

Four County Transit

Transit Development Plan

FY 2018-2027



Final Plan
April 2017

Prepared for



Under Contract to
Virginia Department of Rail and Public Transportation



Table of Contents

Chapter 1 – Overview of Four County Transit

Introduction	1-1
Purposes of the Transit Development Plan	1-1
Planning Horizon	1-2
Plan Requirements	1-2
Four County Transit Background	1-3
History	1-7
Governance and Organizational Structure	1-8
Transit Services Provided and Areas Served	1-8
Fare Structure	1-8
Existing Fleet and Facilities	1-11
Transit Security Program	1-13
Intelligent Transportation Systems (ITS) Program	1-14
Data Collection, Ridership and Revenue Reporting Methodology	1-14
Coordination with Other Transportation Service Providers	1-15
Public Outreach	1-17

Chapter 2 – Goals, Objectives, and Service Design Standards

Introduction	2-1
Issues and Unmet Needs Identified by Four County Transit	2-1
Stakeholder Input	2-2
Transit Program Goals and Objectives	2-6
Performance, Safety, and Service Standards	2-9
Process for Updating Goals, Objectives, and Standards	2-12

Chapter 3 – Service and System Evaluation

Introduction	3-1
System Evaluation	3-1
Financial Information	3-21
Peer Analysis	3-24
Recent Compliance Results	3-25
Four County Transit Passenger Survey	3-26
Demographics and Land Use	3-26
Population Analysis	3-27
Transit Dependent Populations	3-42
Title VI Demographic Analysis	3-49

Land Use Profile.....	3-51
Review of Previous Plans and Studies.....	3-55
Chapter Summary	3-58

Chapter 4 – Service and Capital Improvement Plan

Introduction	4-1
Service Improvements and Needs Identification	4-1
Additional Opportunities	4-11
Service and Needs Prioritization	4-14
Service Development	4-16

Chapter 5 – Implementation Plan

Introduction	5-1
Rolling Stock Utilization.....	5-1
Major System Maintenance and Operations Facilities	5-4
Passenger Amenities	5-4
New Technology Systems or Upgrades	5-4

Chapter 6 – Financial Plan

Introduction	6-1
Operating Expenses and Funding Sources.....	6-1
Vehicle Replacement and Capital Expenses and Funding Sources.....	6-3

Appendix A – Appalachian Agency for Senior Citizens Board of Directors Meeting Minutes

Chapter 1

Overview of Four County Transit

INTRODUCTION

Virginia's Department of Rail and Public Transportation (DRPT) requires that any public transit operator receiving state funding prepare, adopt, and submit a Transit Development Plan (TDP). These plans also provide a solid foundation for funding requests and feed directly into the programming process.

Beyond these administrative motivations, TDPs help transit operators in the Commonwealth of Virginia improve their efficiency and effectiveness by identifying the need and required resources for modifying and enhancing services provided to the general public. It is helpful to approach the preparation of a transit development plan as a strategic planning and visioning process. A TDP is not an operations plan. By its very nature, the TDP must address strategic issues. The TDP offers opportunities to rethink transit's mission in a given area and define actions to help the agency achieve its mission.

PURPOSES OF THE TRANSIT DEVELOPMENT PLAN

The purposes of a transit development plan are:

1. To serve as a planning, management, and policy document for the transit operators;
2. To inform DRPT of transit operators' capital, operating and maintenance needs;
3. To provide the basis for inclusion of an operator's capital and operating programs in planning and programming documents such as: the Six Year Improvement Program (SYIP), Statewide Transportation Improvement Program (STIP), Transportation Improvement Program (TIP) and Constrained Long Range Plan (CLRP);
4. To provide a clear understanding of unmet or unfunded needs;
5. To develop and track the progress of mid- and long-term visions for transit in the region;
6. Plan to continually improve efficiency and effectiveness of public transportation services; and
7. To be better prepared to respond to internal and external factors.

PLANNING HORIZON

The planning horizon for a TDP is ten years; this includes the fiscal year for which funds are being sought and the subsequent nine (9) years. The minimum 10-year planning horizon will provide a clearer understanding of unmet or unfunded needs. Affordability is not a reliable measure of what is needed. A longer planning allows for agencies to better prepare for SMART SCALE and other discretionary grant programs. A longer planning horizon also reflects significant capital replacement/rehabilitation needs, or the capital and operating budget implications of significant service expansion.

TRANSIT DEVELOPMENT PLAN UPDATE FREQUENCY

At a minimum, a new transit development plan (referred to as a “major update”) must be prepared every six years. The purpose of the six-year TDP major update is to take a fresh look at conditions and accordingly develop plans. This major update will be a new transit development plan and must include, with a high level of detail, each of the six required TDP chapters discussed in this requirements document.

Four County Transit’s previous TDP was completed in October, 2009. This TDP serves as the major update to meet DRPT requirements.

DRPT recognizes that a TDP is a living document. The planning process must provide flexibility to address major changes in areas such as: organizational/governance changes, fare changes, new services/facilities, available funding, economic conditions, demographic and employment patterns, and changes in federal and state laws and regulations. To reflect and address these changes, the plan must be amended every year if necessary. These annual minor updates to adopted six-year TDP major updates serve as intermediate corrections in accounting for unexpected changes.

The annual minor TDP update must replace any language that is no longer accurate or conflicts with updated language. If there are no major changes or inaccuracies in the language, the only update required is a financial plan that removes the previous year and adds a new tenth year (rolling basis). Using this format, the TDP covers the present ten-year period beginning with the current year.

PLAN REQUIREMENTS

This TDP is structured in the following order to address all plan requirements:

- **Chapter 1: Overview of Four County Transit** (this chapter) provides an overview of the system and background information and data of the transit program and

background information and data that will be used for subsequent data collection, analysis and eventual recommendations.

- **Chapter 2: Goals, Objectives, and Service Design Standards** describe the current goals, objectives and service design standards, and the process for establishing, reviewing and updating these goals, objectives, and standards.
- **Chapter 3: Service and System Evaluation** includes performance measures to evaluate route-level and system-wide performance against the performance standards for each mode and/or type of services operated by Four County Transit.
- **Chapter 4: Service and Capital Improvement Plan** is the centerpiece of the plan, as it focuses on improving transit service by modifying existing services and by meeting previously unmet needs.
- **Chapter 5: Implementation Plan** lists steps to carry out the operations and services described in chapter 4.
- **Chapter 6: Financial Plan** projects service costs and identifies financial resources related to the service improvements that can be realistically achieved and when those service improvements should be implemented.

FOUR COUNTY TRANSIT BACKGROUND

Four County Transit is operated by the Appalachian Agency for Senior Citizens (AASC), providing public transit services to Buchanan, Dickenson, Russell, and Tazewell Counties in southwestern Virginia. AASC is a private non-profit organization formed in 1975 to improve the quality of life of older adults through charitable, educational, social services and other appropriate means. The agency serves as the designated Area Agency on Aging (AAA) for the Four County region, and by contract with Virginia Department for the Aging develops and administers the Area Plan that provides for a comprehensive and coordinated system of services for older adults and people with disabilities.



According to the American Community Survey 2014 data, total population of Four County Transit service area is 112,070, 1.7% less than the 2010 Census Population of 113,976. Dickenson County has experienced the greatest percentage of population decline, 1.8%, during that timeframe. Table 1-1 provides an overview of the region's population.

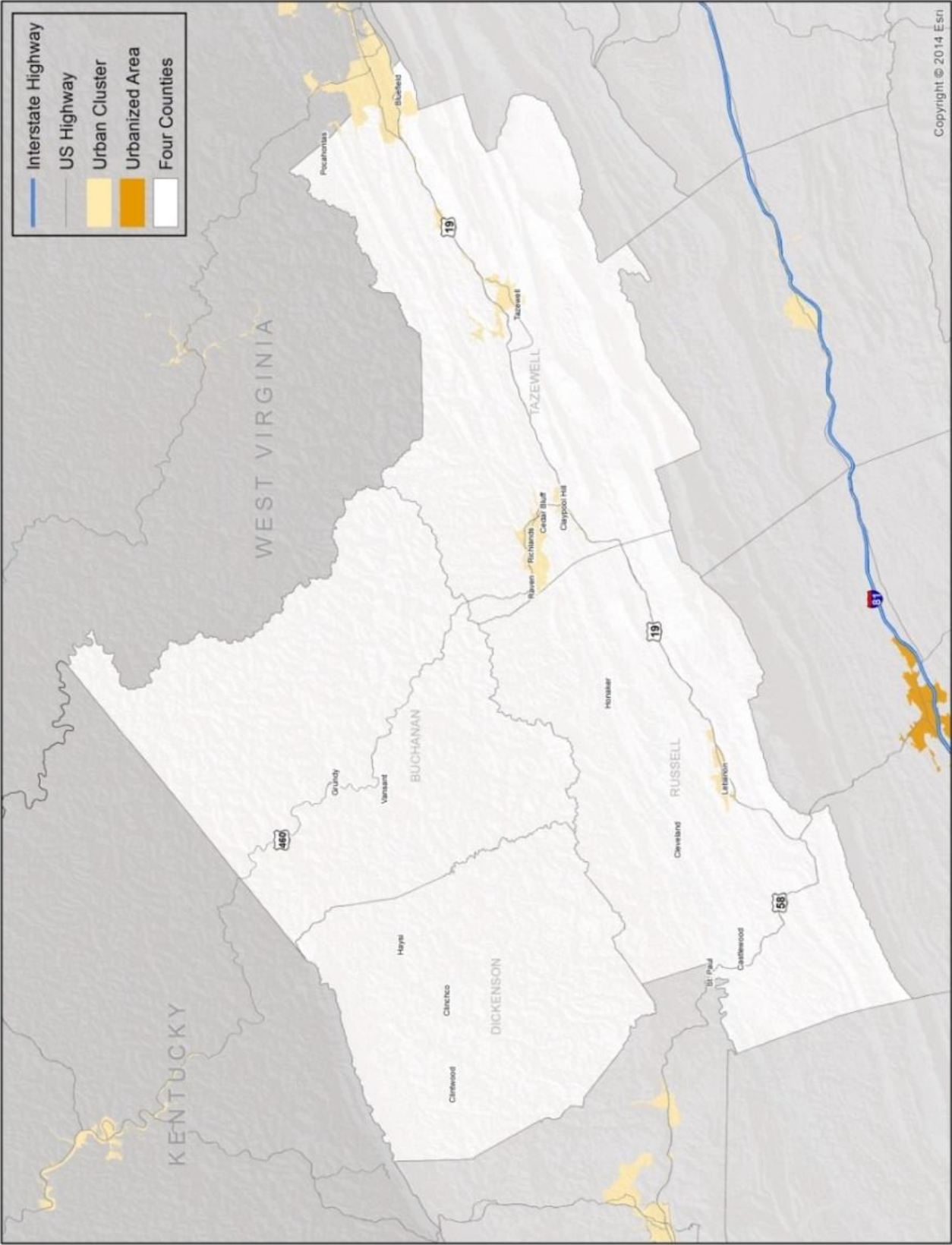
Table 1-1: Population in the Region

Jurisdiction	Census 2010 Population	2014 Population	Population Change
Buchanan County	24,098	23,683	-1.7%
Dickenson County	15,903	15,612	-1.8%
Russell County	28,897	28,444	-1.6%
Tazewell County	45,078	44,331	-1.7%
Total	113,976	112,070	-1.7%

Source: US Census, 2010, ACS 2009 - 2014

Four County Transit service area is predominantly rural and not within any Urbanized Area (UZA). Figure 1-1 provides a map of the region that highlights the rural nature of Four County Transit service area. There are a few urban clusters located in Russell and Tazewell Counties. The closest UZA is Bristol, TN-VA UZA, which is partially shown in Figure 1-1.

Figure 1-1: Four County Transit Service Area



Four County Transit's services are provided through deviated fixed routes. Four County Transit also offers routes that serve local colleges in the area. The college routes are offered through a partnership with Southwestern Virginia Community College (SwVCC), Mountain Empire Community College (MECC), and University of Virginia College and Wise (UVA-Wise). Table 1-2 provides the full listing of public transportation routes operated by Four County Transit that will be reviewed and assessed through the TDP process.

Table 1-2: Four County Transit Routes

Route	Description	Origin – Destination
Town of Grundy-Buchanan County Transit North	Buchanan County	Grundy Plaza (Transfer Point) - Comfort Inn/University Plaza
Town of Grundy-Buchanan County Transit South	Buchanan County	Grundy Plaza - Dairy Queen
SwVCC Eagle Express *	Buchanan County	Tommy Mae Store- SwVCC - Tazewell Hall
Ridge County Greater Clintwood Area	Dickenson County	Food City Shopping Center - Huddle House
Ridge Country Connector Greater Haysi	Dickenson County	Centennial Heights Apartments - Regional Hail
Ridge Country Connector Clinchco	Dickenson County	Clinchco Town Hall / Senior Center - Clintwood / Food City Shopping Center
SwVCC Eagle Express Dickenson-Russell County	Dickenson County	Clinchco Vo. Tech School - Clinchco Vo. Tech School
MECC/UVA-Wise Express Dickenson County *	Dickenson County	Centennial Heights Apartments - MECC Robb Hall
Town of Lebanon Transit	Russell County	Fox Meadows Apartments - Wal-Mart
SWVCC Eagle Express *	Russell County	Dante Post Office - Dante Post Office
Richlands to Pounding Mill Connector	Tazewell County	Brickyard - Gateway Shopping Center
4 Seasons Richlands to Tazewell Connector	Tazewell County	Walmart (Pounding Mill) - Dollar Tree
4 Seasons Tazewell to Bluefield Connector	Tazewell County	Tazewell Mall Entrance Area - Bluefield (WV)- Princeton Ave. Shelter
Town of Richlands Transit	Tazewell County	Hunters Ridge Apartments - Richlands Mall
Town of Tazewell Transit	Tazewell County	Hillside/TAZ SQ Apartment - TAZ Community Hospital
SwVCC Eagle Express Tazewell County *	Tazewell County	Pocahontas-Indian Princess Apts - SwVCC Tazewell Hall
4 Seasons Work Express	Tazewell County	King Kone / Richlands –King Kone / Richlands

Source: Four County Transit Website

* Denotes a college route

HISTORY¹

Prior to 1998, AASC provided transportation services for participants at its senior congregate nutrition sites and senior citizen clubs. Four County Transit was created in 1998 through a demonstration grant from DRPT and, with the award of that grant, evolved into an ongoing public transit system. Following are highlights since Four County Transit was formed:

- The DRPT demonstration project provided limited demand responsive public transit services. Transportation for AASC participants continued with operating funding from Virginia Department of Aging (VDA). Small grants were provided by local disability service boards and a VDA grant.
- Four County Transit provided non-emergency medical transportation, as a provider of last resort, when other providers did not transport individuals who needed transportation. Four County Transit provided this service through AASC's management of Virginia Department of a Medical Assistance (DMAS) pilot project for Medicaid non-emergency transportation brokering.
- In 2000, Four County Transit began providing a public transportation route for college students attending Southwest Virginia Community College. In 2006, public transit routes for students who attend Mountain Empire Community College and University of Virginia College at Wise were implemented.
- In 2003, Four County Transit began operating the first non-college deviated fixed route in Richlands. Routes in Cedar Bluff, Lebanon, and Tazewell quickly followed, along with connector routes to the two Bluefields. Soon routes were operated through Castlewood, Dante, St. Paul, and Cleveland.
- In 2005, Four County Transit began two routes for Grundy and Buchanan Counties and routes for Clintwood, Clinchco, Haysi, and Dickenson County.
- The town of Grundy agreed to begin Grundy Trolley Service in 2006, to ease parking problems and traffic congestion during the Grundy flood control project. A route began in 2007 to provide public transportation options through Russell County with a connection to Tazewell County. A similar route began trial services in 2008, providing transportation from St. Paul to Lebanon to Tazewell County.

¹ Source: <https://fourcountytransit.wordpress.com/about>

GOVERNANCE AND ORGANIZATIONAL STRUCTURE

Four County Transit is operated by AASC. The organizational structure for the agency is shown in Figure 1-2, on the next page.

A draft version of this TDP was presented to the AASC Board of Directors on March 2, 2017. At that time the AASC Board approved and adopted this plan. The minutes from this meeting that provide proof of adoption of the TDP are provided in Appendix A.

TRANSIT SERVICES PROVIDED AND AREAS SERVED

As noted in the Background section, Four County Transit operates deviated fixed routes throughout the region. Scheduled stops are located along routes and indicated on schedules for each route. Customers can request the bus to stop at other locations along its route by calling Four County Transit at least 48 hours in advance.

Service is primarily provided Monday through Friday from 8:00 a.m. to 4:30 p.m., although some earlier and later service is provided through the college routes. Four County Transit services are shown in Figure 1-3. An in-depth service analysis of individual routes will be provided in Chapter 3.

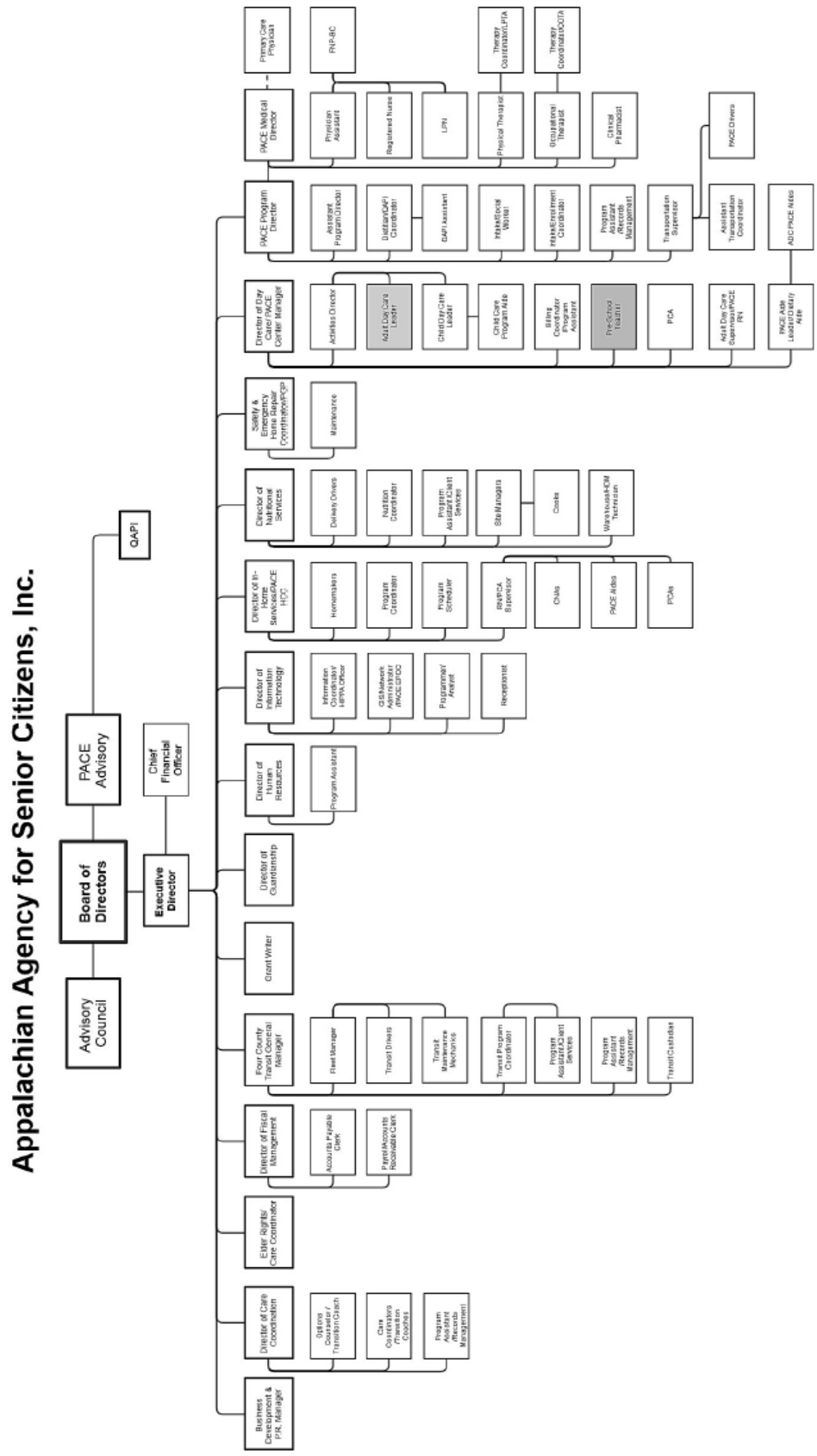
FARE STRUCTURE

The fare for Four County Transit routes is indicated on each schedule. Primarily the structure is:

- Town route fare is 25¢ per boarding.
- Work express fare is 50¢ per boarding.
- College routes are public routes and open to anyone who wants to ride. Fare for public riders is \$1.00 per boarding.
- College route fare is FREE for college students and staff/faculty who present college ID, seniors at least 60 years old, and children age 5 or younger when accompanied by an adult.

