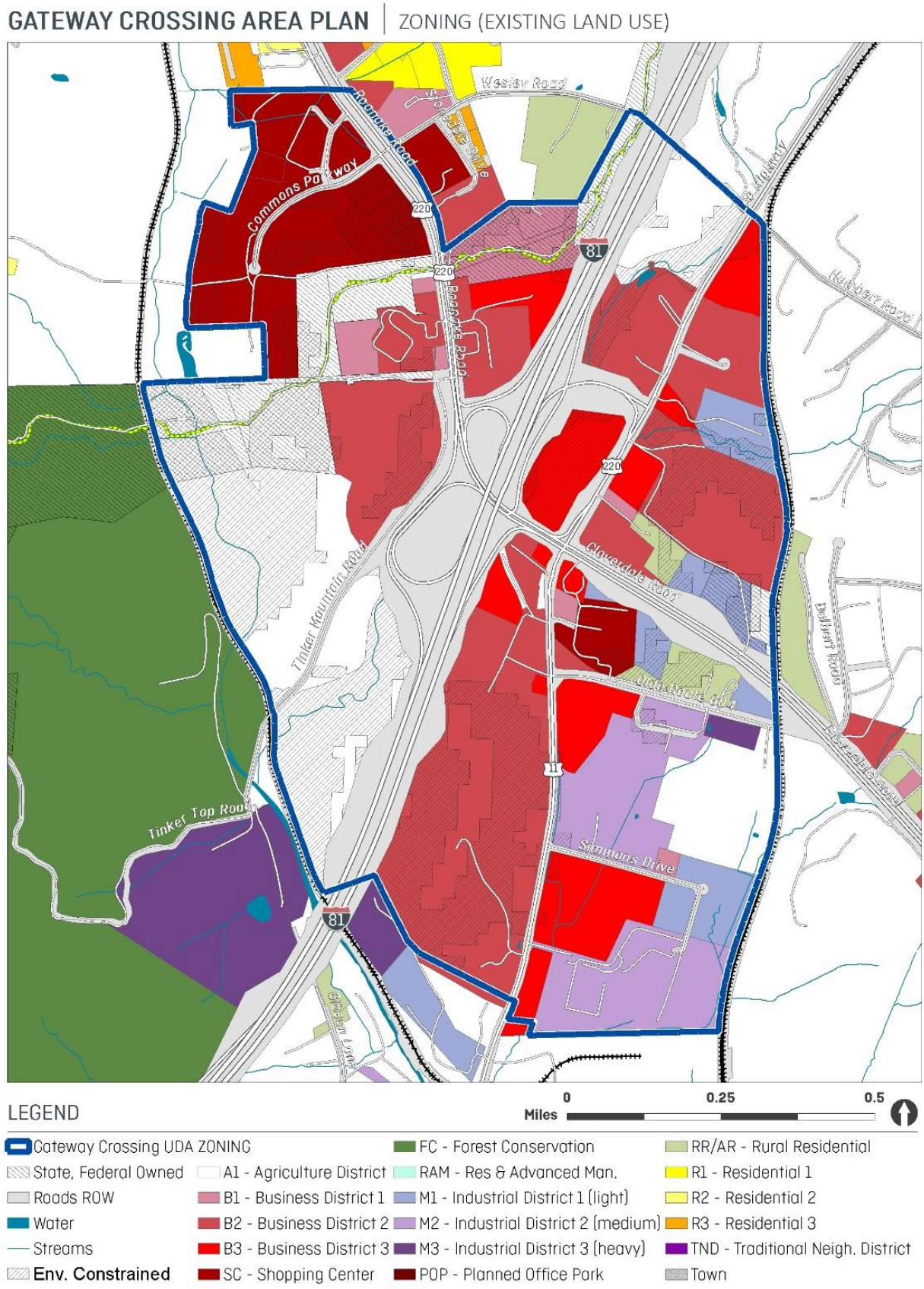


Figure 5 - Zoning in the Gateway Crossing UDA

3.3 Land Occupancy and Investment

The general state of land occupancy, or how developed an area is, can be examined through looking at the level of investment into the improvements of a property. Property assessors typically evaluate the value of the land, and the value of any physical improvements that are located on the land (such as a building). The ratio of the improvement's value to the underlying land value is an important measure that economists, realtors, and planners use to understand the level of development in an area, and the potential for redevelopment. Areas where the improvement-to-land value ratio is low may indicate an area that is prepared for redevelopment. However, the improvement-to-land value ratio is more a measure of capacity than an indicator of market demand for redevelopment.

The Exit 150 study conducted an examination of the investment level of the study area. That examination was revisited for the Gateway Crossing Area Plan using a similar assessment approach. However, it takes into account the revised study area boundary, which adds more acreage to the western quadrant, and factors in lands that have environmental constraints, which may serve to slow or deter future investment. Tables 4 and 5, and the map in Figure 6, below show the findings of the investment level analysis.

The building-to-land value for each parcel was assessed and grouped into three categories:

- "Minimal" investment: The ratio is less than 0.1. This indicates undeveloped or vacant land.
- "Some" investment: The ratio is greater than 0.1 but less than 1.0.
- "Substantial" investment: The ratio is greater than 1.0, which means the improvements are worth more than the underlying land.

Table 4 below summarizes land and improvement values for the 138 parcels in the study area, grouping them by these three categories. The building-to-land value of the "substantial" investment properties is 2.57 overall, indicating a generally high level of development. Generally, a ratio of two-to-one is industry standard for classifying a property as fully developed and less likely to redevelop soon.

The "Some" and "Minimal" investment categories represent properties that have capacity to add investment in the future, as these are currently either undeveloped or underdeveloped. The existing land values of these properties combined is $36 million. Probably not all properties will develop to full capacity. Some may have access challenges, or environmental constraints, per Table 5 below. But in summary, it is reasonable to expect there will be future investment in this area. Future investments levels could be in a wide range, depending on many variables. Attaining a 1.0 building-to-land value level for these properties could yield another $30 to 40 million in property value for the county. At a ratio of 2.0 new development on these properties could yield as high as $70 million of new property value.

Table 4 - Investment Levels with Land, Improvement and Total Value

Investment Level Group by Building-to-Land Value Ratio	Land Value	Improvement Value	Total Value	Building to Land Value Ratio
Minimal (Less than 0.1)	$20,734,200	$50,500	$20,784,700	0.00
Some (.11 to 1.0)	$15,642,700	$10,236,200	$25,878,900	0.65
Substantial (1.0+)	$29,221,400	$75,117,700	$104,339,100	2.57
Total	*$65,598,300*	*$85,404,400*	*$151,002,700*	*1.30*

Table 5 - Investment Levels by Acres

Investment Level Group by Building-to-Land Value Ratio	Unconstrained Acres	% of Total	Constrained Acres	% of Total	Total	% of total
Minimal (Less than 0.1)	165	48%	129	83%	294	59%
Some (.11 to 1.0)	39	11%	4	2%	43	8%
Substantial (1.0+)	142	41%	23	15%	164	33%
Total	*345*	*100%*	*155*	*100%*	*501*	*100%*

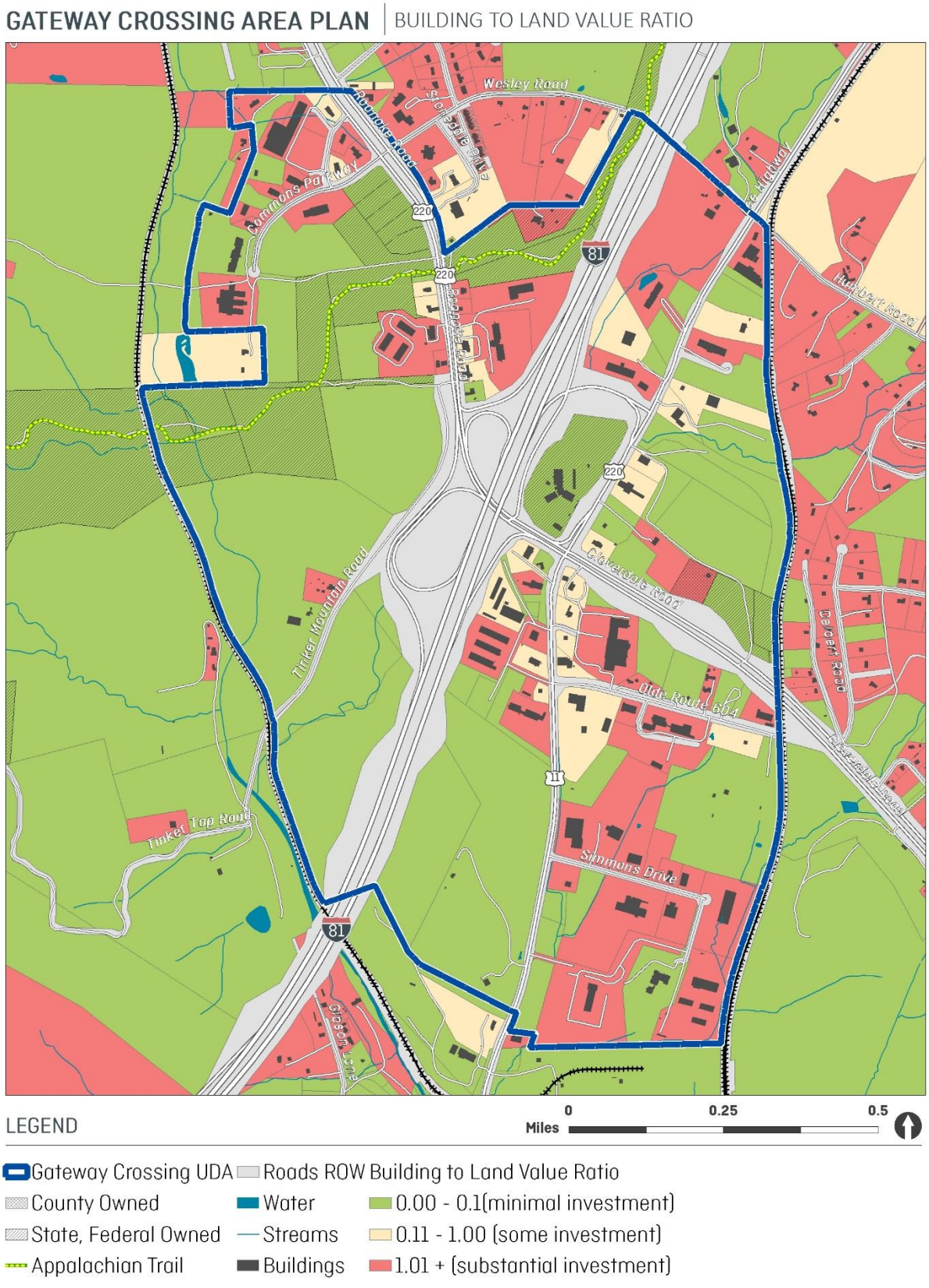


Figure 6 - Building to Land Value Assessment: Investment Level

3.4 Summary

The key issues and opportunities that can be determined from the existing conditions analysis can be summarized as follows:

- Land use in the Gateway Crossing area is complicated by the convergence of multiple transportation networks, and further challenged by steep topography and rivers/floodplains.
- The Appalachian Trail related lands represent about 12% (88 acres, see table 2) of lands that are federally owned and protected, and are removed from development consideration in this analysis.
- The prominent presence of the Appalachian Trail in this area is a considerable asset that can leverage quality development adjacent or nearby.
- Steep slopes and floodplains are the most dominant environmental features that will represent some challenges in realizing the full potential development of the land.
- Even with the presence of access and topography challenges, about 47 percent (or 345 acres) of the area is unconstrained by environmental features or right-of-way (see table 2).
- Current zoning is largely business, commercial, and auto-centric and lower density. It does not take full advantage of the mixed use TND district that the county has successfully implemented at Daleville Town Center. This area plan represents an opportunity to recommend mixed use, multi-modal, and higher density development patterns that will make the most use of the unconstrained or underdeveloped lands in this area.
- Only 33 percent of the area is developed at levels of 1.0 improvement-to-land value or greater. This leaves 67 percent, or 337 acres (see table 5), that are either under or undeveloped, representing a considerable capacity to accommodate new growth and investment despite some topography challenges and if access to un-constrained land can be provided.

4. GATEWAY CROSSING VISION AND PLAN

4.1 Overall Concept

The Exit 150 study, completed in October 2015, provides an overarching vision for Gateway Crossing as a walkable, mixed use district that is an economic hub and an attractive gateway for the county. The land use, development, and infrastructure policies described in this chapter support the implementation of that vision.

The Exit 150 study created a vision which divided the study area into 4 distinct quadrants, separated by Interstate 81 and Route 220. The study also went into detail for each quadrant for Gateway Crossing, laying out concepts for general land use, transportation, and design features for each of four quadrants. The north area covers land north of Tinker Mountain Road on either side of Route 220. Commons Parkway is key transportation route in this quadrant. The vision for this area called for a modern Appalachian Trail trailhead with parking; a park and ride lot, retail, office, and hotel development along 220; a shared use path on 220 from Gateway Crossing towards Daleville Town Center; and sidewalks knitting the area together.

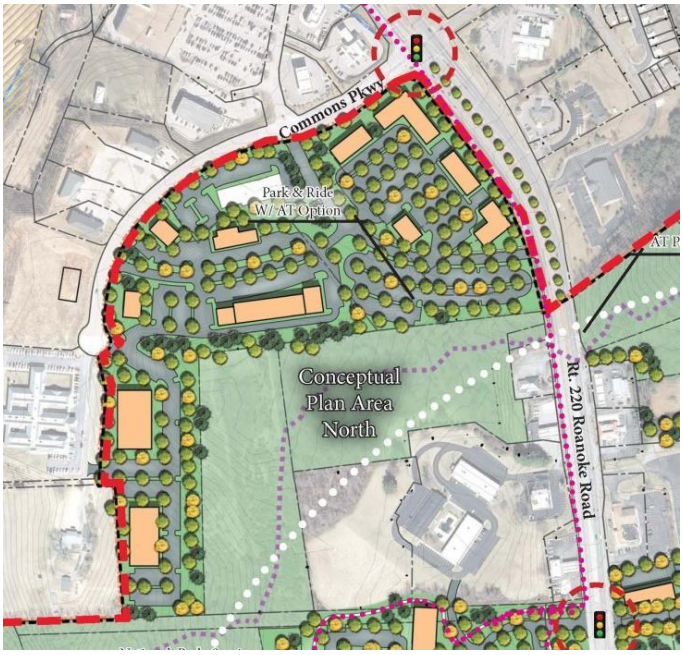


Figure 7 – Vision for Gateway Crossing North Quadrant.

Source: Exit 150 Study (2015)

Figure 8 - Vision for Gateway Crossing West Quadrant.

Source: Exit 150 Study (2015)

The west area includes large undeveloped tracts between the Appalachian Trail and Interstate 81. Tinker Mountain Road is currently the only significant transportation facility in this quadrant. The lands in this area have beautiful views of the Blue Ridge Mountains to the north and west. The vision for the west area includes a walkable mixed use residential community consisting mostly of apartments and townhomes. However, implementation of this vision depends on access to large undeveloped properties off Tinker Mountain Road. The access concept presented in the Exit 150 study – via a new signal at Tinker Mountain Road and 220 – is probably not feasible due to cost and its proximity to the Interstate 81 ramps. This area plan includes another concept that would open access from the north via an

Figure 9 Vision for Gateway Crossing East Quadrant

Source: Exit 150 Study (2015)

The south area encompasses the land along Route 11 south of Route 220. Land use changes are not envisioned for the industrial development east of 220, but substantial infill development and long-term redevelopment is called for both in the areas adjacent to the Route 11 and 220 intersection, and between Route 11 and Interstate 81. The large undeveloped property between Route 11 and Interstate 81 at the southern edge of Gateway Crossing is envisioned as a hospital, corporate headquarters, or a destination retail outlet center. While this property has substantial slopes that would need to be addressed, it has good access to both the interstate highway and the large populations centers south of Gateway Crossing. The vision also includes some new street connections in the area, including an extension of the new Gateway Crossing road south across Route 220 to link up with Old Route 604. It also shows a new access road off Simmons Drive in the industrial area of Gateway Crossing.

The Exit 150 study describes the overarching vision and the vision for each quadrant in more detail. But this section sets the context for the future land use extension of Commons Parkway. The vision also includes a network of sidewalks and shared use paths running along the waterways of this area.

The east area is most affected by the VDOT project to improve traffic safety and flow around Exit 150. The project will create a new road – Gateway Crossing – that will open access to undeveloped parcels north of Route 220. The Exit 150 study called for additional landscaping, signage and wayfinding, and lighting in this area to create an improved front door experience for Botetourt County. The vision showed a potential park and ride lot and public park at the location of the old TA truck stop property Other components of the vision include the desire for hotels, restaurants, and services both through infill development and longer-term redevelopment.

Figure 10 - Vision for Gateway Crossing South Quadrant

Source: Exit 150 Study (2015)

and connectivity policies described in the remainder of this chapter. The overall vision is also provided in the figure below.

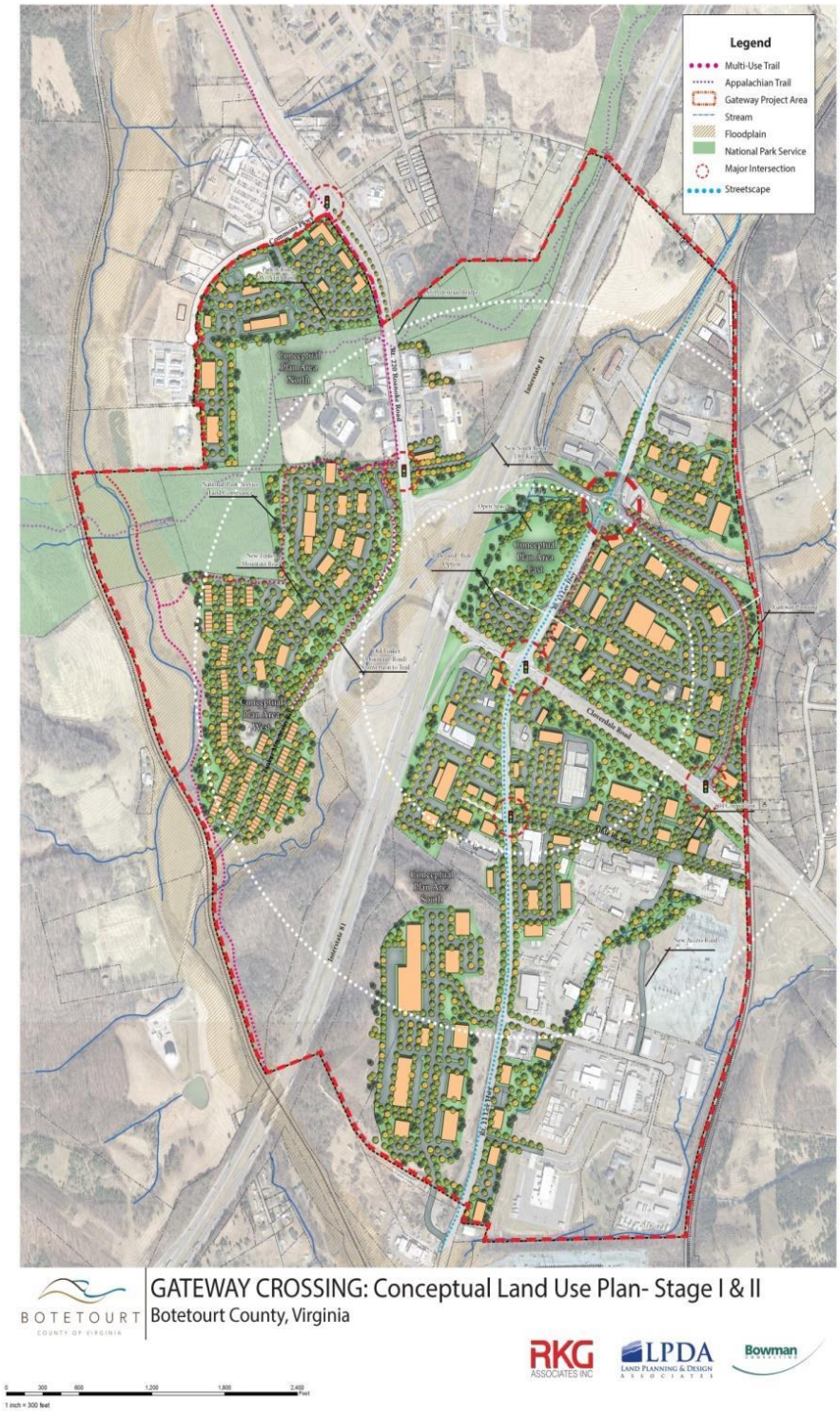


Figure 11 - Vision for Gateway Crossing
Source: Exit 150 Study (2015)

4.2 Future Land Use & Connectivity Plan

The purpose of the future land use and circulation plan provided in this section is to illustrate the county's policies for land use and transportation in the Gateway Crossing area. It illustrates the principles of mixed land uses and walkable, interconnected streets. The new policy direction, upon adoption by the Board of Supervisors, will supersede the county's previous policy for the area. The future land use policy described in this section will then become the foundation for decision-making regarding land use proposals in the area. The future land use plan will guide any decisions on changing the zoning for Gateway Crossing, and will be used by the county staff, the planning commission, and board of supervisors to evaluate petitions for a rezoning of any property in the study area. This makes it a very important tool to implement the county's vision for the future of Gateway Crossing.

Future Land Use Plan

The plan shows three new categories of future land use for the area, from the least intense to most intense levels of development. These categories are described in more detail in section 4.3 – Policies by Land Use Category. They are:

- Mixed Use Residential
- Mixed Use Neighborhood Commercial
- Mixed Use Highway Commercial

Each category calls for a mix of uses. However, the types of uses and the ratio between residential and commercial varies by district. The mixed use residential district applies to the western quadrant of Gateway Crossing. The Exit 150 study envisioned a walkable mixed use community of largely townhomes and apartments in this area. Some commercial uses supporting the neighborhood, and civic uses, such as a park oriented towards the Appalachian Trail, would be appropriate in this area.

The mixed use neighborhood commercial district applies to the northern quadrant. This area has many developable acres with access from Commons Parkway. There is also near-term redevelopment potential along the east side of 220, just north of the Interstate 81 interchange. Appropriate uses in this area may include locally-serving retail, offices, and services. Higher density housing or assisted living facilities would also be appropriate in this area.

The mixed use highway commercial district applies to the east and south quadrants of Gateway Crossing. These are the lands east of Interstate 81 on which highway-oriented and regionally-serving commercial and civic uses, hotels, and potentially high density housing are envisioned. No significant changes are envisioned in the industrial areas east of Route 11, except for some new street and trail connections that are described in Figure 12, and in the following section. Design principles for future development in the mixed use districts are described in section 4.3. That section also includes photographs that illustrate the desired forms of development.

Connectivity Plan

The connectivity plan, which is also illustrated in Figure 12, shows the potential location of new streets, which would serve future development, enhancements to existing streets to make them more friendly towards pedestrians and bicyclists, and extensions of existing streets that improve connectivity in the area. The actual location of future streets will depend on the location of development, a more thorough

analysis of the site conditions, and negotiations with property owners. But the broad concepts shown in Figure 12 reflect the county's policy for Gateway Crossing.

The connectivity plan shows a connected street grid in each of Gateway Crossing's four quadrants. Building streets in a grid pattern gives vehicles, pedestrians, and bicyclists multiple paths. It also supports walkability by creating shorter blocks and paths between origins and destinations. The plan also shows new connections that would open access to parcels for future development, new connections that would help traffic flow smoothly through the area, and new shared use paths that provide safe routes for people of all ages to walk, run, and bike in the area and between the quadrants of Gateway Crossing.

One key new street connection would extend Commons Parkway south from its present cul de sac terminus and linking it to Tinker Mountain Road. A new signalized intersection proposed in the Exit 150 study at 220, Tinker Mountain Road, and the Interstate 81 south off ramp is likely not feasible due to VDOT's access management policies and the difficulty adding a left turn land from 220 North onto Tinker Mountain Road. This signal was proposed as a strategy for providing access to the west quadrant of Gateway Crossing. An alternative is to extend Commons Parkway south, crossing the Appalachian Trail right of way, and then following the original Appalachian Trail right of way just south of the Howard Johnson hotel and Exxon gas station, before connecting to 220 near its existing intersection with Tinker Mountain Road. This proposal would make Commons Parkway a semi-circle with two connections to 220. This new southern intersection of Commons Parkway and 220 would allow right in and right out turns only. A network of neighborhood streets and shared use paths could be built from the new Commons Parkway to the south, opening access to several acres of real estate that would become a mixed use residential community.

This plan for Commons Parkway would require coordination with the Appalachian Trail Conservancy and National Park Service to relinquish their ownership of what is the original trail right of way, and currently a spur trail to a parking lot off Tinker Mountain Road.

The plan shows a second option for providing access to the mixed use residential district. This option is a new signal on Route 220 at the existing crossover that provides access to the Howard Johnson Inn driveway. The signal would provide access from 220 to a new street that could run between the Howard Johnson Inn property and the Appalachian Trail right of way and connect into the proposed street network for the mixed use residential district. The signal would have an additional benefit of providing access to parcels on the east side of 220 between the highway and Interstate 81. A new signal at this location would also provide for a safer crossing of 220 for pedestrians and Appalachian Trail hikers.

Another key new connection shown in the plan is the extension of the new Gateway Crossing road across 220 and connecting with Old Route 604. Gateway Crossing could potentially be extended further south connecting to Simmons Drive. This would provide an alternate route for trucks to access 220 and Interstate 81, which could alleviate traffic on Route 11 and improve conditions for all users in the future.

Four new signalized intersections are shown in the plan. Two are along Route 11 south of 220. These would be located at Old Route 604 and Simmons Drive. Both signals would support additional development in the southern quadrant of Gateway Crossing. They would also provide safe crossing points for pedestrians and bicyclists. A third signal would be along the new Gateway Crossing road. It would provide access to new development between the Gateway Crossing Road and 220. It could also allow a street to run north near the railroad tracks, connecting to Route 11 north of the new traffic circle. Like the connection between the new Gateway Crossing Road and Old Route 604, this new street would

provide an alternate route to using the traffic circle to access Route 11 north, helping traffic flow more smoothly through the area. The fourth new signal is the previously described intersection of 220 with the Howard Johnson Inn driveway. The benefit of this signal is access to parcels that are poised to development and pedestrian safety, especially for the 7,000 to 10,000 people that hike through this area on the Appalachian Trail each year.

Route 11 is another key corridor in Gateway Crossing that is addressed in the plan. The highway carries a lot of truck traffic and has four lanes through the study area. However, it is a key connector between the east and south quadrants of the district. As the area develops more densely over time, it will be important to provide safe pedestrian facilities and crossings of Route 11. The plan calls for streetscape improvements and sidewalks on both sides of the highway south of Route 220, and on the east side north of 220 up to the future traffic circle. The improvements would continue on both sides of 220 north of the traffic circle. The streetscape improvements could consist of a landscaped buffer between the travel lane and sidewalk, street trees for shade, and a wide shoulder or bicycle lane for bicyclists.

Also critical to the future development of the Gateway Crossing district is a network of shared use paths that would provide a safe place for people to walk, run, and bike. These paths would also connect new development in Gateway Crossing to Daleville Town Center and to the greenway system at the Botetourt Center at Greenfield industrial park via a new shared use path along the west side of Route 220. Adding a path along Route 220 under Interstate 81 remains an unresolved challenge. Until a solution is found, this causes a gap between the west and east sides of the Gateway Crossing District for pedestrians and bicyclists.

One potential solution for closing this gap, which is illustrated in the connectivity plan, is to run a path along Tinker Creek under Interstate 81. This path would connect the west and east sides of the district, and could eventually connect into the system being planned by the Roanoke Valley Greenway Commission, making it possible to walk, run, or ride to Roanoke. The plan also calls for a system of paths on the east side of the district, which would funnel people from major roads and new development areas along the new Gateway Crossing Road and Route 11 to the proposed path along Tinker Creek. The potential for a path along the creek would require further study, but is an attractive option due to the level terrain often found near creek beds, and the existing bridge that takes Interstate 81 over the creek.

The Appalachian Trail is another key transportation and recreation feature in this area. Up to 10,000 people per year hike along the Appalachian Trail in the study area. The existing trail head is poorly marked, and parking can be difficult to find for hikers. The plan illustrates a potential new public park oriented around a trailhead to the Appalachian Trail. The plan shows this park, trailhead, and parking area on the north end of the mixed use residential district, along the proposed extension of Commons Parkway. Another challenge for hikers is crossing Route 220. The trail presently crosses 220 between Commons Parkway and Interstate 81. The plan calls for a safer crossing, which could be achieved through a new signalized intersection, a pedestrian-activated signal, a pedestrian safety island in the 220 median, or a bridge over the highway. The county, National Park Service, Appalachian Trail Conservancy, and the Virginia Department of Transportation should work together to identify the preferred safety improvement.

While Gateway Crossing is not presently served by transit, the plan does call for a park and ride lot somewhere near Commons Parkway and 220. The exact location of this park and ride lot will be determined in the future by VDOT and the county. But the potential Commons Parkway extension could

create a logical turn around point for a regional transit bus running between the county and Roanoke. The lot could also serve carpoolers heading into Roanoke.

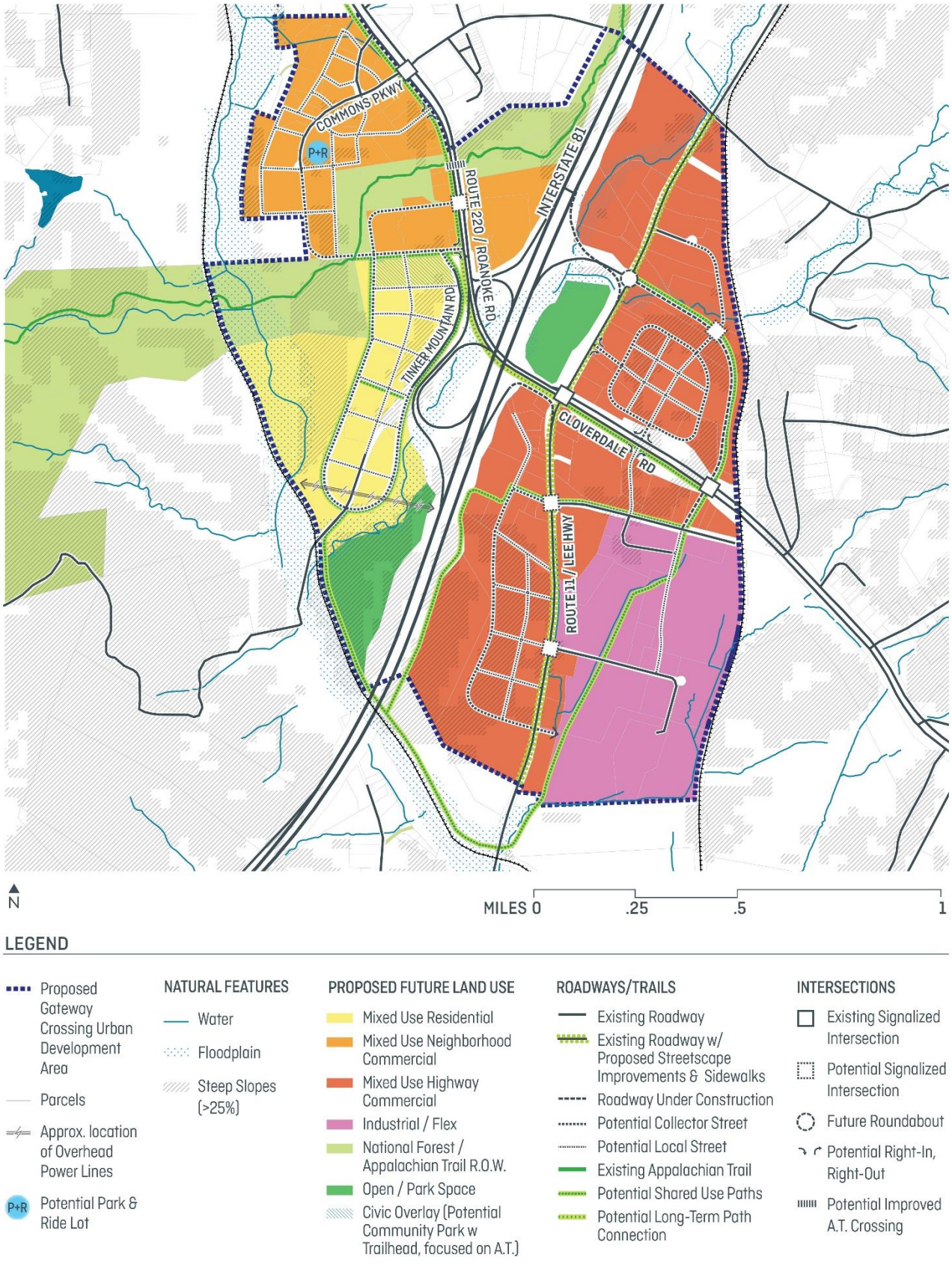


Figure 12 - Gateway Crossing Future Land Use Map and Connectivity Plan

4.3 Policies by Land Use Category

Mixed Use Residential

The mixed use residential district implements the vision of the Exit 150 Study of a mixed use residential community consisting mainly of townhomes and apartments in the west quadrant of Gateway Crossing, surrounding Tinker Mountain Road.