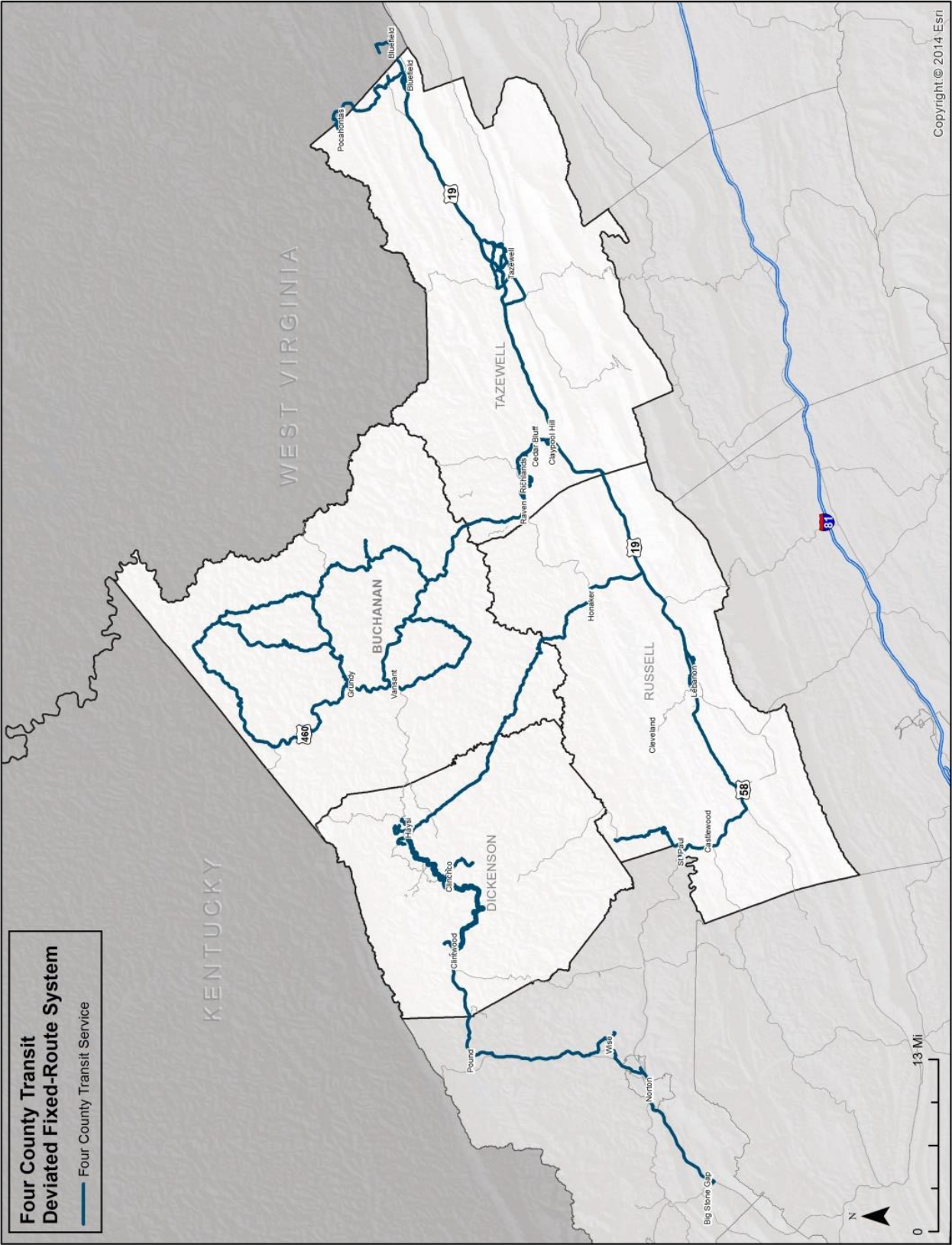
Four County Transit accepts donations to support services.

Figure 1-2: Appalachian Agency for Senior Citizens, Inc.



Revision Date: 5/20/2014

Figure 1-3: Four County Transit Deviated Fixed-Route System



EXISTING FLEET AND FACILITIES

Four County Transit's fleet consists of 52 vehicles, 48 of which are used in revenue service. Table 1-3 provides a detailed fleet inventory that includes details on each vehicle, mileage as of August 8, 2016, and projected year for replacement.



Table 1-3: Four County Transit Vehicle Fleet

Fleet #	Model/ Year	Make/Model	Seating Capacity	Lift	August 8, 2016 Mileage	Location	Estimated Replacement Year
95	2010	Ford Supreme (BOC)	12	Y	116,848	Tazewell	FY 2017
99	2010	Ford Supreme (BOC)	14	Y	112,626	Tazewell	FY 2017
104	2010	Ford Supreme (BOC)	14	Y	100,297	Dickenson	FY 2017
106	2010	Ford Supreme (BOC)	14	Y	121,203	Tazewell	FY 2017
108	2010	Dodge Braun Minivan	6	Y	124,817	Dickenson	FY 2017
109	2010	Dodge Braun Minivan	6	Y	75,676	Buchanan	FY 2018
110	2010	Ford Explorer	5	N	48,140	Tazewell	FY 2018
111	2010	Ford Explorer	5	N	54,002	Tazewell	FY 2017
112	2011	Ford Supreme BOC	14	Y	104,182	Tazewell	FY 2017
113	2011	Ford Supreme BOC	14	Y	155,266	Russell	FY 2017
115	2010	Ford Classic Trolley	24	Y	10,729	Tazewell	FY 2022
116	2011	Ford Supreme BOC	14	Y	105,711	Tazewell	FY 2018
117	2011	Ford Supreme BOC	14	Y	100,064	Buchanan	FY 2018
118	2011	Ford Supreme BOC	14	Y	111,849	Buchanan	FY 2017
119	2011	Ford Supreme BOC	14	Y	134,764	Tazewell	FY 2017
120	2011	Ford Supreme BOC	12	Y	146,807	Tazewell	FY 2018
121	2011	Ford Supreme BOC	20	Y	151,311	Tazewell	FY 2018
122	2011	Ford Supreme BOC	12	Y	156,362	Tazewell	FY 2018
125	2012	Ford F250 Service Truck	5	N	30,002	Tazewell	FY 2019
126	2012	Dodge Braun Minivan	6	Y	77,240	Tazewell	FY 2018
127	2013	Chevy Supreme BOC	14	Y	64,618	Tazewell	FY 2019
128	2013	Chevy Supreme BOC	14	Y	76,872	Tazewell	FY 2018

Fleet #	Model/ Year	Make/Model	Seating Capacity	Lift	August 8, 2016 Mileage	Location	Estimated Replacement Year
129	2013	Chevy Supreme BOC	14	Y	58,811	Tazewell	FY 2019
130	2013	Chevy Supreme BOC	14	Y	65,835	Buchanan	FY 2019
131	2014	Chevy Supreme BOC	19	Y	71,477	Russell	FY 2019
132	2014	Chevy Supreme BOC	19	Y	92,251	Tazewell	FY 2019
133	2014	Chevy Supreme BOC	19	Y	70,230	Buchanan	FY 2019
134	2015	Dodge Braun Minivan	6	Y	30,611	Tazewell	FY 2020
136	2015	Chevy Supreme BOC	14	Y	37,959	Buchanan	FY 2019
137	2015	Chevy Supreme BOC	14	Y	40,620	Buchanan	FY 2020
138	2015	Chevy Supreme BOC	14	Y	37,744	Buchanan	FY 2020
139	2015	Chevy Supreme BOC	14	Y	29,864	Russell	FY 2020
140	2015	Chevy Supreme BOC	14	Y	25,453	Tazewell	FY 2020
141	2015	Chevy Supreme BOC	14	Y	29,232	Dickenson	FY 2020
142	2015	Chevy Supreme BOC	14	Y	39,855	Tazewell	FY 2020
143	2015	Chevy Supreme BOC	14	Y	27,800	Dickenson	FY 2020
144	2015	Chevy Supreme BOC	19	Y	42,011	Russell	FY 2020
145	2015	Chevy Supreme BOC	19	Y	43,270	Tazewell	FY 2020
146	2015	Chevy Supreme BOC	19	Y	40,698	Tazewell	FY 2020
147	2015	Chevy Supreme BOC	19	Y	28,834	Dickenson	FY 2020
150	2016	Ford Starcraft BOC	19	Y	17,967	Dickenson	FY 2021
151	2016	Ford Starcraft BOC	19	Y	16,586	Dickenson	FY 2021
152	2016	Ford Starcraft BOC	15	Y	12,814	Buchanan	FY 2021
153	2016	Ford Starcraft BOC	15	Y	8,393	Dickenson	FY 2021
154	2016	Ford Starcraft BOC	15	Y	10,961	Buchanan	FY 2021
155	2016	Ford Starcraft BOC	15	Y	16,094	Tazewell	FY 2021
156	2016	Ford Starcraft BOC	15	Y	15,578	Tazewell	FY 2021
157	2016	Ford Starcraft BOC	15	Y	11,646	Dickenson	FY 2021
158	2016	Ford Starcraft BOC	15	Y	10,023	Dickenson	FY 2021
159	2016	Ford Senator BOC	27	Y	1,236	Tazewell	FY 2021
160	2016	Ford F250 Service Truck	6	N	2,413	Tazewell	FY 2023

Non-revenue service vehicles

The Four County Transit facility is located in Wardell Industrial Park in Cedar Bluff, adjacent to the AASC offices. This facility houses all administrative, operations, and maintenance functions for the system. The facility opened in 2007.

Four County Transit utilizes five satellite parking locations throughout the service area in an effort to reduce deadhead time.



Buchanan County

- Grundy Town Plaza, located at Plaza Drive in Grundy. This location is monitored by Grundy Town Police.

Dickenson County

- Generations/Allcare for Seniors PACE, located in Haysi. This location is monitored by Haysi Town Police.
- Clintwood Town Parking Lot, located at Walnut Street in Clintwood. This location is monitored by Clintwood Town Police.

Russell County

- Fox Meadows Housing Facility, located at 35 Fox Meadows Drive in Lebanon. This location is monitored by Lebanon Town Police.

Tazewell County

- Fairgrounds Parking Facility, located at 515 Fairground Road in Tazewell. This location is monitored by Tazewell County Sheriff Department.

TRANSIT SECURITY PROGRAM

The Four County Transit security program includes utilization of AngelTrax HD quality cameras. These cameras provide audio/video data by employing infrared technology, IP68 certified waterproof lenses and noise-gated microphones. Buses equipped with cameras include multipoint camera locations within the bus as well as outside views.

Four County Transit uses AngelTrax technology for event history tracking. MotoTrax organizes individual events by date/time, vehicle ID, event type and location for research and reporting. Reporting allows for collection and customizing comprehensive reports on their entire fleet,

one vehicle, driver or event type. Data such as speed, GPS location, stops made, braking applied, G-force and speed at impact can be determined using this research and development tool.

INTELLIGENT TRANSPORTATION SYSTEMS (ITS) PROGRAM

Four County Transit uses TRACI, a transportation management tool created in-house at AASC. The system accommodates trip scheduling that is utilized for route scheduling producing manifest printouts for driver assignments. These printouts include the daily account for driver processing. Drivers complete manifest data for daily functions that is an all-inclusive entry, including the driver timesheet and tracking.

Data collected from the daily manifest is utilized for a multitude of information collection including:

- Driver timesheet
- Passenger counts by stop
- Revenue miles
- Revenue hours
- Vehicle pre-trip inspection checklist
- Fare collection reporting
- Informational messaging options

The TRACI program includes a maintenance management component. Data collected via manifest entry is utilized to track scheduled maintenance on a weekly and monthly reporting basis. Once complete, the maintenance entry section allows maintenance performed on any vehicle to be tracked. In addition, vehicles with excessive maintenance costs may be identified and flagged for retirement and/or replacement. Four County Transit uses maintenance data through TRACI for comparison with vendor invoices to help ensure correct billing amounts.

DATA COLLECTION, RIDERSHIP AND REVENUE REPORTING METHODOLOGY

All fares are collected by the Four County Transit driver as each paying passenger boards the bus and are kept in a secure location throughout the day. At the end of each day as the driver completes his manifest for the day, he/she calculates the number of riders who boarded and money collected and manually registers these on the paperwork turned in daily to the dispatch office.

Upon receipt of daily manifest from drivers, dispatch removes the funds received and copies the totals page of the manifest. The original manifest continues to data entry for processing. The totals page and funds are then forwarded to the financial department for calculating,

verification and depositing into the fare account. The original manifest is simultaneously processed by data entry with the fare and rider totals entered into the system for reporting.

COORDINATION WITH OTHER TRANSPORTATION SERVICE PROVIDERS

Four County Transit coordinates with a variety of transportation service providers in the region to the extent possible. The following public, private, and non-profit providers operate in the area.

Public Transit

Graham Transit

Graham Transit operates three deviated fixed routes in Bluefield and the surrounding area.



The Main Route provides service from downtown Bluefield to Crescent View and Graham Manor (housing areas), connecting to Bluefield Area Transit, and serving the downtown area, Twin City Plaza, Ridgeview Plaza (Walmart), West Gate Shopping Center, West Wood Medical Park, and Bluefield Regional Hospital. The Main Route operates Monday through Friday and the first Saturday of each month, hourly, from 7:25 a.m. to 6:00 p.m.

The Gold Route operates Monday through Friday and the first Saturday of each month, hourly from 7:00 a.m. to 6:00 p.m. The Gold Route provides service through several residential neighborhoods, connecting them to the public library and Municipal Building, Food City, College Plaza, Ridgeview Plaza (Walmart), Twin City Plaza, and downtown.

The Pocahontas Route operates hourly on Tuesday, Wednesday, and Friday, from 7:00 a.m. to 3:00 p.m. It connects the community of Pocahontas to Bluefield, with stops at Indian Princess apartments, Pocahontas Mine, Pick and Save, Nemours Grocery (WV), Falls Mills, Wood Tech, Ridgeview Plaza (Walmart), and downtown.

District Three Public Transit

District Three Public Transit is a neighboring public transportation provider. It provides transportation to the counties south and east of the Four County region. District Three Public Transit operates flexible fixed routes and demand response services Monday through Friday with limited Saturday services.

Mountain Empire Transit (MEOC Transit)

MEOC Transit provides curb-to-curb demand response service to Lee, Scott, and Wise Counties and to the City of Norton. MEOC Transit's



hours of operation are Monday through Friday from 7:00 a.m. to 5:00 p.m., Request for a ride should be made at least 24 hours in advance.

Taxi and Private Transportation Providers

The following taxi and private transportation providers operate in the region:

- ***Cimarron Coach of Virginia***, Falls Mill. Cimarron Coach provides taxi, charter, non-emergency medical, employment, and school transportation services to customers in the southwest Virginia area.
- ***Medicaid Taxi***, Honaker
- ***Mullin's Cab***, Tazewell
- ***Skeens Cab***, Nora
- ***Darlene Jackson Taxi Inc.***, Cedar Bluff

Human Service Transportation

Human service transportation in the region is provided primarily by Four County Transit through agreements to provide service to area congregate nutrition sites and adult day care. The Commission on Aging program operated by Community Action Southeastern West Virginia (CASEWV) provides transportation to health care, shopping, exercises, and activities to adults age 60 years and older living in Mercer County, West Virginia.

Medicaid Transportation

Medicaid transportation is arranged by Logisticare for this region of Virginia.

Intercity Bus

Greyhound provides intercity bus service to Bluefield, West Virginia. The Greyhound station is located at 1152 Bland St. in Bluefield, and is served by the Detroit-Jacksonville route, with southbound trips from Bluefield traveling to Wytheville, Winston-Salem, North Carolina, Charlotte, North Carolina and stops in South Carolina, Georgia, and Jacksonville, Florida. Northbound trips leave Bluefield with service to Beckley and Charleston, West Virginia where transfers to the broader intercity bus network are available.

Amtrak

The closest Amtrak service to Bluefield is along the Cardinal Route, which travels from New York to Chicago; traveling through Philadelphia, Baltimore, and Washington D.C., with multiple stops in West Virginia. The closest station is in Hinton, West Virginia.

PUBLIC OUTREACH

AASC/Four County Transit uses the following methods of public outreach to educate riders and potential riders about the system:

- **Newsletter** - The AASC BEACON is produced semi-annually and highlights agency news and transit developments. It is distributed throughout the community.
- **Website/internet presence** – AASC/Four County Transit maintains a transit website with information on current happenings, ride details and route schedules.
- **Social media** - Facebook and Twitter accounts are active and maintained by staff members to actively alert the public of possible weather or service alerts.
- **Interactive Phone system** – AASC/Four County Transit maintains a sophisticated phone messaging system that contains verbal accounts of route schedules available to the public at the touch of a button, 24 hours a day.
- **Local college orientation vendor fairs** – AASC / Four County Transit attend orientation/vendor fairs to welcome new students to the area and familiarize them with available transit services.
- **Area Service Agency Expos-** AASC/Four County Transit attends events throughout the region to educate the community about available transportation services and maintain a presence to evaluate service needs.
- **Human Service partners-** AASC/Four County Transit has developed relationship with area human service providers to coordinate efforts of providing needed services to area residents that are mutual clients. This includes development of a Ride Pass program developed for mutual clients and gives agencies the ability to arrange for transportation needs.
- **Print advertisements-** Print advertisements are placed in four local newspapers in each county and are often utilized to provide details of promotions, route information, and schedule alterations such as holiday hours.

Chapter 2

Goals, Objectives, and Service Design Standards

INTRODUCTION

This chapter discusses unmet needs and gaps in transit services identified at the outset of the TDP process. Identifying unmet needs and gaps was an important first step in the development of the Four County Transit TDP as it provided issues that should be explored within the planning process. The unmet needs and gaps in service were further bolstered through input from a rider survey and results of the demographic analysis (discussed in Chapter 3).

Based on identified needs and issues this chapter then presents goals and objectives for the Four County Transit system. This chapter also provides service design standards for addressing both efficiency and effectiveness of services provided by Four County Transit.

ISSUES AND UNMET NEEDS IDENTIFIED BY FOUR COUNTY TRANSIT

An important first step in development of the TDP was to learn from Four County Transit staff about community transportation issues and unmet needs that should be explored. In this light, a TDP kick-off meeting was conducted with DRPT and Four County Transit in July 2016. This meeting provided the opportunity to obtain input on the system's mission and goals, transportation issues and constraints, and unmet needs. They are summarized by topic in the following sections (though not prioritized).

Service Expansion

While Four County Transit routes have an extensive demographic reach through the region, staff noted several new services that would increase mobility and access:

- Connector service between Hurley and Grundy
- Connector service between Grundy and Richlands
- Service between Haysi and Grundy

Service to Key Destinations

Several key locations in the region were noted as popular destinations, and should be considered for expanded service:

- Walmart in Grundy
- Richlands and Claypool Hill, add weekend and evening service
- Student apartments near Appalachian College of Pharmacy

STAKEHOLDER INPUT

Subsequent to the kick-off meeting with Four County Transit staff, interviews were conducted with stakeholders in the system's service region. These interviews provided the ability to gain an understanding of transportation needs, challenges, and opportunities relating to public transit. The stakeholders represented civic, educational, governmental, and human service agencies.

Of the 22 stakeholders contacted, the following twelve agencies were represented in interviews:

- Appalachian College of Pharmacy
- Buchanan County Social Services
- Cumberland Mountain Community Services Board
- Cumberland Plateau Planning District Commission
- Department of Rehabilitative Services, Russell County
- Grundy Town Manager
- Haysi Town Mayor
- Russell County Social Services
- Southwest Virginia Community College
- Tazewell County Administrator
- Tazewell County Social Services
- Tazewell Town Manager

This section highlights the overarching themes that emerged from stakeholder interviews. Overall, there were more strengths than weaknesses reported. All of the stakeholders expressed a high level of satisfaction with Four County Transit's services. The only trending areas for improvement were easier access to route and schedule information and expanded marketing. Stakeholders indicated that they were supportive of Four County Transit's services and that it filled an important need in the community. Some stakeholders indicated they would be open to partnerships with Four County Transit.

Details of stakeholder interviews are summarized in the following sections: system strengths, opportunities for improvements, opportunities for partnerships, and capital improvements.

System Strengths

Stakeholders reported an overwhelming satisfaction with the quality of Four County Transit's services. Stakeholders reported that Four County Transit staff is professional and helpful and vehicles are well maintained. The interviews found that the Four County region was adequately covered by Four County Transit's service area. There were very few suggestions as to areas that need more service or improvements.

Stakeholders reported that Four County Transit is extremely responsive with complaints and issues. One public agency reported that the bus stop serving their agency was a block away but was lacking good pedestrian access. They reported that they called Four County Transit and the bus stop was moved within 24 hours. They were very happy with their interaction and responsiveness of Four County Transit staff.

Some comments from stakeholders about system strengths included:

- They are on time and always available
- They cover the area as well as they can
- They have a good fleet, equipment is clean, and they have professional drivers
- They are very reliable, accommodating, and pleasant to work with
- They provide a critical service to a lot of people, fares are inexpensive and they meet people's needs
- They cover the area well, with a great number of stops
- Students are picked up at a lot of places
- Busses are safe and drivers are courteous and friendly

Opportunities for Improvements

The primary comments received about opportunities for improvement were focused on marketing, as some of the stakeholders interviewed were not familiar with Four County Transit's services. A few stakeholders commented that they did not know the routes and stops, and that they would share this information with the community they served if they did. There were also comments about bus stops needing to be more visible and having route information and pick up times at the stops. For example, one stakeholder commented:

"People (in Buchanan County) need to be more aware of the services. If there were more signs, designated bus stops with benches, shelters, and route information, more people would ride the bus. There should be an established day for transit from each of the regions, Hurley, Whitewood, and Council, so people would know and plan their trips to Grundy accordingly. For example, if people always knew that the bus services Hurley on Mondays and people could ride into and out of Grundy from Hurley on that day, more people would ride."

Specific comments about areas for improvements included:

- While, there are lots of people who use it, I have doubts that it is widely known and understood
- I don't know if most people know about the types of services and the extent of the services
- Could do better with public relations and getting the message out to the community
- Better signs at bus stops and more information on social media like Facebook and Twitter
- It is difficult to find out about services, like route information and how to ride the bus
- I need more information about the services, if you give me the information I'll give it to clientele and our employees and more people will ride it
- It could be used more if people were aware of it
- People think you have to ride everyday so they don't use it but you don't have to ride everyday
- Need more information available to the public about services and hours; and expanded hours
- Additional marketing would help, in the Free Press and other newspapers

Stakeholders expressed more satisfaction with the current schedule than dissatisfaction. The following comments were made by single stakeholders:

- There is a need for Saturday service
- More opportunities for individualized transportation, like for doctor's appointments and things that are only scheduled once
- The schedule is so limited that DSS customers and employment candidates can't always use it
- More evening service would be nice, especially on Fridays
- Later morning service for the Appalachian College of Pharmacy students, as classes start at 9:00 a.m. and end at 4:00 p.m.

Opportunities for Partnerships

Most stakeholders expressed a high level of support for transit services in the region. They reported that Four County Transit met an important need in the community and they were satisfied with the results. When asked specifically about partnership opportunities, while most stakeholders reported limited budgets, many were open to partnerships and opportunities that might generate additional programs and funding sources. Following are possible opportunities for partnerships:

- Appalachian College of Pharmacy said that while they had not discussed a transit partnership at the school, they would be open to grant opportunities or other partnerships.

- Tazewell Town Manager said that he is open to suggestions on possible partnerships.
- Tazewell County Social Services indicated they are always open to helping.
- Buchanan County Department of Social Services thought there might be an opportunity for a partnership with their VIEW employment program. VIEW clients need to come into DSS one day a week and it would be great if the Four County Transit bus could give them a ride instead of DSS staff driving each person. Brenda Jackson, VIEW program supervisor, is the person to contact about this.
- Russell County Department of Social Services suggested they could purchase bus tokens for their clients and work with Four County Transit to expand service to serve popular areas for DSS clients.
- The Haysi Town Mayor indicated they are open to ways to partner with other agencies.
- Operate busses to special events, like the Fall Festival and holiday events; especially for people who cannot drive, like older adults. They have no other way to get to these events and it would be nice for them to be able to attend them.
- Better connections with Washington and Wise Counties transit systems.

Capital Improvements

While stakeholders were not directly asked about bus stop and pedestrian amenities, the topic came up several times in interviews. Stakeholders mentioned they would like to see Four County Transit bus stops clearly identified with schedule and route information. Amenities like benches and shelters were requested for areas that can accommodate them. Topics suggested are:

- More bus shelters, benches, and schedule information.
- There is little space for bus stop shelters but in some locations there could be shelters and benches.
- Sometimes people have to wait at the bus stop a long time and having a bench would help seniors.
- Improved pedestrian accommodations, sidewalks and better street crossings.

Overall, stakeholders support and value the services that Four County Transit provides to the region. They reported that Four County Transit meets a critical need in the community and they are satisfied with the level of service provided.

TRANSIT PROGRAM GOALS AND OBJECTIVES

Four County Transit's previous TDP included goals and objectives to help guide the system's operations. These goals and objectives were updated based on the identified needs and issues, and the following ones established to address all major areas of concern and activity for Four County Transit services.

GOAL 1: Maintain provision of accessible, reliable, safe, and cost-effective services in the region.

Objective 1.1- Community Connections

Continue to provide transit service connections between residential areas and commercial areas with jobs, education, shopping, and medical services. Potential activities to accomplish this objective include:

- Use results from the rider survey to ensure services are meeting key needs, and conduct future surveys to obtain continued input from customers on service needs.
- Continue to work with county planning agencies, human service agencies, education providers, and employers to obtain input on current services and on planned new developments or programs that might warrant need for modified or expanded transit services.

Objective 1.2 - Adherence to Established Performance Measures

Monitor adherence to established performance measures for operating costs and ridership (discussed later in this chapter). Implement corrective measures if results fall below established standards for more than three months in a row. Corrective measures may include route alignment, service frequency and span of service, fare adjustments, or expanded marketing campaigns.

Objective 1.3 - Safety

Ensure that transit service operators maintain an accident rate of less than the established performance standard. Activities include maintaining safety training programs, reviewing established operating policies and procedures at least once a year, and updating these policies and procedures as needed.

Objective 1.4 – Fleet Inventory and Maintenance

Ensure that an adequate fleet of vehicles is maintained to provide services. Continued activities include maintaining a replacement schedule and a proper vehicle spare ratio.

Objective 1.5 – Accessible Services

Continue to provide transit services that are accessible to all population groups within the region. Continued activities include ensuring compliance with the applicable requirements of the Americans with Disabilities Act (ADA) and providing appropriate ADA paratransit services.

GOAL 2: Expand transit services in the region.**Objective 2.1 - Locations**

Assess opportunities to increase connections between communities in the region with particular focus on:

- Service between Hurley and Grundy
- Service between Grundy and Richland
- Service between Haysi and Grundy

Objective 2.2 – Time Span

Assess opportunities to expand hours of service, with particular focus on evening and Saturday hours that serve popular and key destinations in the region.

GOAL 3: Increase marketing to agencies and organizations in the region.**Objective 3.1 – Bus Stop Signs**

Where appropriate and possible, place bus stop signs with route information at all locations listed in route brochures, and at other key destinations along routes.

Objective 3.2 – Social Media

Expand use of social media and other methods to increase knowledge of service in the community.

Objective 3.3 – Public Awareness

Highlight popular destinations and available transit options to increase awareness of places that are directly served by Four County Transit.

Objective 3.4 – New Marketing Opportunities

Explore new opportunities to market Four County Transit services to local businesses and their employees.

GOAL 4: Improve customer amenities and access to bus stops and services.**Objective 4.1- Bus Stop Improvements**

Assess popular bus stop locations and install benches and/or shelters where needed. Potential activities to accomplish this objective include:

- Establish safe bus stop locations when modifying an existing bus route alignment or when implementing new service.
- Work with local and county Public Works Department and appropriate staff in efforts to expand sidewalks at bus stops with higher ridership levels.
- Monitor ridership activity at high demand stops to determine if/when passenger shelters or benches are needed.

Goal 5: Expand partnerships with key agencies and organizations in the region.**Objective 5.1 – Educational Institutions**

Expand partnerships with higher education institutions to promote Four County Transit as an option for students, faculty, and staff.

Objective 5.2 – Social Service Agencies

Work with county Departments of Social Services on expanded partnership opportunities.

Objective 5.3 – Transit Advisory Committee

Consider forming a transit advisory committee (TAC) that includes key agencies and organizations. A TAC would provide a forum for discussions on possible expanded partnership opportunities.

Objective 5.4 – Expanded Connections to Other Providers in Southwest Virginia

Assess opportunities to expand connections with other transit providers in Southwest Virginia.

PERFORMANCE, SAFETY, AND SERVICE STANDARDS

Standards are benchmarks by which service performance is evaluated. These standards are typically developed in categories, such as service productivity, cost effectiveness, and availability. The most effective standards are straightforward and relatively easy to calculate and understand. Transit systems use these standards and the performance evaluation process to guide decisions regarding service adjustments.

While Virginia does not have established statewide performance benchmarks, criteria, or requirements, the previous TDP proposed service performance standards. These standards have been updated based on Four County Transit's current operating and financial data and a review of typical industry standards. Four County Transit will use these standards to monitor and evaluate current and future services.

A key aspect of performance measurement the process of collecting data. Four County Transit uses a transportation management tool that was developed in-house (TRACI) for data collection and reporting. Data collected from driver manifests is entered into the TRACI program, and then utilized for information synthesis including:

- Passenger counts by stop
- Revenue miles
- Revenue hours
- Vehicle pre-trip inspection checklist
- Fare collection reporting
- Informational messaging options

Productivity

The 2010 TDP included one performance standard to measure productivity – passenger trips per revenue mile. Four County Transit will build upon that performance measure, and add an additional measure of passenger trips per revenue hour:

Passenger Trips per Revenue Mile: The previous TDP proposed that ridership on Four County Transit routes should maintain levels equivalent to at least 0.14 passenger trips per revenue mile. Since FY2012 Four County Transit has met or exceeded this standard, with each year increasing up to 0.20 passenger trips per revenue mile in FY2016. Typically, when providing rural transit service passenger trips should be between 0.15-0.30, therefore Four County Transit is meeting this standard.

While Four County has been meeting the performance for passenger trips per mile, corrective measures should be investigated if ridership on any of the Four County Transit routes fall below the 0.15-0.30 range for a period of three consecutive months.

Passenger Trips per Revenue Hour: This performance measure can be used to assess productivity. Typically passenger trips per revenue hour for rural transit service should fall between 2.5-5.0 trips per hour. Since FY2012 Four County Transit has met this standard, with passenger trips peaking at 4.28 passenger trips per revenue hour in FY2016. Similar to passenger trips per mile, corrective measures should be implemented if ridership on any Four County Transit route falls below the 2.5-5.0 range for a period of three consecutive months.

Cost Effectiveness

The 2010 TDP proposed one performance standard to measure cost effectiveness – farebox recovery. Four County Transit can build upon that performance measure, and add three others: measure operating cost per hour, operating cost per mile, and operating cost per passenger trip:

Operating Cost per Revenue Mile: Typically, when providing rural transit service, operating cost per revenue mile should be between \$2.00 and \$4.00 per mile. Since FY2012, Four County Transit has exceeded this standard, at an operating cost per mile ranging between \$1.57 and \$1.90.

While Four County Transit has been exceeding this performance measure for cost effectiveness, corrective measures should be investigated if operating costs for the system go beyond \$4.00 per mile for a period of three consecutive months.

Operating Cost per Revenue Hour: Typically, when providing rural transit service operating cost per revenue hour should be between \$40.00 and \$60.00 per hour. Since FY2012, Four County Transit has met or exceeded this standard, with operating costs per hour ranging between \$32.76 and \$40.64.

While Four County Transit has been meeting or exceeding this measure for cost effectiveness, corrective measures should be implemented if operating costs for the system go beyond \$60.00 per hour for a period of three consecutive months.

Operating Cost per Passenger Trip: Typically, when providing rural transit service, operating costs per passenger trip should be between \$7.00 and \$18.00 per trip. Since FY2012, Four County Transit has met this standard, with operating cost per passenger ranging from \$9.89 and \$11.02.

While Four County has been meeting this measure for cost effectiveness, corrective measures should be implemented if operating costs for the system go beyond \$18.00 per passenger trip for a period of three consecutive months.

Farebox Recovery Ratio: The previous TDP proposed that farebox recovery ratio (farebox revenues as a percentage of overall operating costs) should be no less than 1.8%. Since FY2012, Four County Transit has not met this measure, with the ratio being as low as 1.03%. This indicates that Four County Transit fares are low compared to overall operating expenses. However, higher fares may affect ridership levels that are currently acceptable, and also adversely impact the customers with lower incomes that are a significant portion of current riders.

Therefore, no fare increases are projected as part of the Financial Plan included in Chapter 6. Farebox recovery ratio, though, can continue as a performance measure. This ratio is proposed as one more realistic based on recent farebox recovery, with corrective actions implemented if the percentage falls below 1.0%.

Safety Standard

Four County Transit's previous TDP included two vehicle maintenance performance measures, though none related to safety standards. Typically this measure is conducted based on preventable accidents per 100,000 miles. A standard of .10 or fewer incidents per 100,000 miles, as defined by the National Transit Database, is proposed.

Performance, Safety, and Service Standards Overview

Table 2-1 provides a review of the proposed standards for Four County Transit.

Table 2-1: Proposed Standards

Category	Standard/Value
Productivity Passenger trips/revenue mile Passenger trips/revenue hour	Review service and consider modifications if productivity falls below 0.15 passenger trips per revenue mile or 2.5 passenger trips per revenue hour.
Cost Effectiveness Operating cost/revenue mile Operating cost/revenue hour Operating cost/passenger trip Farebox recovery ratio	Review service and consider modifications if operating costs exceed \$4.00 per revenue mile, \$60.00 per revenue hour, \$18.00 per passenger trip, and farebox recovery ratio continues below 1.0%.

Category	Standard/Value
Availability Service availability is a direct reflection of the level of financial resources available for the transit program. Service coverage, frequency, and span of service are considered under the category of Availability	Service Coverage Major Activity Centers <ul style="list-style-type: none"> – Employers or employment concentrations – Health centers – Major shopping centers or retailers – Social service/government centers Frequency <ul style="list-style-type: none"> – Maintain current headways on existing routes and any new services. Span <ul style="list-style-type: none"> – Maintain current span of service; increase morning and evening services and implement Saturday services as appropriate and feasible.
Service Quality On-time performance	95% on-time service (0-5 min late)
Safety Safety incidents per 100,000 miles	.10 or fewer “reportable incidents” per 100,000 miles, as defined by the National Transit Database ¹
Customer Amenities Waiting shelters/benches	Located at bus stops with highest boardings per day; incorporated into site plans for future major developments.
Marketing/Outreach Bus stop signs Public information	<ul style="list-style-type: none"> – Bus stop signs located at scheduled stops and key destinations, with system name, and contact information. – Timetable, maps, and website maintained and updated as needed to be accurate. Expanded outreach and social media campaigns.

PROCESS FOR UPDATING GOALS, OBJECTIVES, AND STANDARDS

As part of the TDP process the proposed performance standards were reviewed and adjusted as needed to reflect what is feasible for Four County Transit to monitor through appropriate data collection efforts. Four County Transit will use these standards to gauge route and service performance and adjust services as warranted and feasible. The annual review of service standards will also take place as part of the grant preparation cycle to ensure that performance standards are relevant and reasonable. Any changes for these measurement tools can be included in the annual minor TDP update.

¹ National Transit Database, 2010 Rural Reporting Manual. A reportable incident is one in which one or more of the following conditions apply: a fatality; injuries requiring medical attention away from the scene for one or more persons; property damage equal to or exceeding \$25,000.

Chapter 3

Service and System Evaluation

INTRODUCTION

This chapter of the TDP focuses on two primary analyses. The first focus is a description and analysis of the recent performance of Four County Transit, including analyses of trends, peers, recent ridership, and a passenger survey. The second area of focus provides an analysis of transit needs, and includes a demographic and land use analysis and a review of relevant studies and plans.

Overall, this chapter has eleven major components which are presented in the following order:

1. System Evaluation - including profiles of Four County Transit routes
2. Financial Information
3. Peer Analysis
4. Four County Transit Passenger Survey
5. Demographics and Land Use
6. Population Analysis
7. Transit Dependent Populations
8. Title VI Demographic Analysis
9. Land Use Profile
10. Review of Previous Plans and Studies
11. Chapter Summary

SYSTEM EVALUATION

Operating Data

Table 3-1 provides operating statistics for Four County Transit for FY2012 to FY2016. A review of this data reveals the following:

- After a slight decline in ridership between FY2012 and FY2013, overall ridership has increased by approximately 11% or by 16,163 passenger trips from FY2013 to FY2016.
- This increase in ridership was coupled with a reduction each year in revenue miles and revenue hours, with revenue miles reduced by 235,056 between FY2012 and FY2016 and revenue hours reduced by 12,426 during the same period.

- Overall operating costs remained level, and were even a little lower in FY2015 and FY2016 from FY2014. With the increase in ridership through the review period operating cost per trip was reduced from \$11.02 in FY2012 to a low of \$9.72 in FY2016.
- Operating cost per mile and hours increased appropriately throughout the five-year period, though with the reduction in operating miles and hours the overall operating expenses did not rise. As noted in Chapter 2 both operating cost per mile and per hour are meeting typical industry standards for operating rural transit services.

Table 3-1: System-Wide Performance and Trend Data

Performance Category	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Passenger Trips	151,092	148,389	154,791	161,147	164,552
Revenue Miles	1,059,435	909,416	890,408	855,170	824,379
Revenue Hours	50,851	43,205	41,630	40,276	38,425
Passenger Trips per Mile	0.14	0.16	0.17	0.19	0.20
Passenger Trips per Hour	2.97	3.43	3.72	4.00	4.28
Operating Costs	\$1,665,651	\$1,647,472	\$1,691,991	\$1,593,251	\$1,599,283
Operating Cost per Trip	\$11.02	\$11.10	\$10.93	\$9.89	\$9.72
Operating Cost per Revenue Hour	\$32.76	\$38.13	\$40.64	\$39.56	\$41.62
Operating Cost per Revenue Mile	\$1.57	\$1.81	\$1.90	\$1.86	\$1.94
Farebox Revenue	\$20,634	\$21,344	\$18,705	\$16,370	\$16,123
Farebox Recovery Ratio	1.24%	1.30%	1.11%	1.03%	1.01%

As noted in the system performance data Four County Transit provided 164,552 passenger trips in FY2016. Table 3-2 provides ridership per route. During FY2016 the busiest route was the Town of Tazewell Transit with 21,004 one way passenger trips or 13% of the total passenger trips. Following the Town of Tazewell Transit the busiest routes were the Ridge Country Greater Clintwood Area (11 % of total ridership), and the Town of Lebanon Transit (7% of total ridership).

Table 3-2: Fiscal Year 2016 Ridership by Route

Route	One Way Passenger Trips
Grundy North	8,077
Grundy South	6,809
SwVCC Eagle Express Buchanan County	N/A*
Ridge Country Greater Clintwood Area	17,593
Ridge Country Connector Greater Haysi	10,514
Ridge Country Connector Clinchco	10,197
SwVCC Eagle Express Dickenson-Russell County	615**
MECC/UVA-Wise Express Dickenson County	N/A*
Town of Lebanon Transit	11,890
SWVCC Eagle Express-Russell County	N/A*
Richlands to Pounding Mill Connector	11,297
Four Seasons Richlands to Tazewell Connector	8,201
Four Seasons Tazewell to Bluefield Connector	6,262
Town of Richlands Transit	13,517
Town of Tazewell Transit	21,004
SwVCC Eagle Express Tazewell County	N/A*
Four Seasons Work Express	1,722
Total***	127,083

*Four County Transit is not required to track ridership by stop for college routes.

** Ridership data was provided for SwVCC Eagle Express Dickenson-Russell County.

***Total does not include the boardings for the three college routes marked N/A.

Route Profiles

The following subsection includes detailed data for each of Four County Transit's routes. Each profile includes a brief service description followed by a brief narrative covering major stops and destinations. Passenger boarding and alighting data, collected by Four County Transit, is presented specific to each route in a map except for the college routes where only overall ridership is tracked.