Future development in this district should include a combination of mixed density residential uses, including apartments, townhomes, and single-family homes that incorporate a walkable community design and limited office and retail that serves the neighborhood. This district could also include elderly or age-specific residential communities. However, the majority of developed space in this district should be residential. Pedestrian accommodations should be provided throughout, with sidewalks, connected residential blocks, and trail connections to open space.

The civic overlay district is located at the northern end of the mixed-use residential district and should provide amenities for hikers, open park space, and parking facilities. The design should provide access to the Appalachian Trail from Route 220 and access to the local system of shared use paths. Surface parking should well screened from the park and surrounding residential development by trees and greenery. Park space should serve both hikers and residents.

The table below describes preferred design principles for future development in this district. These principles reflect elements of traditional neighborhood design, which is appropriate in urban development areas such as Gateway Crossing. These principles may inform future updates to the county's development code for the area. They are also illustrated through the example photographs that follow the table.

Table 6 - Mixed Use Residential District Design Principles

Design Principles	Mixed Use Residential
General Character	The mixed use residential district should provide a diverse mix of housing types and may also include complementary neighborhood-scale commercial uses to meet the community's needs. Future housing, shops, and civic spaces should be well connected by streets designed to accommodate all users. Views of the nearby mountain ridges and access to the Appalachian Trail are important distinguishing features of the neighborhood.
Appropriate Land Uses	The mixed use residential district should be at least 75 percent residential (by developed area) and incorporate a range of residential types. Up to 25 percent of the developed area may be other compatible uses, such as retail, home offices, or civic uses.
General Scale & Intensity	The mixed use residential district should include residential densities of generally 4 dwelling units per acre for single family homes, 6 dwelling units per acre for townhomes, and 12 dwelling units per acre for apartments. These densities are consistent with state code provisions for Urban Development Areas (UDAs). Floor area ratios (FAR) for retail and office spaces should be generally 0.4, which is also consistent with the state code for UDAs.
Built Form	Future development in the mixed use residential district should incorporate features such as rear-alley access to parking behind

Design Principles	Mixed Use Residential
	homes, front porches and limited front setbacks for residential development to foster social interaction, common green spaces shared by residents, neighborhood-scale retail with parking relegated to the rear of the building, and a variety of housing types and styles to accommodate residents at all stages of life.
Transportation & Connectivity	Pedestrian accommodations should be provided throughout the district, with uninterrupted sidewalks on both sides of new streets (except where a shared use path is provided); short, connected residential blocks with a perimeter of 2,000 feet for less; and shared use path connections to open space and regional destinations. New streets should form a network that provides multiple pathways through the area and to the larger Gateway Crossing district and region.
Appropriate Public Facilities	Facilities serving the local community are appropriate in this district, such as an elementary school, public library, community center, or small pocket parks.

Single family housing with rear-alley access to parking behind houses.

Single family housing with front porches designed to foster social interaction

Local trail system

Common lawn / park space to be shared by neighborhood

Neighborhood-scaled retail space to serve local residents

Townhome development with front stoops, including street trees and grassed buffer zone between street and sidewalks.

Townhomes / potential elderly residential community fronting common lawn / park space

Single family housing with front porches and views toward the Blue Ridge mountains

Figure 13 - Example Photographs, Mixed Use Residential District

Trailhead signage / maps including potable water source

Restroom facilities

Park space serving both hikers and local residents, including shaded rest areas and benches

Figure 14 - Example Photographs, Civic Overlay District

Mixed Use Neighborhood Commercial

The mixed use neighborhood commercial designation applies to the north quadrant, which is west of Exit 150 and north of the mixed use residential area. It straddles the Appalachian Trail right of way and Route 220. This area should include commercial development oriented towards meeting the needs of the local community. It may include a mix of small-scale retail shops, offices (medical as well as professional services), civic spaces, pocket parks, and other uses to meet local needs. Residential development including apartments, townhomes, and live-work units may also be mixed in to complement the residential mixed use to the south. However, the majority of the developed space by square footage should be commercial. Pedestrian accommodations should be provided throughout, with sidewalks, connected blocks, and shared use path connections to open space.

The table below describes preferred design principles for future development in this district. These principles reflect elements of traditional neighborhood design, which is appropriate in urban development areas such as Gateway Crossing. These principles may inform future updates to the county's development code for the area. They are also illustrated through the example photographs that follow the table.

Table 7 - Mixed Use Neighborhood Commercial District Design Principles

Design Principles	**Mixed Use Neighborhood Commercial**
General Character	The mixed use neighborhood commercial district is a local employment and services activity center, with uses that should be oriented towards meeting the needs of neighborhood and county residents. Land uses in this district should be well connected by streets designed to accommodate all users. Views of the nearby mountain ridges and access to the Appalachian Trail are important distinguishing features of the area.
Appropriate Land Uses	The mixed use neighborhood commercial district should have a range of commercial uses, which may include retail shops, offices for medical and professional services, civic spaces, and small pocket parks or neighborhood parks. 50 percent or more of the developed area in the district should be used for commercial purposes. Associated residential development should include higher density housing types, such as apartments or townhomes. Live-work units are also appropriate.

Design Principles	Mixed Use Neighborhood Commercial
General Scale & Intensity	Future development in this district should have a walkable and compact character with a mix of densities and intensity of uses. Residential densities should range from 6 to 15 dwelling units per acre and floor area ratios for commercial space should be generally 0.4. These densities are consistent with the state codes for urban development areas (UDAs).
Built Form	Built form in the mixed use neighborhood commercial district should include medium height mixed use buildings (up to 4 stories) with narrow building setbacks from the street right of way, buildings fronting the street, and parking relegated to the rear or sides of the buildings. Taller buildings should be in the center of the district, and may include a vertical mix of uses with first floor retail or office and office or residential on upper floors. Transitioning away from the center, buildings should be 1 or 2 stories and designed for compatibility with adjacent communities and open spaces.
Transportation & Connectivity	The mixed use neighborhood district should be pedestrian and bicycle-friendly with small block perimeters (2,000 feet or less), low speed streets, uninterrupted sidewalks on both sides of all streets (except where a shared use path is provided), shared use paths that connect to the regional trail network, and collector streets capable of accommodating bus transit in the future. The district should have good access to an arterial street with excellent access and connections to the surrounding area. Shared-access driveways should be used to limit new access points and maintain traffic flow on major streets and arterial highways.
Appropriate Public Facilities	Facilities serving the neighborhood and broader county are appropriate in this district including a public safety facility (police/fire), public library, village park or pedestrian plaza, farmers market pavilion, schools, community activity centers, and a park and ride lot that supports carpooling or bus transit.

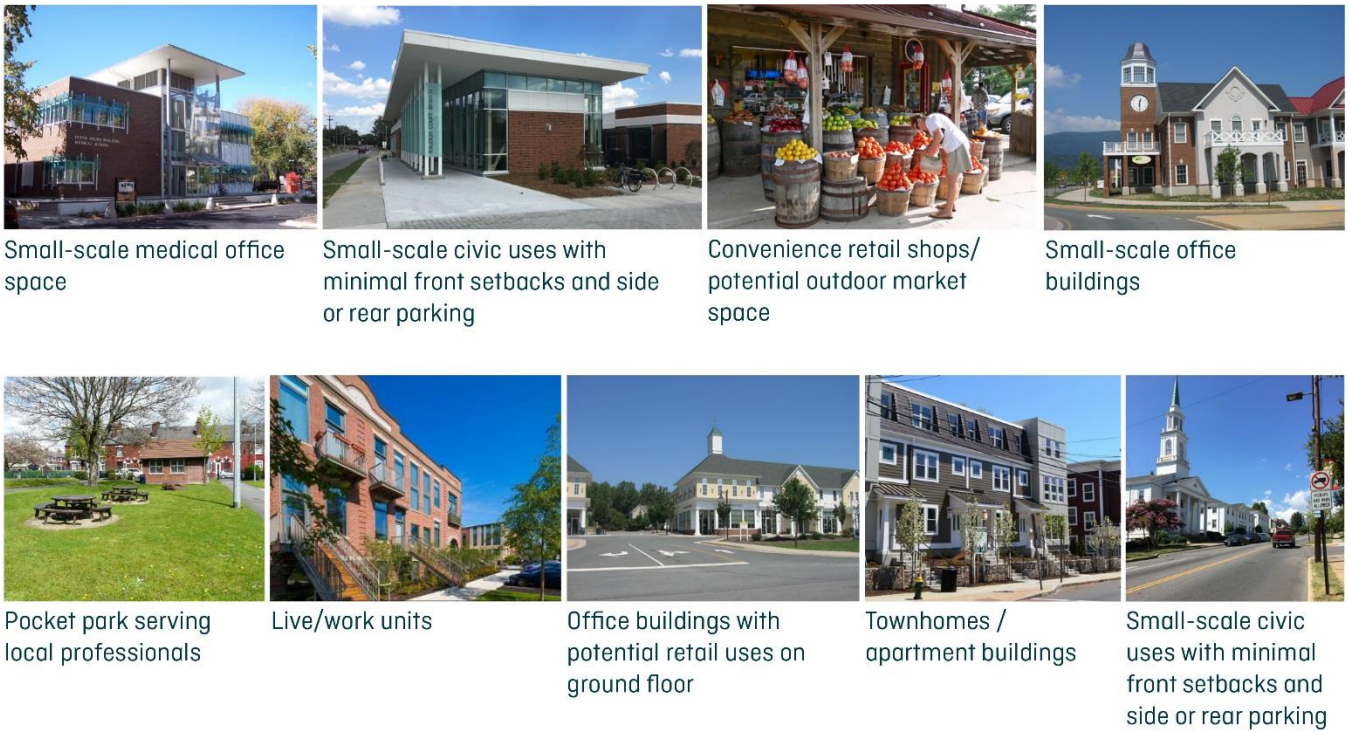


Figure 15 - Example Photographs, Mixed Use Neighborhood Commercial District

Mixed Use Highway Commercial

The mixed use highway commercial designation applies to the non-industrial areas east of Interstate 81. The Exit 150 improvements scheduled for completion in 2018 will make access to this area more convenient for both interstate travelers and residents. Future development in this district may include a combination of service related commercial uses including hospitality, lodging, retail, and office uses. These may include compatibly designed hotel, restaurant or service station uses. This district may also include some high density residential uses. However, the majority of the developed space by square footage should be commercial. Pedestrian accommodations should be provided throughout, with sidewalks, and trail connections to open space.

The table below describes preferred design principles for future development in this district. These principles reflect elements of traditional neighborhood design, which is appropriate in urban development areas such as Gateway Crossing. These principles may inform future updates to the county's development code for the area. They are also illustrated through the example photographs that follow the table.

Table 8 - Mixed Use Highway Commercial District Design Principles

Design Principles	**Mixed Use Highway Commercial**
General Character	The mixed use highway commercial district is the front door to Botetourt County. Future development should support an attractive gateway with extensive landscaping and signage that is low to the

Design Principles	Mixed Use Highway Commercial
	ground. The district is also a regional service and employment center, with a mix of higher density commercial, residential, civic, and entertainment uses oriented towards both highway through-travelers and residents of the region.
Appropriate Land Uses	Development in the mixed use highway commercial district should include a variety of service-oriented commercial uses. These may include hotels, restaurants, an outlet retail center, and service stations designed to be compatible with the goals of a walkable district with a mixture of uses. The district may also include medical, retail, and office uses that serve the region. This district may also include high density residential uses and regional attractions. However, at least 70 percent of the developed area should be for commercial uses.
General Scale & Intensity	The development in this area should be higher density and intensity with a more urban feel. Residential densities should range from 6 to 20 dwelling units per acre. Floor area ratio for commercial uses should generally be 0.4 and higher.
Built Form	The built form in this district should be more urban in character. Building heights may range from 2 to 8 stories, with higher density towards the center of the district. Development on the periphery of the district should be compatible in scale and function with adjacent lower density development. Parking should be relegated to the rear or sides of buildings, with narrow front setbacks creating an interesting streetscape that makes walking attractive.
Transportation & Connectivity	This district is located in the non-industrial areas east of I-81, near the planned improvements for the Exit 150 interchange. This makes regional access a critical function of the transportation system. New streets connections should be provided to improve both local and regional access. All streets should have uninterrupted sidewalks on both sides (except where a shared use path is provided). They may also include bicycle lanes or shared use paths that provide connections to the emerging regional trail network. New streets and development should preserve opportunities for bus transit in the future. Shared-access driveways should be used to limit new access points and maintain traffic flow on major streets and arterial highways.
Appropriate Public Facilities	Facilities serving the neighborhood, county, and broader region are appropriate in this district including a public safety facility (police/fire), hospital, recreation center, library, middle or high school, and a park and ride lot that supports carpooling or bus transit.

Hotel on main commercial street

Park / plaza space incorporated into retail development

Sidewalk cafe

Outlet mall near daylighted stream

Protected local trail system adjacent to roadway

Ground level retail with office space above

Highway-oriented services are expected in this district

Ground level retail on pedestrian-friendly street

High density residential building w/ marked bike lane & on-street parking

Figure 16 - Example Photographs, Mixed Use Highway Commercial District

4.4 Streetscape Plan

Walkable streets are an important part of the county's vision for Gateway Crossing. The design of new streets is an important tool for achieving this vision. The graphics in the following figures illustrate street design concepts that support all modes of transportation, including vehicles, pedestrians, bicycles, and eventually transit.

The future land use plan showed a potential network of new collector and local streets. The purpose of these types of streets is to provide access to developed areas, and to connect these areas to the larger arterial roads that provide for mobility within a community or region. The local streets provide direct access to abutting land uses, such as houses or businesses. Meanwhile, the collectors connect these local streets to the arterials, such as Route 220 and Route 11. These streets, because they directly serve neighborhoods and commercial centers, should be designed for slower traffic speeds.

The following graphics illustrate cross section concepts for six potential new street types. These include new collector and local streets in the mixed-use residential district, new collector and local streets in the mixed-use neighborhood commercial district, and new collector and local streets in the mixed-use highway commercial district. Each of the cross section concepts shows accommodations for all users. They each include:

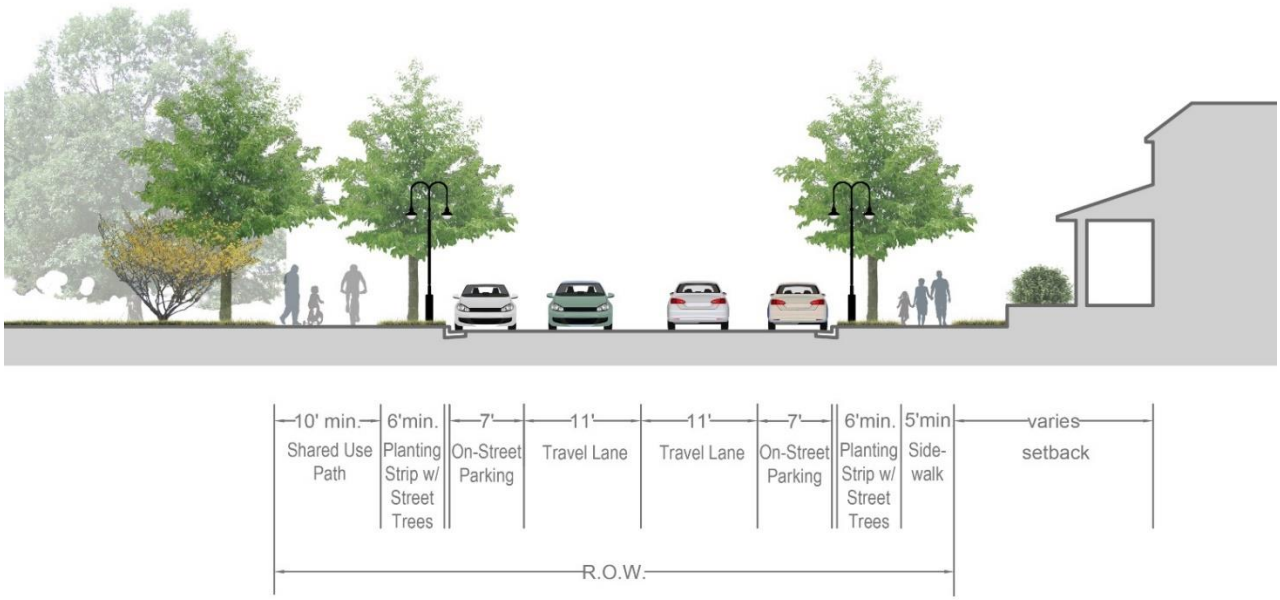
- A sidewalk of varying widths with a minimum width of five feet on both sides of the street for pedestrians.
- A planting strip or amenity zone between the street and sidewalk for items such as street trees and benches, which also creates a buffer between vehicle traffic and pedestrians.

- Eleven-foot wide travel lanes, which are sufficient for vehicles, yet are not overly wide, and discourage faster traffic which is incompatible with walkable neighborhoods.
- On-street parking, which provides access to homes and businesses, and acts as a buffer between the vehicle travel lanes and pedestrians on the sidewalk.
- Narrow setbacks, which improve pedestrian access to homes and businesses, while also creating an interesting streetscape that encourages people to walk more.
- Bike accommodations either through a shared use path, a bike lane that is five feet in width, or a shared lane marking (sharrow) that sends a message that the travel lanes are for both vehicles and bicycles.

These concepts illustrate preferred cross sections for creating walkable neighborhoods and commercial centers. However, the final design of any new street should be reviewed with VDOT to ensure it will meet all of their standards for acceptance into the state system for maintenance.

MIXED-USE RESIDENTIAL | PROPOSED SECTION CONCEPTS

MIXED-USE RESIDENTIAL Collector Street



MIXED-USE RESIDENTIAL Local Street

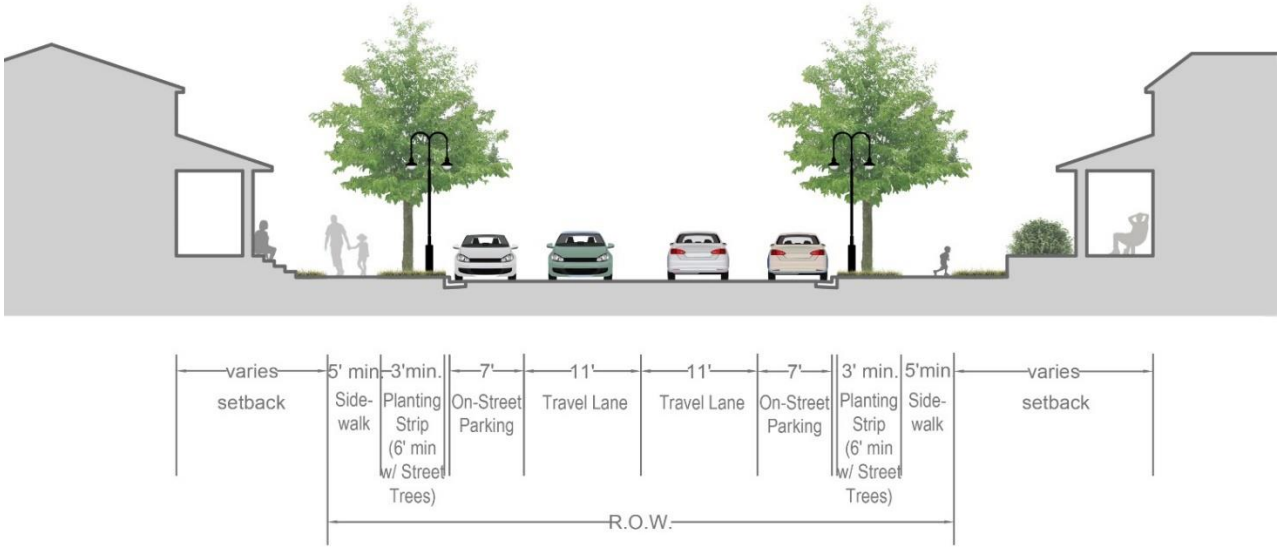
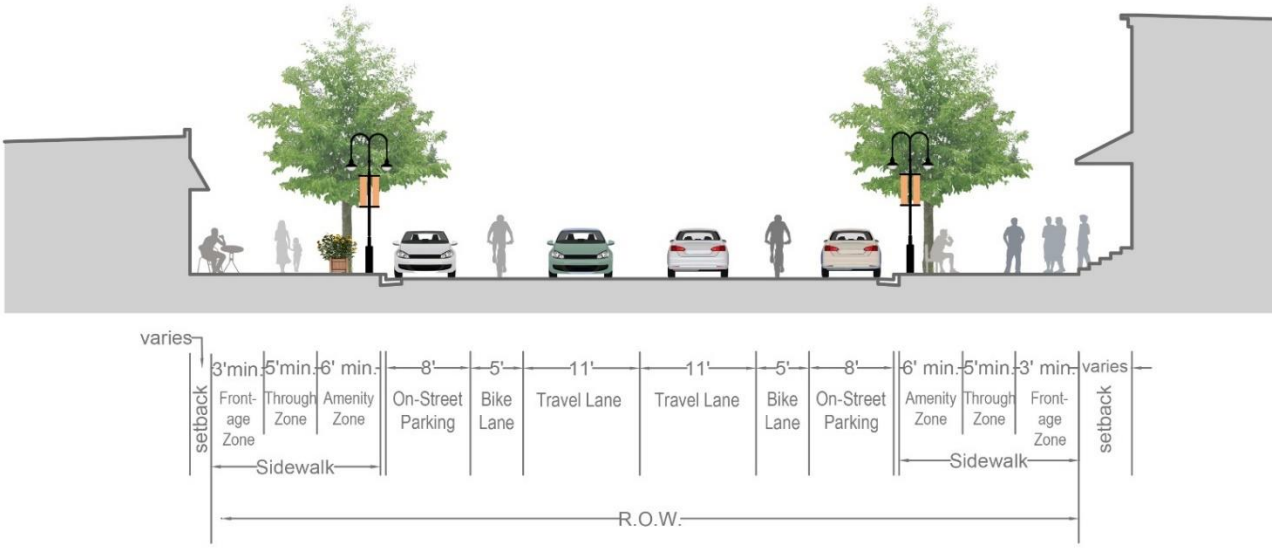


Figure 17 - Cross Section Concepts for Streets in the Mixed Use Residential District

MIXED-USE NEIGHBORHOOD COMMERCIAL | PROPOSED SECTION CONCEPTS

MIXED-USE NEIGHBORHOOD COMMERCIAL Collector Street



MIXED-USE NEIGHBORHOOD COMMERCIAL Local Street

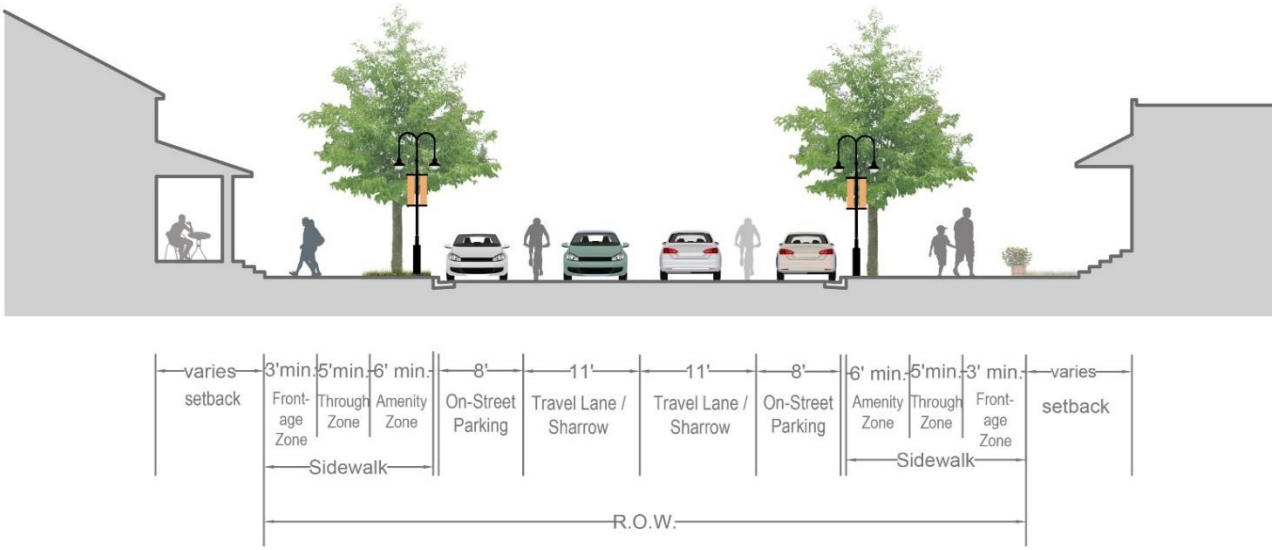
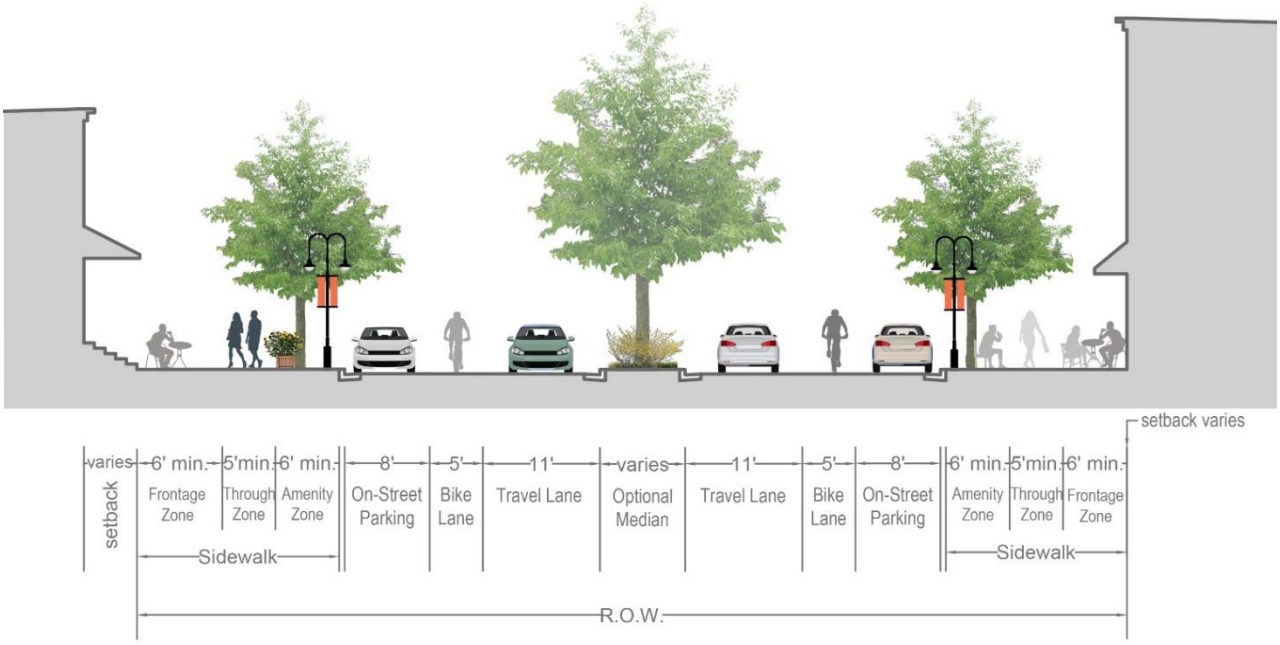


Figure 18 - Cross Section Concepts for Streets in the Mixed Use Neighborhood Commercial District

MIXED-USE HIGHWAY COMMERCIAL | PROPOSED SECTION CONCEPTS

MIXED-USE HIGHWAY COMMERCIAL Collector Street



MIXED-USE HIGHWAY COMMERCIAL Local Street

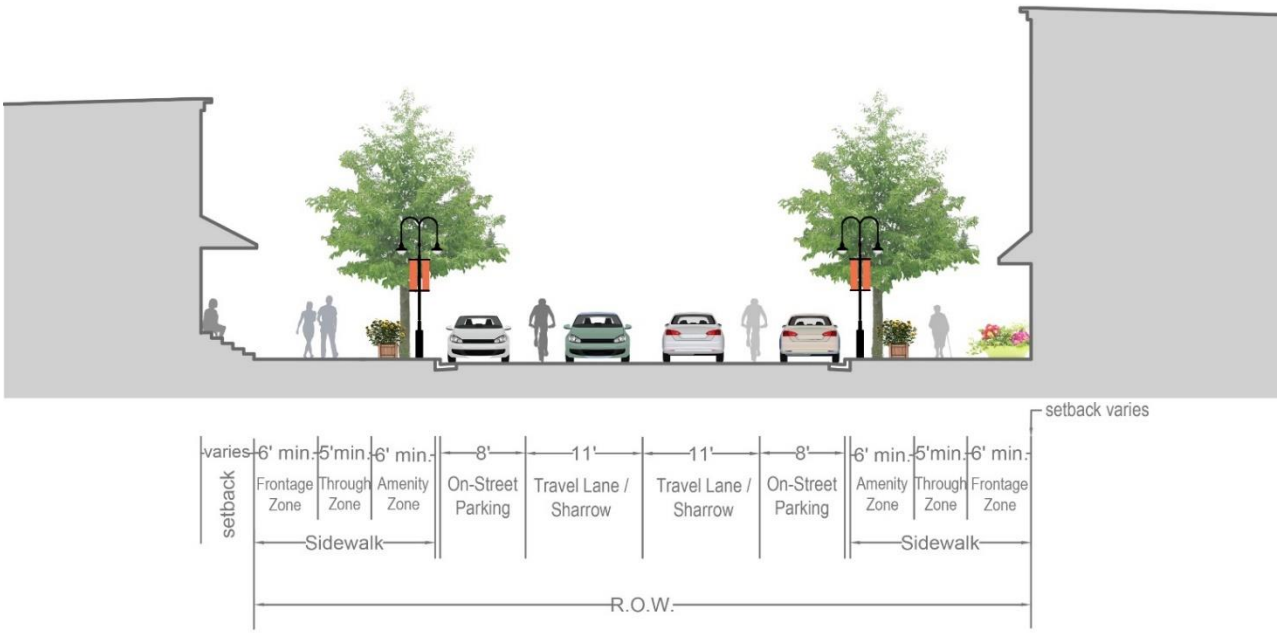


Figure 19 - Cross Section Concepts for Streets in the Mixed Use Highway Commercial District

4.5 Access Management

The public outreach associated with this plan revealed access management on Routes 220 and 11 as a key concern. This section identifies key access management issues in the 220 corridor from Glebe Road to the new Gateway Crossing Road, and on Route 11 within the Gateway Crossing study area. The section concludes with a toolbox of options for improving access management in this area.