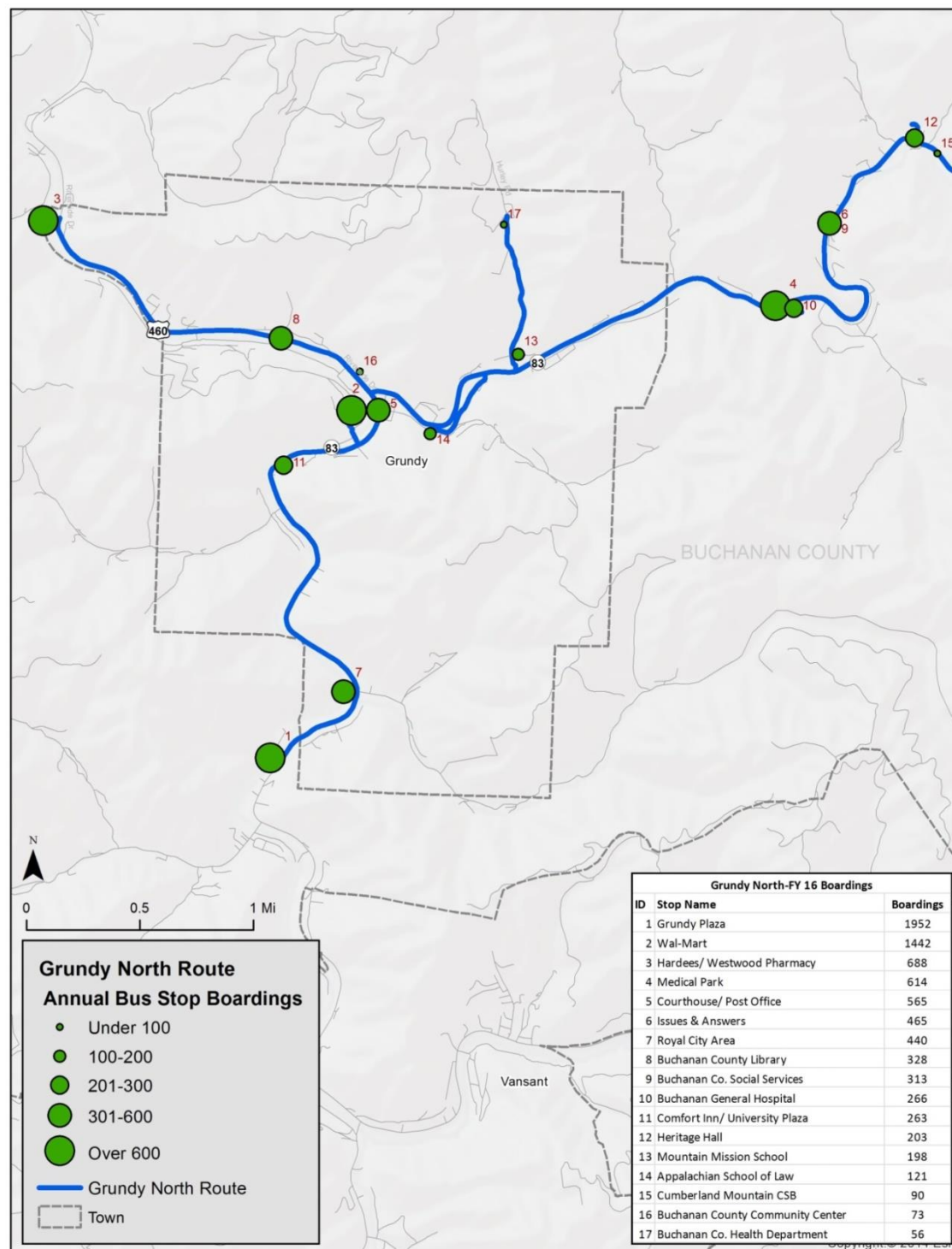
Buchanan County

Grundy North

The Grundy North Route operates between 8:00 a.m. to 4:30 p.m. serving 17 stops along U.S. 460 and VA 83. Each run starts at Grundy Plaza and ends at Comfort Inn/University Plaza. Grundy Plaza serves as a transfer point to the Grundy South Route. The bus stops that have the

highest boardings are Grundy Plaza, Walmart and Hardees/ Westwood Pharmacy. Figure 3-1 illustrates the Grundy North Route.

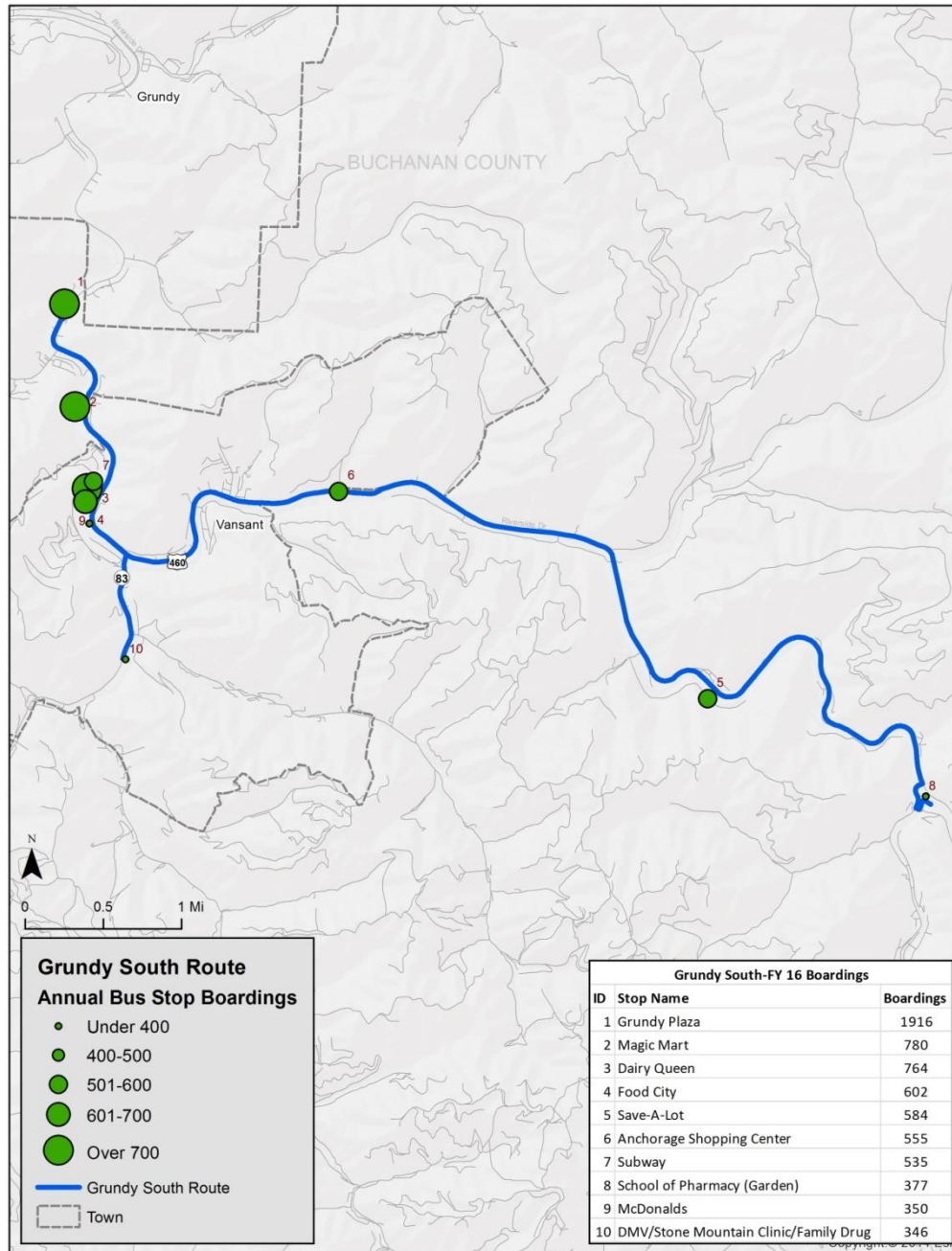
Figure 3-1: Grundy North Route



Grundy South

The Grundy South Route operates between 8:00 a.m. and 3:30 p.m. Grundy South begins at Grundy Plaza and travels on along VA Route 83 until the DMV/Stone Mountain. Family Drug Stop, then it travels along U.S. Route 460 reaching Appalachian College of Pharmacy. Major stops along the Grundy South include Grundy Plaza, Magic Mart, and Dairy Queen. Figure 3-2 provides an illustration of the Grundy South Route.

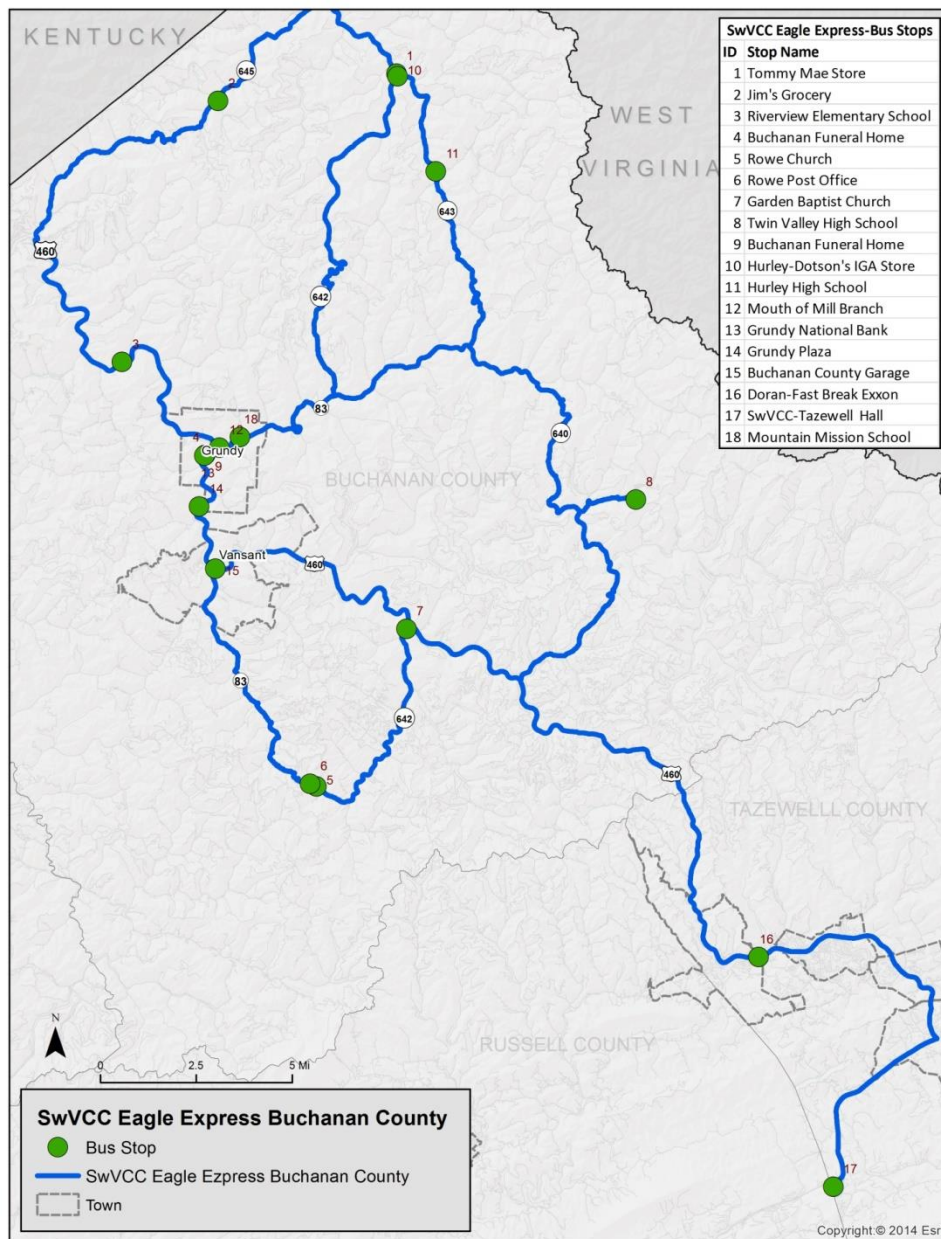
Figure 3-2: Grundy South Route



SwVCC Eagle Express Buchanan County

The SwVCC Eagle Express Buchanan County Route operates from 5:15 a.m. to 6:45 p.m. The fixed route begins and ends at Hurley-Dotson's IGA Store with a chance for riders to transfer at Buchanan Funeral Home. There are multiple stops that are available upon request which includes; Tommy Mae Store, Big Rock-Jim's Grocery, Mouth of Harman (Park-n-Ride), and Riverview Elementary School. Figure 3-3 illustrates the SwVCC Eagle Express Buchanan County Route.

Figure 3-3: SwVCC Eagle Express Buchanan County

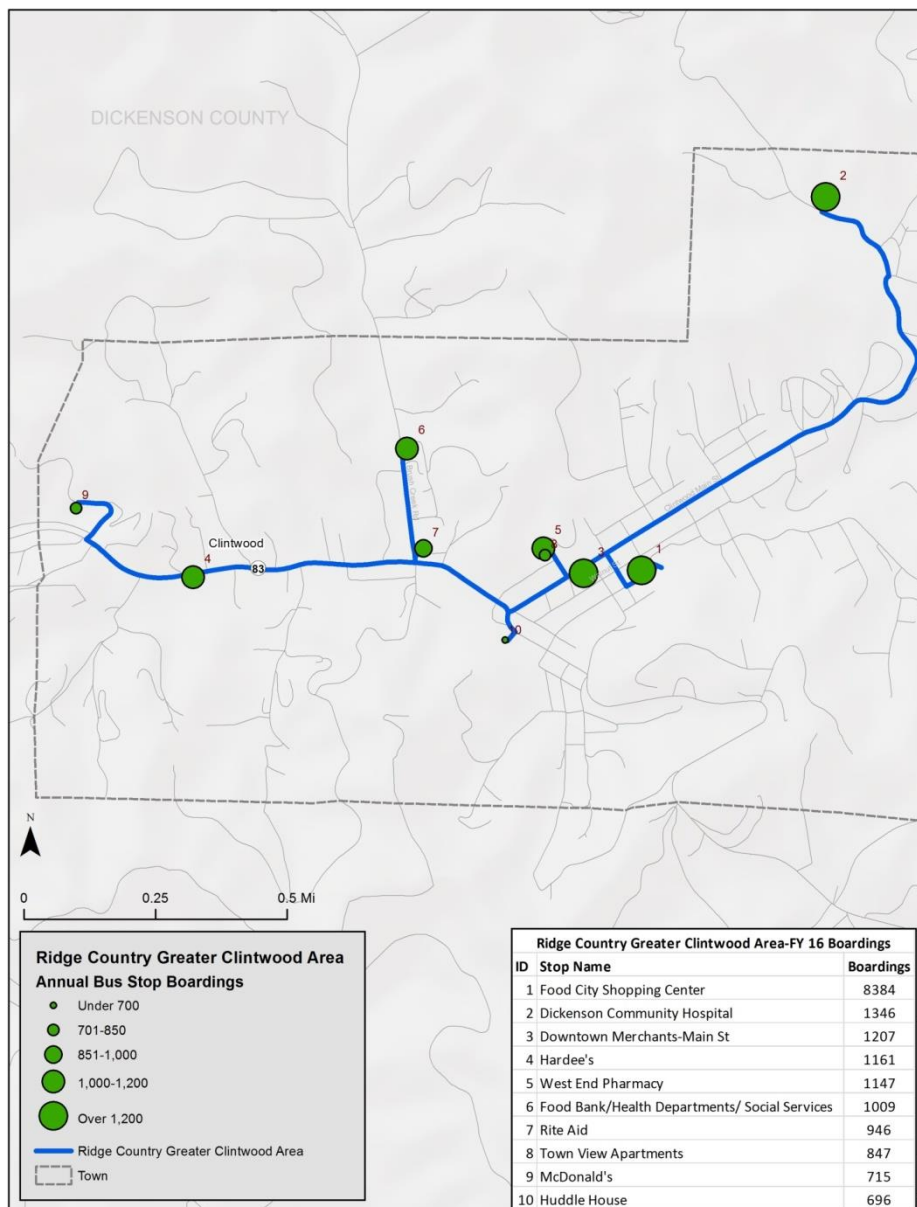


Dickenson County

Ridge Country Greater Clintwood Area

The Ridge Country Greater Clintwood Area Route provides service for the town of Clintwood from 8:35 a.m. until 4:05 p.m. Each run is approximately 30 mins starting at Food City Shopping Center and ending at Huddle House. The route runs primarily on VA Route 83. The stops with the most boardings are Food City Shopping Center, Dickenson Community Hospital, and Downtown Merchants-Main Street. Figure 3-4 is a visualization of the Ridge Country Greater Clintwood Area route.

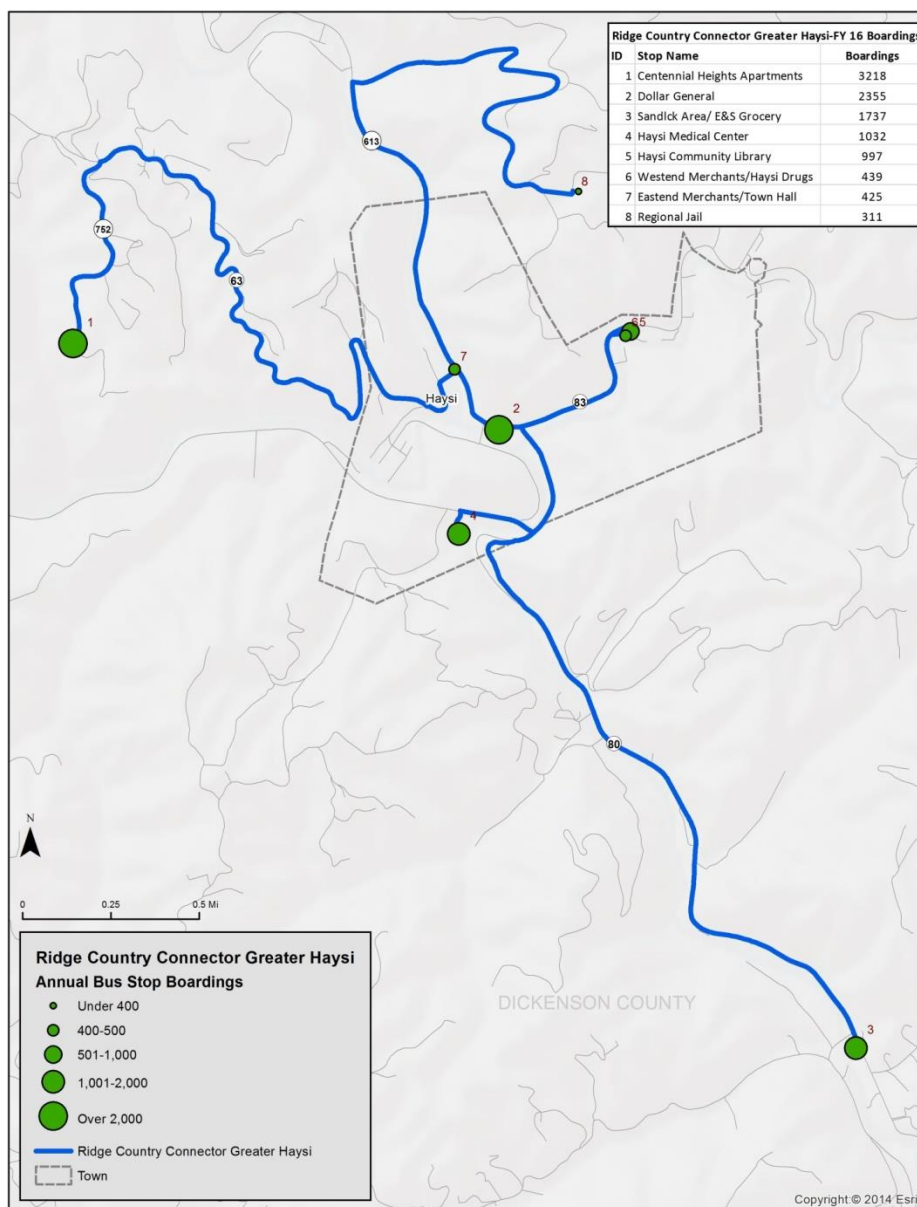
Figure 3-4: Ridge Country Greater Clintwood Area



Ridge Country Connector Greater Haysi

The Ridge Country Connector Greater Haysi operates from 8:00 a.m. to 3:50 p.m. The route begins at Centennial Heights Apartments. The first run ends at the Regional Jail while the second run ends at Eastend Merchants/Town Hall. This pattern alternates until the last run of the day which ends at Sandlick Area/E&S Grocery. The Haysi Medical Center serves as transfer point to Clinchco Connector Bus which goes to Clinchco and Clintwood. Bus Stops with the highest amount of boardings are Centennial Heights Apartments, Dollar General, and Sandlick Area/ E&S Grocery. Figure 3-5 is an illustration of the Ridge Country Greater Haysi route.