The consulting team evaluated access points along Route 220 and Route 11 compared to the VDOT access standards included in the August 2016 revision of the Road Design Manual. The standards in the manual are listed by the functional classification and posted speed limit of the roadway being studied. VDOT also has established specific access management standards for roadways with access points adjacent to interstate ramp termini locations. The VDOT standards are shown below in Figures 20 and 21.

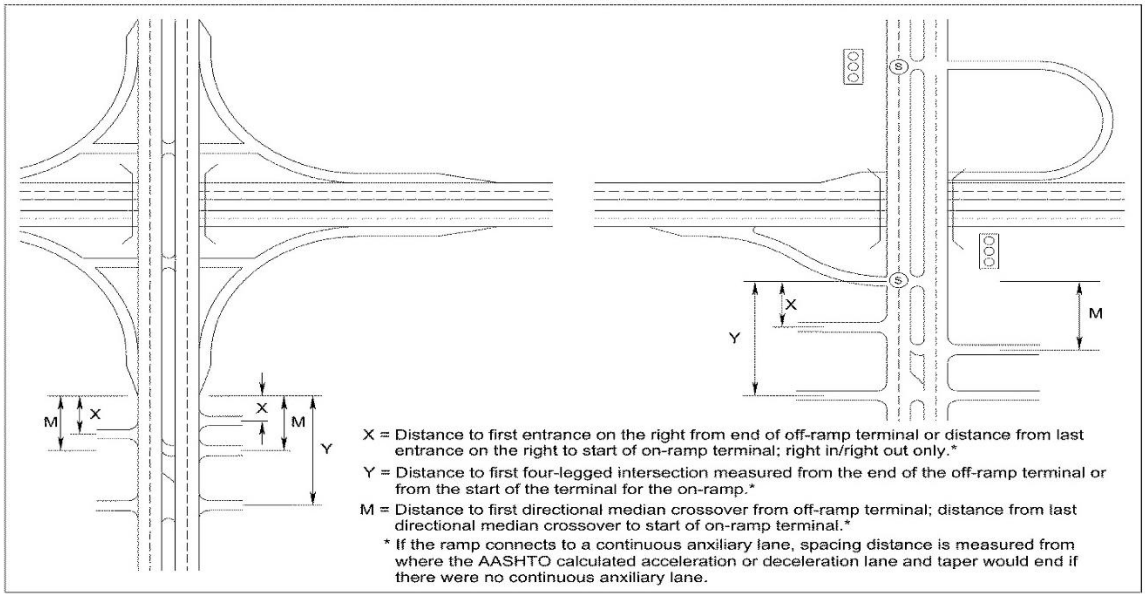
Figure 20 - Minimum Spacing Standards for Commercial Entrances, Intersections, and Median Crossovers[10]

Highway Functional Classification	Legal Speed Limit (mph)①	Minimum Centerline to Centerline Spacing (Distance) in Feet			
		Spacing from Signalized Intersections to Other Signalized Intersections ②	Spacing from Unsignalized Intersections & Full Median Crossovers to Signalized or Unsignalized Intersections& Full Median Crossovers ③	Spacing from Full Access Entrances & Directional Median to Other Full Access Entrances and Any Intersection or Median Crossover ④	Spacing from Partial Access One or Two Way Entrances to Any Type of Entrance, Intersection or Median Crossover ⑤
Principal Arterial	≤ 30 mph 35 to 45 mph ≥ 50 mph	1,050 1,320 2,640	880 1,050 1,320	440 565 750	250 305 495
Minor Arterial	≤ 30 mph 35 to 45 mph ≥ 50 mph	880 1,050 1,320	660 660 1,050	355 470 555	200 250 425
Collector	≤ 30 mph 35 to 45 mph ≥ 50 mph	660 660 1,050	440 440 660	225 335 445	200 250 360
Local Street⑥	Commercial entrance spacing: See Figure 4-11.				

[10] A crossover is a break or gap in the median of a roadway that allows turning movements.

Figure 21 - Minimum Spacing Standards for Intersections and Commercial Entrances Near Interchange Areas on Multilane Crossroads

Minimum Spacing Standards for Intersections and Commercial Entrances Near Interchange Areas on Multilane Crossroads (These Spacing Standards Apply to Both Signalized Intersections and Commercial Entrances Regardless of the Interchange Configuration)		
X	**Y**	**M**
750’	1320’	990’



Route 220 is classified as a principal arterial with a posted speed of 45 miles per hour north and south of the I-81 interchange and has a posted speed limit of 35 miles per hour within the interchange area between Commons Parkway/Wesley Road and Route 11. Route 11 is classified as a minor arterial and has a posted speed limit of 35 miles per hour along the northern portion between Kinzie Road and Olde Route 604. South of Olde Route 604, the posted speed limit is 45 miles per hour.

The existing access points along Route 220 within the Gateway Crossing Study Area are shown in Figure 22 for the northern portion of the study area and in Figure 23 for the southern portion. The existing access points along Route 11 are shown in Figure 24. The consulting team compared the distances between crossover locations and signalized intersections to the VDOT spacing standards described previously. Of the 18 crossovers and signalized intersections along Route 220, ten locations do not meet the standard distance. There are also approximately 64 direct access points along Route 220, most of which do not meet the VDOT spacing standards; particularly directly north of the I-81 interchange. Within this area, there are several small commercial properties, each having multiple access points onto Route 220. South of the I-81 interchange, there is only one commercial entrance along Route 220 which does not meet the required spacing distance. The intersection of Route 220 and Route 11 is approximately 280

feet east of the off-ramp from northbound I-81 and 400 feet east of the on-ramp to northbound I-81. Neither of these distances meet the VDOT standard of 1320 that is required for a four-legged intersection adjacent to an interchange ramp terminus.

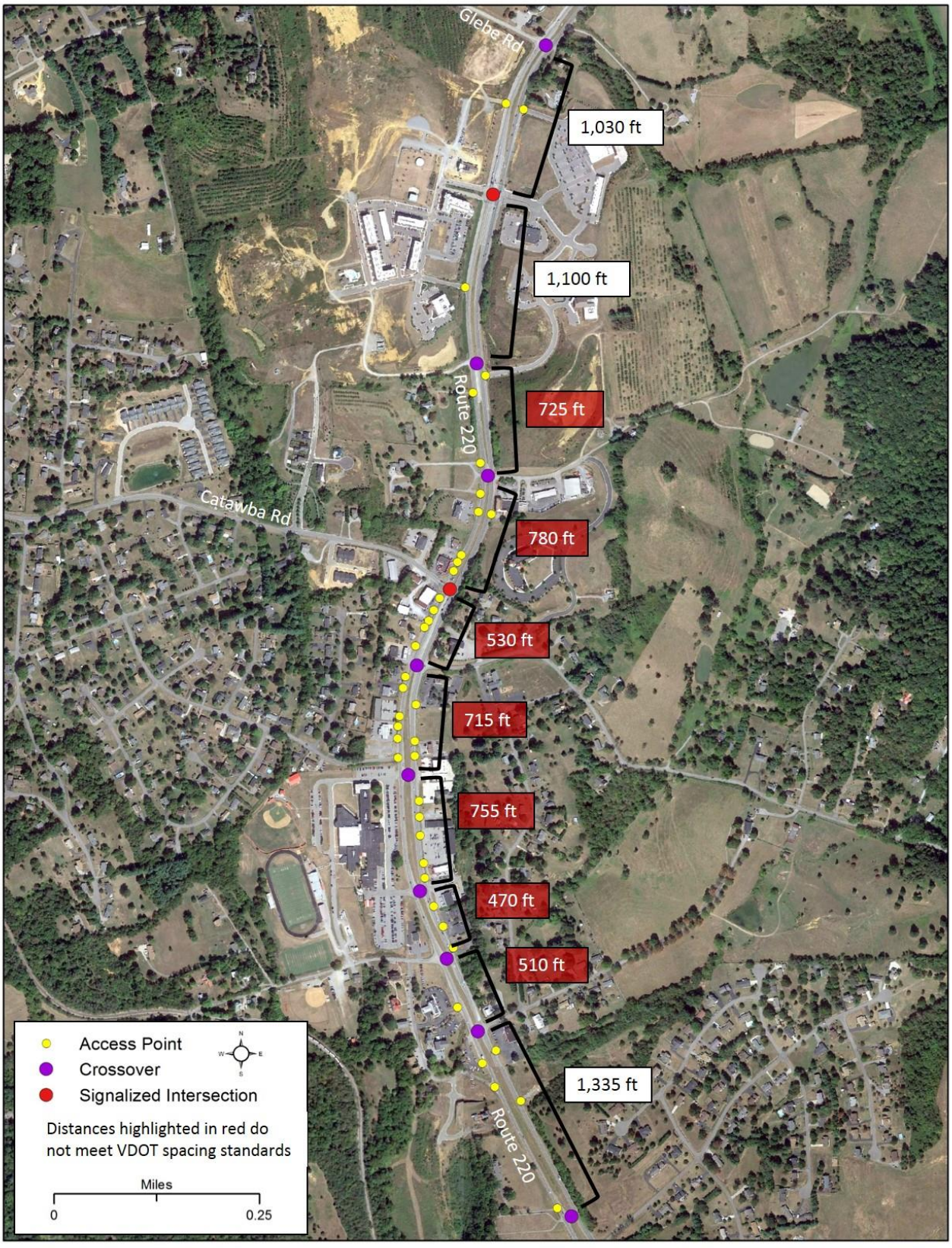


Figure 22 - Access Management Assessment, Route 220 from Glebe Road (north) to cemetery (south)

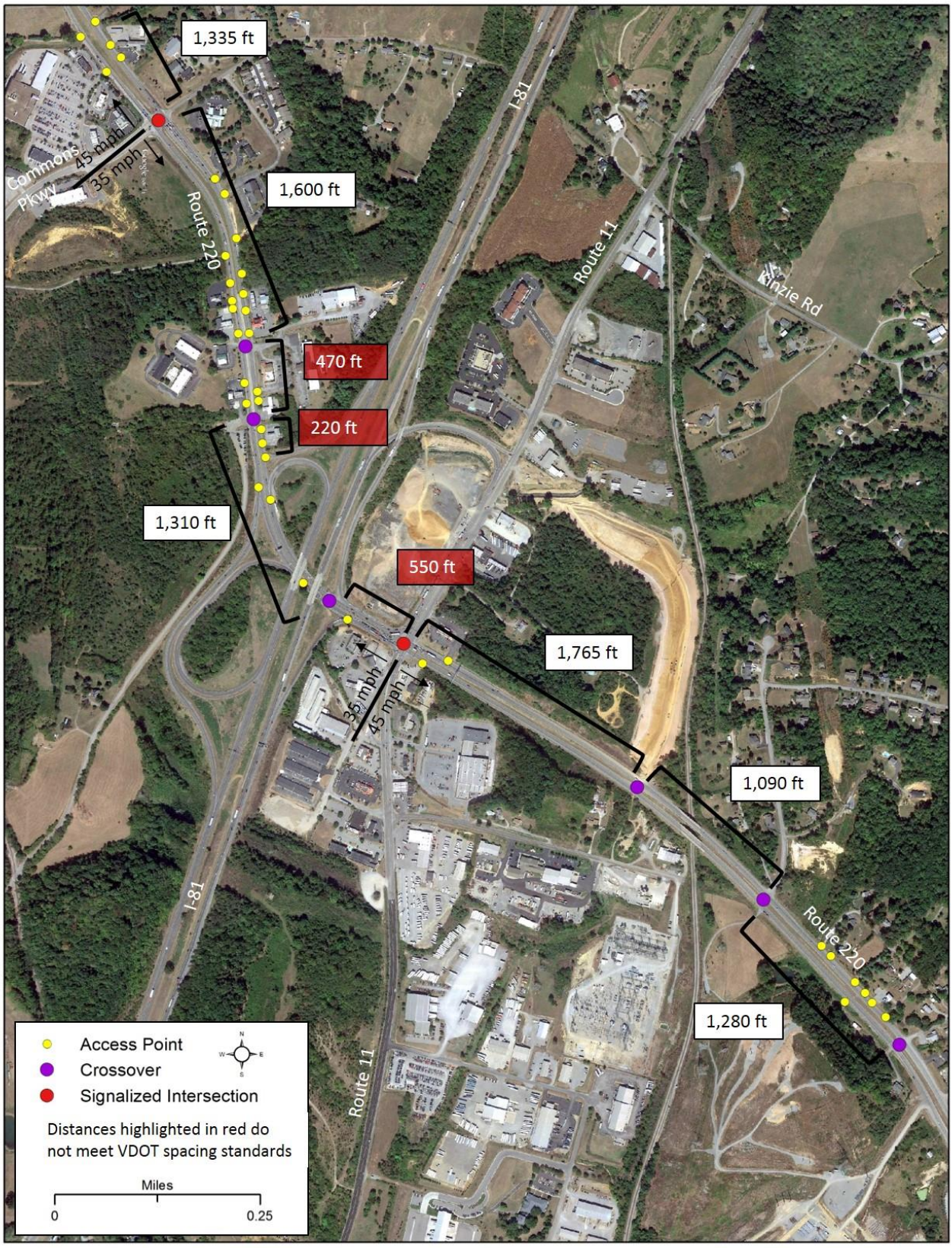


Figure 23 - Access Management Assessment, Route 220 from cemetery (north) to Spring Hollow Road (south)

Route 11 is classified as a minor arterial and is a four-lane undivided roadway for much of the corridor within the Gateway Crossing study area, except for the segment between the northern I-81 off-ramp and the northern limits of the study area, where it merges down to one lane in each direction. There is also a small segment that includes a raised median for approximately 450 feet between the intersection with Route 220 and the Dollar General Market entrance; this segment is the only portion of Route 11 in the study area with access management. As presented in Figure 24, there are approximately 48 direct access points to along the 1.5-mile portion of Route 11 within the study area; 41 access points are located in the most northern one-mile segment which has a 35 mile per hour posted speed limit, while there are only seven direct access points in the most southern half-mile segment, which has a 45 mile per hour speed limit. There is only one signalized intersection along Route 11 in the study area at the intersection with Route 220. As discussed previously, this intersection does not meet the VDOT required 1320-foot distance from the I-81 interchange ramp termini.

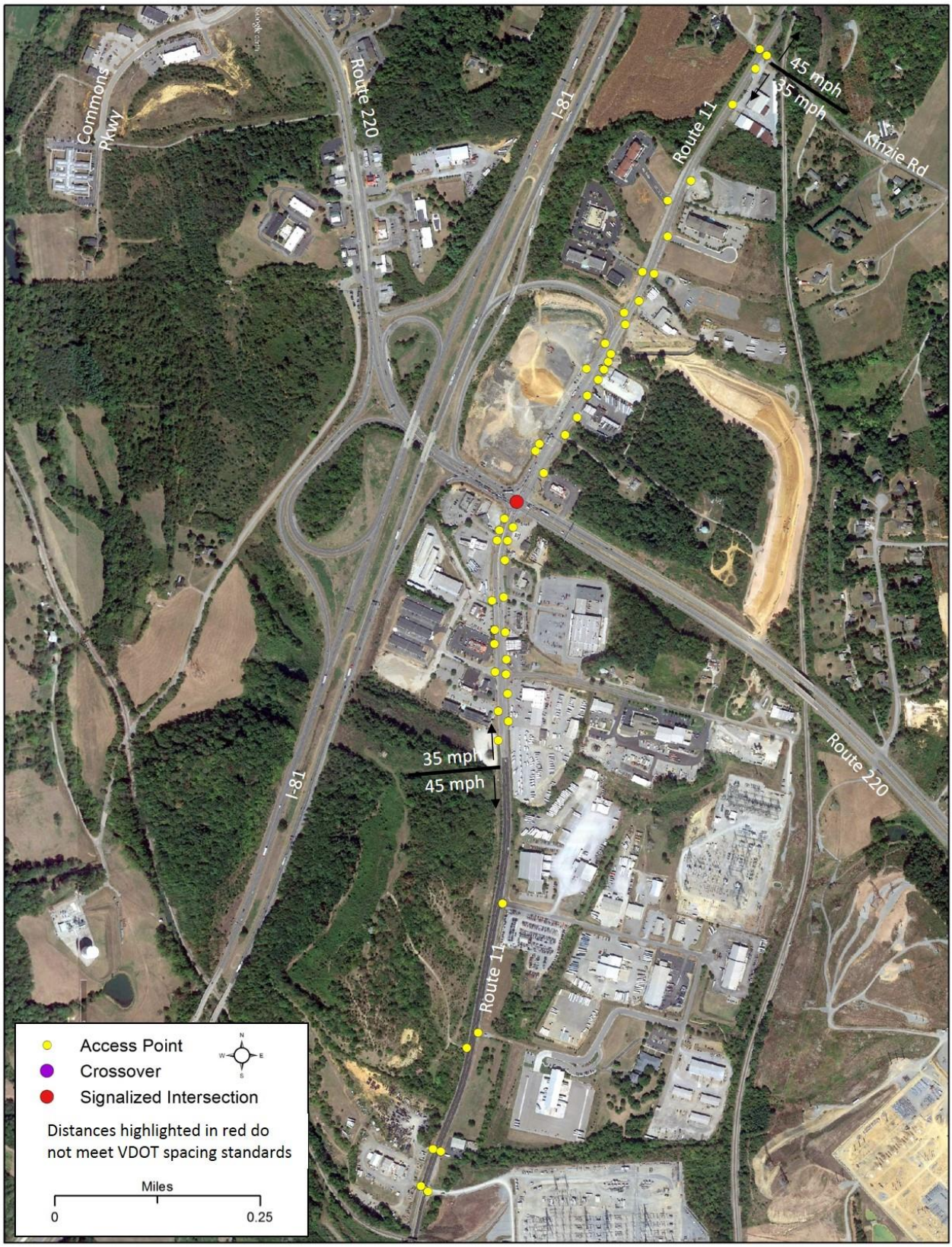


Figure 24 - Access Management Assessment, Route 11 from Kinzie Road (north) to railroad overpass (south)

There are several options for managing access on Routes 220 and 11. The benefits of access management can include less congestion and crashes in a corridor. Table 9 below is a toolbox of access management alternatives for the Route 220 and Route 11 corridors. These options are all relevant to the Gateway Crossing study area and should be applied as necessary to meet VDOT requirements and ease congestion along arterials. Figures 25 and 26 shows examples of offset left-turn lanes and directional median openings; these are some of the techniques that are lower cost options.

Table 9 - Access Management Toolbox of Alternatives

Toolbox of Alternatives		
TYPE	**EXAMPLES**	**BENEFITS**
Medians	• Non-Traversable • U-Turn Treatment • Median without turn lanes • Median with turn lanes	• Helps delineate travel lanes, separating left-turns from through traffic • Improves pedestrian safety • Improves vehicle safety • Increases efficiency • Improves aesthetics
Spacing	• Traffic Signal Spacing • Commercial Driveway Spacing	• Controls the number of access points along a corridor • Wider spacing allows for drivers to better respond to changing conditions
Offset Left-Turn Lanes		• Improves sight distance for opposing left-turning vehicles • Reduces the potential for dangerous right angle crashes
Consolidation of Access Points		• Reduces conflict points • Enhances safety • Lessens severity of crashes • Improves mobility • Increases connectivity • Develops aesthetics • Improves the functionality of a major roadway • Roadway operates more efficiently, channeling the turns into more predictable locations • Minimizes the number of trips on the major arterial
Frontage Roads	• Regular Frontage Roads (adjacent to mainline) • Reverse Frontage Roads (behind development)	• Proper use of frontage roads can help eliminate conflict points on major route
Alternative Median Opening Configurations	• Full median crossover • Directional crossover • Right-In/Right-Out	• Directional median openings are appropriate for limiting cross traffic and exiting turns and exiting turns
Driveway Location and Design		• Provides geometry and a safe environment that accommodates the characteristics of various users • Provides areas of smooth transitional flow • Corner Clearance - reduction of interferences from side-street activity

Joint and Cross Access (Access Easements)	• Combined Driveways • Interparcel Connections	• Improves the operation and safety of the main highways • Reduces the number of trips on primary roadway; thereby, preserving • capacity • Reduces number of driveways on major streets • Encourages pedestrian trips • Encourages shorter trips in autos • Provides good access to all properties through the use of easements • As property develops, local government can require owners provide • for space for future public roads/accesses • Helps local governments achieve level of service goals

Figure 25 - Directional Median Crossover Options

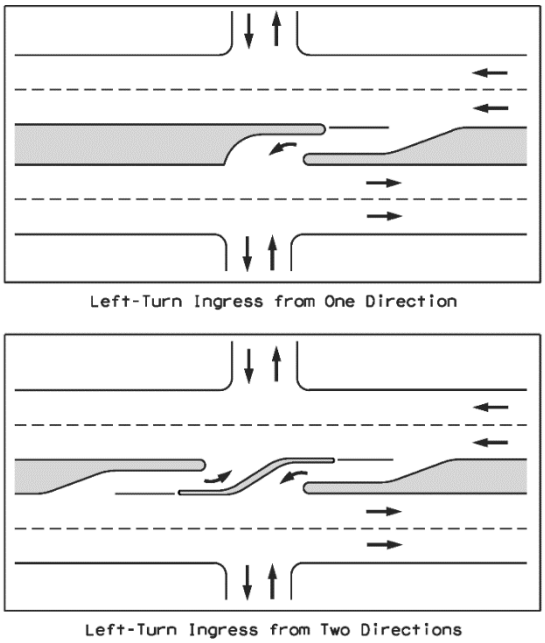
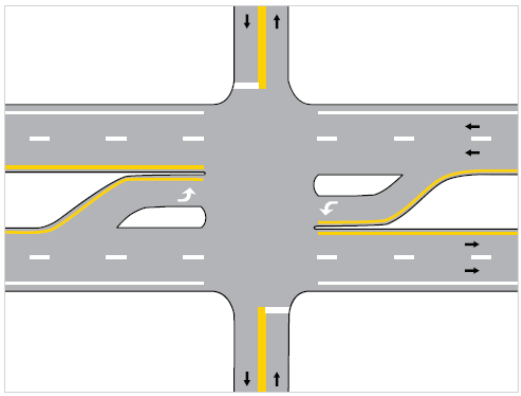


Figure 26 - Offset Left Turn Lane Option



5. IMPLEMENTATION

Implementing this vision will require the county to align its policies and development code with its vision. It will also require private entities to come forward and invest in the area. Opportunities for public and private collaboration should be sought out to realize the vision of Gateway Crossing. This section lays out some of the tools the county could use to implement its vision. No single tool is likely to make the vision a reality. It will take a combination of tools, and a long-term incremental approach to development, infrastructure investment, and redevelopment. The first section below lays out actions recommended in the Exit 150 study. The second section describes some tools the county can use to build the infrastructure needed to implement the vision.

5.1 Exit 150 Study Implementation Actions

The Exit 150 study laid out several recommendations and specific actions that the county should take to implement its vision for Gateway Crossing. The recommendations and corresponding goals are listed below. Recommendations that are no longer under consideration are not listed below. Some of the specific actions are also listed, but more detail is provided in the Exit 150 study.

Goal 1: To create the organization capacity to implement the Exit 150 redevelopment strategy

- Create a County Economic Development Authority dedicated to the implementation of the Exit 150 redevelopment and other economic development initiatives. (Already completed-the County's IDA was renamed the EDA in 2015)
- Examine opportunities to assemble key properties to facilitate important redevelopment opportunities in cooperation with developers and property owners who propose plans consistent with the county's vision for Exit 150.
- Consider the creation of a special financing district to help fund infrastructure improvements and other redevelopment activities.
- Hire an experienced Executive Director and small support staff to coordinate the County's efforts to improve the Exit 150 area and work in partnership with property owners, business owners, real estate developers, the Board of Supervisors and residents.
- Seek annual funding commitments to operate EDA.
- Seek partnership support from Exit 150 businesses and property owners for 1/3 of EDA annual budget.

- Create an Exit 150 Special Taxing District to partially fund the EDA and to provide business recruitment, marketing and land development services to the study area.

Goal 2: To improve access to key development parcels in the Exit 150 study area to increase the tax base, create jobs and expand housing options

- Work in partnership will all key stakeholders to unlock development potential of vacant land located off Tinker Mountain Road.
- Work in partnership with VDOT and key property owners to provide suitable site access to undeveloped land behind the Pilot gas station off US Route 11.
- Prepare Gateway Crossing Access Plan.
- Examine opportunity to connect new VDOT road connection at Alt 220/Cloverdale Road to Old Route 604.

Goal 3: To limit the future impact of truck parking and traffic in the Exit 150 study area

- Mitigate the challenge associated with truck parking and traffic demand.

Goal 4: To seek the creation of new Park & Ride facilities on both sides of Interstate 81 Exit 150

- Consider acquisition of VDOT Park & Ride property on US Route 220 North for future commercial development and a shared Park & Ride facility.

Goal 5: To adopt and implement planning and zoning measures to create opportunities for future (re)development to occur

- Rezone vacant land off Tinker Mountain Road to accommodate a mixed-use development consisting of commercial, apartments and townhome development at higher densities.
- Draft a new mixed-use zoning classification that specifically addresses the need for a higher density development in areas designated as urban growth districts (UGD) and designate this area as a UGD.
- Encourage development plans that incorporate new walking/biking trails and connect to, and capitalize on the Appalachian Trail.
- Encourage the introduction of higher density housing options (e.g., apartments, townhomes, condominiums) as part of any development in this area.
- Consider the benefits of rezoning the mixed business/agriculture/industrial zone between Cloverdale Road and Old Route 604 as B3 Business or SC Shopping Center.
- Consider the creation of an Exit 150 overlay zone to allow more integrated mixed-use development in the study area.

Goal 6: To make necessary public infrastructure improvements in locations that will stimulate private investment and (re)development

- Make streetscape improvements on US Route 11 south of Cloverdale Road to improve aesthetics and pedestrian amenities.
- Improve bicycle/pedestrian system.
- Evaluate opportunities with VDOT (i.e. grant funding) to enhance safety of the existing AT crossing on US Route 220.
- Further develop the streetscape edge conditions with signage, wayfinding, lighting and landscaping strategies presented on the conceptual land use plan and conceptual sections to create a study-wide program to guide future development.

- Make streetscape improvements on the eastern segment of Alt. Route 220 from the new signalized intersection to Common Parkway at First Citizens Bank.

Goal 7: To adopt mechanisms for financing public investments in the Exit 150 study area

- Create a synthetic tax increment financing district to finance public infrastructure and related development costs in conjunction with key (re)development projects.

Goal 8: To adopt a policy for providing development incentives to assist projects that are consistent with the County's Exit 150 development plan and vision

- Establish criteria for the use of public funds in partnership with other public and private funding to achieve (re)development goals.
- Identify (re)development initiatives that require the use of public funds or the powers and authorities of the EDA to be successful.
- Consider the use of declining tax abatements for property owners making significant private investments to redevelop their properties.

5.2 Funding Options for Infrastructure

This section lists some additional financing and funding options available to local governments in Virginia. The county may consider using some of these options to implement the Gateway Crossing vision.

Grant Programs

The Transportation Partnership Opportunity Fund (TPOF) is to be used by the Governor of Virginia through the Design-Build provisions of the Virginia Code (§33.1-12(2)(b)) pursuant to the Public Private Partnership Act of 1995 (Virginia Code § 56-556 et seq.). The Governor can also use TPOF monies for transportation aspects of economic development projects. Grants can be up to $5 million, while loans up to $30 million can be obtained interest free, but require repayment within 7 years. While flexible, TPOF funds are limited to use when the capacity of existing funding mechanisms has been exceeded.

Revenue Leveraging

The Transportation Funding and Reform Act of 2007 (HB 3202) allows counties to raise commercial property taxes as much as $0.25. Funds can be spent on roadway, pedestrian, and transit projects.

SMART SCALE

Local governments may submit funding requests through the state's SMART SCALE program for transportation projects that support Urban Development Areas. Access management and bicycle and pedestrian improvements are among the project types that are eligible for funding through SMART SCALE. Applications are due annually on September 30. The SMART SCALE cycle will transition to a bi-annual application process beginning in 2017. Visit http://vasmartscale.org/ for more information.

Revenue Sharing

The Virginia Department of Transportation Revenue-Sharing Program is authorized under Virginia Code §33.1-2305. The program allows for Virginia Department of Transportation funds to match locality funds for improvement, construction, or reconstruction on any functional class of roadway. A locality can request funds for projects in other localities. A locality may apply for up to a maximum of $10 million in matching allocations. Up to $5 million of these requested funds may be specified for maintenance projects.

General Obligation Bond Financing

General obligation bonds provide up-front capital financed through a revenue stream backed by local government tax revenues (primarily property tax). However, there are nearly always competing priorities for the use of general obligation bonds, since they are commonly used for many local capital projects, including schools, parks, and libraries. Infrastructure improvements in the Gateway Crossing area would need to be put in the County's Capital Improvements Program (CIP) in conjunction with local funding allocations and financing provisions.

Service Districts

Service districts may be created by any locality, by ordinance (Code of Virginia (§ 15.2-2400). The locality must hold a public hearing prior to the creation of any district. Two localities may jointly act to create such a district located in both localities.

Service districts are created to provide additional, more complete, or more timely services of government than are desired in the locality as a whole. Once an ordinance creating a service district is adopted, the governing body has additional powers pertaining to the district, including:

- to construct, maintain, and operate such facilities and equipment as may be necessary or desirable to provide additional, more complete, or more timely governmental services within a service district.
- to provide construction, maintenance, and general upkeep of streets and roads, public transportation systems serving the district, including the acquisition of real estate necessary to provide such services.
- to levy and collect an annual tax upon any property in the service district subject to local taxation to pay for providing the additional governmental services. Note, however, in contrast with the Community Development Authority provisions, such annual tax shall not be levied for or used to pay for schools, police, or general government services.

In addition to the taxes and assessments provide for by the enabling legislation, a locality may contribute money from its general fund as it deems appropriate to pay for the governmental services authorized within the service district. The proceeds from any annual tax or portion thereof collected for road construction may be accumulated and set aside for such period of time as is necessary to finance such construction.

Community Development Authorities (CDA)

Community Development Authorities may be established by the governing body upon petition from 51 percent of the land area or assessed value of land in any tract or tracts of land in a proposed district (Code of Virginia (§ 15.2-5152).

The locality may then adopt a resolution or ordinance creating the authority, after a public hearing. The resolution or ordinance is then recorded in the land records of the circuit court for each parcel included in the district. Two localities may jointly act to create such a district located in both localities.

The main powers of a CDA are to finance, fund, plan, construct, operate, and maintain the infrastructure improvements enumerated in the ordinance establishing the district. These can include acquisition of land; construction or improvement of roads, bridges, parking facilities, curbs, gutters, sidewalks, traffic signals, storm water management and retention systems, gas and electric lines and street lights, parks, cultural and educational uses; fencing and landscaping; fire stations, water mains and plugs, fire trucks, rescue vehicles and other vehicles and equipment; and school buildings and related structures.

A CDA may issue revenue bonds, subject to terms and conditions as may be established in the ordinance or resolution establishing the district, for all costs associated with the improvements. Revenue bonds must be payable solely from revenues received by the development authority. The revenue bonds issued by a CDA do not require the consent of the locality, except where consent is specifically required by the provisions of the authorizing resolution, and such bonds are not deemed to constitute a debt or obligation of the local governing body. The CDA may provide that the locality annually collects a special tax on taxable real property within the CDA's jurisdiction to finance the services and facilities provided by the authority. Unless requested by every property owner within the proposed district, the rate of the special tax cannot be more than $0.25 per $100 of the assessed fair market value of any taxable real estate.

Tax Increment Financing (TIF)

The governing body of any county, city, or town may adopt tax increment financing by passing an ordinance designating a development project area and providing that real estate taxes in the development project area shall be assessed, collected, and allocated such that the future gains in tax revenues created by the improvements are used to finance the improvements (Virginia Code §58.1-3245.2).

When a public project (e.g., sidewalk improvements) is constructed, surrounding property values generally increase and encourage surrounding development or redevelopment. The increased tax revenues are then dedicated to finance the debt created by the original public improvement project.

The local assessing officer records in the land book both the base assessed value and the current assessed value of the real estate in the development project area. Real estate taxes attributable to the increased value between the current assessed value of any parcel of real estate and the base assessed value of such real estate are allocated by the local treasurer and paid into a special fund entitled the "Tax Increment Financing Fund" to pay the principal and interest on obligations issued or development project cost commitments entered into to finance the development project costs.

Tax Increment Financing typically occurs within designated Urban Renewal Areas (URA) that meet certain economic criteria and approved by a local governing body. To be eligible for this financing, a project (or a portion of it) must be located within the URA.

Conditional Zoning

The Virginia General Assembly enabled conditional zoning to address the shortcomings of traditional zoning methods when competing and incompatible land uses conflict (Virginia Code §15.2-2296-2203). While it is technically a zoning tool, it is also a tool for funding infrastructure and the financial impacts of growth.

Conditional zoning allows reasonable conditions, known as proffers, to be offered by the applicant during a rezoning process as a way of mitigating the impacts of the proposed rezoning. Proffers may include land, infrastructure, cash, or other conditions or constraints on the use of the property. These proffers, if accepted by the governing body as part of the rezoning approval, become part of the zoning ordinance as it applies to that property. In theory, conditional zoning allows land to be rezoned that might not otherwise be rezoned because the proffers will protect the community or area affected by the rezoning.

All proffers must be made voluntarily. A governing body is not authorized to require a specific proffer as a condition to granting a rezoning. However, there may be times, in the near or longer-term future, where an owner may indeed wish to rezone their property in the Gateway Crossing area, in which case proffers could come into play.

6. SUMMARY

Gateway Crossing is the front door of Botetourt County. As such, it creates a first impression for travelers on Interstate 81 and Routes 11 and 220. It is also a centrally located place for many of the county's residents, making it a critical commercial area. For decades traffic congestion has limited the potential of Gateway Crossing. The VDOT improvements at Exit 150 offer a rare opportunity to transform this area into a thriving community that serves both the interstate highway travelers and local residents. This plan creates a policy framework for achieving the county's vision for long-term development and redevelopment in the area.

The next important step will be for the county to review and revise its zoning ordinance as needed to enable the type of development it would like to see. The county may also consider requesting transportation funds through the state SmartScale program to implement some of the transportation improvements described in this plan. Once this plan is complete, the county is planning future studies for how the Gateway Crossing district can be connected better to Blue Ridge, Troutville, and Fincastle.

Chapter II: Population and Demographics

This chapter provides an overview and analysis of trends that may shape the future of the County. Evaluating changes in a community's population and demographics over time helps us to better understand and plan for future needs that should be addressed in the goals, objectives and policies of the comprehensive plan.

Key Trends

The population of Botetourt is aging, with 59% of residents over 40 years old. *An aging population creates unique challenges in regards to the provision of services, mobility and housing needs.*

The age demographics of the county are polarized, with a notable decrease in population aged 20 to 34 years and 35 to 44 years. *Retaining and attracting this segment of the population will be an important component to ensuring an active workforce and sustained growth.*

The racial and cultural composition of the county remains fairly homogenous, but trends point towards a gradual diversification of the population. *How institutions and services, particularly public schools, respond to the challenges and opportunities presented by an increasingly diverse population will be an important consideration moving forward.*

Ninety-one percent of county residents, aged 25 years and older, have an educational attainment of high school or above. Overall, 17% of citizens have obtained bachelor's degrees and 7% have obtained graduate or professional degrees. *Improving support systems that encourage students to apply for and attend institutions of higher education or complete trade certifications while simultaneously retaining or attracting residents with college degrees will be important to the County's growth and economic prosperity.*

The workforce of Botetourt is highly mobile. *Only 14% of the workforce lives and works in the area. Diversifying housing and career options may help to capture some of this mobile workforce—creating a community to both live in and work.*

Existing housing stock is primarily low density, single-family homes that are owner occupied. The average home value is $210,300 which is higher than neighboring localities. *Recent economic announcements within the county and surrounding region, paired with shifting demographics, have highlighted the importance of constructing new housing that will meet the needs of a growing workforce and the changing preferences of current residents.*

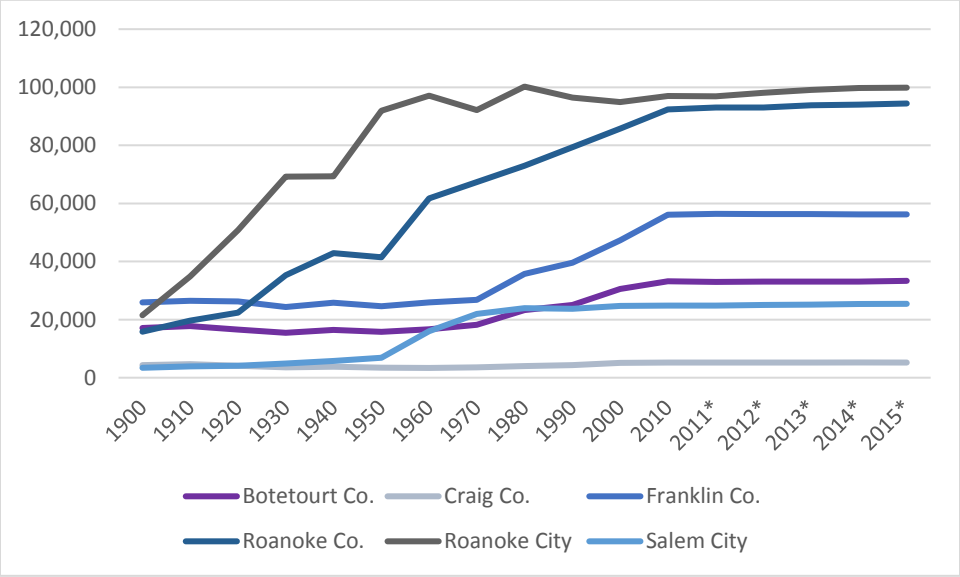
Population Growth and Density

Beginning in 1970, the county experienced significant population growth. Figure 1 illustrates the growth of Botetourt County compared to municipalities in the Roanoke Metropolitan Statistical Area (MSA), depicting where each decade falls within the overall population growth and decline of each locality.

Between 1970 and 2013, the County grew 82% with significant increases during the decades of 1970 and 1990, while, overall, the Roanoke MSA only grew by 33% during the same timeframe. Recent data suggests a much slower rate of population growth than previous decades. From 2000 to 2010, growth in the County occurred at a rate of 8%, compared to a 22% increase between 1990 to 2000. The growth rate for the Roanoke MSA during this same time period (2000-2010) was a more modest 7%.

Populations across all municipalities have somewhat stabilized since 2010. Growth over the past five years in Botetourt reflects this trend, with population estimates suggesting an increase of only 0.6% between 2010-2015.

Figure 1. Peer County Comparison of Population Growth Trends- 1900-2015



*Source: * U.S. Census Bureau, July 1, 2015 Population Estimates; **American Community Survey, 2010-2014 5-Year Estimates*

These trends are typical of rural communities across the state. Data from the University of Virginia suggests that the death rate in Botetourt County has exceeded the birth rate between the years of 2010-2015 (Table 1). This phenomenon is referred to as natural decrease and is caused by two interrelated factors, the first of which being a local age structure that has fewer young adults of child bearing age and a large surplus of older adults. Second, natural decrease is also attributed to lower fertility rates than in the past, with individuals choosing to postpone childbirth and have fewer children. As with many rural communities of the state, population growth has been reliant on the influx of new residents. Rural communities, such as Botetourt, experiencing slight population growth are typically near urban centers and they tend to attract retirees or those close to retiring.

Table 1. Change Since 2010 Census & Components of Change

April 1, 2010 Census	July 1, 2015 Estimate	Numeric Change	Births minus Deaths	Net Migration
33,148	33,486	338	-279	617

Source: Weldon Cooper Center for Public Service, Demographics Research Group, University of Virginia

Population growth is an indicator of existing demand for services and can be used to predict future need for public services such as education, recreation, and public safety. The Virginia Employment Commission (VEC) predicts Botetourt County's population will grow to 38,885 in 2040, a projected 17% increase from 2015. The VEC population forecasts take into account anticipated growth rates and projected job growth in the region and state, as well as actual growth rates experienced by the county in the past, and therefore provides the best representation of the future population size of Botetourt County.

Table 2. Virginia Employment Commission Population Forecast

Year	Botetourt	% Change	Virginia	% Change
2000	30,496	---------	7,079,030	---------
2010	33,148	8.70%	8,001,024	13.02%
2020	35,235	6.30%	8,811,512	10.13%
2030	37,121	5.35%	9,645,281	9.46%
2040	38,885	4.75%	10,530,229	9.17%

Source: U.S. Census Bureau, Virginia Employment Commission

As population expanded during the 1980s and 1990s, population density for the entire County increased from 42 persons per square mile in 1980, to 56 persons per square mile in 2000, a 33% increase. Between 2000 and 2010, density increased by 9%, reaching 61 persons per square mile. Table 3 and Map 2 (Population Distribution-2010) show total population and density in the year 2010 by U.S. Census Blocks. As of 2010, 76% of the population was concentrated in the southern part of the County, specifically in Census Tracts 403, 404, and 405. Map 4 illustrates the 2014 estimated population distribution based on the location of dwelling units.

Table 3. Population Density by Census Tract (2010)

	401	402	403	404	405	Total
Square Miles	239	132	121	31	24	547
Population	3,498	4,294	10,521	7,099	7,736	33,148
Population/Sq. Mi.	15	33	87	229	322	61

Source: U.S. Census Bureau, 2010 Census.

Demographic Characteristics

This section will focus on demographic characteristics of the population in Botetourt County, looking at age, gender, and race. While the population of Botetourt County is no longer growing at such a high rate in 2015 as it was in previous decades, the demographics continue to shift due to a variety of factors.

The population of Botetourt County is aging, as demonstrated by Table 4, with 31% of citizens aged 40-59 years old and 28% aged 60 years and over. Together this equates to 59% of the population over the age of 40.

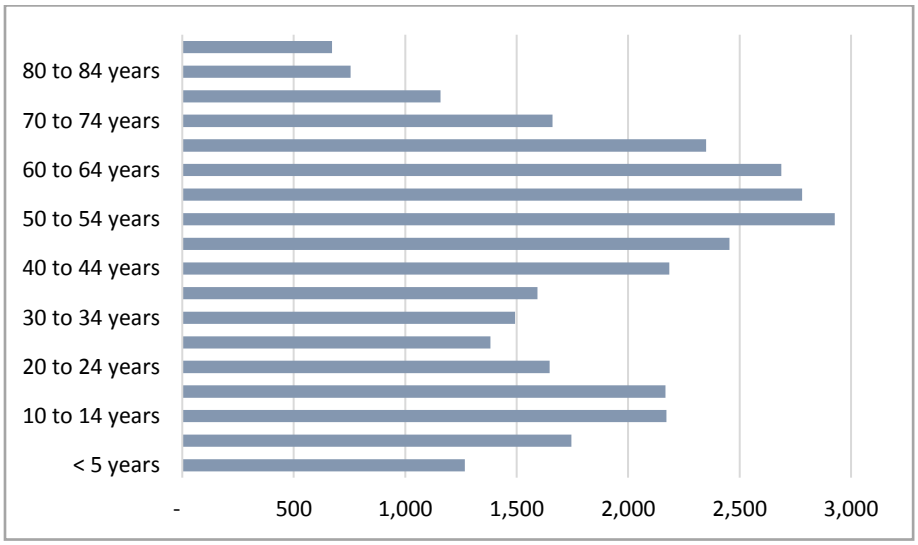
Table 4. Age Group Trends - Botetourt County (2000-2015)

Age Group	2000 Census	2010 Census	2011 (Est.)	2012 (Est.)	2013 (Est.)	2014 (Est.)
Under 19 years	7,772	8,095	7,875	7,769	7,485	7,351
20 to 39	7,084	6,097	5,955	5,945	5,998	6,118
40 to 59	10,064	11,019	10,844	10,741	10,522	10,347
Over 60 years	5,576	7,937	8,378	8,702	9,024	9,284
Total Population	30,496	33,148	33,052	33,157	33,029	33,100

Source: U.S. Census Bureau, Population Division, June 2015

Figure 2 offers a visualization of the demographic structure of the county in 2014. The largest cohort of individuals is between 45 and 69 years of age—with the population aged 19 and under reflecting this distribution—as these are likely the children of persons within this cohort. The notable drop in population aged 20-29 years is likely due to children of residents leaving to pursue educational and career opportunities.

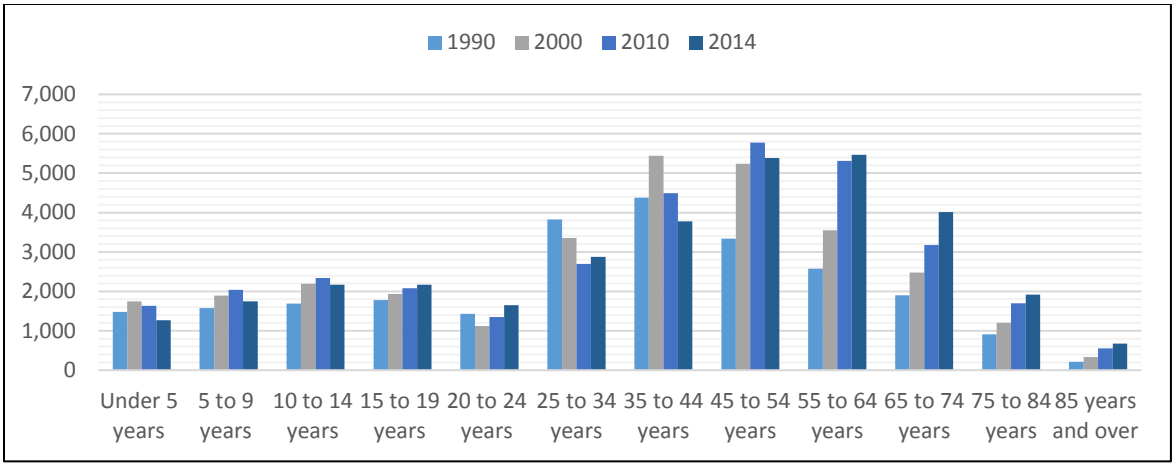
Figure 2. 2014 Population Age Groups



Source: 2010-2014 American Community Survey 5-Year Estimates

Figure 3 provides a visual comparison of age group distribution and growth over the past three decades. The data shows that there has been a decrease in the population of 25 to 34 year olds as well as in 35 to 44 year olds. This population, also referred to as a household forming population, is the group which is often most active in the workforce as well as being most likely to have children to attend Botetourt County schools.

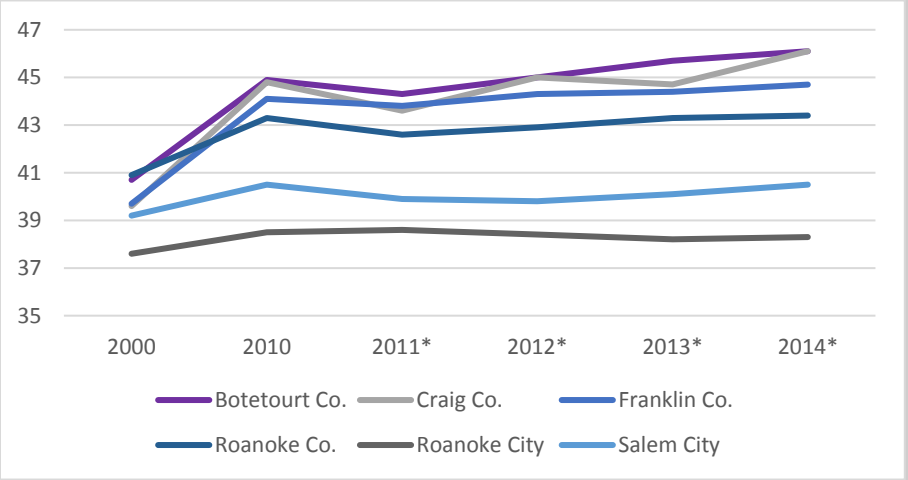
Figure 3. Age Group Growth Trends for Botetourt County: 1990-2014



Source: U.S. Census Bureau, Decennial Census 1990, 2000 and 2010; 2014 American Community Survey 5-Year Estimates

The median age for Botetourt county is estimated to be 46 years, likewise for Craig County, which is roughly three years higher than the median age of the Roanoke MSA overall. More urban peers have the lowest median ages, with Roanoke City maintaining a stable median age of 38 years since 2000. This trend may reflect a lack of younger, household forming generations moving to Botetourt and similar rural communities when deciding where to live and work.

Figure 4. Median Age, Peer County Comparison



*Source: U.S. Census Bureau, Decennial Census 2000 and 2010; *2010-2014 American Community Survey 5-Year Estimates*

Table 5 shows projections of the population to 2040, broken down by gender. This table shows a continuation of trends seen in the previous tables and figures. Of note is the general proportion of female to male residents. The female population is projected to be greater than the male population, with the gap growing in each successive decade. This disparity may be due to the fact that women generally live longer than men. However, it is unclear whether the data in Table 5 reflect recent economic announcements which are projected to increase the number of jobs in Botetourt County by 1,000 in the next 10 years and could subsequently cause an increase in population.

Table 5. Population Projections by Age and Gender - Botetourt County

	2020		2030		2040	
Age	Female	Male	Female	Male	Female	Male
Under 5 years	812	818	886	893	944	951
5 to 9 years	873	910	961	1,002	1,036	1,081
10 to 14 years	1,116	1,198	1,132	1,215	1,245	1,337
15 to 19 years	1,112	1,254	985	1,111	1,094	1,234
20 to 24 years	713	770	716	773	732	791
25 to 29 years	659	811	761	936	680	836
30 to 34 years	955	830	1,067	927	1,079	938
35 to 39 years	964	919	1,127	1,074	1,312	1,251
40 to 44 years	935	910	1,185	1,152	1,335	1,298
45 to 49 years	1,219	1,161	1,140	1,086	1,344	1,280
50 to 54 years	1,293	1,339	990	1,025	1,285	1,310
55 to 59 years	1,561	1,526	1,301	1,271	1,227	1,199
60 to 64 years	1,430	1,453	1,329	1,350	1,028	1,042
65 to 69 years	1,372	1,315	1,537	1,472	1,291	1,237
70 to 74 years	1,163	1,037	1,355	1,208	1,270	1,132
75 to 79 years	699	598	1,042	891	1,177	1,007
80 to 84 years	464	319	771	530	906	623
85 years and over	505	223	639	282	955	421
TOTALS	**17,845**	**17,391**	**18,924**	**18,198**	**19,918**	**18,968**
	35,236		**37,122**		**38,886**	

Source: Virginia Employment Commission, Botetourt County Community Profile, October 2016

The racial and cultural composition of Botetourt County remains fairly homogenous. In 1990, approximately 95.3% of the population was white. This number has changed very little in subsequent years, with the numbers in 2010 describing 94.7% of the population as white. Table 6 shows the demographic breakdown of the different racial and ethnic groups within the county, as well as the percent change of those populations from 1990 to 2010. Of particular note in this table is a large increase in the Hispanic population, though the overall representation of this demographic remains 1% of the total county population. According to estimates from the American Community Survey, a supplement to the official decennial census, the racial/ethnic makeup of the county has changed very little between 2010-2014.

Table 6. Racial and Cultural Composition - Botetourt County (1990-2010)

Group	1990	2000	2010	% Change
Total Population	24,992	30,496	33,148	33%
White	23,818	28,944	31,397	32%
White/Hispanic	82	111	257	213%
White/Non-Hispanic	23,736	28,833	31,140	31%
Black	1,035	1,073	1,004	-3%
American Indian, Eskimo, or Aleut	22	66	N/A	200%
Asian or Pacific Islander	97	145	175	80%
Total Hispanic	107	181	356	233%
Other Race	20	59	N/A	195%
2 or More Races	N/A	209	345	65%

Source: U.S. Census Bureau, Decennial Census 1990, 2000 and 2010

Estimates from the Census Bureau for the year 2040 suggest a 5-6% change in the racial and ethnic composition of the county.

Figure 5. Population by Race, 2013-2040

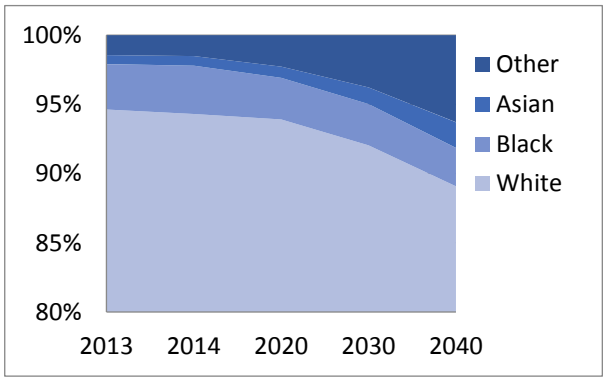
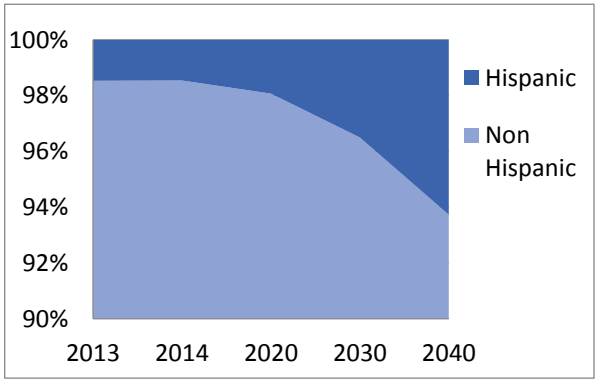


Figure 6. Population by Ethnicity, 2013-2040

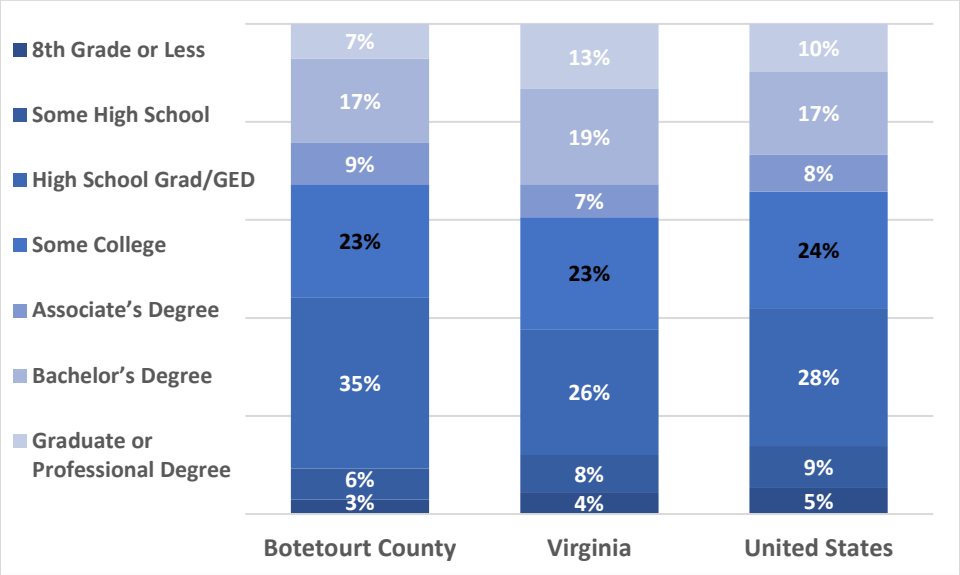


Source: U.S. Census Bureau

Education

Botetourt County has a relatively well-educated population, with 91% of residents having completed high school or above. Figure 7 explores the educational attainment of Botetourt's 18 years or older population, and compares that to state and national statistics. Botetourt has a proportionally greater percentage of the population with at least a high school diploma than both the state and the United States as a whole. However, the county has a slightly lower percentage of people with a Bachelor's or graduate degree than the broader state population, though the numbers are closer to national averages for these categories.

Figure 7. Educational Attainment – County, State and National Data



Source: U.S. Census Bureau, American Community Survey, 2010-2014

Income

Table 7 shows the Median Annual Gross Income across Botetourt and peer localities. From these estimates, it becomes apparent that Botetourt has a higher median income, with 2014 estimates being $63,011 for Botetourt compared to an average of $50,172 for the entire Roanoke MSA. Roanoke County's median household income growth mirrors that of Botetourt and is the most closely comparable of the peer localities, with a median income of $60,950.

Table 7. Median Annual Household Income, Peer County Comparison

Municipality	2009	2010	2011	2012	2013	2014	% Change
Botetourt County	$59,823	$64,724	$65,633	$66,053	$65,935	$63,011	5%
Roanoke County	$57,800	$59,446	$62,895	$61,686	$60,795	$60,950	5%
Salem City	$47,746	$48,828	$48,050	$47,776	$48,733	$50,590	6%
Craig County	$48,845	$51,291	$54,120	$47,691	$47,806	$46,658	-4%
Franklin County	$45,578	$45,555	$47,606	$45,049	$45,624	$44,827	-2%
Roanoke City	$35,811	$36,422	$37,753	$38,265	$38,145	$39,530	10%

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

A more in depth look at the income distribution for the year 2014 shows that of total households, 61% in Botetourt and 59% in Roanoke County had an income above $50,000, while the next closest peer was Salem City at 51%. Roanoke City's income distribution is the inverse, with 60% of households having made less than $50,000 in 2014.

Table 8. Income Distribution, Peer Comparison, 2014

Income Bracket	Botetourt County	Craig County	Franklin County	Roanoke County	Roanoke City	Salem City
Below $10,000	488	103	1,631	1,654	4,491	590
$10,000 to $29,999	2,080	647	5,954	6,459	12,123	2,228
$30,000 to $49,999	2,386	387	4,968	7,417	8,716	2,078
$50,000 to $74,999	2,420	368	4,499	7,547	8,448	2,197
$75,000 to $99,999	2,319	242	2,763	5,896	4,123	1,003
$100,000 to 124,999	1,267	201	1,230	3,707	1,623	640
$125,000 and above	1,907	203	2,203	5,517	3,025	1,217
Total	12,867	2,151	23,248	38,197	42,549	9,953

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

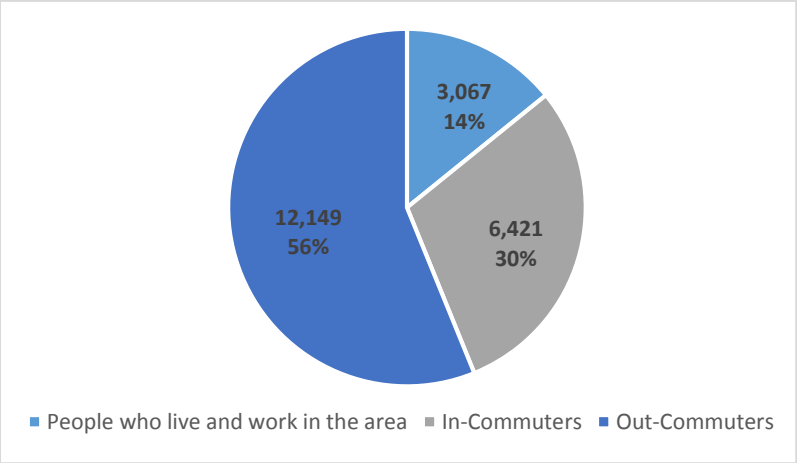
Workforce Characteristics

This section of the chapter looks at workforce characteristics such as commuting destinations, employment statistics, and types of jobs which may be available in the county.

Commuter Profile

According to data, Botetourt County is a commuter community, with 6,421 people commuting from other localities to work in the county and 12,149 residents commuting out. This equates to 56% of the workforce commuting outside of the county daily. Compared to other areas, Botetourt residents commute to work overwhelmingly by car, with 96% percent of workers commuting by motor vehicle, either alone or via carpooling (ACS 2014). This means Botetourt's workforce is highly mobile and car-dependent. Figure 5 shows the proportion of persons who commute out of the community for work versus the persons who commute in. The smallest proportion of Figure 5 shows people who both live and work in the county (14%).

Figure 8. Botetourt County Commuting Patterns, 2012



Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2012

The top places where residents commute to are Roanoke City, Roanoke County, and Salem. This is expected as Roanoke City is the largest metropolitan center in the area. Botetourt's southern half is included in the city's metropolitan planning boundary because of its relationship to the city as a commuter community. Likewise, the two leading source localities for workers coming in to the county are from Roanoke County and City. This could be due to a variety of factors, of which could be more affordable housing options in these localities.

Table 9. Top 10 Places Workers Are Commuting To

Area	Workers
Roanoke City	4,393
Roanoke County	2,305
Salem City	1,252
Montgomery County	376
Lynchburg City	210
Henrico County	197
Alleghany County	193
Bedford County	160
Richmond City	158
Fairfax County	157

Table 10. Top 10 Places Workers Are Commuting From

Area	Workers
Roanoke County	1,344
Roanoke City	1,186
Bedford County	557
Franklin County	285
Salem City	279
Montgomery County	194
Alleghany County	183
Rockbridge County	131
Pulaski County	107
Augusta County	104

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2012.

Employment

Botetourt County is characterized by low unemployment. Table 11 compares the unemployed population and corresponding unemployment rates for Botetourt's peer counties as well as the broader Roanoke MSA as well.

Table 11. Labor Force, Region and Peer Counties

Area	Labor Force	Employed	Unemployed	Unemployment Rate
Botetourt County	17,410	16,795	615	3.7%
Roanoke County	49,170	47,410	1,760	3.7%
Salem City	12,915	12,403	512	4.1%
Franklin County	26,733	25,595	1,138	4.4%
Craig County	2,387	2,282	105	4.6%
Roanoke City	49,025	46,843	2,182	4.7%
Roanoke MSA	**157,640**	**151,328**	**6,312**	**4.2%**

Source: Virginia Employment Commission, Local Area Unemployment Statistics, March 2016.

Unemployment rates in the county show a notable increase in 2009, which is similar in both the state and nation due to the economic crisis. This number has decreased gradually since 2010. The unemployment rate in 2015 is only one percent higher than that in 2008. This indicates that employment markets have somewhat stabilized in the region.

Table 12. Unemployment Rates - Trends

	Botetourt County	Virginia	United States
2003	3.6%	4.1%	6.0%
2004	3.3%	3.7%	5.5%
2005	3.0%	3.5%	5.1%
2006	2.6%	3.0%	4.6%
2007	2.7%	3.1%	4.6%
2008	3.3%	4.0%	5.8%
2009	6.5%	7.0%	9.3%
2010	6.7%	7.1%	9.6%
2011	6.1%	6.4%	8.9%
2012	5.6%	5.9%	8.1%
2013	5.2%	5.5%	7.4%
2014	4.8%	5.2%	6.2%
2015	4.3%	3.9%	5.3%

Source: Virginia Employment Commission, Local Area Unemployment Statistics

Botetourt County's employers are made up primarily of small businesses employing between 0 and 9 employees. Recent economic development announcements in the Botetourt Center at Greenfield, a research and manufacturing park developed by the county to encourage economic growth as well as the Virginia Community College System Shared Service Center, may provide future growth in the establishments with 250 to 999 employees. Botetourt currently has no businesses that employ over 1000 people.

Table 13. Employers by Size of Establishment

	Botetourt	Virginia
0 to 4 employees	526	157,588
5 to 9 employees	130	38,062
10 to 19 employees	98	28,119
20 to 49 employees	44	20,310
50 to 99 employees	16	7,036
100 to 249 employees	13	3,721
250 to 499 employees	***	1,030
500 to 999 employees	***	370
1,000 and over employees	0	236
TOTALS	**832**	**256,472**

Source:Virginia Employment Commission, Quarterly Census of Unemployment and Wages, 1st Quarter 2016
Note: Asterisks (***) indicate non-disclosable area

When looking at where people are employed, however, the numbers are somewhat inverted. The category with the most individuals employed is 100-249 employees.