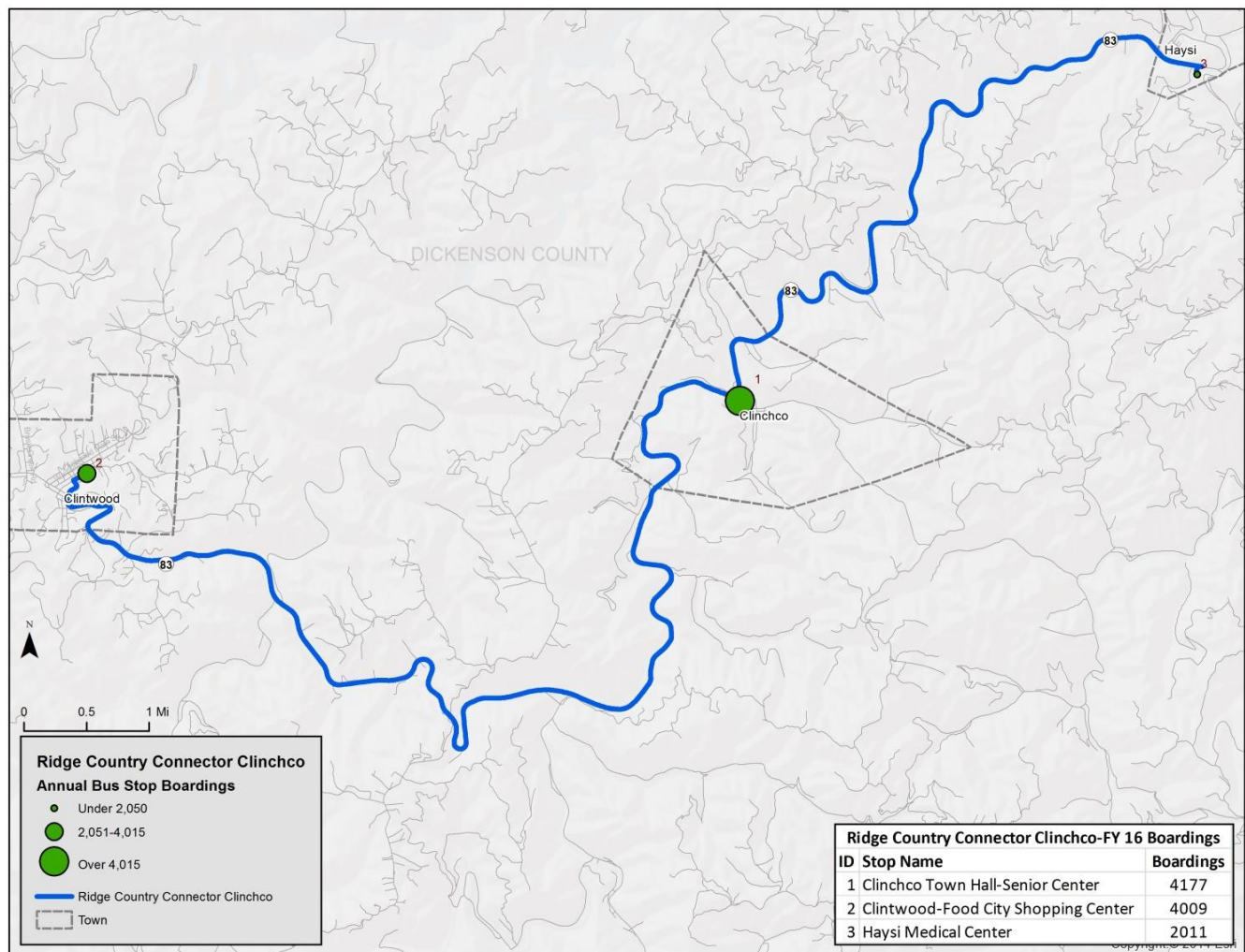
Figure 3-5: Ridge Country Connector Greater Haysi



Ridge Country Connector Clinchco

The Ridge Country Connector Clinchco Route travels along VA Route 83 starting in Clinchco and ends at Food City Shopping Center in Clintwood. The Ridge Country Connector Clinchco operates seven runs starting from 8:00 a.m. to 4:15 p.m. Starting with the first run and alternating after riders are able to transfer to the Ridge Country Greater Haysi and Ridge Country Greater Clintwood buses at Food City Shopping Center in Clintwood. The stop with the most boardings is Clinchco Town Hall-Senior Center. Figure 3-6 is a map of the Ridge Country Connector Clinchco.

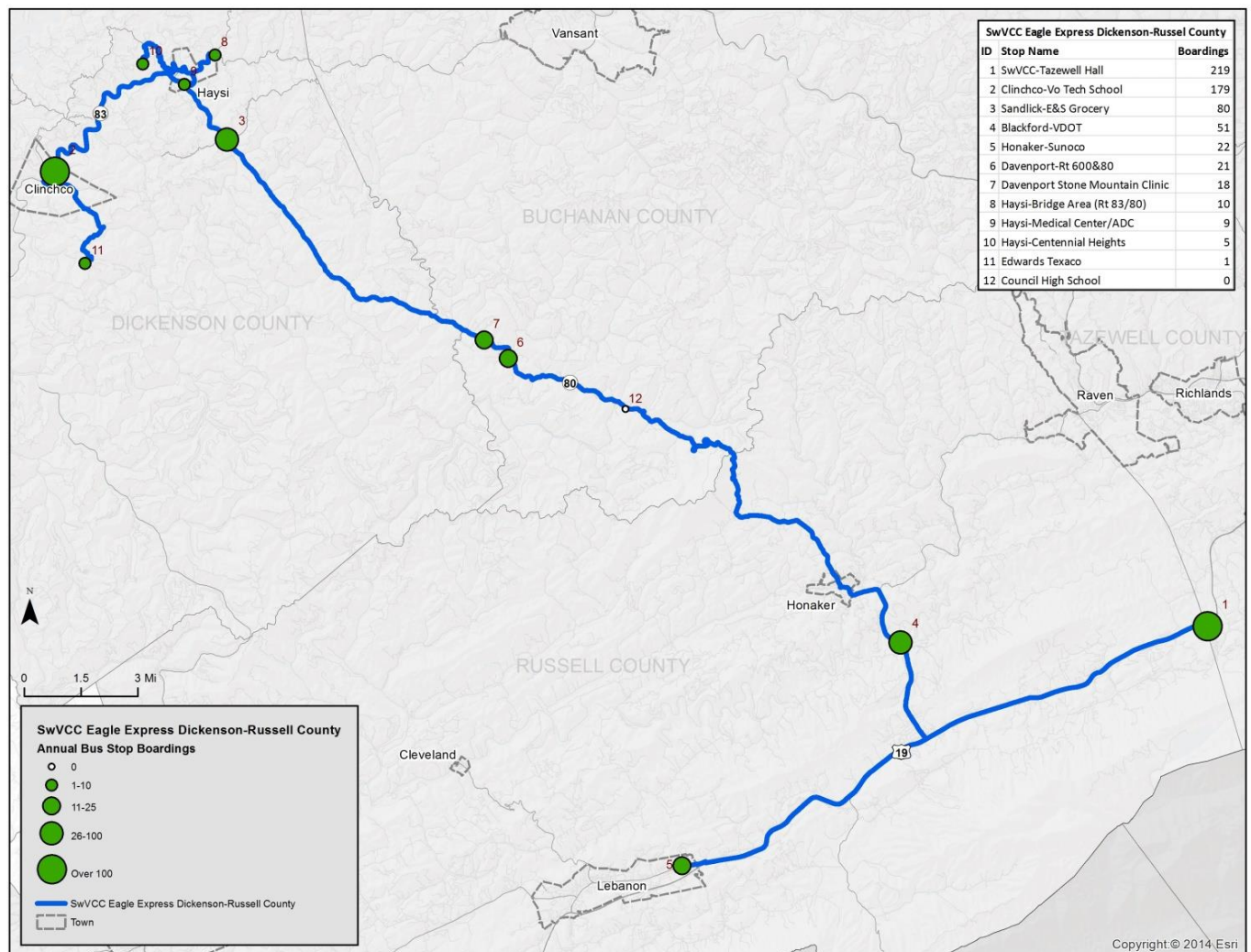
Figure 3-6: Ridge Country Connector Clinchco



SwVCC Eagle Express Dickenson-Russell County

The SwVCC Eagle Express Dickenson-Russell County is a college route operating Monday through Thursday, 6:00 a.m. to 6:15 p.m. The route begins at Clinchco Vocational Technical School in Clinchco and travels along VA Routes 83 and 80 and along U.S. 19, reaching Southwest Virginia Community College-Tazewell Hall. Stops with the highest boardings include Tazewell Hall, Clinchco Vocational Technical School, and Sandlick-E&S Grocery. Figure 3-7 is a map of the SwVCC Eagle Express Dickenson-Russell County Route.

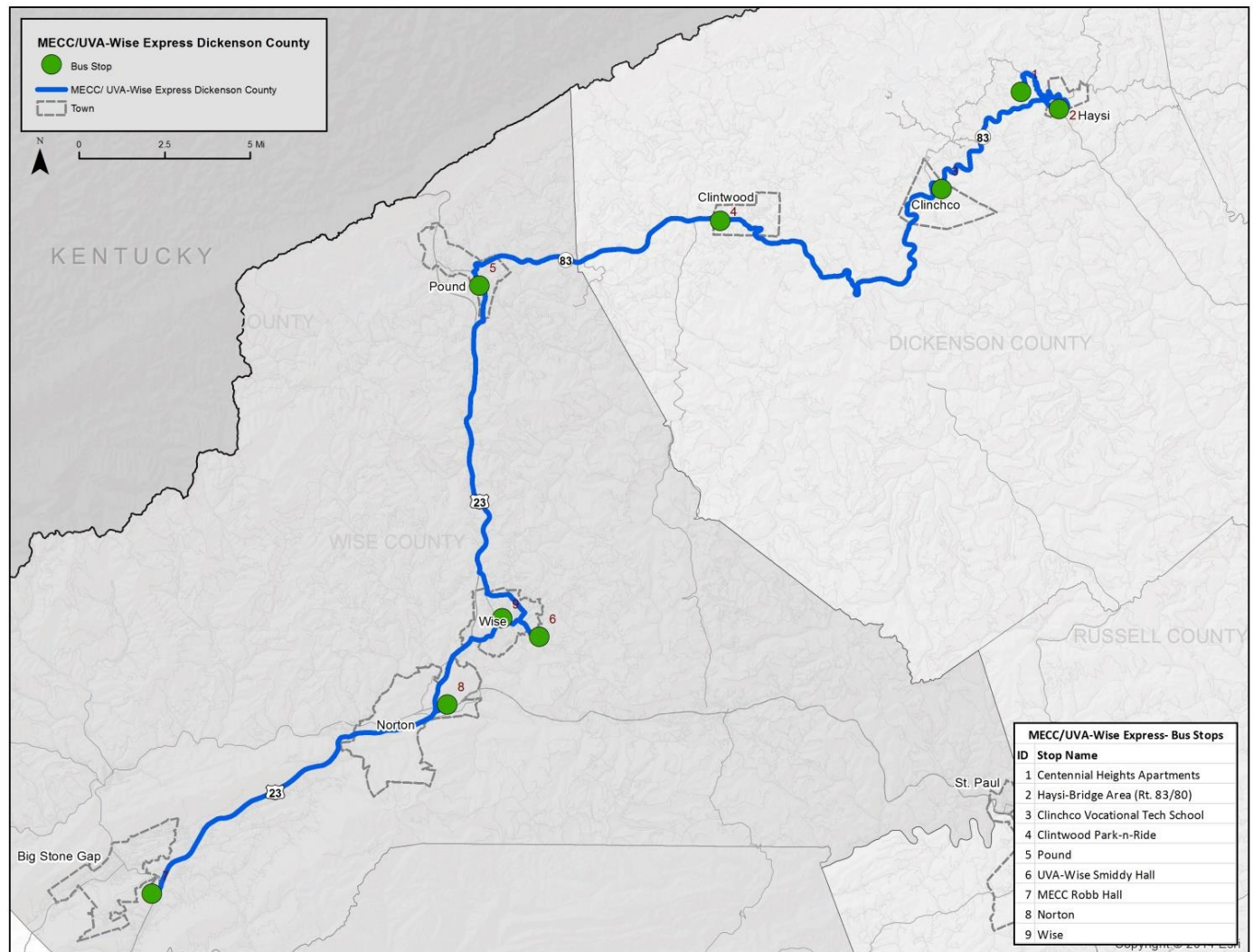
Figure 3-7: SwVCC Eagle Express Dickenson-Russell County



MECC/UVA-Wise Express Dickenson County

The MECC/UVA-Wise Express Route generally operates from 6:05 a.m. until 5:45 p.m. The morning route begins at Centennial Heights Apartments and ends at MECC Robb Hall. The morning route hours are from 6:05 a.m. to 7:50 p.m. Riders can request to be dropped off at additional stops during 8:00 a.m. to 9:30 p.m. The mid-day route begins at 1:00 p.m. at MECC Robb Hall and ends at MECC Robb Hall at 3:15 p.m. The after route begins again at 3:30 p.m. at MECC Robb Hall and ends at 4:45 p.m. Riders can also request additional stops during the afternoon which include; Clinchco Vocational Tech School, Haysi-Bridge Area (Rt.83/80), and Centennial Heights Apartments. Figure 3-8 represents the MECC/UVA-Wise Express Dickenson County Route.

Figure 3-8: MECC/UVA-Wise Express Dickenson County

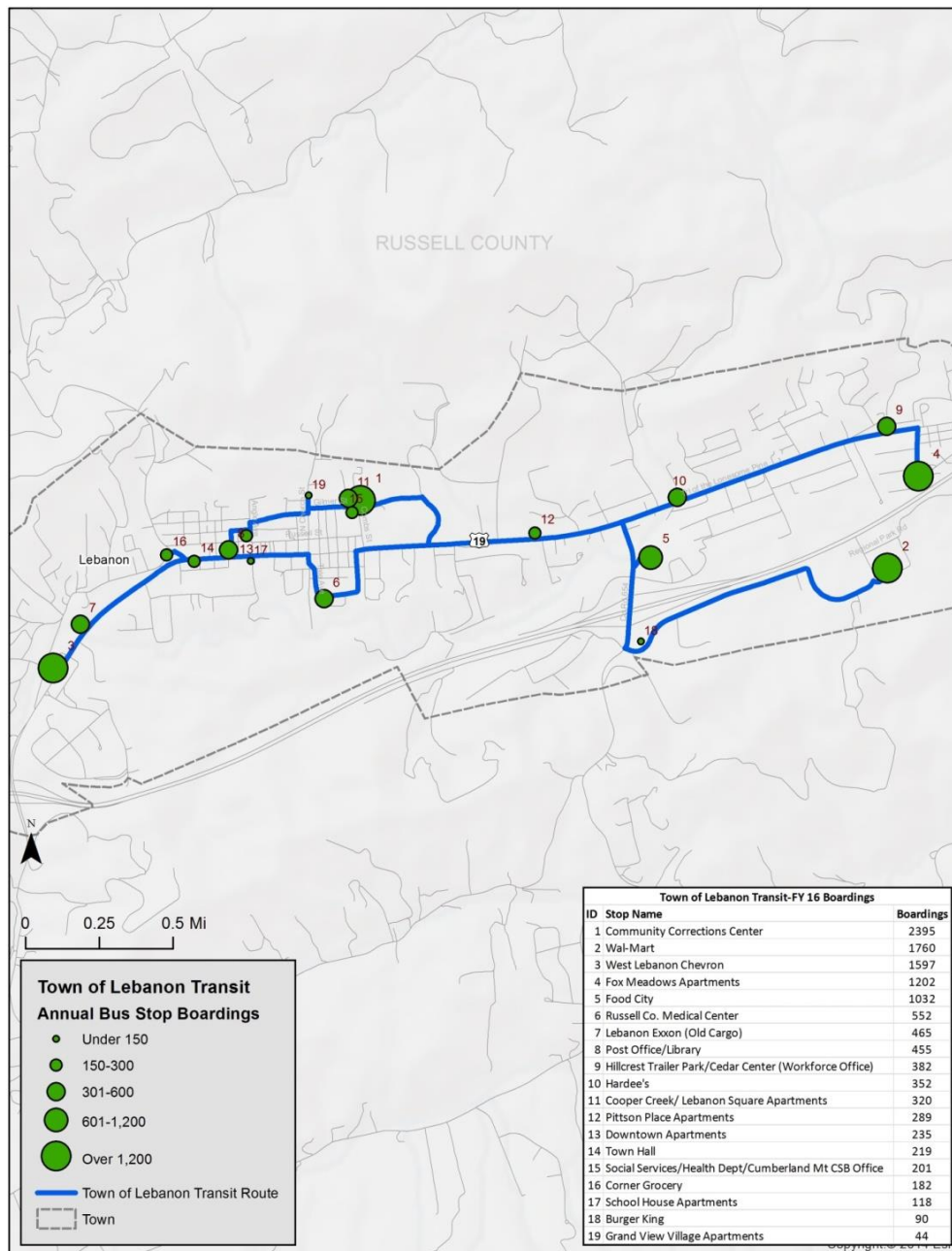


Russell County

Town of Lebanon Transit

The Town of Lebanon Route operates at 8:00 a.m. until 4:20 p.m. Each run takes approximately 50 mins to complete beginning at Fox Meadows Apartments and ending at Wal-Mart. Many residential developments are served on this route. Community Corrections Center, Wal-Mart, and West Lebanon Chevron have the highest boardings on the route. Figure 3-9 is a representation of the Town of Lebanon Transit Route.

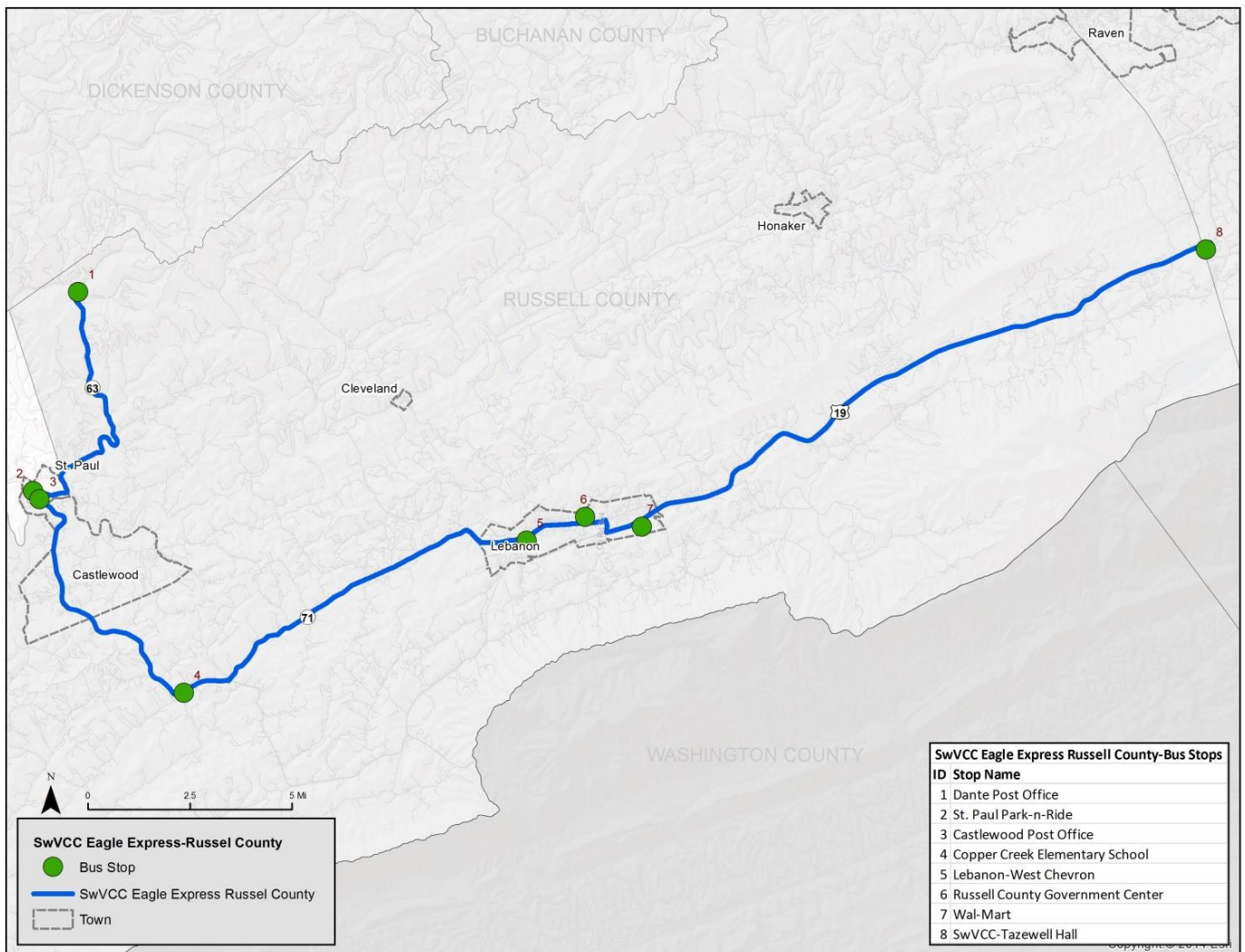
Figure 3-9: Town of Lebanon Transit



SwVCC Eagle Express-Russell County

The SwVCC Eagle Express-Russell County Route has a morning and evening run. The morning run is from 6:10 a.m. to 7:50 p.m. It starts at Dante Post Office and ends at SwVCC-Tazewell Hall. The evening route is from 4:30 p.m. to 6:10 p.m., starting at SwVCC-Tazewell Hall ending at Dante Post Office. The SwVCC Eagle Express-Russell County Route only operates Monday thru Thursday. Figure 3-10 provides an illustration of the route.