Table 14. Employment by Size of Establishment

	Botetourt	Virginia
0 to 4 employees	808	226,110
5 to 9 employees	858	252,887
10 to 19 employees	1,326	381,783
20 to 49 employees	1,356	615,099
50 to 99 employees	1,100	480,746
100 to 249 employees	2,113	554,968
250 to 499 employees	***	354,440
500 to 999 employees	***	252,921
1,000 and over employees	0	605,266
TOTALS	**10,575**	**3,724,220**

Source: Virginia Employment Commission, Quarterly Census of Unemployment and Wages, 1st Quarter 2016 Note: Asterisks (***) indicate non-disclosable area

According to Tables 15, the top occupations in the county include Office and Administrative Support Occupations, Sales and Related Occupations, and Food Preparation and Service Related Occupations, in that order. Sales and food service jobs are often not particularly high paying positions. Additional top occupations which are more competitive in terms of pay include Healthcare Practitioners and Technical Occupations, Production Occupations, and Transportation and Material Moving Occupations. Many of the jobs found in these areas are more traditional middle class jobs. Together, these six occupations make up 58% of all occupations based on 2012 estimates. Jobs in food service and sales make up 19% of estimated employment, nearly one-fifth across all occupations.

Table 16 shows specific occupations which are considered Growth Occupations. The highest percent change between 2012 employment levels and 2022 employment levels is 63% growth in the number of Personal Care Aides which are projected to be employed in the county. This is likely related to the continued aging of the current population. The Average Annual Salary for this occupation is only $19,348, much lower than the median household income for the county overall. Growth in other occupations, however, should counterbalance this. The majority of other occupations reported have average salaries of over $40,000 a year. Veterinarians and Software Developers, the third and fourth fastest growing industries, have salaries of $128,582 and $94,470 respectively, significantly higher than the median household income for the county.

Table 15. Long-term Occupation Employment and Projections

Occupation	Employment			Openings		
	2012 (est.)	2022	% Change	Replac-ement	Growth	Total
Total, All Occupations	164,595	181,061	10%	3,899	1,773	5,672
Management	6,908	7,526	9%	140	64	204
Business and Financial Operations	7,141	7,924	11%	148	80	228
Computer and Mathematics	3,668	4,410	20%	60	75	135
Architecture and Engineering	2,027	2,196	8%	50	20	70
Life, Physical, Social Sciences	664	749	13%	20	8	28
Community and Social Service	2,974	3,630	22%	67	66	133
Legal Occupations	907	1,048	16%	15	14	29
Education, Training, Library	8,194	9,438	15%	176	124	300
Arts, Design, Entertainment, Sports, Media	2,218	2,397	8%	53	22	75
Healthcare Practitioners and Technical	12,008	13,550	13%	249	155	404
Healthcare Support	4,894	5,721	17%	94	84	178
Protective Service	3,834	4,471	17%	105	65	170
Food Preparation and Service Related	13,929	14,334	3%	558	59	617
Building, Grounds Cleaning, Maintenance	4,674	5,211	11%	95	54	149
Personal Care and Service	5,656	7,258	28%	108	161	269
Sales and Related Occupations	16,898	18,151	7%	501	126	627
Office and Administrative Support	27,151	28,767	6%	610	196	806
Farming, Fishing, Forestry	177	184	4%	4	2	6
Construction and Extraction	7,853	9,416	20%	128	156	284
Installation, Maintenance, Repair	7,591	8,500	12%	179	93	272
Production	12,642	12,701	0.5%	252	58	310
Transportation and Material Moving	12,587	13,479	7%	289	90	379

Source: Virginia Employment Commission, Long-Term Industry and Occupational Projections, 2012-2022

Table 16. Growth Occupations - Botetourt County

Occupation	Employment			Average Annual Openings			
	2012	2022	% Change	Replace-ment	Growth	Total	Avg. Annual Salary
Personal Care Aides	1,556	2,530	63%	11	97	108	$19,348
Audiologists	***	***	***	***	***	***	$69,478
Phlebotomists	***	***	***	***	***	***	$31,410
Medical and Clinical Laboratory Technicians	354	524	48%	9	17	26	$43,486
Veterinarians	92	134	46%	3	4	7	$128,582
Software Developers, Systems Software	493	718	46%	6	22	28	$94,470
Physical Therapist Assistants	101	147	46%	2	5	7	$58,546
Emergency Medical Technicians, Paramedics	244	351	44%	7	11	18	N/A
Personal Financial Advisors	151	211	40%	2	6	8	$129,218
Rehabilitation Counselors	310	431	39%	7	12	19	$51,754
Veterinary Assistants, Lab Animal Caretakers	200	278	39%	4	8	12	$20,000
Physical Therapists	301	407	35%	7	11	18	$105,377
Helpers—Electricians	145	195	34%	2	5	7	$25,888
Brickmasons and Blockmasons	123	164	33%	1	4	5	$40,184
Nonfarm Animal Caretakers	***	***	***	***	***	***	$19,158
Fence Erectors	***	***	***	***	***	***	N/A
Multimedia Artists and Animators	***	***	***	***	***	***	N/A
Mental Health Counselors	457	588	29%	10	13	23	$49,540
Healthcare Support Workers, All Other	***	***	***	***	***	***	N/A
Software Developers, Applications	740	950	28%	10	21	31	$77,342

Source: Virginia Employment Commission, Long-Term Industry and Occupational Projections, 2012-2022. Note: Asterisks (***) indicate non-disclosable data

In contrast, Table 17 shows occupations that are in decline in the county. These include two categories of postal workers, likely a result of the rollback of the United States Postal Service in the area, which included the closing of a major sorting center in Roanoke City.

Table 17. Declining Occupations - Botetourt County

Occupation	Employment			Average Annual Openings		
	2012	2022	% Change	Replac-ements	Growth	Total
Postal Service Mail Sorters, Processors, and Processing Machine Operators	243	188	-23%	2	0	2
Sewing Machine Operators	177	138	-22%	1	0	1
Textile Knitting and Weaving Machine Setters, Operators, and Tenders	***	***	***	***	***	***
Postal Service Mail Carriers	315	251	-20%	11	0	11
Data Entry Keyers	414	332	-20%	5	0	5
Coil Winders, Tapers, and Finishers	***	***	***	***	***	***
Computer Operators	116	95	-18%	1	0	1
Switchboard Operators, Including Answering Service	127	106	-17%	2	0	2
Electrical and Electronic Equipment Assemblers	472	399	-15%	6	0	6
Packaging and Filling Machine Operators and Tenders	303	263	-13%	7	0	7
Prepress Technicians and Workers	101	88	-13%	3	0	3
Electrical and Electronics Engineering Technicians	101	90	-11%	2	0	2
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	850	764	-10%	52	0	52
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	240	221	-8%	2	0	2
Cooks, Fast Food	***	***	***	***	***	***
Cabinetmakers and Bench Carpenters	187	174	-7%	2	0	2
File Clerks	165	154	-7%	4	0	4
Writers and Authors	187	175	-6%	4	0	4
Tire Builders	***	***	***	***	***	***
Merchandise Displayers and Window Trimmers	263	249	-5%	7	0	7

Source: Virginia Employment Commission, Long-Term Industry and Occupational Projections, 2012-2022. Note: Asterisks (***) indicate non-disclosable data

Table 18 looks at the age of the Botetourt County workforce. Overall, the majority of workers in Botetourt County are between 25 and 64, with the highest proportion of workers being between 45 and 54. The proportion of workers from a given age group changes by industry. Notably, the food service industry contains the largest number of workers between 14 and 21, followed by retail.

Table 18. Age of Work Force by Industry

Industry	14-18	19-21	22-24	25-34	35-44	45-54	55-64	65+
Total, all industries	215	424	536	1,813	2,082	2,418	1,809	541
Agriculture, Forestry, Fishing and Hunting		4		27	22	14	22	7
Mining, Quarrying, and Oil and Gas Extraction								
Utilities								
Construction	5	29	51	193	219	284	178	43
Manufacturing		29	68	307	448	546	341	58
Wholesale Trade	3	35	59	213	226	232	173	53
Retail Trade	48	77	72	172	131	155	138	54
Transportation and Warehousing		18	18	76	113	133	139	32
Information		5	20	56	59	45	24	6
Finance and Insurance		3	8	39	52	63	63	12
Real Estate and Rental and Leasing				15	5	14	17	4
Professional, Scientific, and Technical Services	5		11	33	52	63	55	13
Management of Companies and Enterprises			6	22	32	48	37	12
Administrative and Support and Waste Management	9	33	43	157	151	168	93	40
Educational Services	7	9	24	120	191	246	213	66
Health Care and Social Assistance	32	36	36	131	171	162	139	46
Arts, Entertainment, and Recreation		4	5	8	7	8	11	6
Accommodation and Food Services	95	126	95	162	120	109	62	35
Other Services (except Public Administration)	3	10	4	31	26	50	46	26
Public Administration			12	50	50	67	51	26

Source: U.S. Census Bureau, Local Employment Dynamics (LED) Program, 1st Quarter 2014, all ownerships

Table 19 shows long-term employment projections by industry, with the highest percent change being seen in Professional, Scientific, and Technical Services, followed by Construction jobs.

Table 19. Long-term Industry Employment and Projections

	Employment			Percent	
Industry	2012	2022	Change	Total	Annual
Total, all industries	164,595	181,061	16,466	10%	1%
Agriculture, Forestry, Fishing and Hunting	134	145	11	8%	0.8%
Mining, Quarrying, and Oil and Gas Extraction	153	152	-1	-0.7%	-0.1%
Utilities	314	274	-40	-13%	-1%
Construction	7,825	9,822	1,997	26%	2%
Manufacturing	16,614	16,059	-555	-3%	-0.3%
Wholesale Trade	6,991	7,600	609	9%	0.8%
Retail Trade	19,161	20,671	1,510	8%	0.8%
Transportation and Warehousing	6,881	7,456	575	8%	0.8%
Information	1,931	1,845	-86	-4%	-0.5%
Finance and Insurance	6,118	6,761	643	11%	1%
Real Estate and Rental and Leasing	1,716	1,910	194	11%	1%
Professional, Scientific, and Technical Services	7,316	9,430	2,114	29%	3%
Management of Companies and Enterprises	4,707	4,224	-483	-10%	-1%
Administrative and Support and Waste Management	8,178	9,479	1,301	16%	1%
Educational Services	11,791	13,456	1,665	14%	1%
Health Care and Social Assistance	23,122	27,814	4,692	20%	2%
Arts, Entertainment, and Recreation	1,437	1,643	206	14%	1%
Accommodation and Food Services	12,608	12,716	108	0.9%	0.1%
Other Services (except Public Administration)	5,211	6,080	869	17%	2%

Source: Virginia Employment Commission, Long Term Industry Occupational Projections, 2012-2022

Housing

This section characterizes housing units, value, homeownership, and other information to better understand the current housing situation in the county.

Housing Stock

Census estimates of housing units are shown in Table 20. New housing units in the county increased rapidly during the 80s, 90s and early 2000s. It is important to note that the American Community Survey produced *estimates* of total housing units for the years 2011-2015. Although the margin of error is relatively low for these years, it is advised to only draw broad conclusions over this time period. The data suggests that the housing construction market has been slow to rebound after the economic crisis of 2008. Future reiterations of this section will reveal more concrete trends and conclusions.

Table 20. Total Housing Units - Botetourt County

Year	Units	Change
1960*	5,215	
1970*	6,180	19%
1980*	8,710	41%
1990*	9,785	12%
2000*	12,571	28%
2010*	14,562	16%
2011	14,494	-0.5%
2012	14,555	0.4%
2013	14,588	0.2%
2014	14,628	0.3%
2015	14,749	1%

*Source: *U.S. Bureau of the Census; American Community Survey, 2010-2014 5-Year Estimates; American Community Survey July 2015 estimates*

Table 21 shows the year that a particular residence was built. It is interesting to note that, according to the Census, the majority of housing stock in the county was built between 1970 and 2009. This corresponds with the general shape of the population curve shown in Figure 1. Therefore, a correlation may exist between the decrease in new housing structures and the decrease in new residents in the county. This correlation is likely the result of several external factors, including decreased economic activity which would draw in new workers and residents. Likewise, Roanoke county shows a similar distribution in the year built, while the broader Roanoke MSA demonstrates more stable housing growth over time.

Table 21. Year Structure Was Built, Peer Comparison

Year Built	Botetourt County	% Total	Roanoke County	% Total	Roanoke MSA	% Total
Built 2010 or later	95	1%	221	1%	790	1%
Built 2000 to 2009	2,629	18%	4,610	11%	17,545	12%
Built 1990 to 1999	2,898	20%	5,673	14%	18,940	13%
Built 1980 to 1989	2,054	14%	6,200	15%	18,523	13%
Built 1970 to 1979	2,598	18%	10,123	25%	26,250	18%
Built 1960 to 1969	1,075	7%	6,451	16%	18,432	13%
Built 1950 to 1959	1,003	7%	4,210	10%	18,112	12%
Built 1940 to 1949	425	3%	1,218	3%	8,753	6%
Built 1939 or earlier	1,851	13%	1,613	4%	18,034	12%
Total Housing Units	14,628	100%	40,319	100%	145,379	100%

Source: 2010-2014 American Community Survey 5-Year Estimates

Housing stock in Botetourt is predominantly single-family, detached housing units (Table 22).

Table 22. Housing Units per Structure

	Botetourt County	% Total	Roanoke County	% Total	Roanoke MSA	% Total
1-Unit, detached	12,489	85%	30,662	76%	104,328	72%
1-Unit, Attached	289	2%	1,968	5%	4,627	3%
2 Units	130	1%	634	2%	4,575	3%
3 or 4 Units	76	1%	470	1%	3,789	3%
5 to 9 Units	122	1%	1,310	3%	5,271	4%
10 to 19 Units	23	0%	2,886	7%	8,645	6%
20 or More Units	189	1%	1,374	3%	5,227	4%
Mobile Home	1,300	9%	991	2%	8,860	6%
Boat, RV, Van, etc.	10	0%	24	0%	57	0%
Total Housing Units	**14,628**	**100%**	**40,319**	**100%**	**145,379**	**100%**

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

As can be seen in Table 23, these units often contain multiple rooms, with 21% of all homes in Botetourt County having nine rooms or more. Table 24 shows that most of the houses in the county have three or more bedrooms. Table 25 shows that close to 100% of households in Botetourt County have sufficient rooms to allow for one occupant or less per room.

Table 23. Number of Rooms

Botetourt County	Estimate	Percent
Total Housing Units	14,628	100%
1 Room	228	2%
2 Rooms	128	1%
3 Rooms	418	3%
4 Rooms	1,253	9%
5 Rooms	2,352	16%
6 Rooms	2,615	18%
7 Rooms	2,616	18%
8 Rooms	1,998	14%
9 Rooms or More	3,020	21%
Median Rooms	6.6	----------

Source: U.S. Bureau of the Census,
2010-2014 American Community Survey 5-Year Estimates

Table 24. Number of Bedrooms

Botetourt County	Estimate	Percent
Total Housing Units	14,628	100%
No Bedroom	237	3%
1 Bedroom	493	3%
2 Bedrooms	2,434	17%
3 Bedrooms	7,031	48%
4 Bedrooms	3,549	24%
5 or More Bedrooms	884	6%

Source: U.S. Bureau of the Census,
2010-2014 American Community Survey 5-Year Estimates

Table 25. Occupants per Room

Botetourt County	Estimate	Percent
Occupied Housing Units	12,867	100%
1.00 or Less	12,699	98.7%
1.01 to 1.50	57	0.4%
1.51 or More	111	0.9%

Source: U.S. Bureau of the Census,
2010-2014 American Community Survey 5-Year Estimates

Housing in Botetourt largely relies on a centralized electrical system to provide heat. However, there is still a significant portion of the housing stock which uses utility gas, at 19%. Many houses also use fuel sources that must be delivered to tanks on site by truck or other vehicle, such as bottled gas or fuel oil, equating to 17% of all housing stock. Lastly, 7% of houses are heated solely by wood in Botetourt County. This is a high percentage, though perhaps not atypical in rural areas of Southwest Virginia.

Table 26. Type of Heating Fuel

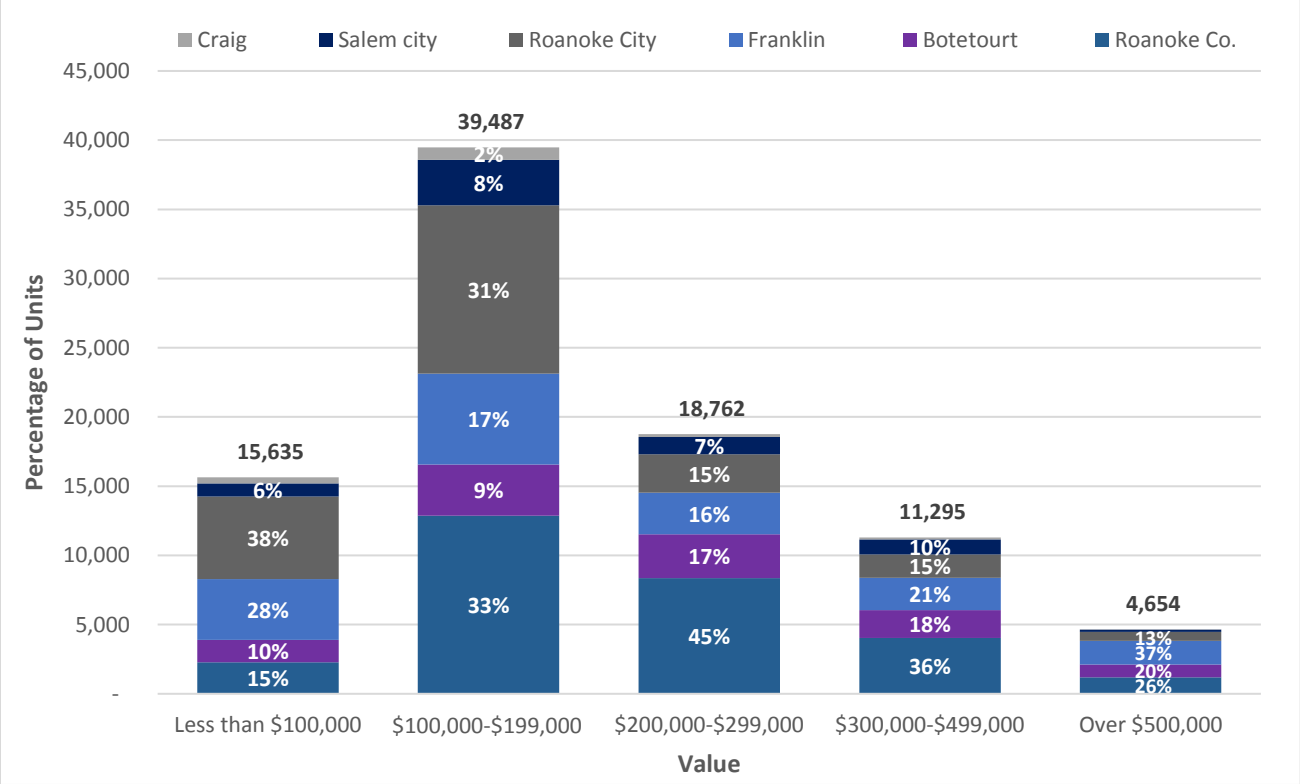
Botetourt County	Estimate	Percent
Total Housing Units	12,867	100%
Utility Gas	2,441	19%
Bottled, Tank or LP Gas	1,049	8%
Electricity	7,244	56%
Fuel Oil, Kerosene, etc.	1,174	9%
Coal or Coke	0	0.0%
Wood	935	7%
Solar Energy	5	0.0%
Other Fuel	19	0.1%
No Fuel Used	0	0.0%

Source: U.S. Bureau of the Census, 2010-2014 American Community Survey 5-Year Estimates

Housing Value

Figure 9 shows the values of owner-occupied housing units in Botetourt and its peer localities. Botetourt County has a relatively high housing value, with 28% of homes being priced between $200,000 and $299,999, and an additional 18% being priced between $300,000 and $499,99. This means that roughly half of the owner-occupied housing units in Botetourt are valued at over $200,000. In contrast, only 39% of the housing units in the broader MSA are valued so highly. Despite high home values, housing occupancy in the county is fairly average, with a homeowner vacancy rate of only 2%. This indicates a sustained demand for more expensive housing stock.

Figure 9. Occupied Housing Units and their Values, Peer Comparison



Source: U.S. Bureau of the Census, American Community Survey 2010-2014 5-Year Estimates

Table 27 shows how many of the owner-occupied housing units in the county are estimated to have a mortgage, and how many do not have a mortgage currently. The number of housing units with a mortgage mirrors that of the Roanoke MSA.

Table 27. Mortgage Information, Owner-Occupied Housing Units

Mortgage Status	Botetourt County		Roanoke MSA	
	Estimate	% Total	Estimate	% Total
Owner-occupied units	11,366		89,833	
Housing units with a mortgage	7,243	64%	57,258	64%
Housing units without a mortgage	4,123	36%	32,575	36%

Source: U.S. Bureau of the Census, 2010-2014 American Community Survey 5-Year Estimates

Rental Units and Rates

Rental units are important accommodations for people who want to work in Botetourt but may not have enough money to take out a mortgage or purchase a house. Renting is also a common choice for people who are taking jobs in a community but do not intend to remain in that area for longer than 5 years. Currently, there is a relatively limited rental market in Botetourt County.

In Botetourt County, approximately 88% of occupied housing units are owner occupied and 12% are renter occupied, which is significantly lower than the communities selected for peer comparison. The number of rental units in surrounding localities are higher, with the closest peer comparison being Craig County with an estimated 19% of housing stock classified as renter-occupied. More broadly, rentals comprise 26% of the of the housing stock in the Roanoke MSA.

Table 28. Housing Tenure and Characteristics, Peer Comparison

Housing Units	Botetourt County		Craig County		Franklin County		Roanoke County		Roanoke City		Salem City	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
Total	14,628	--	2,868	--	29,386	--	40,319	--	47,330	--	10,848	--
Occupied	12,867	88%	2,151	75%	23,248	79%	38,197	95%	42,549	90%	9,953	92%
Owner-occupied	11,366	88%	1,733	81%	18,072	78%	28,749	75%	23,204	55%	6,709	67%
Renter-occupied	1,501	12%	418	19%	5,176	22%	9,448	25%	19,345	46%	3,244	33%
Vacant	1,761	12%	717	25%	6,138	21%	2,122	5%	4,781	10%	895	8%

Source: American Community Survey, 2010-2014 5-Year Estimates;
U.S. Bureau of the Census, July 1, 2015 Population Estimates.

An estimated 90% of rental units in the county cost over $500 a month, while 59% cost over $750 per month. Assuming that a renter should pay no more than 30% of their monthly income on rent in order to remain financially stable, this means that roughly 41-70% of rental properties in Botetourt are priced at rates which would be affordable to people making $3,000 per month, or a minimum of $36,000 a year.

This is a decent middle class wage, but many employees in the county like those occupations listed in Table 16 are projected to make less than this.

Table 29. Gross Rental Rates, Botetourt County

Botetourt County	Estimate	Percent
Occupied Units Paying Rent	1,263	100%
Less than $200	0	0.0%
$200 to $299	0	0.0%
$300 to $499	158	12.5%
$500 to $749	361	28.6%
$750 to $999	364	28.8%
$1,000 to $1,499	333	26.4%
$1,500 or More	47	3.7%
Median (Dollars)	881	N/A
No Rent Paid	238	N/A

Source: U.S. Bureau of the Census, 2010-2014 American Community Survey 5-Year Estimates

Median rent in Botetourt County is $881 per month, which would require that the renter make $2,936 per month, or $35,232 annually, to keep this expense at 30% of their income. Compared to the broader Roanoke MSA, Botetourt County has the highest rent. However, median rent appears competitive with that of Roanoke County and Salem City.

Table 30. Median Rent, Peer County Comparison

Municipality	Median Rent	Margin of Error
Botetourt County	$881	+/-123
Roanoke County	$857	+/-23
Salem City	$833	+/-24
Roanoke City	$719	+/-14
Franklin County	$ 668	+/-45
Craig County	$550	+/-112
Roanoke MSA	**$751**	**N/A**

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

Table 31 shows gross rent in the county as a percentage of income. It indicates that 64% of people renting in Botetourt County are paying less than 30% of their monthly income in rent. This leaves 36% of the county paying an amount greater than 30% of their monthly income. In comparison with the broader MSA, Botetourt appears to be on par with average distribution of percent income dedicated to rent. Peer comparison reveals a similar rent as a percentage of income to that of Roanoke County. Craig County is particularly notable, as 84% of residents dedicate less than 30% of their income to rent, this could be attributed to Craig County having the lowest median rent ($550) in the Roanoke MSA.

Table 31. Rent as a Percentage of Income, Peer Comparison, 2014

Percent Income	Botetourt County	Craig County	Franklin County	Roanoke County	Roanoke City	Salem City	Roanoke MSA
Less than 30%	64%	84%	50%	60%	51%	51%	60%
30.0 to 34.9%	6%	0%	11%	9%	8%	5%	7%
35.0% or more	30%	16%	39%	32%	41%	44%	33%

Source: American Community Survey 2010-2014 5-Year Estimates

Homeowner Information

The majority of households in the county are married couple households, of which 35% contain children less than 18 years of age.

Table 32. Households and Families - Botetourt County

Subject	Married-couple	Male HH, no wife present	Female HH, no husband present	Nonfamily household	Total
Total Households	**8,637**	**373**	**1,031**	**2,826**	**12,867**
Average HH Size	2.94	2.87	2.86	1.19	2.55
Families					
Total Families	8,637	373	1,031	N/A	10,041
Average Family Size	2.94	2.71	2.72	N/A	2.91
Age of Own Children					
HH with Own Children Under 18	2,791	113	419	N/A	3,323
Under 6 Years	23%	8%	8%	N/A	21%
0 to 17 Years	15%	21%	19%	N/A	16%
6 to 17 Years	62%	71%	73%	N/A	63%
Selected by Household Type					
HH with 1 or more people under 18	35%	41%	60%	1%	30%
HH with 1 or more people older than 60	40%	43%	43%	55%	43%
Householder living alone	N/A	N/A	N/A	85%	19%
65 Years and over	N/A	N/A	N/A	40%	9%
Unmarried Partner Households					
Same Sex	N/A	N/A	N/A	N/A	0.4%
Opposite Sex	N/A	N/A	N/A	N/A	3%
Units in Structure					
1-Unit Structures	93%	69%	78%	84%	89%
2-or-More-Unit-Structures	1%	3%	8%	7%	3%
Mobile Homes and All Other Types of Units	6%	28%	14%	9%	8%
Housing Tenure					
Owner-Occupied Housing Units	93%	81%	86%	76%	88%
Renter-Occupied Housing Units	7%	19%	14%	24%	12%

Source, U.S. Bureau of the Census, 2010-2014 American Community Survey 5-Year Estimates
Note: HH=Household

Table 33 shows that most homeowners in Botetourt County maintain fairly long residencies, with only 12% having moved to their current dwelling unit during or after 2010. This could be an indicator of quality of life satisfaction or area job stability among other factors.

Table 33. Year Householder Moved into Housing Unit

Botetourt County	Estimate	Percent
Occupied Housing Units	12,867	100%
Moved in 2010 or Later	1,582	12%
Moved in 2000 to 2009	5,276	41%
Moved in 1990 to 1999	2,855	22%
Moved in 1980 to 1989	1,343	10%
Moved in 1970 to 1979	1,023	8%
Moved in 1969 or Earlier	788	6%

Source: U.S. Bureau of the Census, 2010-2014 American Community Survey 5-Year Estimates

Agricultural Activity

Botetourt County has traditionally been a rural community heavily reliant on agriculture. Population growth, coupled with development and economic diversification have shifted industry. Consequently, the farming sector of the county has declined over time in absolute and relative size. Table 34 shows the changes in the characteristics of agriculture in Botetourt from 1982 to 2012. These statistics were obtained from the Census of Agriculture. In general, the data shows a diminishing role for agriculture as a part of the Botetourt County economy.

The number of farms decreased by 14% between the years of 1982 and 1997 and began to rebound in the early 2000s. Data for 2012, suggest a return to a trending decline. The extent to which the economic downturn of 2008 played a role in this decline cannot be extrapolated from this data. While the number of farms has decreased, the total acreage devoted to farming has recently increased (2007-2012) but shows an overall decline of 8% over the last decade. The average value of farms continues to rise, increasing 75% between 1997-2007 and a more modest 35% between 2002-2012. This reflects the overall trend of increasing land values throughout the County.

In 2015, the county developed the Botetourt County Agricultural Development Strategic Plan, a roadmap for local agriculture that contains strategic goals, objectives and initiatives to promote and expand local agriculture. The plan also explains in further detail the consumer and production trends impacting County Agriculture.

Table 34. Agricultural Statistics

	1982	1987	1992	1997	2002	2007	2012	%Δ 2002-2012
Number of Farms	586	532	512	505	610	638	584	-4%
Land in Farms (acres)	97,835	97,523	96,833	90,502	97,091	87,913	89,316	-8%
Average Farm Size (acres)	167	183	189	179	159	138	153	-4%
Estimated market value of land and buildings:								
Average per farm (dollars)	$179,118	$202,592	$259,284	$332,893	$496,590	$584,921	$668,360	35%
Average per acre (dollars)	$1,007	$1,070	$1,459	$1,870	$2,732	$4,245	$4,370	60%
Total Cropland (acres)	46,236	40,465	41,373	40,662	44,393	27,662	26,190	-41%
Harvested Cropland (acres)	19,193	19,397	18,689	20,023	23,458	21,005	22,007	-6%
Market value of agricultural products sold ($1000)	$10,580	$11,934	$12,549	$10,773	$9,982	$13,548	$18,704	87%
Average per farm (dollars)	$17,983	$22,432	$25,410	$21,253	$16,365	$21,234	$32,028	96%
Crops, including nursery and greenhouse crops ($1000)	$2,011	$2,086	$2,138	$1,772	$1,850	$2,488	$6,063	228%
Livestock, poultry, and their products ($1000)	$8,527	$9,848	$10,411	$8,961	$8,133	$11,059	$12,641	55%

Source: Census of Agriculture 1982, 1987, 1997, 2002, 2007, 2012

Planning for Growth and Change

Change is usually inevitable, but not entirely unpredictable. As the children of the baby boom generation age and graduate from the County school system, they often leave the County to pursue higher education, job opportunities, or a greater diversity of housing options. Those same boomer children may gravitate back to the area with young families in later years. Seniors are increasingly choosing to "age in place" rather than migrate away from familiar communities for their retirement years. To remain attractive, competitive and stable, the County needs to anticipate changes that will affect the future and anticipate local, regional and national trends that will influence future land use patterns and drive public facility and utility needs. The comprehensive plan is designed to respond to the driving forces that will affect the County's future through policies that will maintain the county's quality of life and economic vitality.