Figure 3-10: SwVCC Eagle Express-Russell County

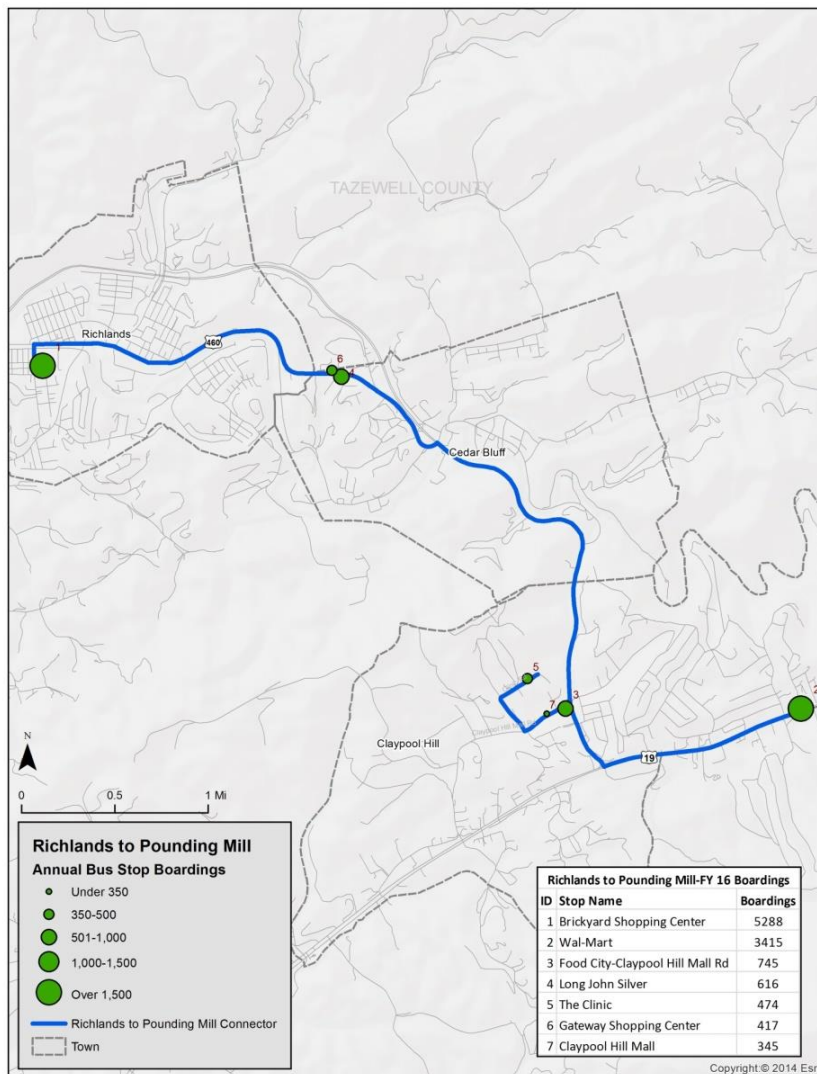


Tazewell County

Richlands to Pounding Mill Connector

The Richlands to Pounding Mill Connector Route serves seven stops between the towns of Richlands and Pounding Mill traveling along U.S Routes 460 and 19. The route operates nine runs all of which begin at Brickyard Shopping Center. The first run of the day starts at 8:18 a.m. with the last run being completed at 4:53 p.m. The first four runs begin at Brickyard and ends at Gateway Shopping Center. The fifth run ends at Wal-Mart in Pounding Mill. The seventh and eighth run begins at Brickyard Shopping Center and ends at Gateway Shopping Center while the last run of the day ends at The Clinic. The stops with the most boardings include Brickyard Shopping Center, Wal-Mart, and Food City. Figure 3-11 is a representation of the Richlands to Pounding Mill Connector Route.

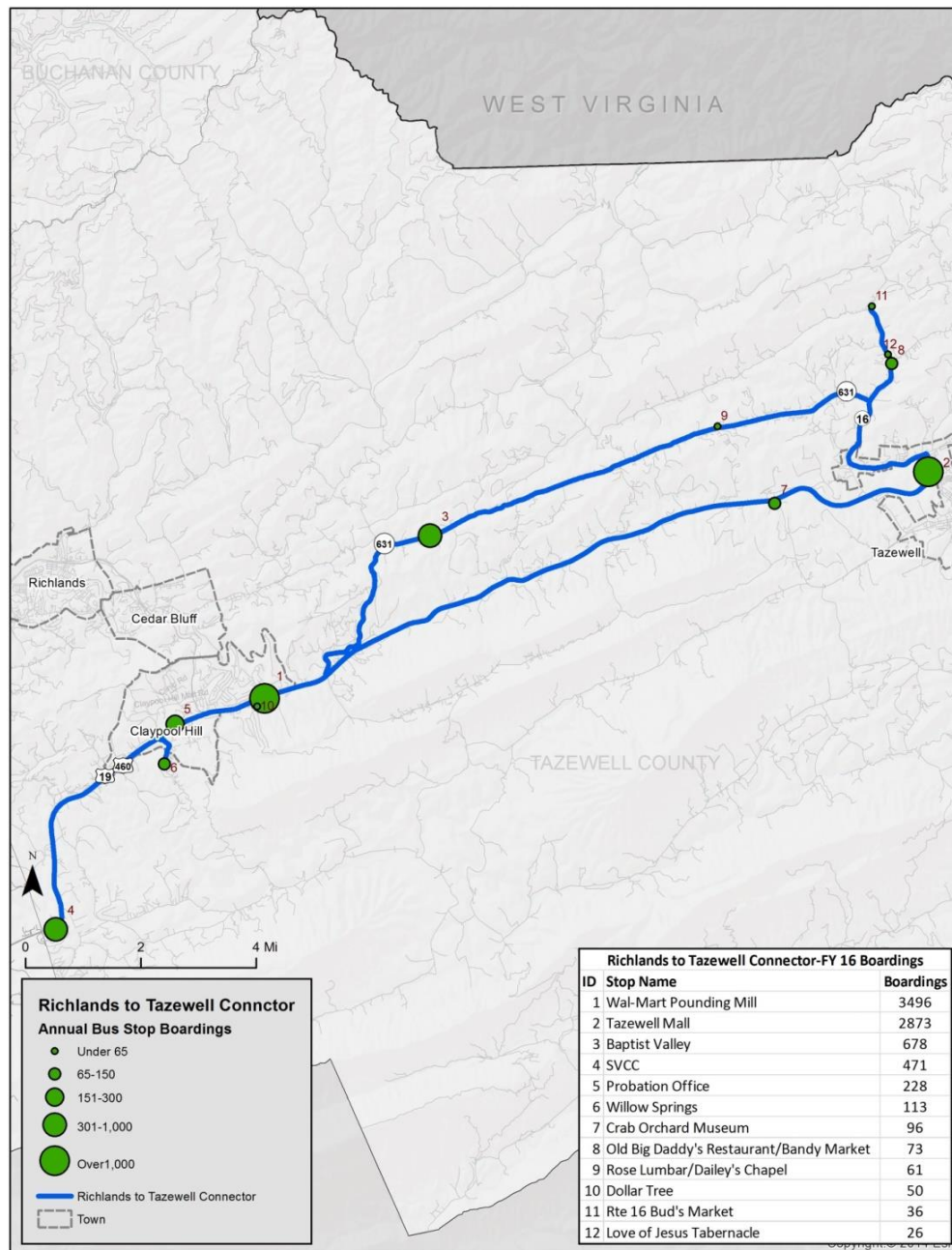
Figure 3-11: Richlands to Pounding Mill Connector



Four Seasons Richlands to Tazewell Connector

The Four Seasons Richlands to Tazewell Connector Route runs service from 8:35 a.m. until 4:00 p.m. The route begins at Wal-Mart in Pounding Mill and ends at Dollar Tree. Riders are able to transfer to Richlands and Tazewell via the Wal-Mart stop (Richlands) and Tazewell Mall Entrance Area (Tazewell). Stops with the most boardings include Wal-Mart, Tazewell Mall, and Baptist Valley. Figure 3-12 depicts the Four Seasons Richlands to Tazewell Connector Route.

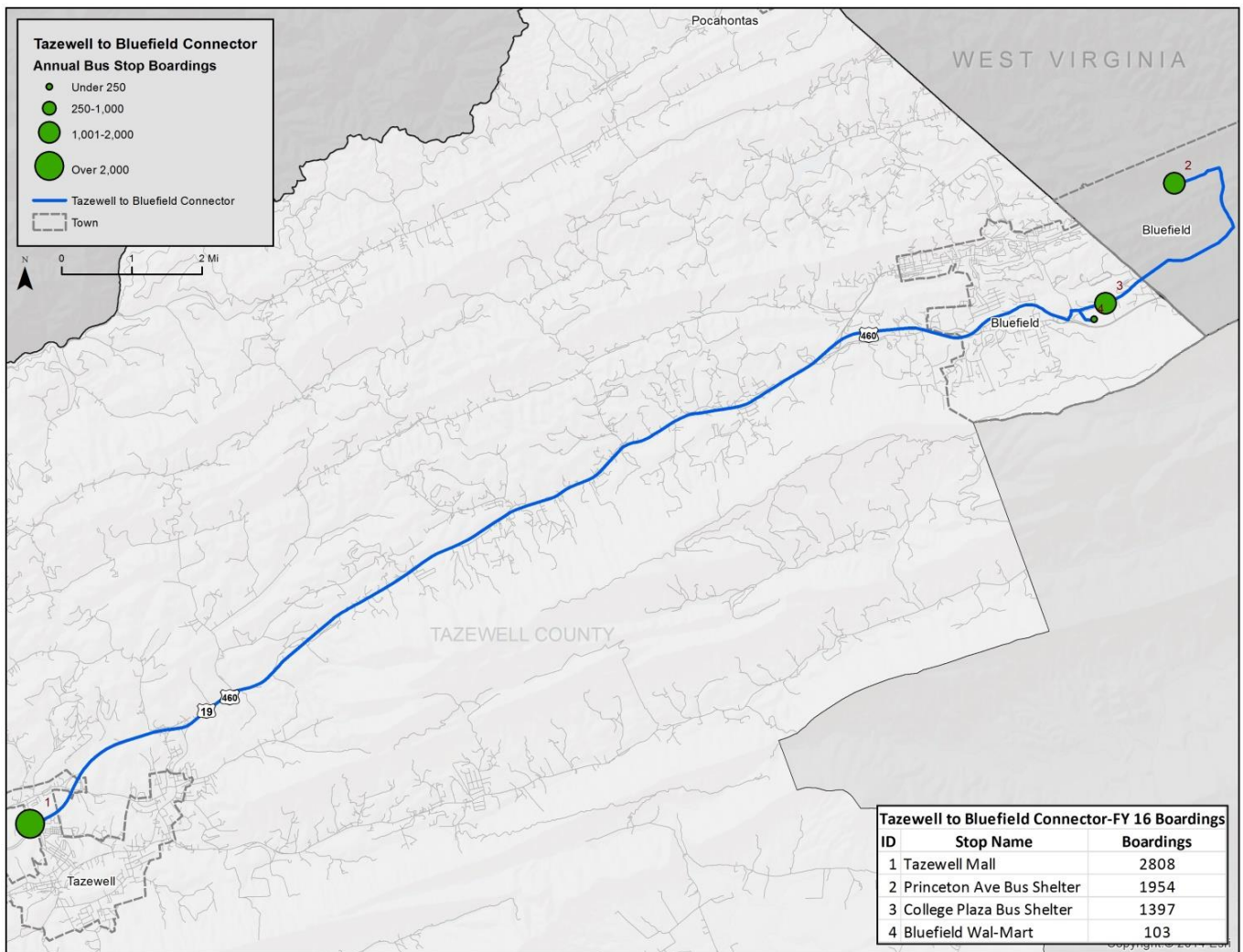
Figure 3-12: Four Seasons Richlands to Tazewell Connector



Four Seasons Tazewell to Bluefield Connector

The Four Seasons Tazewell to Bluefield Connector operates from 9:20 to 4:00 p.m. This route provides riders with access to Bluefield, West Virginia via U.S 460. There are four runs total that last 40 minutes, beginning at Tazewell Mall and ending at Bluefield, WV-Princeton Ave. Shelter. Tazewell Mall has the highest amount of boardings followed by Princeton Ave Bus Shelter in West Virginia and College Plaza Bus Shelter in Bluefield, Virginia. Figure 3-13 is a map of the Four Seasons Tazewell to Bluefield Connector route.

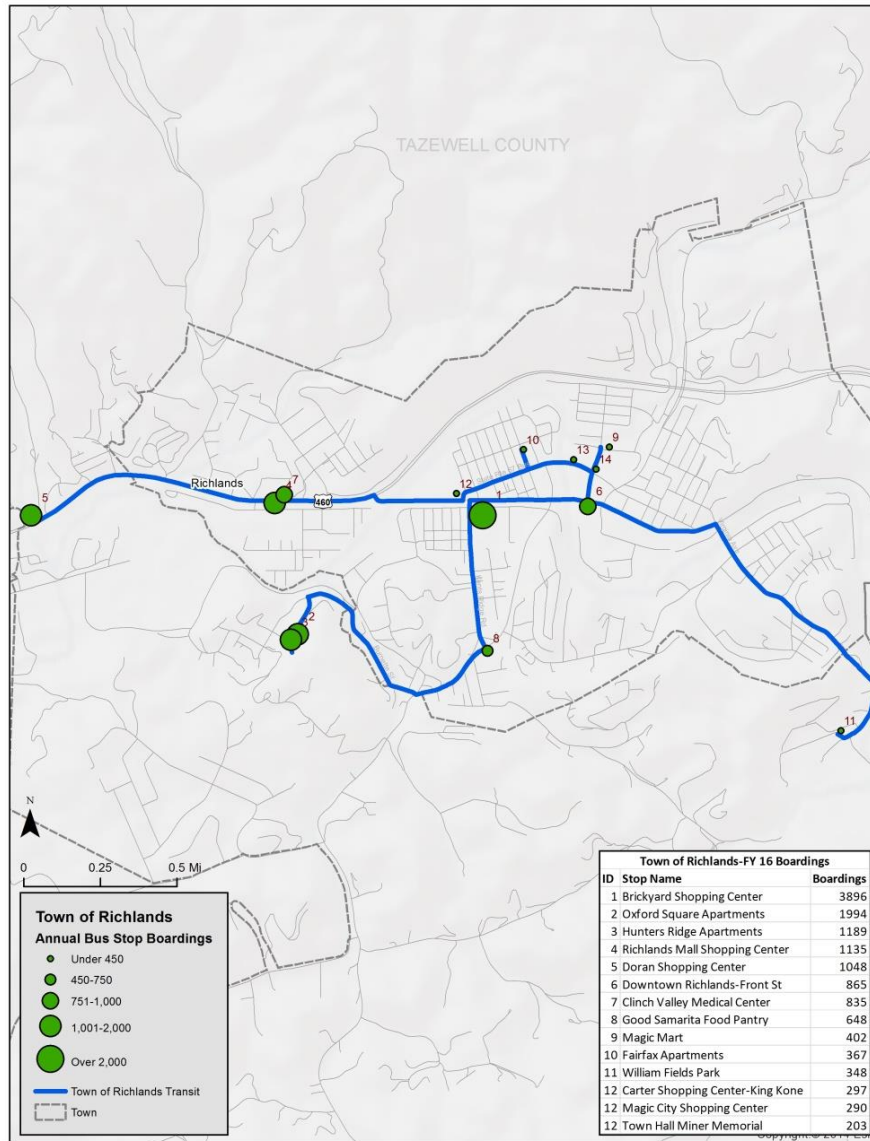
Figure 3-13: Four Seasons Tazewell to Bluefield Connector



Town of Richlands Transit

The Town of Richlands Transit Route operates primarily in the town of Richlands between 8:10 a.m. and 5:00 p.m. The route serves 12 stops beginning at Hunters Ridge Apartments ending at Richlands Mall. There are a total of nine runs each lasting 50 minutes. The fourth run of the day stops service at Brickyard Shopping Center with a 42 minute break before it proceeds straight to Richlands Mall omitting the stops in between. The remaining runs follow the original pattern. Riders can transfer to the Tazewell from the Brickyard Shopping Center stop. The bus stops with the most boardings are Brickyard Shopping Center, Oxford Square Apartments, and Hunters Ridge Apartments. Figure 3-14 is an illustration of the Town of Richlands Transit Route.

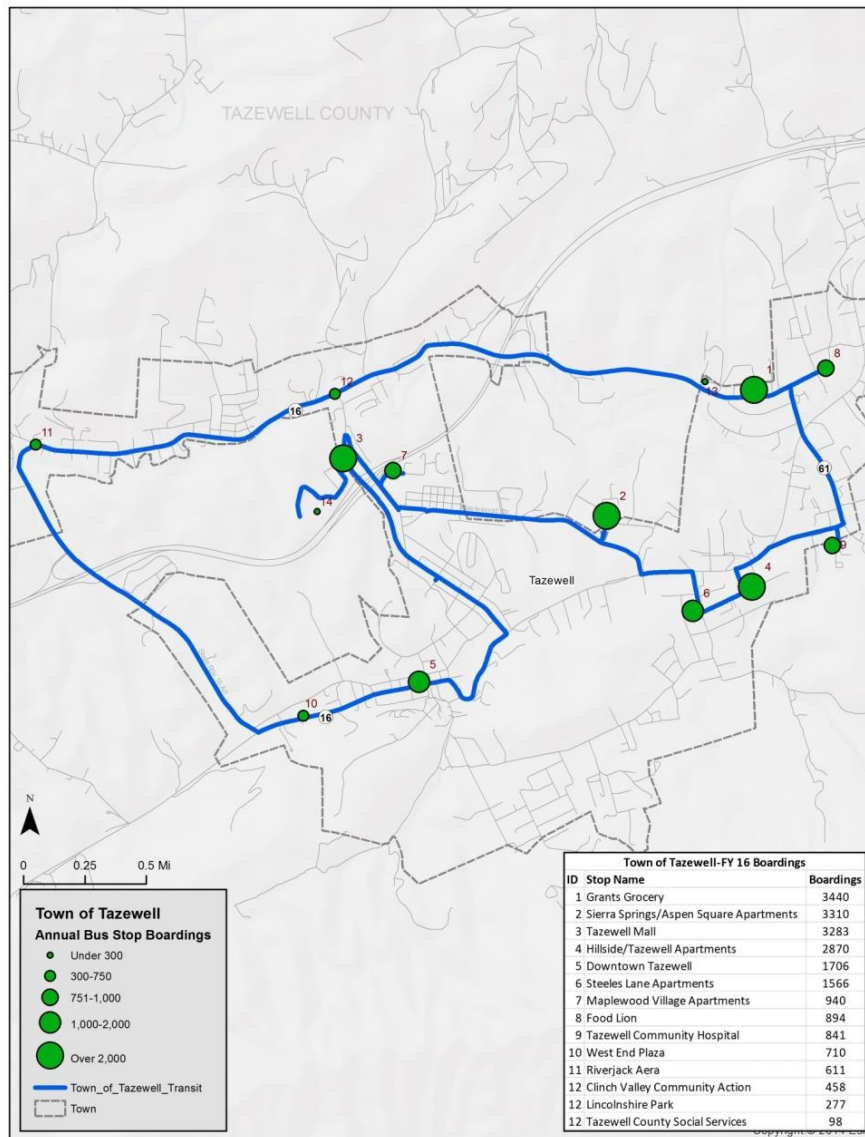
Figure 3-14: Town of Richlands Transit



Town of Tazewell Transit

The Town of Tazewell Transit Route operates between the hours of 8:00 a.m. and 4:55 p.m. The route starts at Hill Side Apartments and ends at Tazewell Community Hospital. Each run is 55 minutes. The fifth run of the day stops at Sierra Springs/ Aspen Square Apartments then proceeds to Tazewell Mall skipping Maplewood Village Apartments and Tazewell County Social Services. After Tazewell Mall the route proceeds to Grant's Store skipping the stops in between and continues to Tazewell Community Hospital. The sixth run continues stopping at each stop. The bus stops with the most boardings include Grants Grocery, Sierra Springs/Aspen Square Apartments, and Tazewell Mall. Figure 3-15 shows the Town of Tazewell Transit Route.

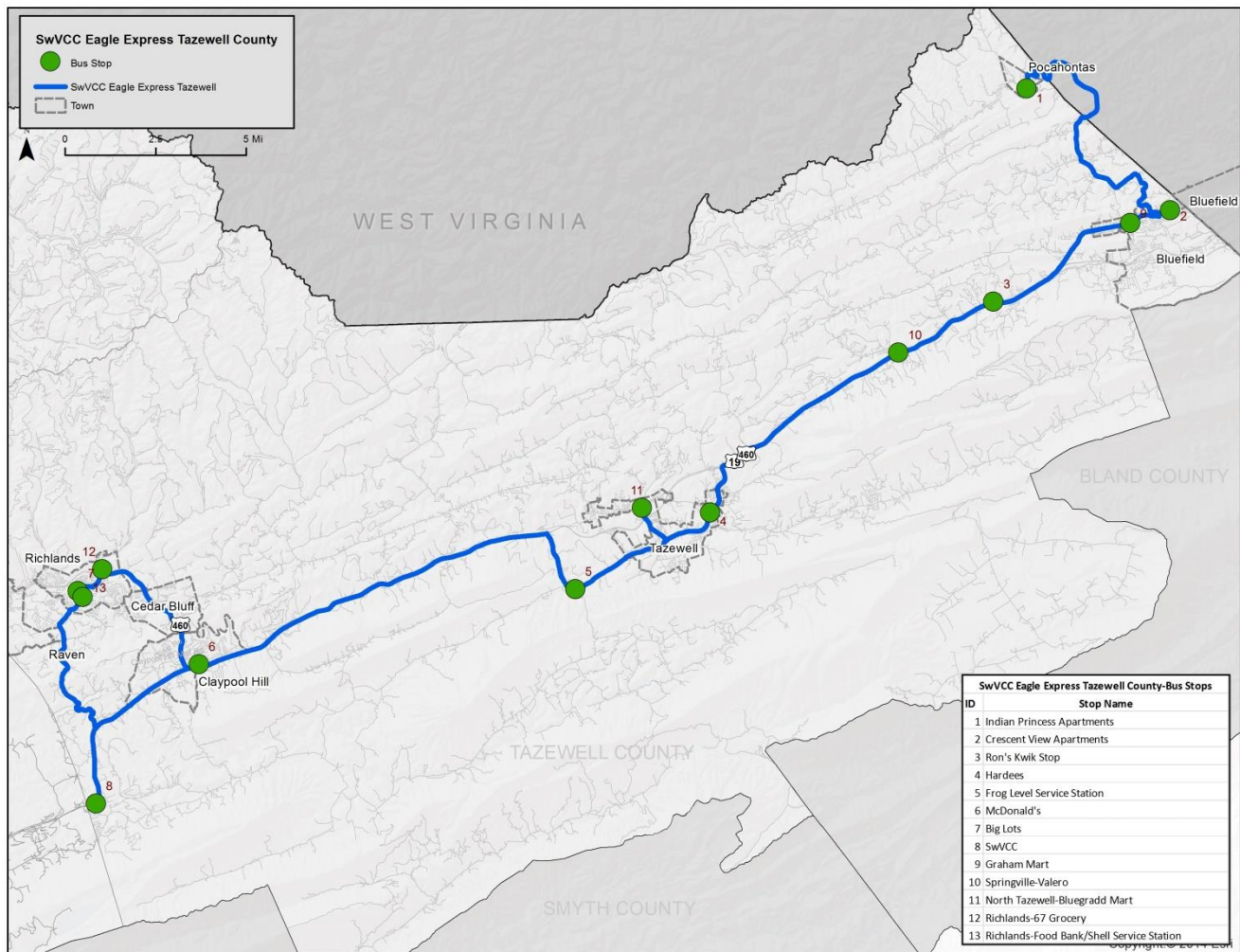
Figure 3-15: Town of Tazewell Transit



SwVCC Eagle Express Tazewell

The SwVCC Eagle Express Tazewell Route operates in the mornings from 5:30 a.m. to 7:45 a.m. and in the evenings from 4:30 p.m. to 6:45 p.m. The route begins at Pocahontas-Indian Princess Apartments and ends at SwVCC-Tazewell Hall. The Tazewell-Frog Level Park-and-ride stop is available by request only. Figure 3-16 is a representation of the SwVCC Eagle Express Tazewell Route.

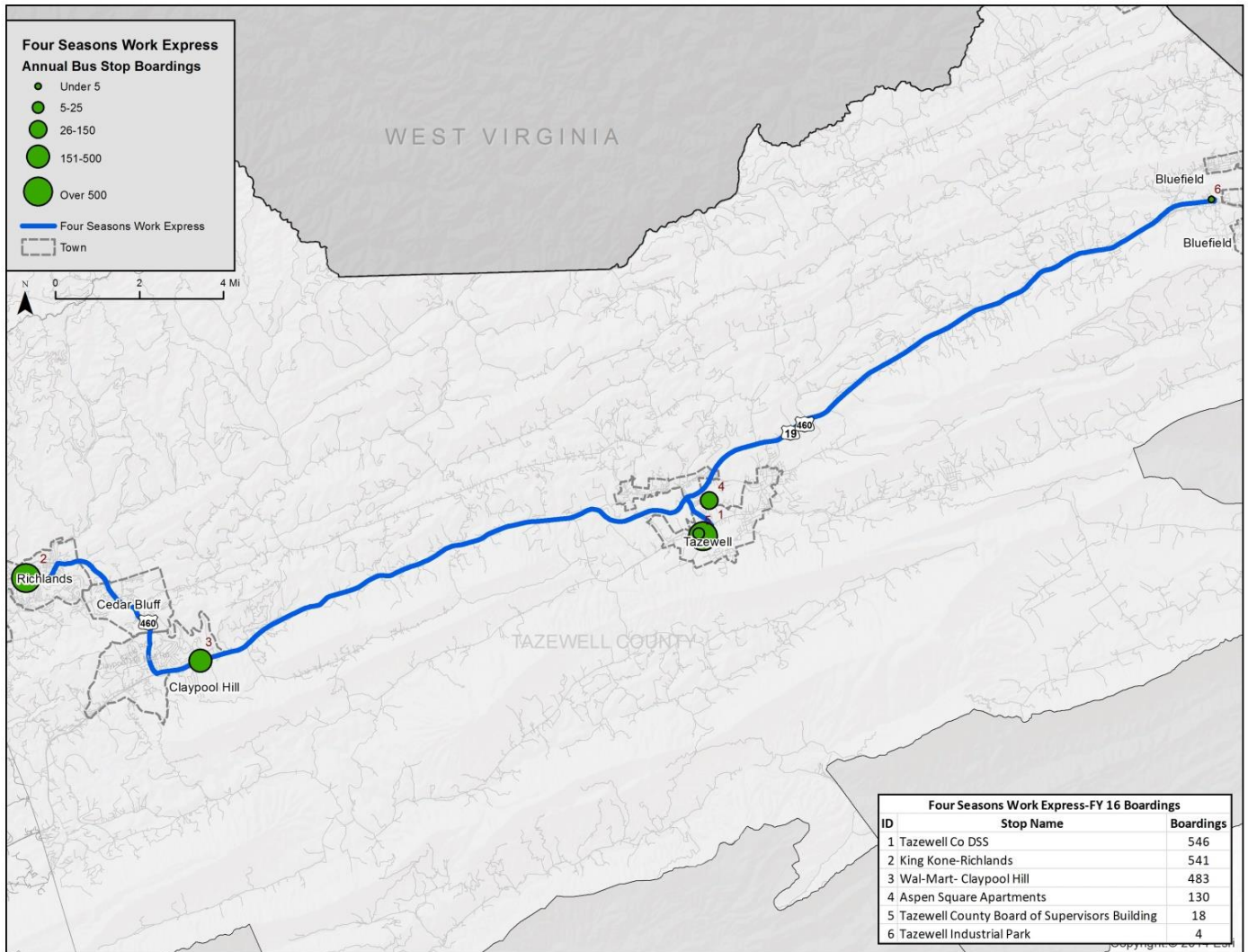
Figure 3-16: SwVCC Eagle Express Tazewell



Four Seasons Work Express

The Four Seasons Work Express Route operates in the mornings at 6:55 a.m. to 7:35 p.m. and in the evenings 4:10 a.m. to 5:30 p.m. The route travels majorly on U.S. 460. The bus stops with the most boardings include Tazewell County Department of Social Services, King Kone-Richlands, and Wal-Mart in Claypool Hill. Figure 3-17 depicts the Four Seasons Work Express.

Figure 3-17: Four Seasons Work Express



FINANCIAL INFORMATION

Operating Budget

The FY2016 operating budget for Four County Transit was nearly \$1.6 million. Table 3-3 provides the individual line item expenses.

Table 3-3: Fiscal Year 2016 Operating Budget

Budget Item	Amount
Salaries and Wages	\$944,290
Fringe Benefits	\$193,682
Education and Training	\$3,528
Cleaning Supplies	\$124
Education and First Aid Supplies	\$0
Vehicle Supplies and Material	\$16,810
Motor Fuels and Lubricants	\$192,319
Tires and Tubes	\$31,196
Parts	\$26,193
Supplies and Materials (Other)	\$26,173
Tools and Machinery	\$5,798
Travel	\$612
Communication Services	\$4,615
Utilities	\$20,725
Contract Repairs and Maintenance	\$23,793
Advertising and Promotional Media	\$2,595
Other Obligations and Services	\$5,590
Rental of Other Equipment	\$1,640
Insurance and Bonding	\$54,215
Indirect costs	\$39,763
Professional Services	\$685
Other Fixed Charges	\$4,937
Total	\$1,599,283

Source: Four County Transit

Capital Budget

Table 3-4 provides Four County Transit's projected capital budgets for FY2018-FY2027. As detailed in these projected budgets it includes replacement of revenue vehicles, service vehicles, and office technology equipment over the ten year planning horizon. This replacement schedule is also taken into account when developing the capital portion of the Financial Plan that is detailed in Chapter 6 of this TDP.

Table 3-4: Fiscal Year 2018- FY2027 Capital Budgets

FY2018					
Capital Items	Quantity	Individual Cost	Total Cost	Federal Share (80%)	Local Share (20%)
ADP Hardware Replacement Desktop and Laptop Computers and Printers	7	\$2,774	\$19,418	\$15,534	\$3,884
BOC Replacement Vans	5	\$78,000	\$390,000	\$312,000	\$78,000
Replacement Van	1	\$79,000	\$79,000	\$63,200	\$15,800
Replacement Minivans with w/c Lift	2	\$43,000	\$86,000	\$68,800	\$17,200
Replacement Support Vehicle	1	\$38,000	\$38,000	\$30,400	\$7,600
Total Capital Outlays			\$612,418	\$489,934	\$122,484

FY2019					
Capital Items	Quantity	Individual Cost	Total Cost	Federal Share (80%)	Local Share (20%)
ADP Hardware Color WorkCenter Copier/Printer/Scanner	2	\$9,800	\$19,600	\$15,680	\$3,920
BOC Replacement Vans	7	\$78,000	\$546,000	\$436,800	\$109,200
Replacement Service Truck	1	\$50,000	\$50,000	\$40,000	\$10,000
Total Capital Outlays			\$615,600	\$492,480	\$123,120

FY2020					
Capital Items	Quantity	Individual Cost	Total Cost	Federal Share (80%)	Local Share (20%)
BOC Replacement Vans	11	\$78,000	\$858,000	\$686,400	\$171,600
Replacement Minivans with w/c Lift	1	\$43,000	\$43,000	\$34,400	\$8,600
Total Capital Outlays			\$901,000	\$720,800	\$180,200

FY2021

Capital Items	Quantity	Individual Cost	Total Cost	Federal Share (80%)	Local Share (20%)
BOC Replacement Vans	10	\$78,000	\$780,000	\$624,000	\$156,000
Total Capital Outlays			\$780,000	\$624,000	\$156,000

FY2022

Capital Items	Quantity	Individual Cost	Total Cost	Federal Share (80%)	Local Share (20%)
ADP Hardware Replacement Desktop and Laptop Computers and Printers	9	\$3,400	\$30,600	\$24,480	\$6,120
Replacement 27 Passenger BOC Van	1	\$98,000	\$98,000	\$78,400	\$19,600
BOC Replacement Vans	8	\$78,000	\$624,000	\$499,200	\$124,800
Replacement Minivans with w/c Lift	2	\$45,000	\$90,000	\$72,000	\$18,000
Total Capital Outlays			\$842,600	\$674,080	\$168,520

FY2023

Capital Items	Quantity	Individual Cost	Total Cost	Federal Share (80%)	Local Share (20%)
BOC Replacement Vans	8	\$79,000	\$632,000	\$505,600	\$126,400
Replacement Minivans with w/c Lift	1	\$46,000	\$46,000	\$36,800	\$9,200
Replacement Support Vehicle Service Truck	1	\$57,000	\$57,000	\$45,600	\$11,400
Total Capital Outlays			\$735,000	\$588,000	\$147,000

FY2024

Capital Items	Quantity	Individual Cost	Total Cost	Federal Share (80%)	Local Share (20%)
ADP Hardware Color WorkCenter Copier/Printer/Scanner	2	\$9,800	\$19,600	\$15,680	\$3,920
BOC Replacement Vans	7	\$78,000	\$546,000	\$436,800	\$109,200
Replacement Service Truck	1	\$50,000	\$50,000	\$40,000	\$10,000
Total Capital Outlays			\$615,600	\$492,480	\$123,120

FY2025

Capital Items	Quantity	Individual Cost	Total Cost	Federal Share (80%)	Local Share (20%)
BOC Replacement Vans	11	\$78,000	\$858,000	\$686,400	\$171,600
Replacement Minivans with w/c Lift	1	\$43,000	\$43,000	\$34,400	\$8,600
Total Capital Outlays			\$901,000	\$720,800	\$180,200

FY2026

Capital Items	Quantity	Individual Cost	Total Cost	Federal Share (80%)	Local Share (20%)
BOC Replacement Vans	10	\$78,000	\$780,000	\$624,000	\$156,000
Total Capital Outlays			\$780,000	\$624,000	\$156,000

FY2027

Capital Items	Quantity	Individual Cost	Total Cost	Federal Share (80%)	Local Share (20%)
ADP Hardware Replacement Desktop and Laptop Computers and Printers	9	\$3,400	\$30,600	\$24,480	\$6,120
Replacement 27 Passenger BOC Van	1	\$98,000	\$98,000	\$78,400	\$19,600
BOC Replacement Vans	8	\$78,000	\$624,000	\$499,200	\$124,800
Replacement Minivans with w/c Lift	2	\$45,000	\$90,000	\$72,000	\$18,000
Total Capital Outlays			\$842,600	\$674,080	\$168,520

PEER ANALYSIS

While it is most relevant for a transit agency to examine its own performance over time, it is valuable to know the operating statistics for transit programs that could be considered “peers,” either by virtue of location, service area characteristics or size, to see if local transit data is “in the ballpark” of typical peer operating data.

The following Virginia programs were used as peers based on their proximity to the Four County Transit system or similarity in operating data:

- MEOC Transit
- District 3 Public Transit
- Bay Transit

The complete peer data is presented in Table 3-5. As indicated in this table Four County Transit is exceeding the mean for passenger trips per hour and per mile, and is below the mean for cost per mile, cost per hour, and cost per trip.

Table 3-5: Selected Peer Comparison

Feature	Four County Transit	Mountain Empire Older Citizens	District 3 Transit	Bay Transit	Mean
Revenue Hours	39,725	53,634	46,231	53,967	48,389
Revenue Miles	848,282	892,155	552,717	1,622,092	978,811.50
Passenger Trips	164,746	68,301	169,600	142,949	136,399.00
Operating Costs	\$1,593,251	\$1,683,083	\$2,024,838	\$2,758,837	\$2,015,002
Passenger Trips per Hour	4.1	1.3	3.7	2.6	2.9
Passenger Trips per Mile	0.19	0.08	0.31	0.09	0.17
Operating Cost per Mile	\$1.88	\$1.89	\$3.66	\$1.70	\$2.28
Operating Cost per Trip	\$9.67	\$24.64	\$11.94	\$19.30	\$16.39
Operating Cost per Hour	\$40.11	\$31.38	\$43.80	\$51.12	\$41.60

Source: National Transit Database (NTD) via DRPT 2015 Data except for MEOC from 2014

RECENT COMPLIANCE RESULTS

DRPT conducted a compliance review for Four County Transit in November 2016. The review focused on the system's compliance in the following areas:

- Organizational Management
- Project Management / Grant Administration
- Financial Management
- Satisfactory Continuing Control
- Procurement
- Personnel Issues
- Operations and Service Requirements (including Maintenance)
- Service Provision
- Planning and Coordination (including Title VI)

Results of the compliance review identified several findings that Four County Transit is responding to through corrective actions.

FOUR COUNTY TRANSIT PASSENGER SURVEY

An important task for the TDP was to gather opinions from current customers concerning Four County Transit's services, as well as to develop a passenger profile. With input from Four County Transit staff, an onboard survey was prepared. The survey was administered on board vehicles by Four County Transit staff from September 6-12, 2016. A copy of the onboard survey is provided in Appendix A.

Trip Information

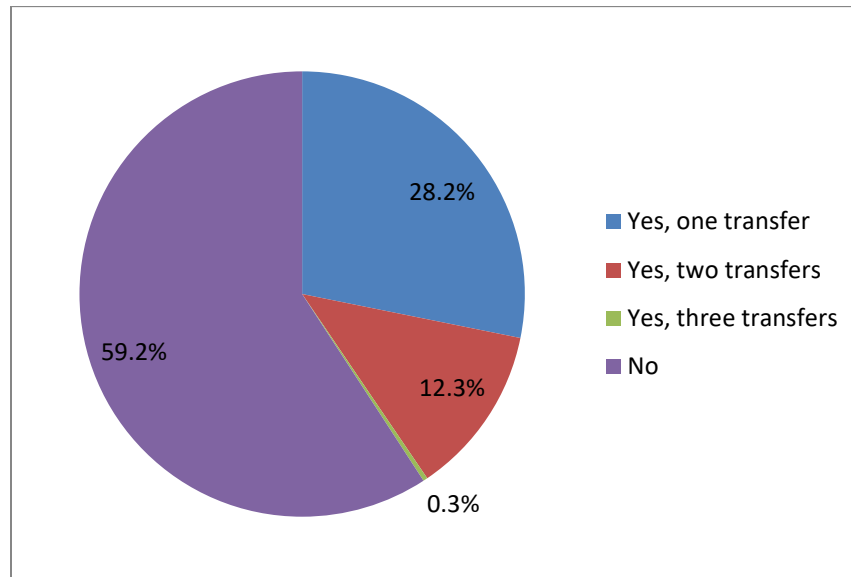
Survey respondents were asked several questions pertaining to their trip. The first question asked participants to indicate which Four County Transit route they boarded. A plurality of participants answered that they rode multiple routes; however, the most popular individual routes were the Ridge Country Greater Clintwood route, the Tazewell route, and the Lebanon route. Table 3-6 shows the routes that survey participants boarded.