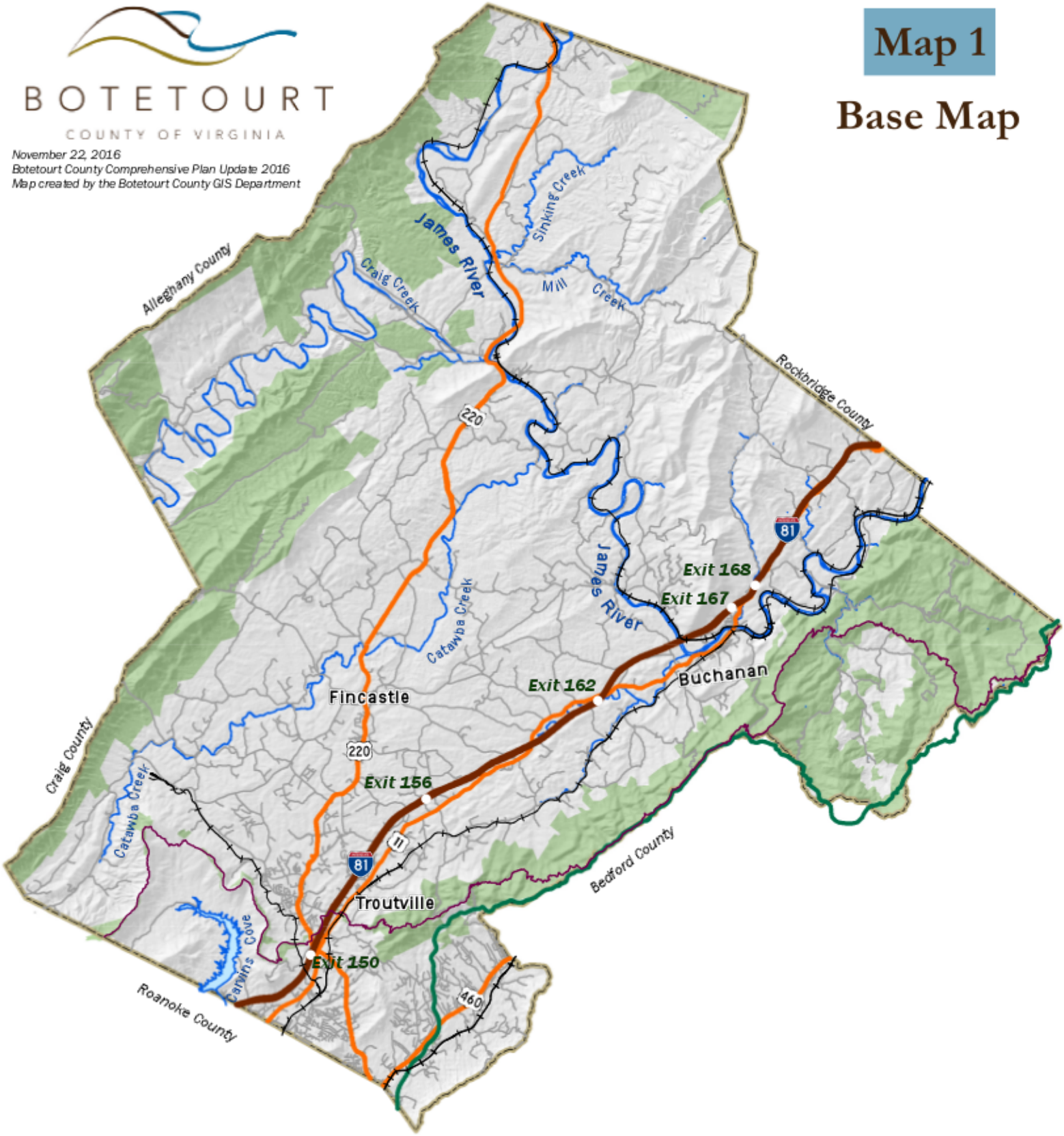
BOTETOURT

COUNTY OF VIRGINIA

Map 1

Base Map

November 22, 2016
Botetourt County Comprehensive Plan Update 2016
Map created by the Botetourt County GIS Department



Railroad
Appalachian Trail
National Forest
Water Feature
Blue Ridge Parkway
Interstate
Primary Road
Secondary Road

N

0 2½ 5 10 15 Miles

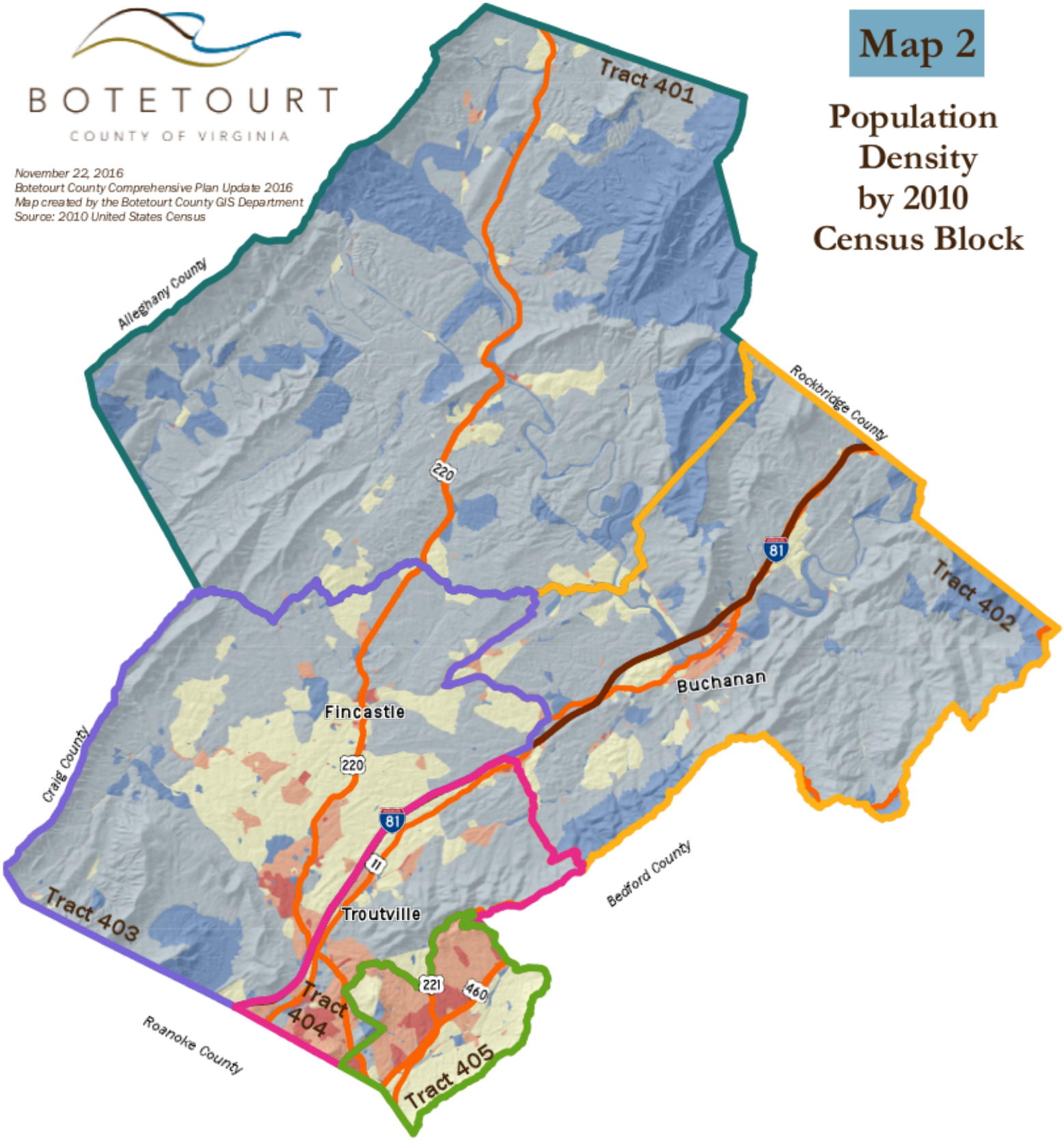
BOTETOURT

COUNTY OF VIRGINIA

Map 2

Population Density by 2010 Census Block

November 22, 2016
Botetourt County Comprehensive Plan Update 2016
Map created by the Botetourt County GIS Department
Source: 2010 United States Census



Tract 401 Tract 402 Tract 403 Tract 404 Tract 405

Population Density by Census Block (Persons per Sq. Mile)

0 | 1 - 59 | 60 - 229 | 230 - 819 | 820 +

0 2½ 5 10 15 Miles

N

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COUNTY OF VIRGINIA

November 22, 2016
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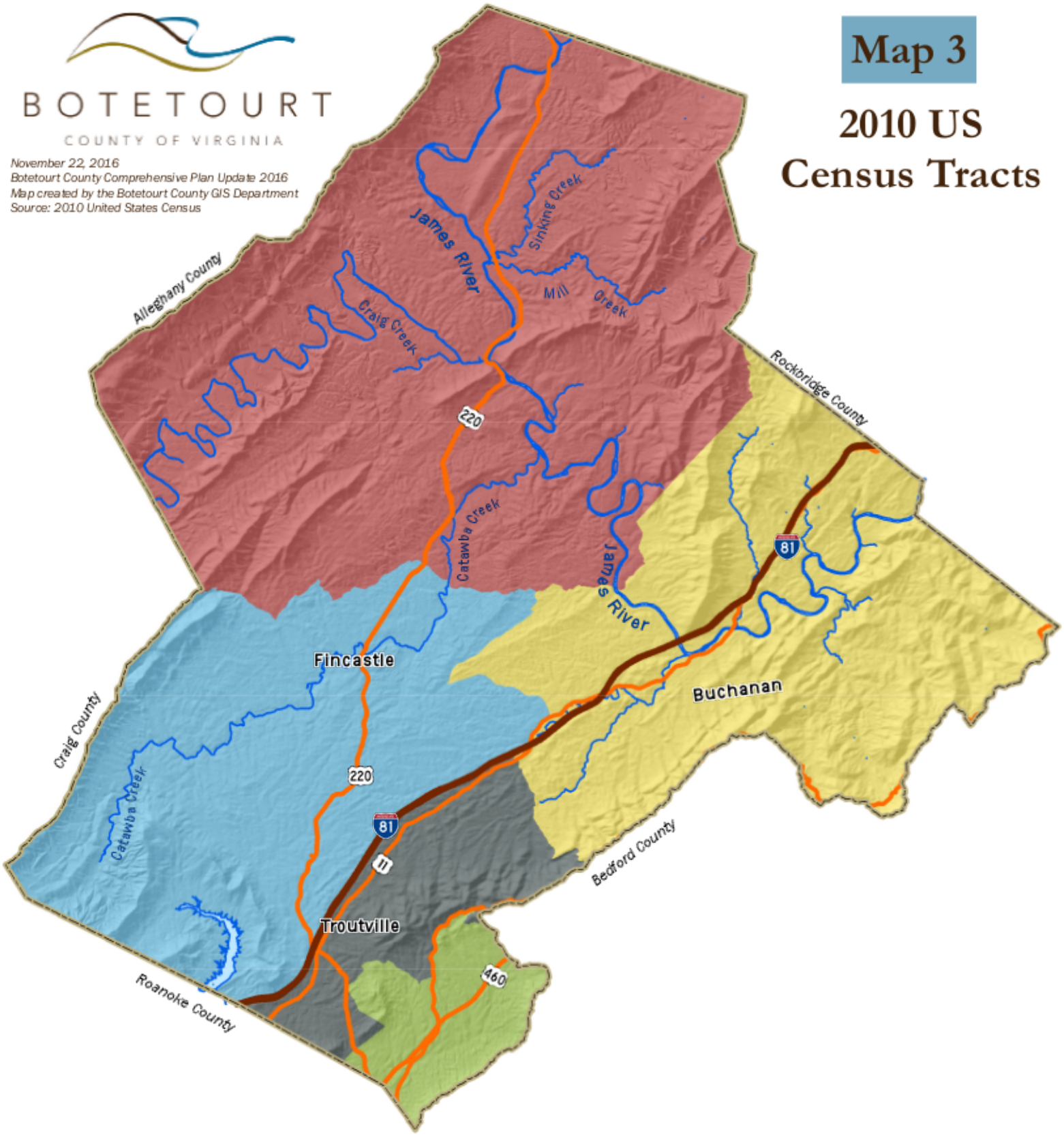
Map created by the Botetourt County GIS Department
Source: 2010 United States Census

Map 3

2010 US Census Tracts



N

Census Tract 401
Census Tract 402
Census Tract 403
Census Tract 404
Census Tract 405

0 2½ 5 10 15 Miles

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COUNTY OF VIRGINIA

November 22, 2016
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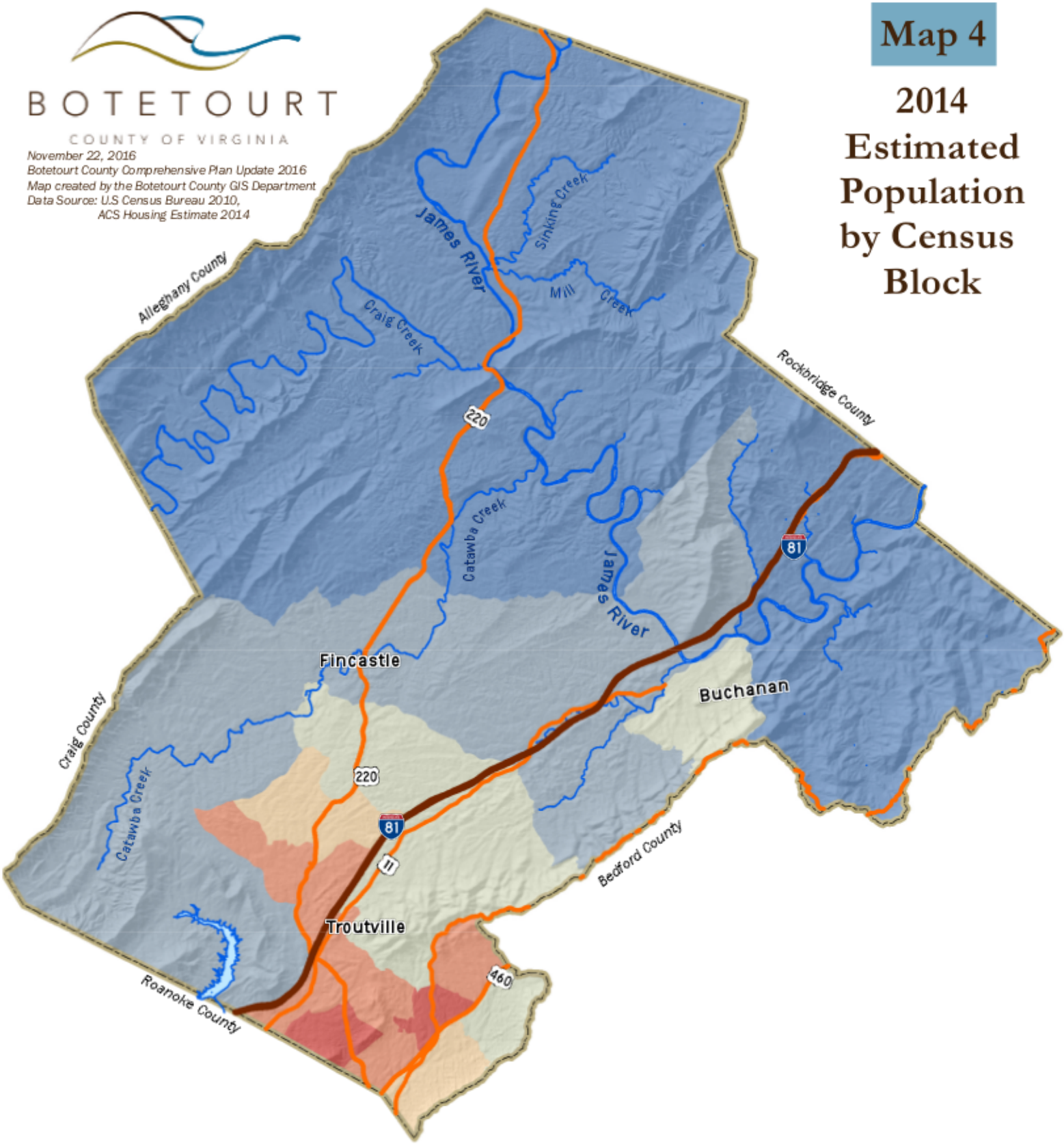
Map created by the Botetourt County GIS Department
Data Source: U.S Census Bureau 2010,
ACS Housing Estimate 2014

Map 4

2014 Estimated Population by Census Block



2014 Estimated Population: 33,100
2014 Dwelling Units: 14,628
Average Person per Dwelling Unit (2014): 2.4

Estimated 2014 Total Population based on Dwelling Units by Census Blocks

9 - 30	60 - 122	198 - 543
31 - 59	123 - 197	544 - 1212

0 2½ 5 10 15 Miles

N

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COUNTY OF VIRGINIA

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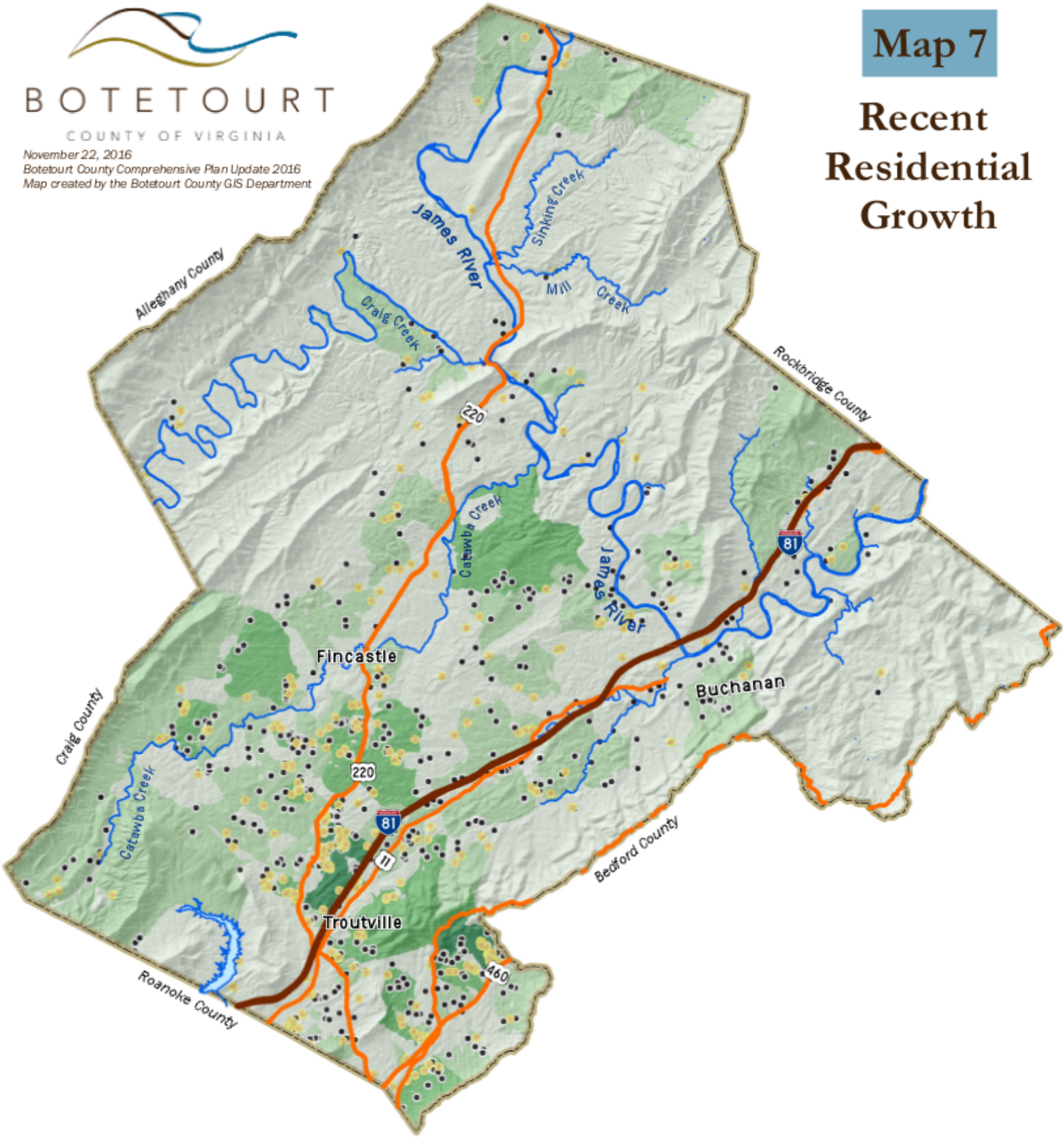
Map created by the Botetourt County GIS Department

Map 7

Recent Residential Growth



- Dwelling Unit Built Between 2005 - 2009
- Dwelling Unit Built Between 2010 - 2015

Number of Dwelling Units Built Between 2005 and 2015 by Census Block

0 - 2 | 3 - 9 | 10 - 24 | 25 - 51 | 52 - 81

0 2½ 5 10 15 Miles

N

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COUNTY OF VIRGINIA

Map 10

Conservation Easements

November 22, 2016
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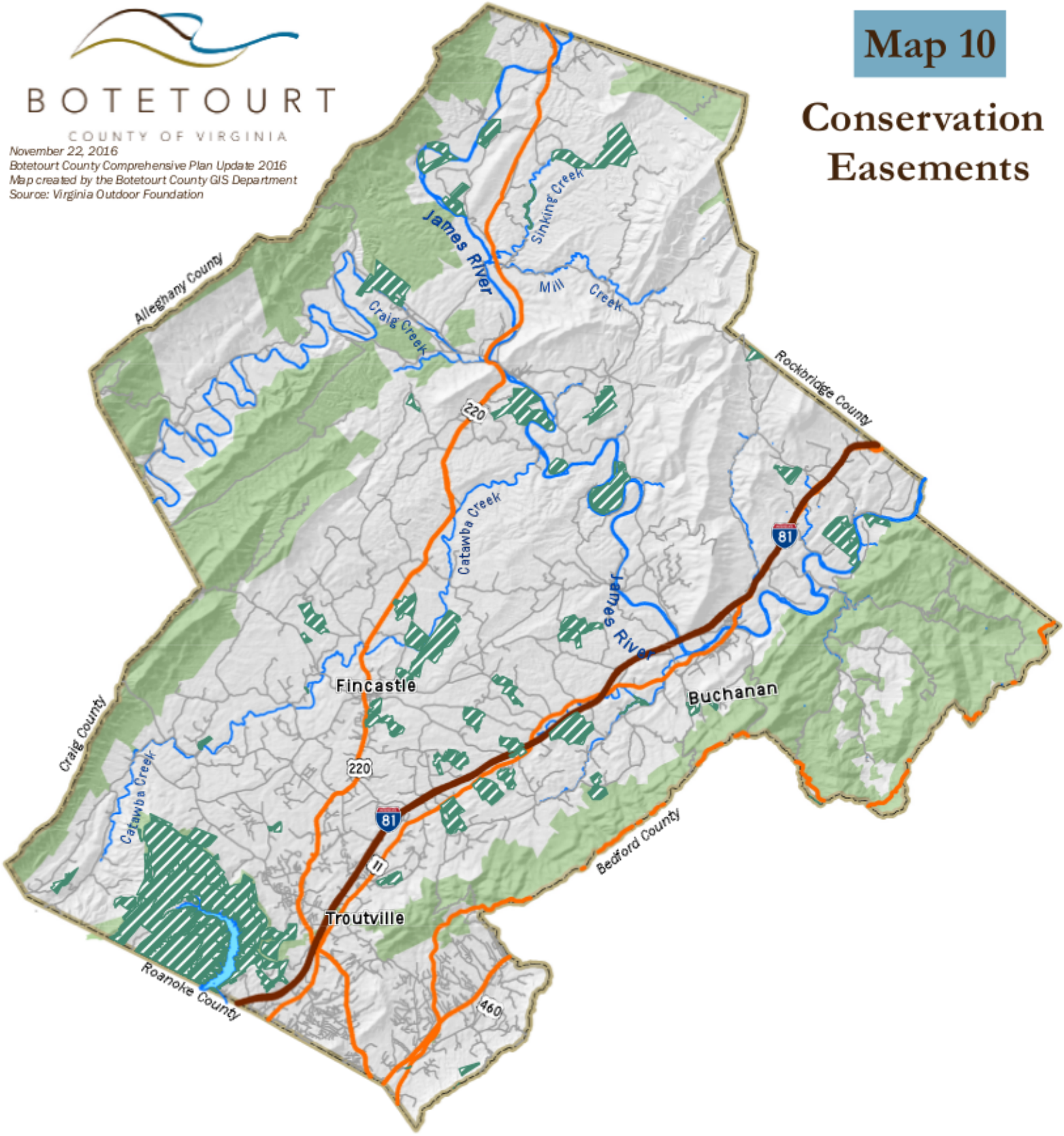
Map created by the Botetourt County GIS Department
Source: Virginia Outdoor Foundation



Conservation Easements
Water Feature
National Forest
Interstate
Primary Road
Secondary Road

N

0 2½ 5 10 15 Miles

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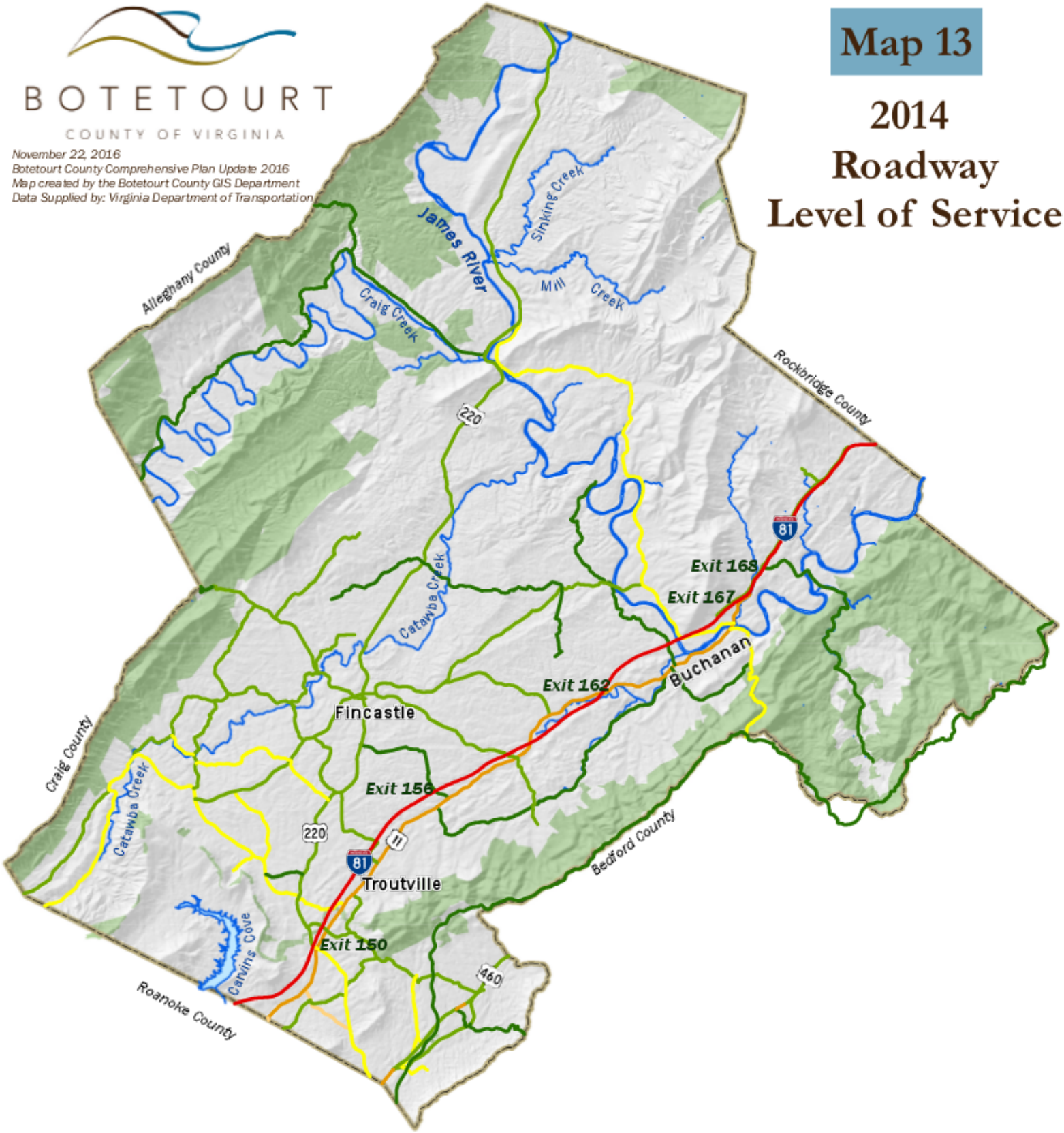
COUNTY OF VIRGINIA

Map 13

2014 Roadway Level of Service

November 22, 2016
Botetourt County Comprehensive Plan Update 2016
Map created by the Botetourt County GIS Department
Data Supplied by: Virginia Department of Transportation



Current (2014) Level of Service Grades

A B C D E F

0 2½ 5 10 15 Miles

N

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COUNTY OF VIRGINIA

November 22, 2016
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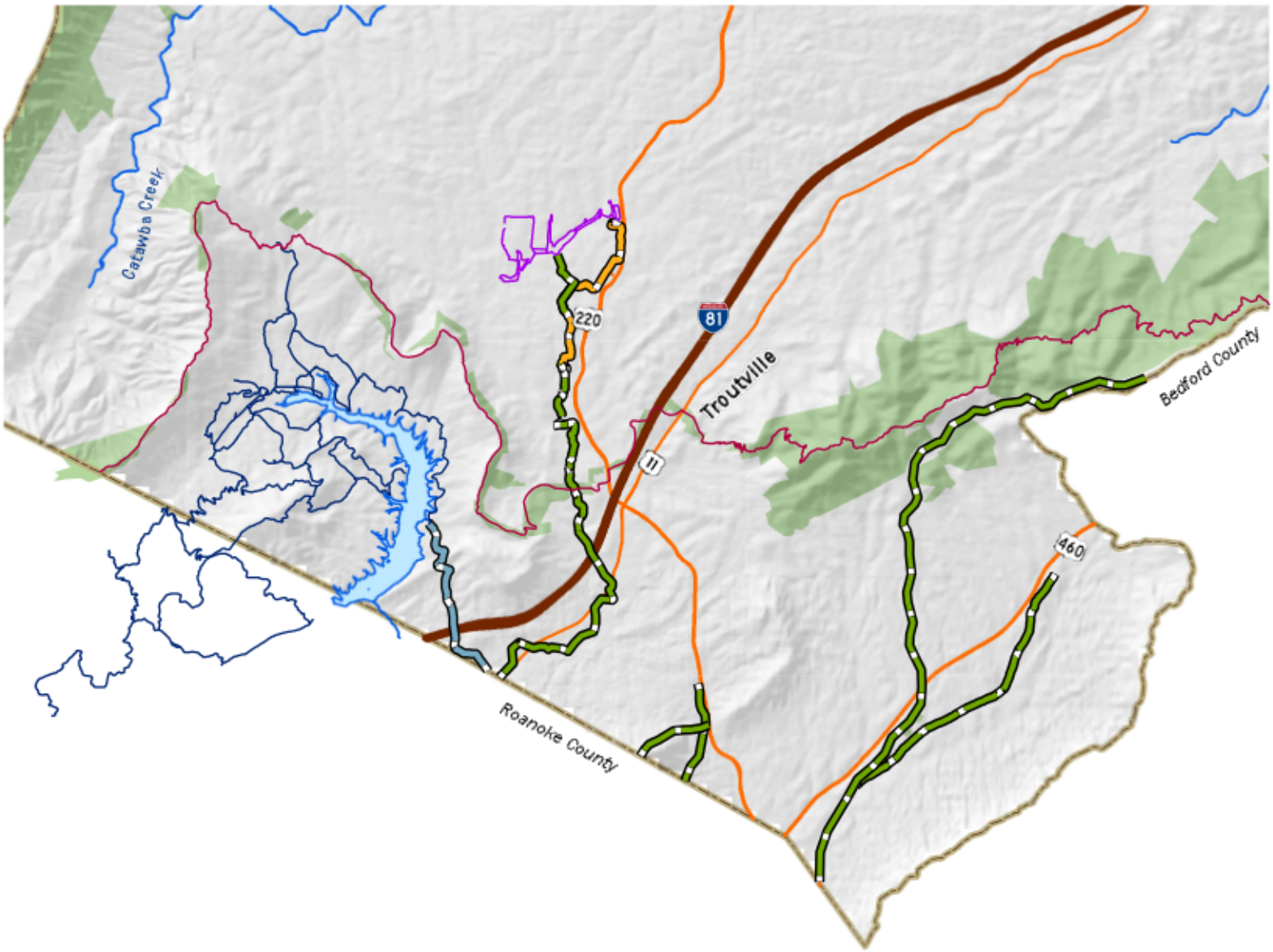
Map created by the Botetourt County GIS Department
Source: Roanoke Valley-Alleghany Regional Commision

Map 16

Greenways and Recreational Trails



Greenways

- Daleville Greenway
- Proposed Greenways
- Tinker Creek Greenway

Recreational Trails

- Appalachian Trail
- Greenfield Trails
- Carvins Cove Trails

0 1 2 4 6 Miles

N

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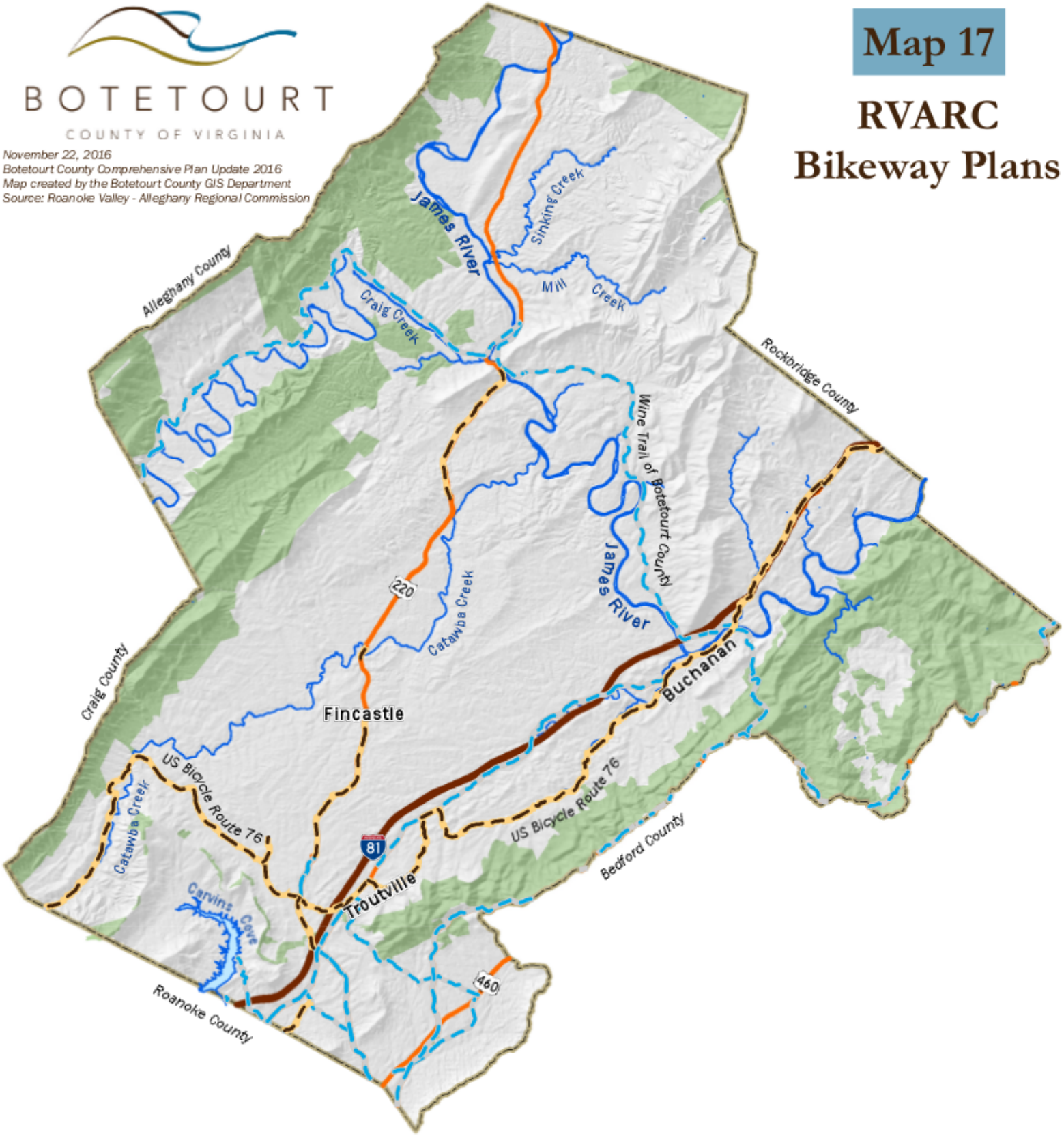
COUNTY OF VIRGINIA

Map 17

RVARC Bikeway Plans

November 22, 2016
Botetourt County Comprehensive Plan Update 2016
Map created by the Botetourt County GIS Department
Source: Roanoke Valley - Alleghany Regional Commission



Existing RVARC Designated Bikeway

Proposed RVARC Designated Bikeway

N

0 2½ 5 10 15 Miles

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COUNTY OF VIRGINIA

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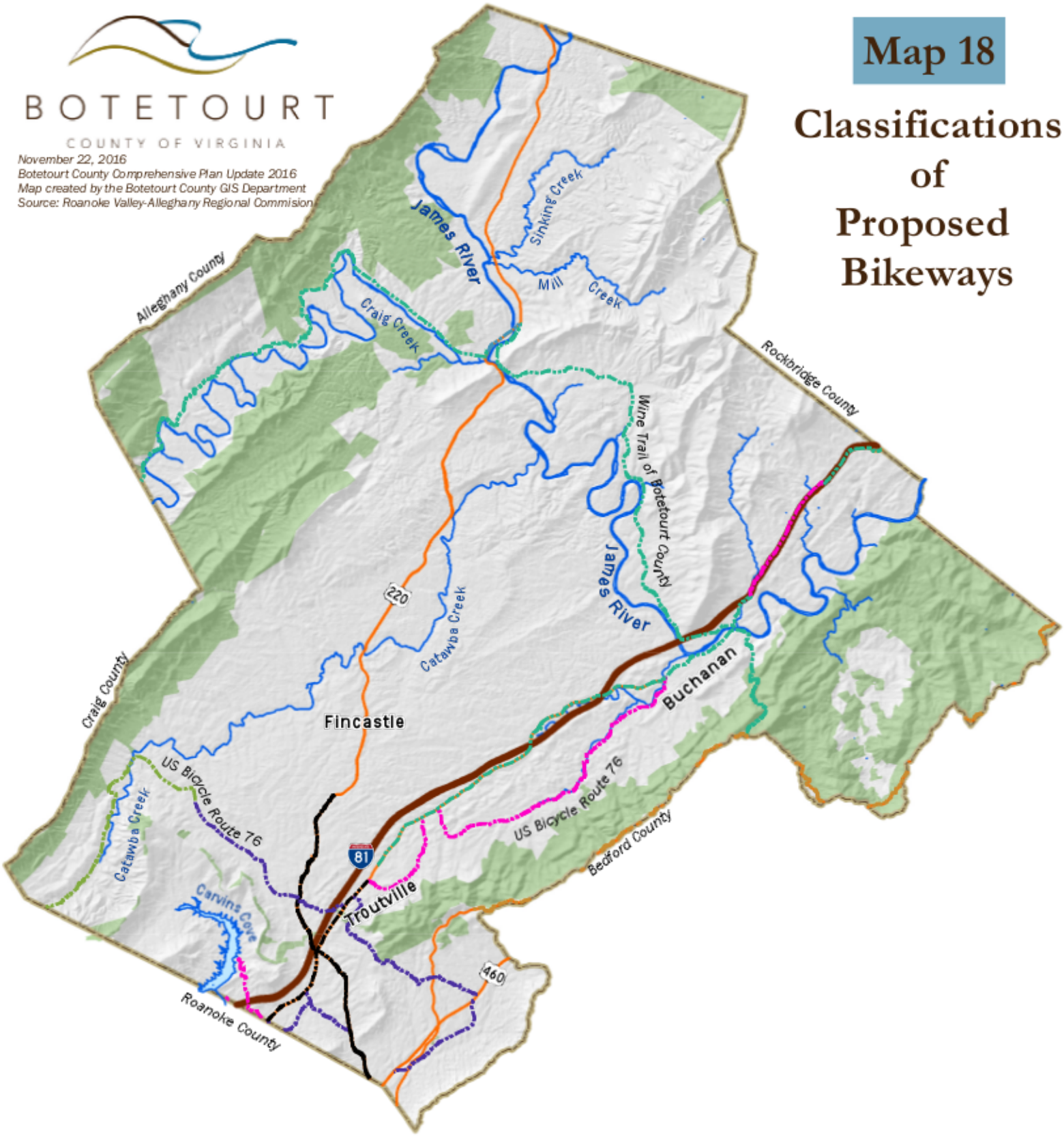
Botetourt County Comprehensive Plan Update 2016
Map created by the Botetourt County GIS Department
Source: Roanoke Valley-Alleghany Regional Commision

Map 18

Classifications of Proposed Bikeways



Bikeway Classifications

- Local Non-Classified
- Rural Major Arterial
- Rural Major Collector
- Urban Major Arterial
- Rural Minor Collector
- Urban Collector
- Rural Minor Artetial

0 2½ 5 10 15 Miles

N

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Map 19

Soils Map

November 22, 2016
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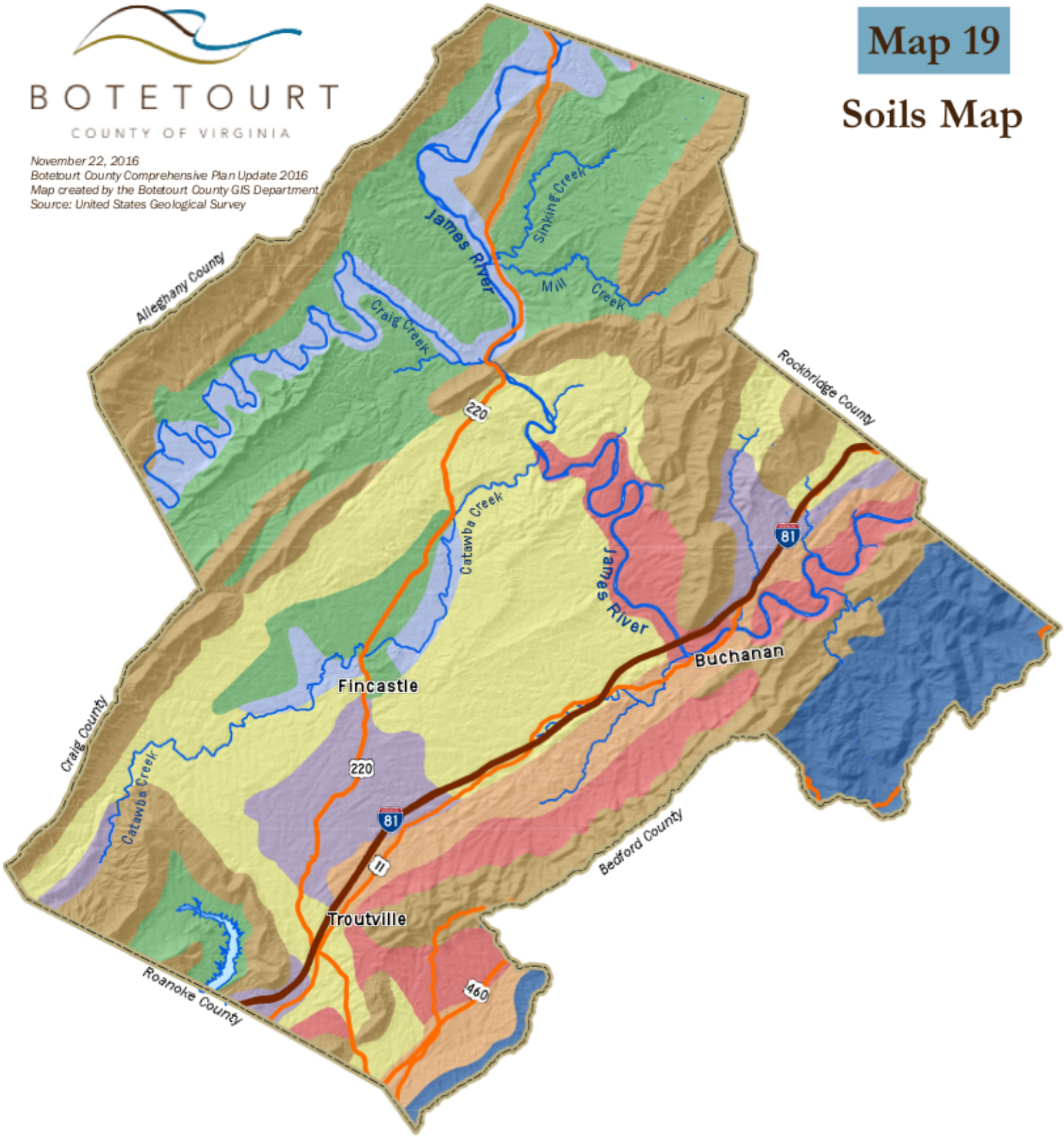
Map created by the Botetourt County GIS Department
Source: United States Geological Survey



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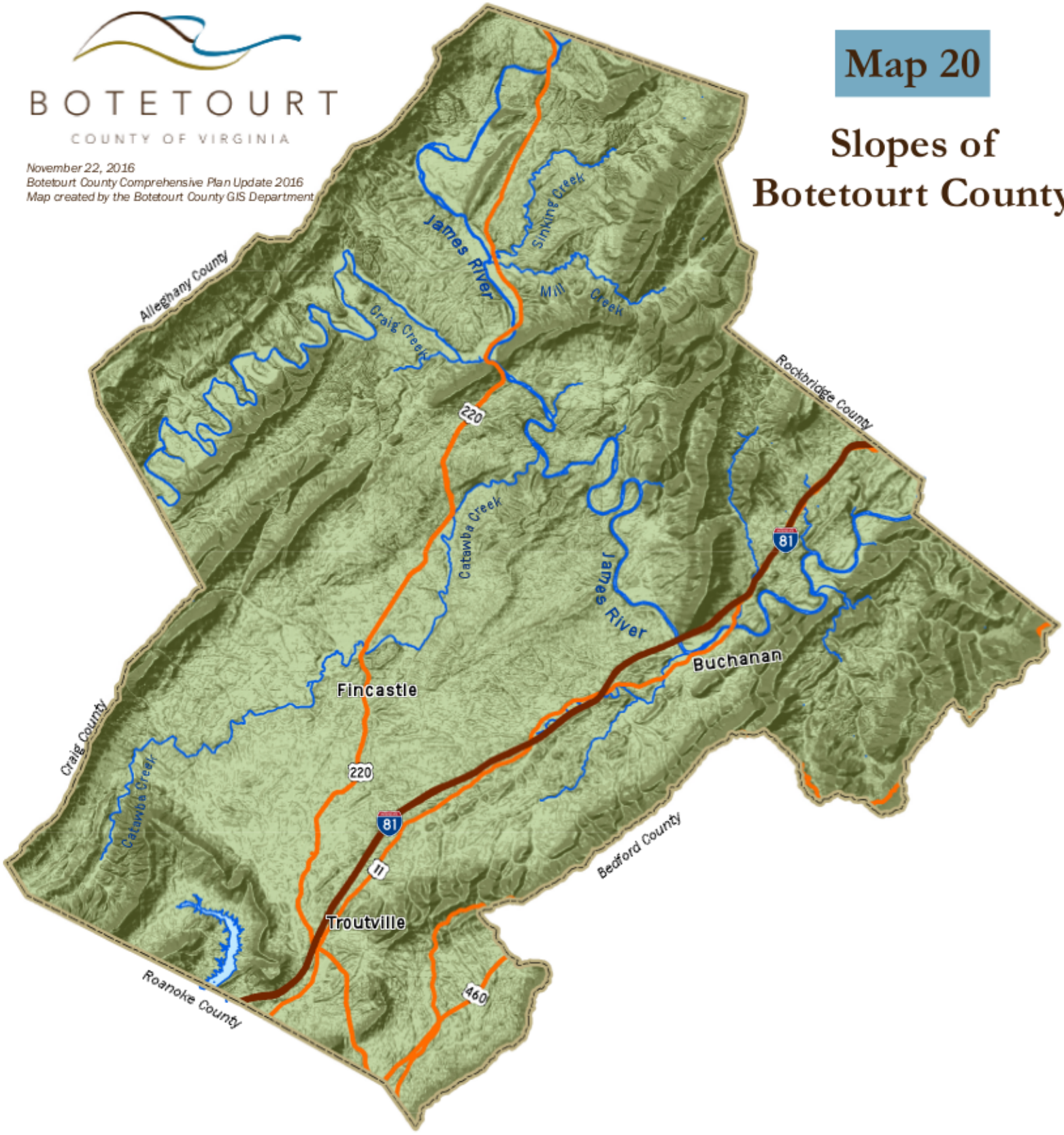
November 22, 2016
Botetourt County Comprehensive Plan Update 2016
Map created by the Botetourt County GIS Department

Map 20

Slopes of Botetourt County



Degree of Slope

0 - 10 | 11 - 20 | 21 - 30 | 30 +

N

0 2½ 5 10 15 Miles

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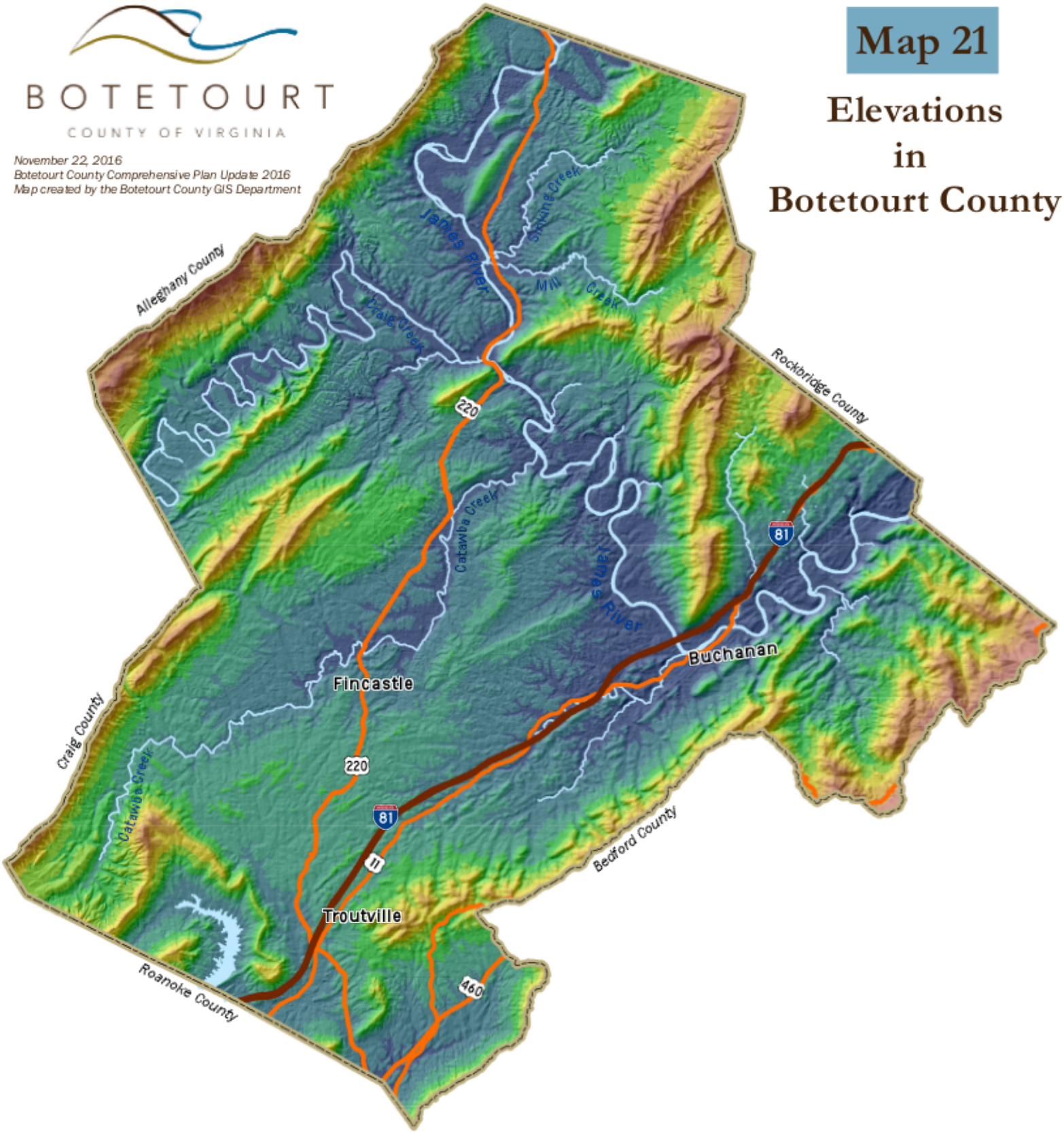
COUNTY OF VIRGINIA

November 22, 2016
Botetourt County Comprehensive Plan Update 2016
Map created by the Botetourt County GIS Department

Map 21

Elevations in Botetourt County



Elevation (Feet)

725 - 1,096	1,476 - 1,709	2,277 - 2,618
1,096 - 1,283	1,709 - 1,978	2,618 - 3,041
1,283 - 1,476	1,978 - 2,277	3,041 - 4,226

N

0 2½ 5 10 15 Miles

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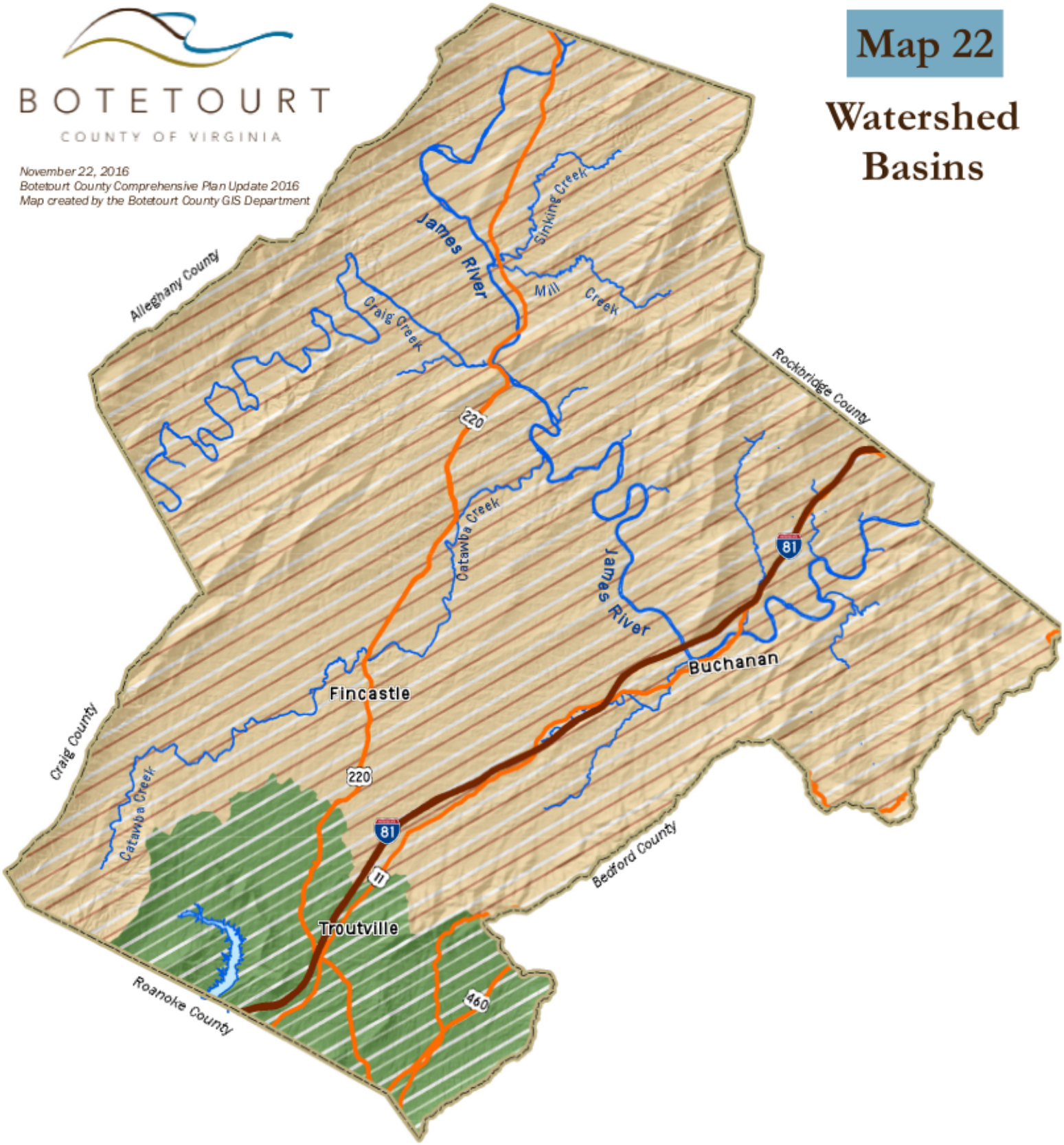
COUNTY OF VIRGINIA

Map 22

Watershed Basins

November 22, 2016
Botetourt County Comprehensive Plan Update 2016
Map created by the Botetourt County GIS Department



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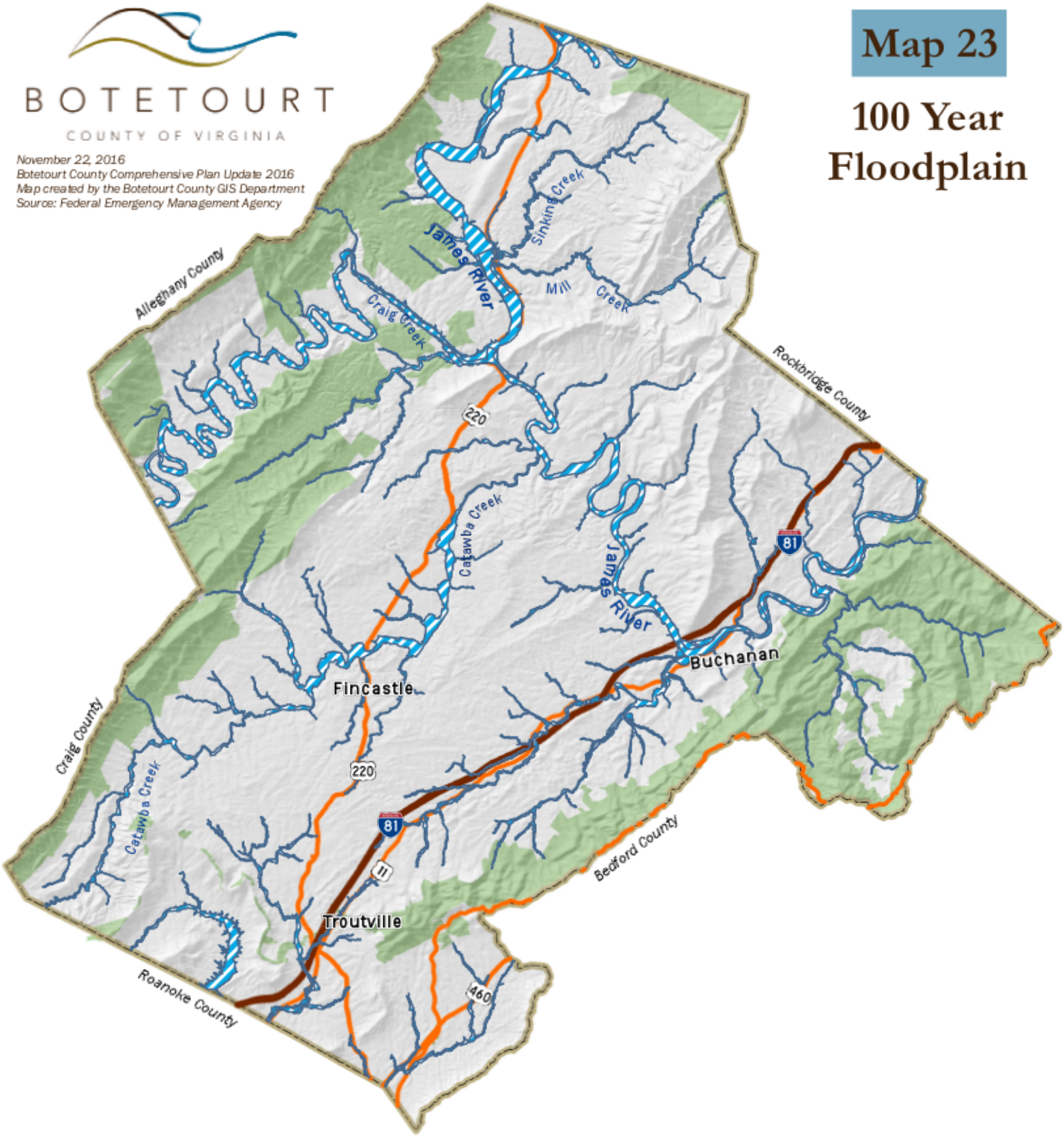
COUNTY OF VIRGINIA

Map 23

100 Year Floodplain

November 22, 2016
Botetourt County Comprehensive Plan Update 2016
Map created by the Botetourt County GIS Department
Source: Federal Emergency Management Agency



100 Year Floodplain
National Forest
Interstate
Primary Road

N

0 2½ 5 10 15 Miles

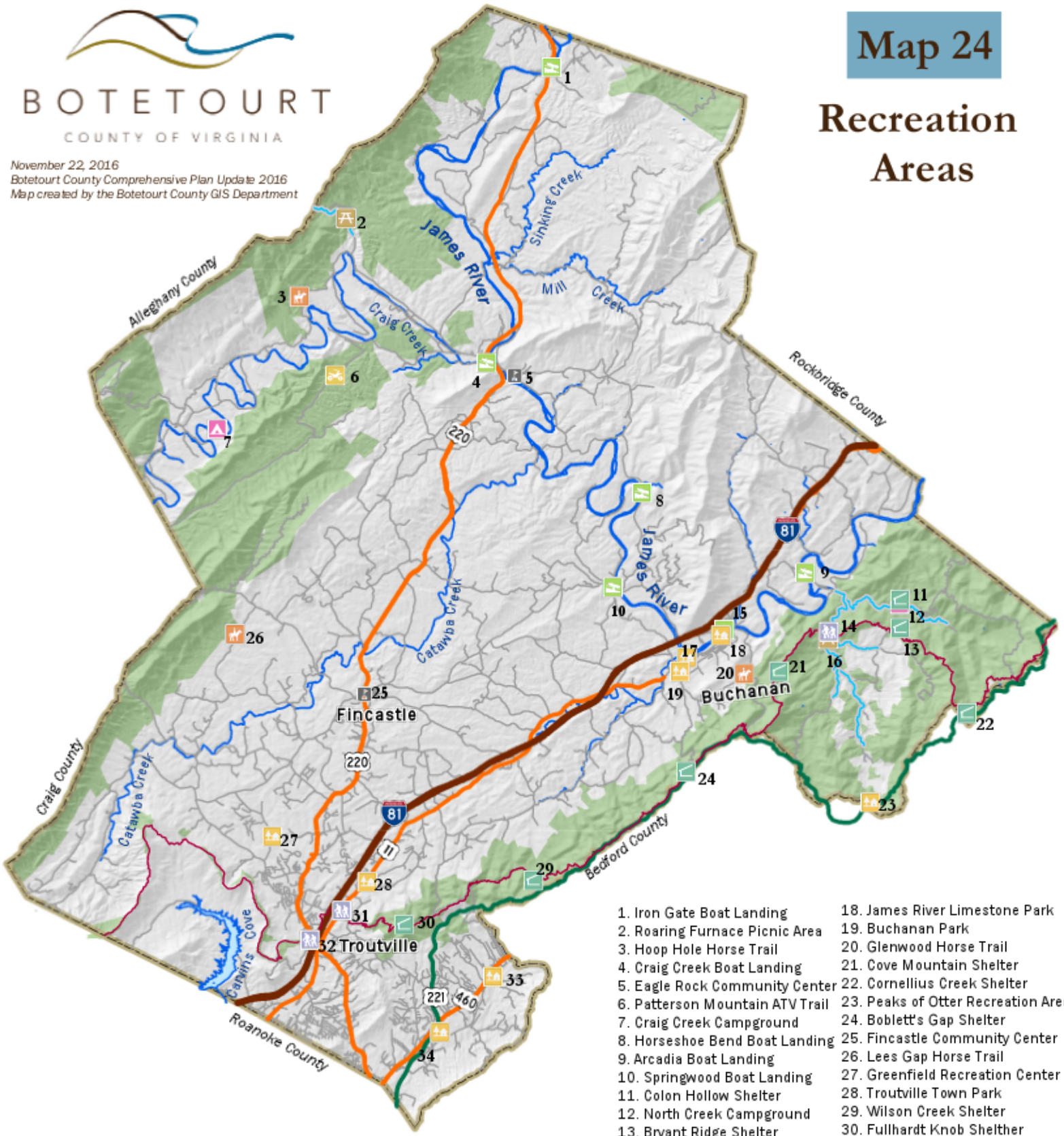
BOTETOURT

COUNTY OF VIRGINIA

Map 24

Recreation Areas

November 22, 2016
Botetourt County Comprehensive Plan Update 2016
Map created by the Botetourt County GIS Department



1. Iron Gate Boat Landing
2. Roaring Furnace Picnic Area
3. Hoop Hole Horse Trail
4. Craig Creek Boat Landing
5. Eagle Rock Community Center
6. Patterson Mountain ATV Trail
7. Craig Creek Campground
8. Horseshoe Bend Boat Landing
9. Arcadia Boat Landing
10. Springwood Boat Landing
11. Colon Hollow Shelter
12. North Creek Campground
13. Bryant Ridge Shelter
14. Jennings AT Access
15. Buchanan Boat Landing
16. Middle Creek Picnic Area
17. Buchanan Carnival Grounds
18. James River Limestone Park
19. Buchanan Park
20. Glenwood Horse Trail
21. Cove Mountain Shelter
22. Cornellius Creek Shelter
23. Peaks of Otter Recreation Area
24. Boblett's Gap Shelter
25. Fincastle Community Center
26. Lees Gap Horse Trail
27. Greenfield Recreation Center
28. Troutville Town Park
29. Wilson Creek Shelter
30. Fullhardt Knob Shelther
31. Troutville AT Access
32. Daleville AT Access
33. Boxley Fields
34. Blue Ridge Park

Stocked Trout Stream — Appalachian Trail — Blue Ridge Parkway — Water Feature — National Forest

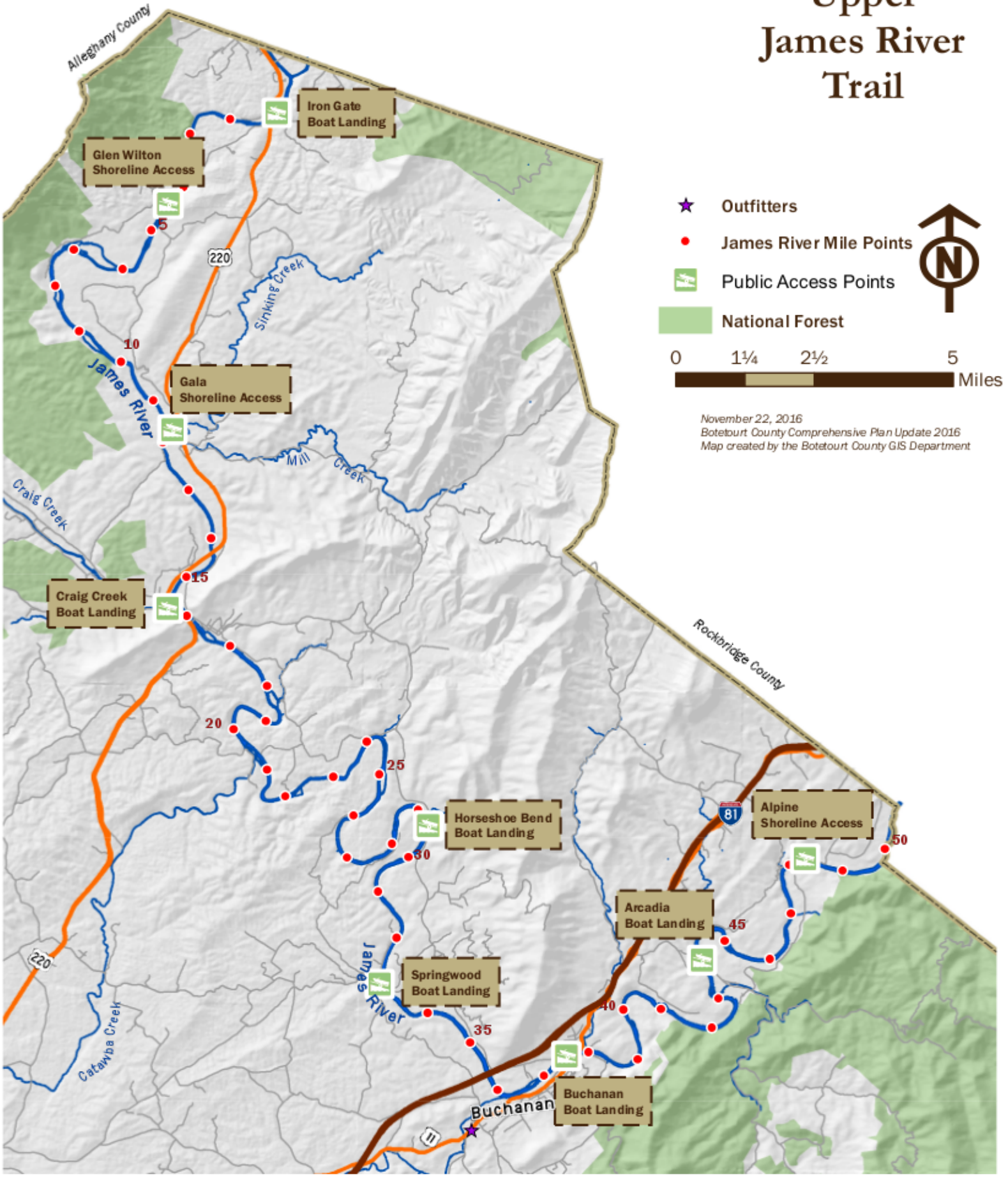
AT Access — ATV Trail — Boat Landing — Campground — Community Center — Horse Trail — Park — Picnic Area — Shelter

0 2½ 5 10 15 Miles

BOTETOURT
COUNTY OF VIRGINIA

Map 25

Upper James River Trail



November 22, 2016
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Map created by the Botetourt County GIS Department

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COUNTY OF VIRGINIA

Map 26

Education Facilities and Libraries

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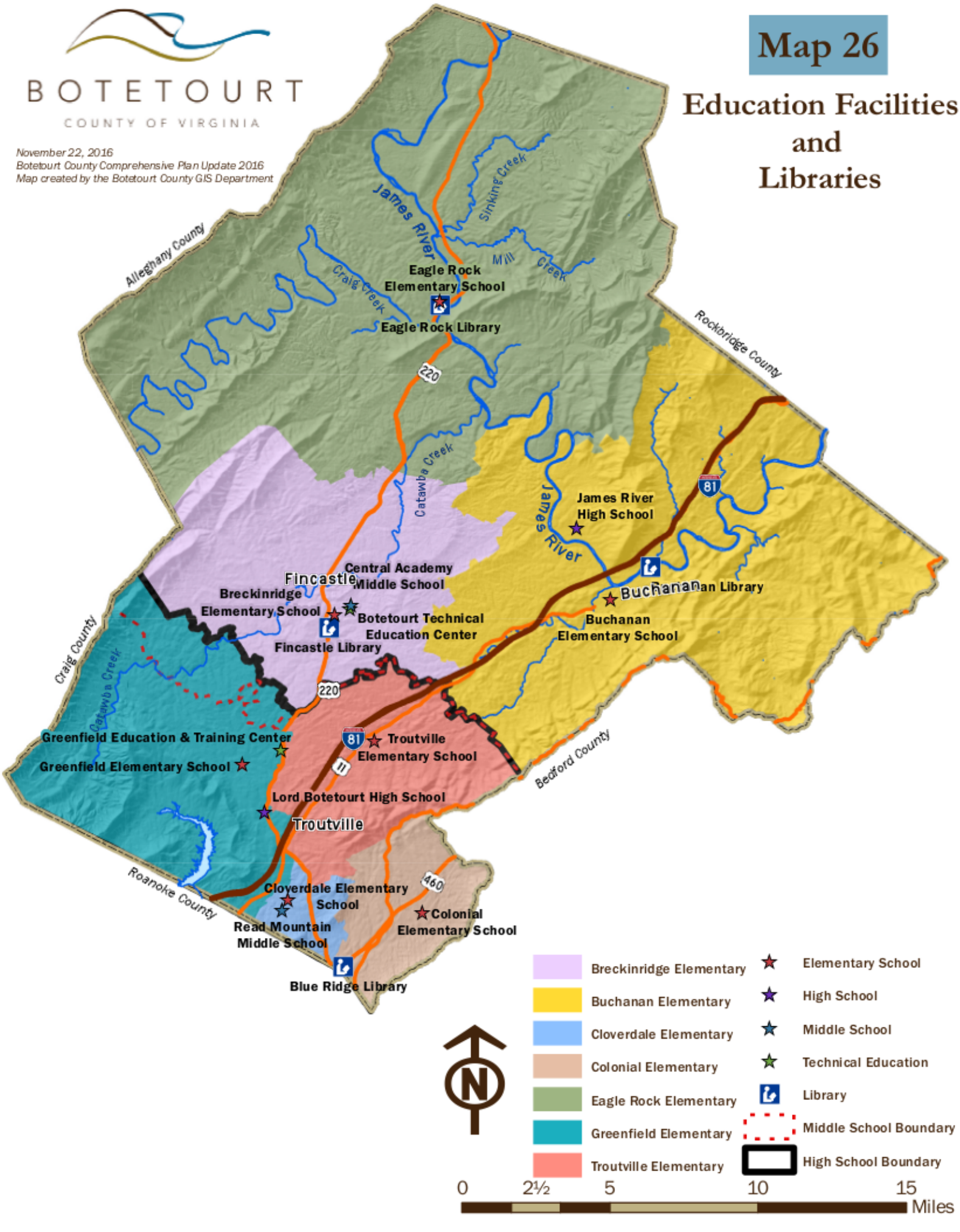
Map created by the Botetourt County GIS Department



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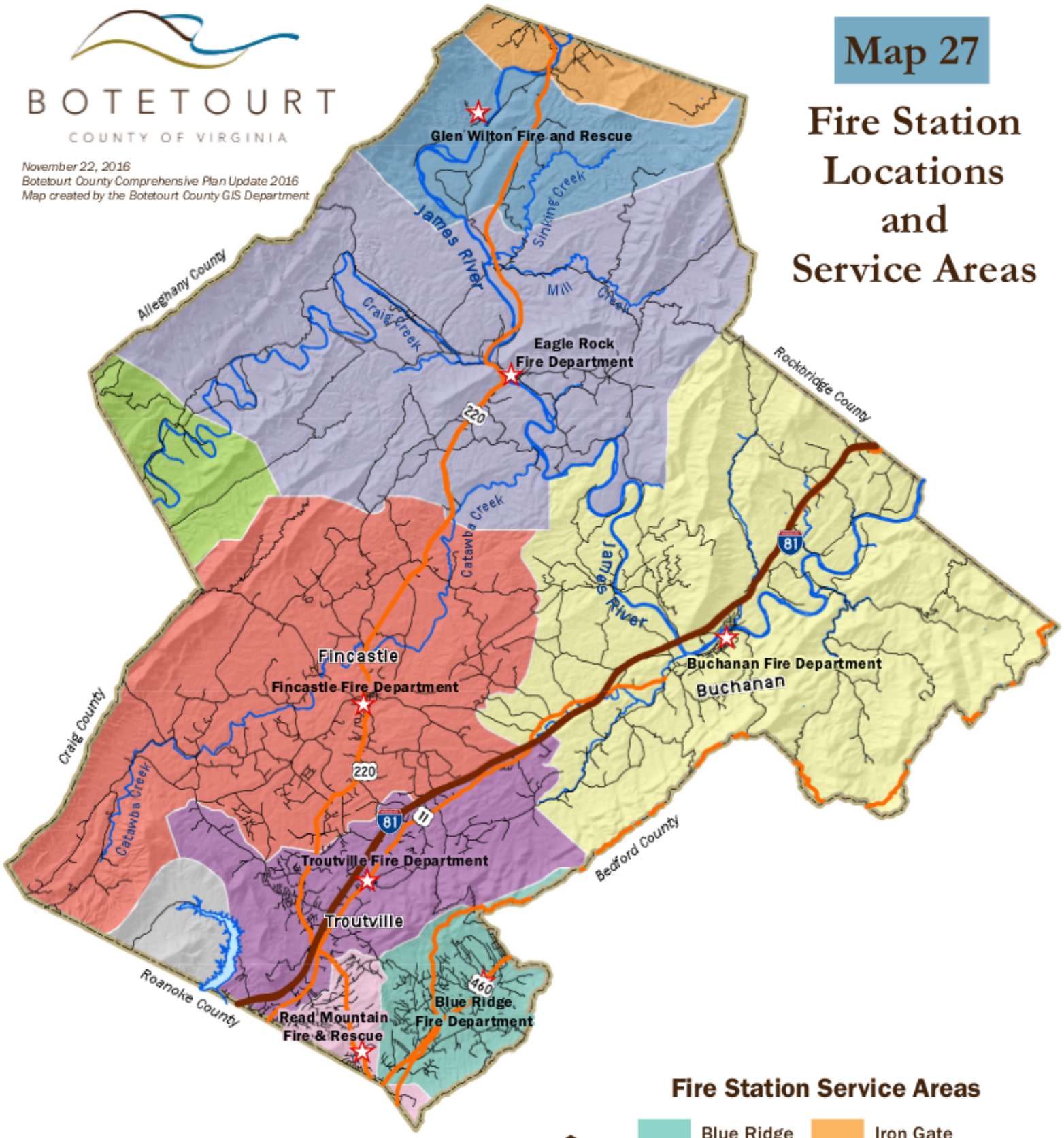
COUNTY OF VIRGINIA

November 22, 2016
Botetourt County Comprehensive Plan Update 2016
Map created by the Botetourt County GIS Department

Map 27

Fire Station Locations and Service Areas



Fire Station Service Areas

- Blue Ridge
- Buchanan
- Eagle Rock
- Fincastle
- Glen Wilton
- Iron Gate
- New Castle
- Read Mountain
- Roanoke County
- Troutville

N

0 2½ 5 10 15 Miles

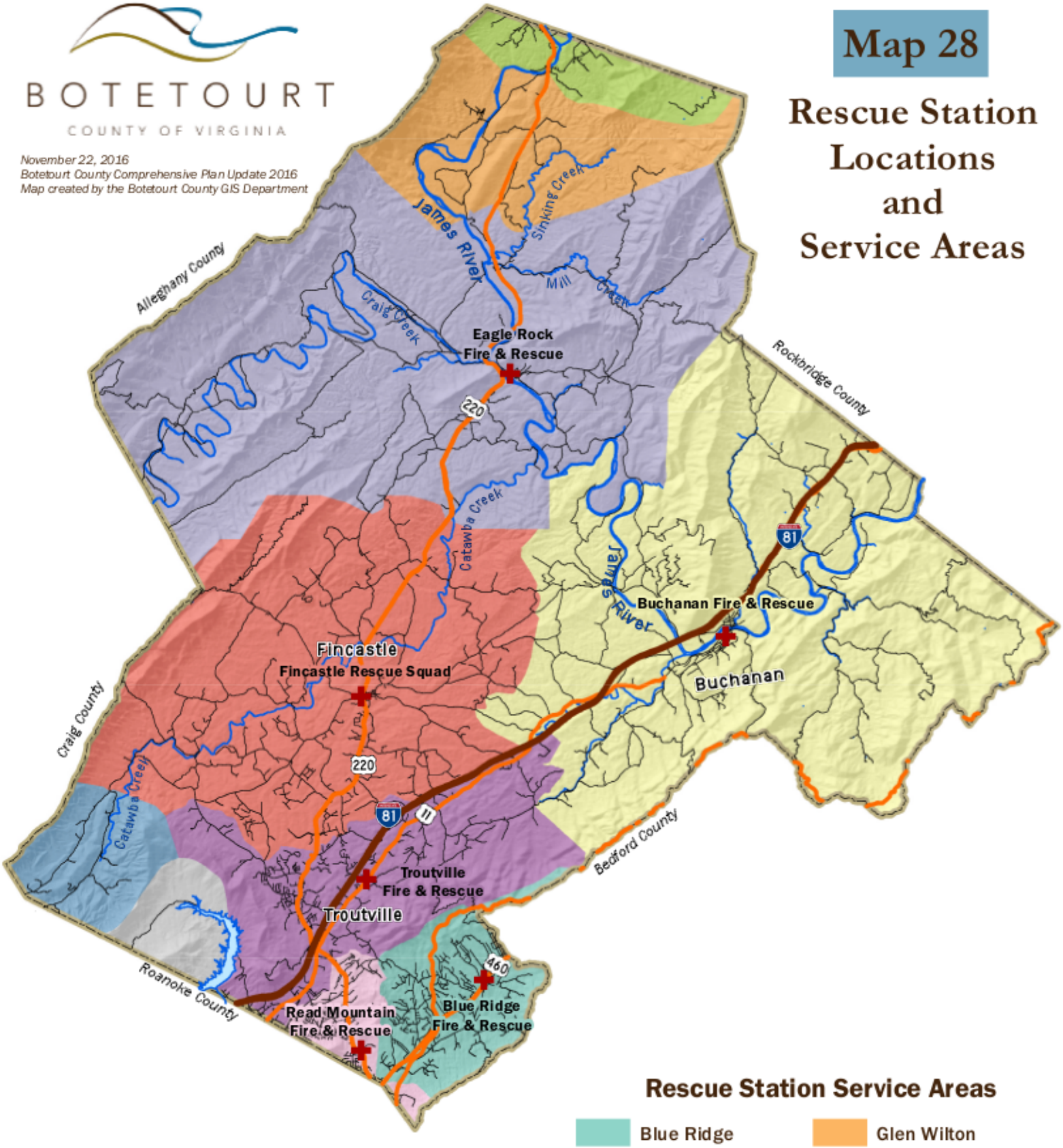
BOTETOURT

COUNTY OF VIRGINIA

November 22, 2016
Botetourt County Comprehensive Plan Update 2016
Map created by the Botetourt County GIS Department

Map 28

Rescue Station Locations and Service Areas



Rescue Station Service Areas

- Blue Ridge
- Buchanan
- Eagle Rock
- Fincastle
- Fincastle/Catawba
- Glen Wilton
- Iron Gate/Glen Wilton
- Read Mountain
- Roanoke County
- Troutville

N

0 2½ 5 10 15 Miles

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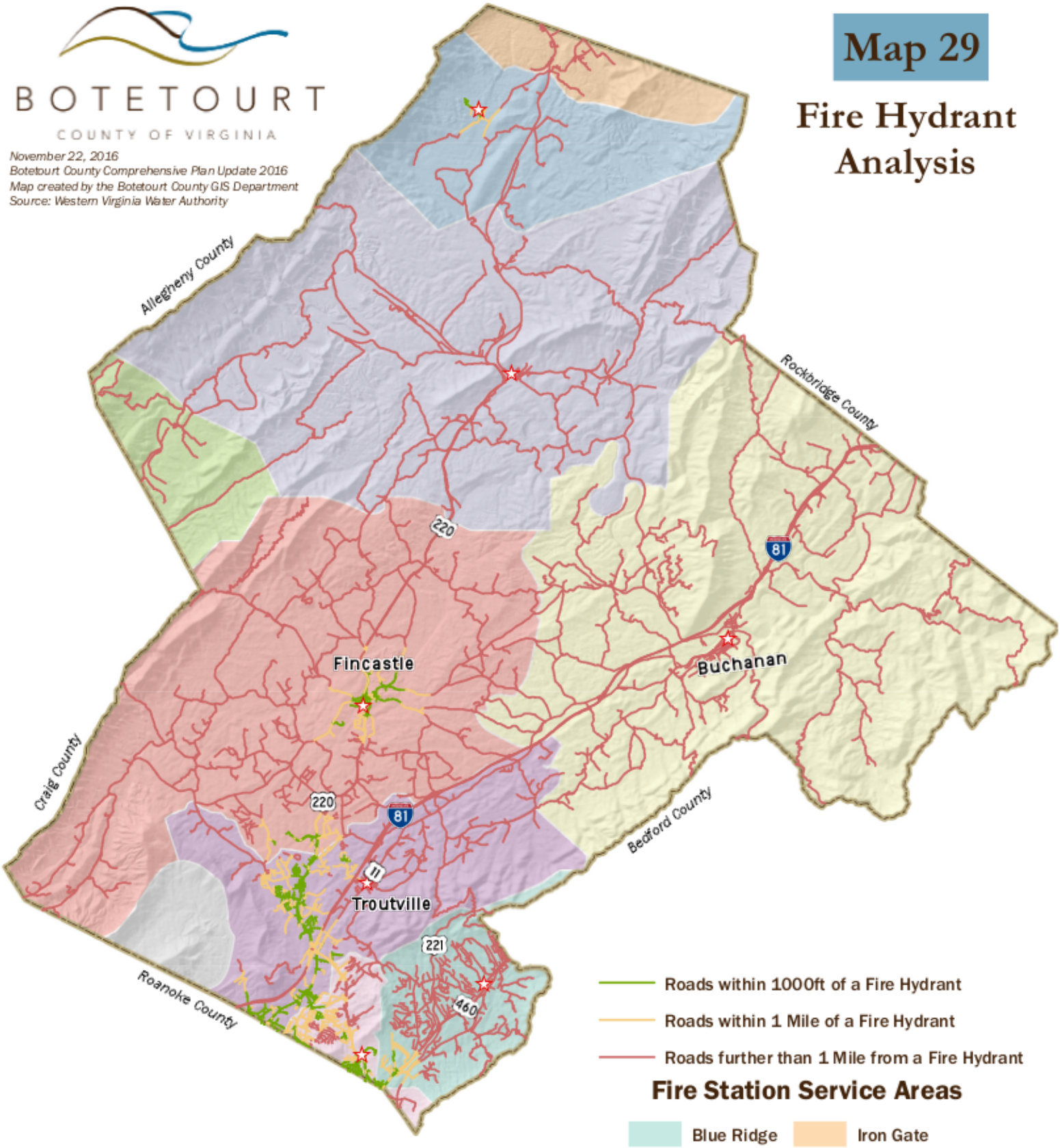
COUNTY OF VIRGINIA

Map 29

Fire Hydrant Analysis

November 22, 2016
Botetourt County Comprehensive Plan Update 2016
Map created by the Botetourt County GIS Department
Source: Western Virginia Water Authority



Roads within 1000ft of a Fire Hydrant
Roads within 1 Mile of a Fire Hydrant
Roads further than 1 Mile from a Fire Hydrant

Fire Station Service Areas

- Blue Ridge
- Buchanan
- Eagle Rock
- Fincastle
- Glen Wilton
- Iron Gate
- New Castle
- Read Mountain
- Roanoke County
- Troutville

N

0 2½ 5 10 15 Miles

There are 1,168 (7.43%) addresses within 1,000 feet and 2,459 (15.66%) addresses within 1 mile of a fire hydrant.

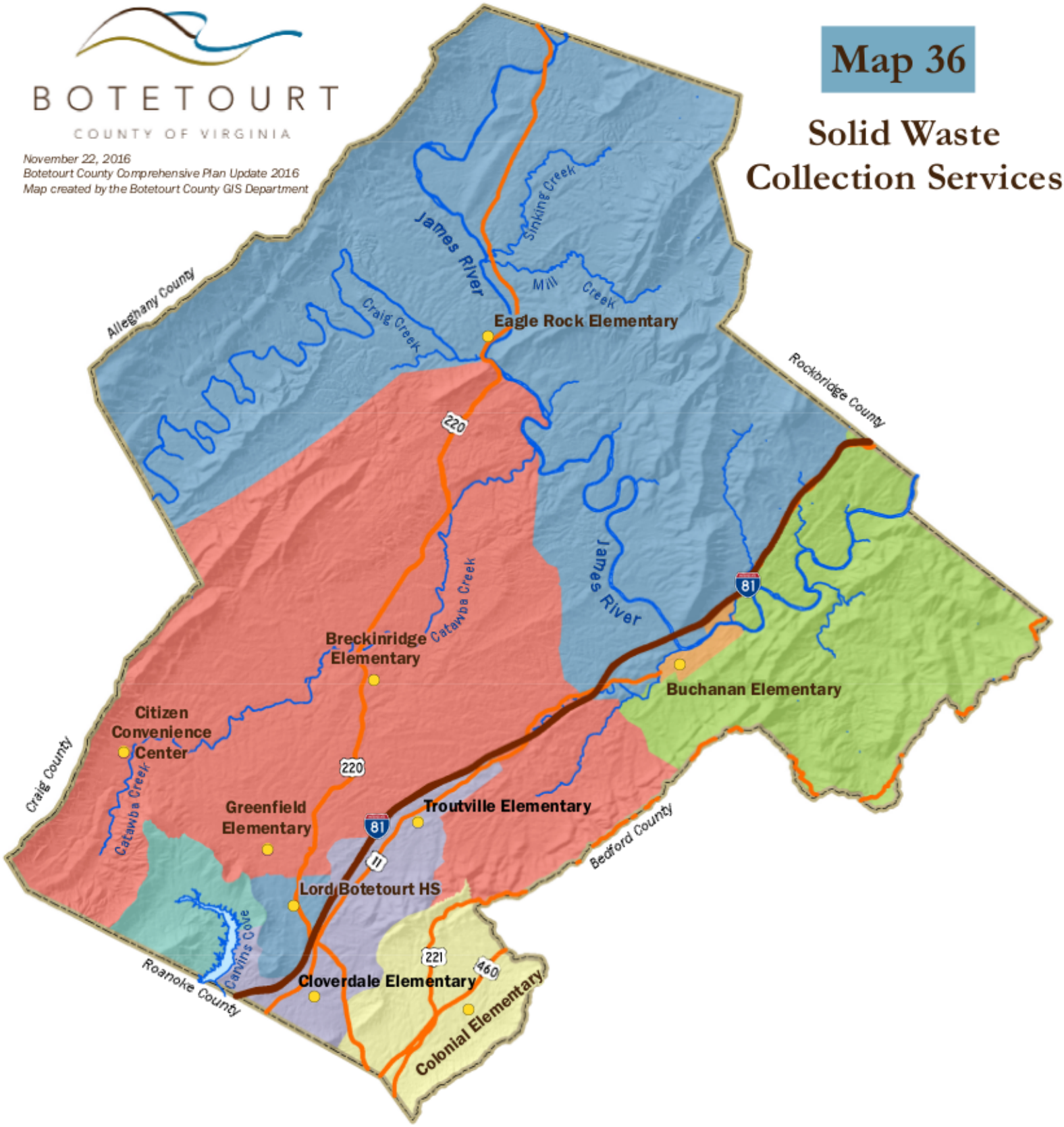
BOTETOURT

COUNTY OF VIRGINIA

November 22, 2016
Botetourt County Comprehensive Plan Update 2016
Map created by the Botetourt County GIS Department

Map 36

Solid Waste Collection Services



Solid Waste Collection Services

- C&S Disposal
- Community Sanitation Service
- County Waste
- Kelley's Garbage Collection Service, LLC
- Kessler Garbage Service
- Roanoke County
- Town of Buchanan
- Public Recycling Center

N

0 2½ 5 10 15 Miles

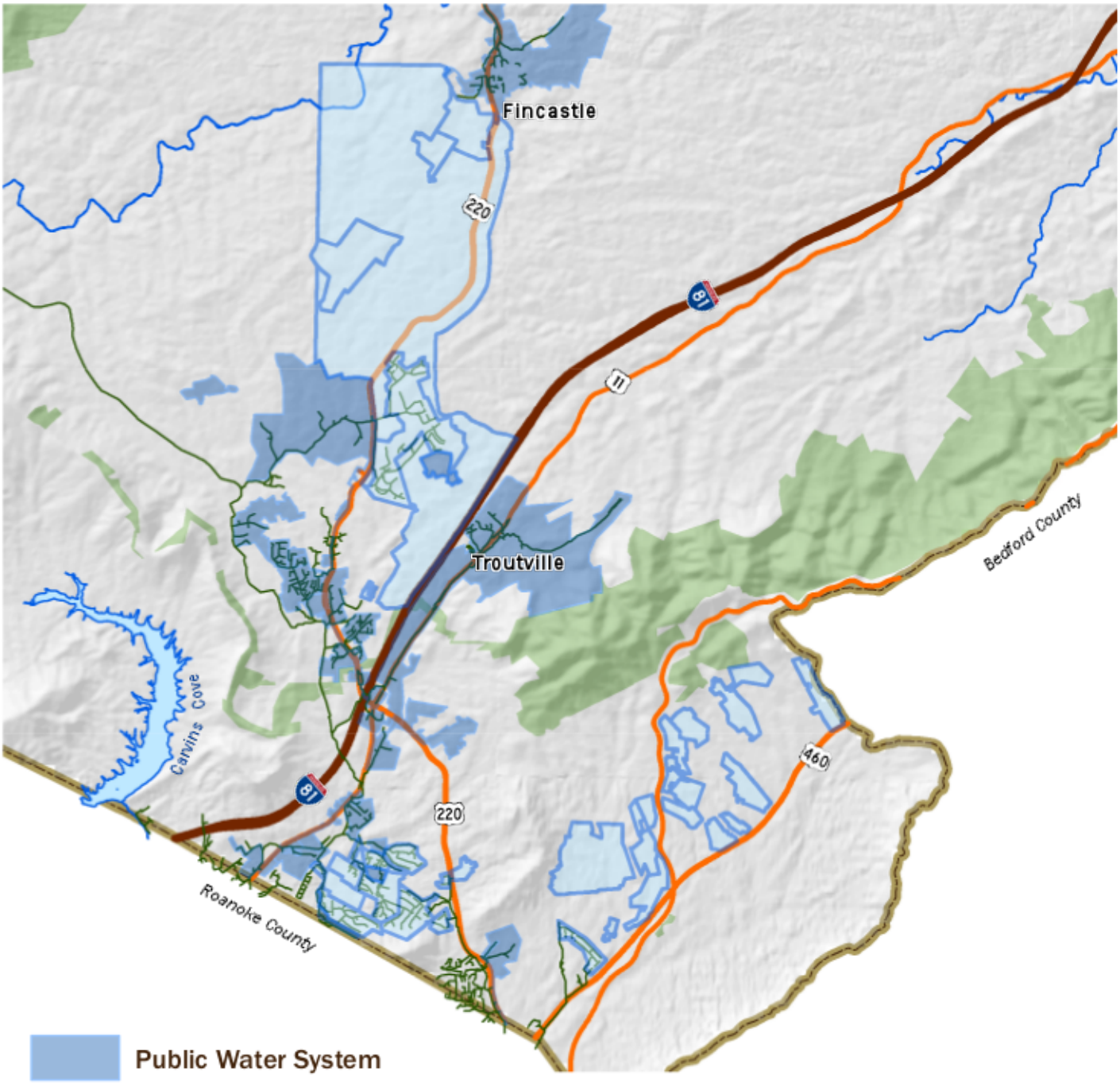
BOTETOURT

COUNTY OF VIRGINIA

Map 37

Sewer & Water Infrastructure

November 22, 2016
Botetourt County Comprehensive Plan Update 2016
Map created by the Botetourt County GIS Department
Source: Western Virginia Water Authority



Public Water System

Private Water System

Sewer Line

0 1 2 4 6 Miles

N