Table 3-6: Routes Passengers Boarded

Route	Count	Percentage
Multiple Routes	49	15.4%
Ridge Country Greater Clintwood Area	31	9.7%
Tazewell Route	29	9.1%
Lebanon Route	25	7.9%
Grundy North	23	7.2%
Richlands to Pounding Mill Connector	22	6.9%
Ridge Country Connector Clinchco	19	6.0%
4 Seasons Richlands to Tazewell Connector	18	5.7%
Ridge Country Connector Greater Haysi	17	5.3%
Richlands Route	17	5.3%
4 Seasons Tazewell to Bluefield Connector	16	5.0%
SwVCC Eagle Express - Buchanan County	10	3.1%
Russell County SwVCC St. Paul	10	3.1%
SwVCC Tazewell	10	3.1%
SwVCC Eagle Express - Dickenson	8	2.5%
Grundy South	6	1.9%
MECC/UVA - Wise Express Dickenson County	4	1.3%
4 Seasons Work Express	4	1.3%
Total Valid Responses	318	100.0%

The survey asked participants if they had to make a transfer in order to complete this trip and, if so, how many times. The survey results indicated that 59.2% of respondents did not require a transfer in order to complete the trip; however, 28.2% required one transfer, 12.3% required two transfers, and 0.3% required three. Figure 3-18 illustrates the results of this question.

Figure 3-18: Number of Transfers Required to Complete Trip



The survey also asked participants about the duration of their bus trip. Over one-quarter of the trips (25.9%) took less than 30 minutes and nearly two thirds (63.4%) took less than an hour; a significant portion (17.7%) took over an hour and a half to complete. Full results can be viewed in Table 3-7.

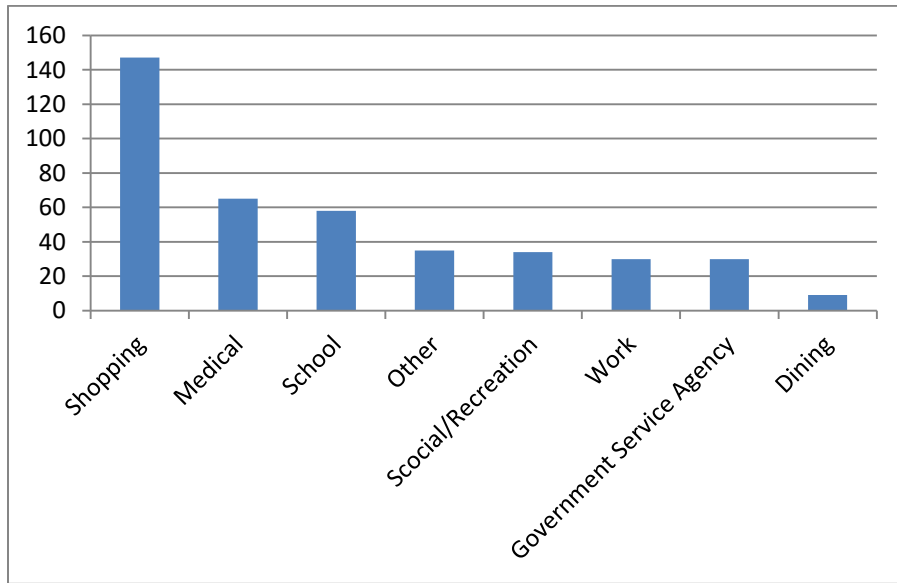
Table 3-7: Duration of Trip

Duration	Count	Percentage
30 minutes or less	82	25.9%
30-45 minutes	45	14.2%
About 45 minutes	23	7.3%
45-60 minutes	51	16.1%
About 60 minutes	29	9.1%
60-75 minutes	16	5.0%
About 75 minutes	8	2.5%
75-90 minutes	7	2.2%
90 minutes or more	56	17.7%
Total Valid Responses	317	100.0%

Trip Purpose

Survey respondents indicated that shopping was the primary reason for their trip (147 responses) followed by medical (65 responses) and school (58 responses). This portion of the survey was tabulated by counting total responses instead of overall percentage because riders were asked to mark more than one response if necessary. Figure 3-19 summarizes the trip purpose for Four County Transit riders.

Figure 3-19: Trip Purpose

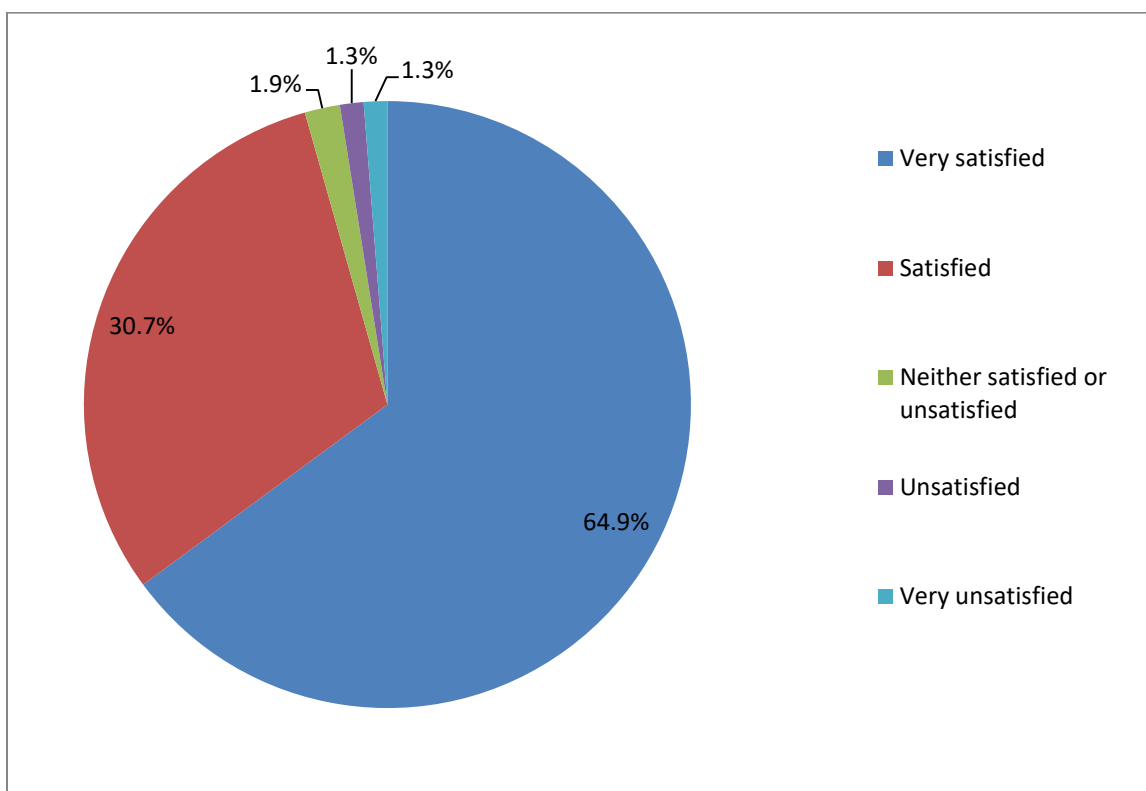


Rider Satisfaction

The survey presented several questions to determine rider satisfaction and elicit suggestions for improvement.

Riders were asked their overall level of satisfaction with Four County Transit services. Respondents claimed they were “Very Satisfied” (64.9%) followed by those who were “Satisfied” (30.7%). Only a combined 4.4% of respondents felt “Neither Satisfied or Unsatisfied”, “Unsatisfied”, or “Very Unsatisfied”. Figure 3-20 summarizes these findings.

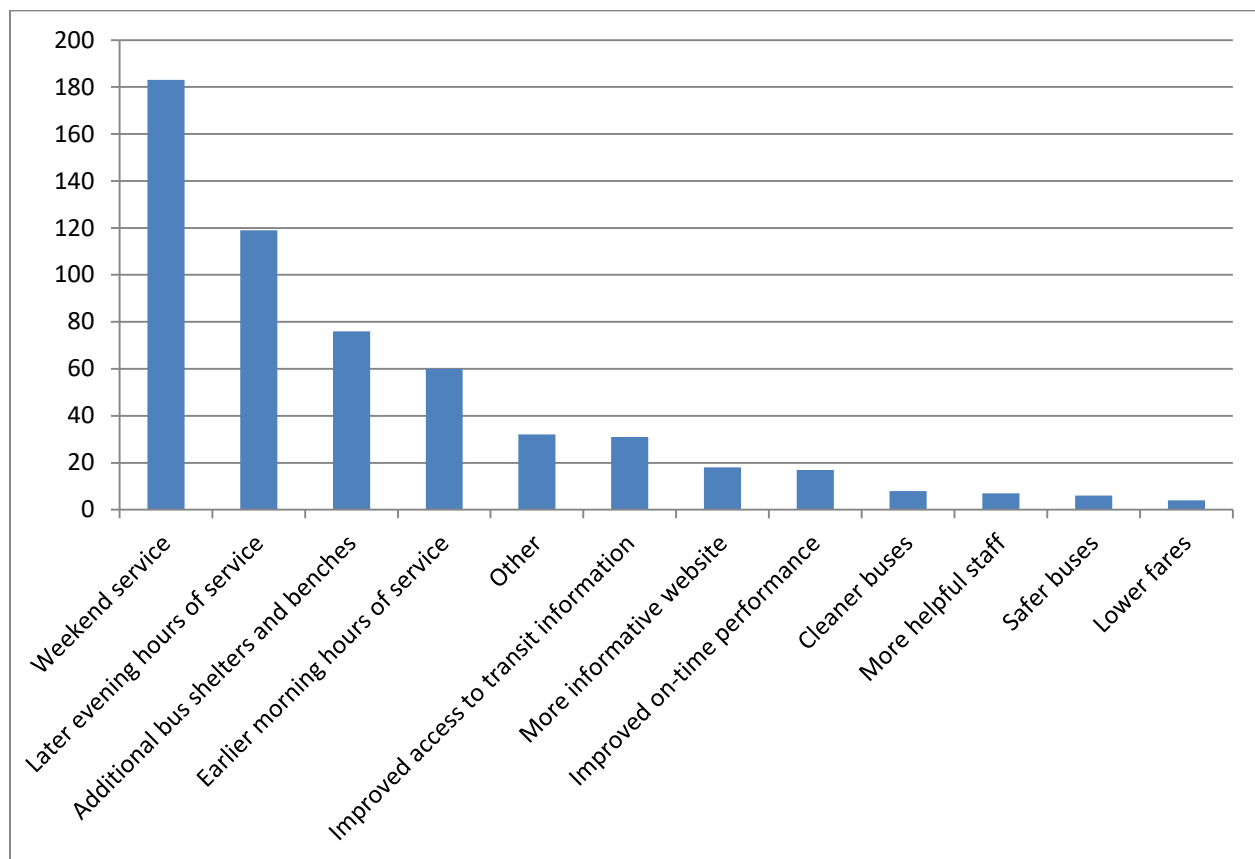
Figure 3-20: Overall Rider Satisfaction



Riders were asked what they liked best and least about the service. The favorite aspect of Four County Transit was the staff (113 responses) followed by its availability/”It gets me where I need to go” (62 responses) and its low cost (22 responses). The most common response when asked what riders liked least about the service was “nothing” (74 responses). “Nothing” was followed by the lack of weekend service (22 responses) and complaints about other riders’ behavior or hygiene (16 responses).

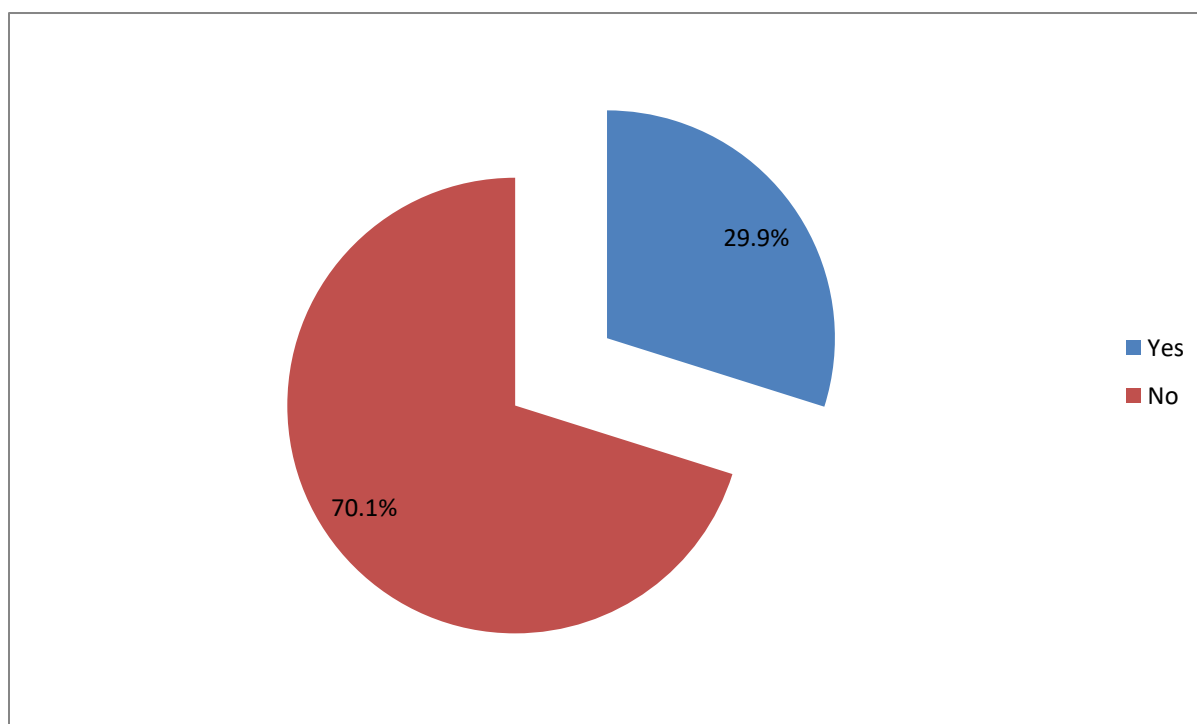
Participants were asked to indicate service improvements they would like to see. Adding weekend service was the most popular (183 responses), followed by later evening service (119 responses), and adding additional bus shelters and benches (76 responses). Figure 3-21 summarizes these responses.

Figure 3-21: Service Improvements



The survey asked riders if there were specific destinations they would like to see served by Four County Transit. A majority of respondents claimed they had no suggestions for additional destinations (70.1%) while the remaining 29.9% said they did. Common suggestions for additional destinations served by Four County Transit include Breaks Interstate Park, Norton, Belcher's Fork, and St. Paul.

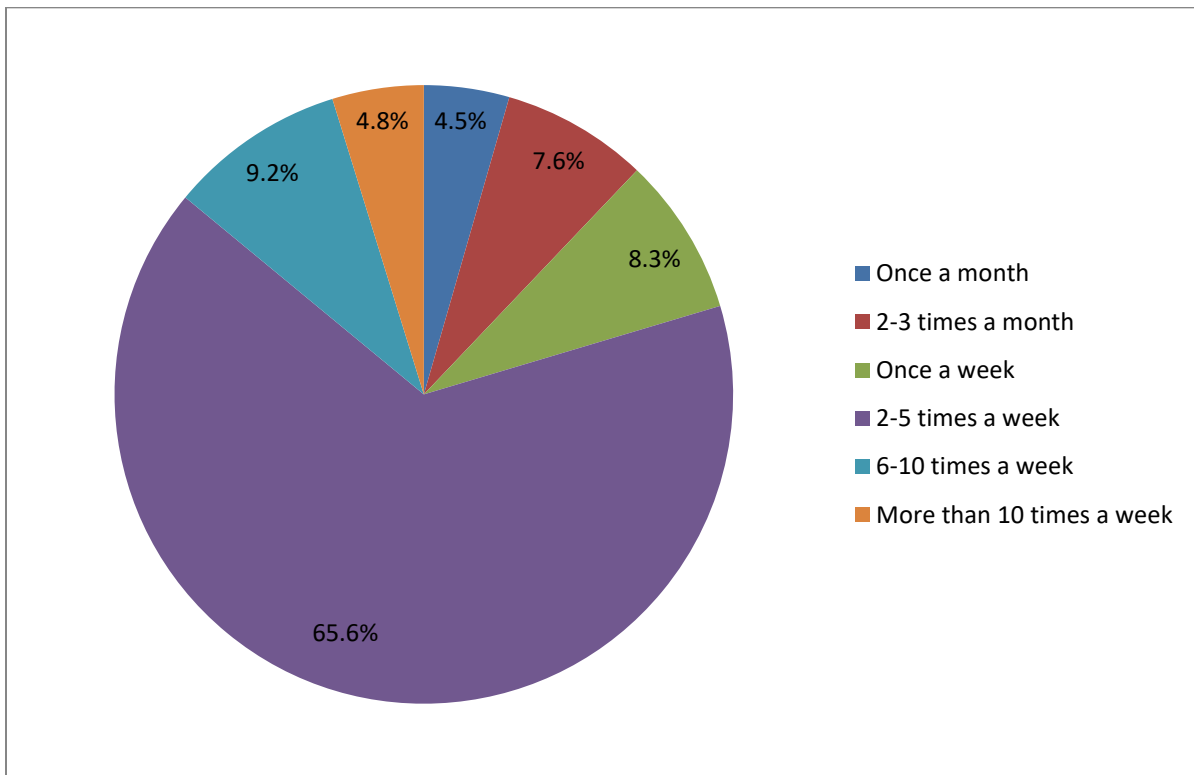
Figure 3-22: Are There Specific Destinations that You Would Like to See Served?



Rider Profile

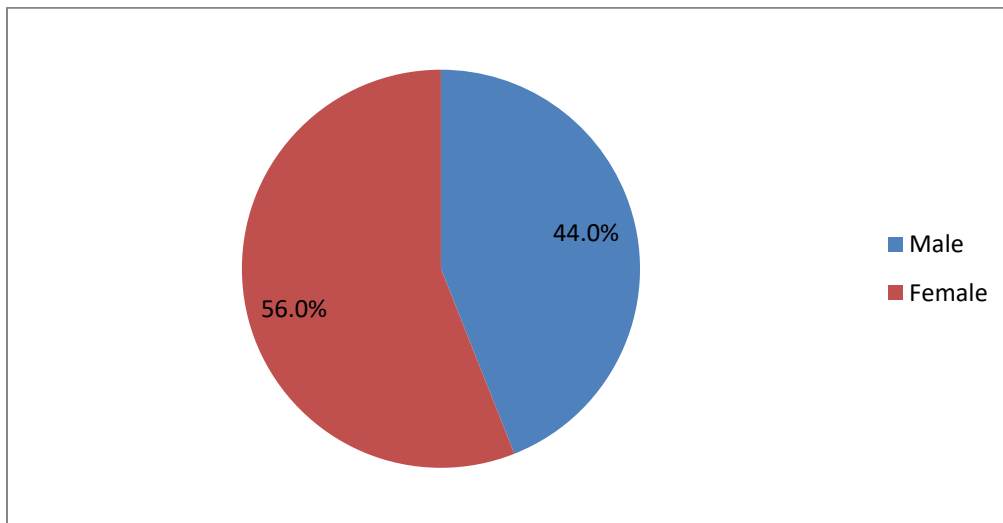
Several questions on the survey asked riders to provide information about themselves. These responses are summarized below to form the Four County Transit passenger profile. Figure 3-23 shows that a majority of riders often take the bus two to five times a week.

Figure 3-23: Passenger Ridership per Week



The gender distribution of Four County Transit riders is provided in Figure 3-24. There was almost an equal amount of male and female survey participants.

Figure 3-24: Gender



The survey asked riders if they had a car and, if they did, whether or not it was available to them to use for their trip. Figure 3-25 reveals that the vast majority of Four County Transit riders (88.1%) do not own a car. Figure 3-26 shows that of those who do own a car, approximately two thirds of respondents did not have the car at their disposal during their trip.

Figure 3-25: Car Ownership

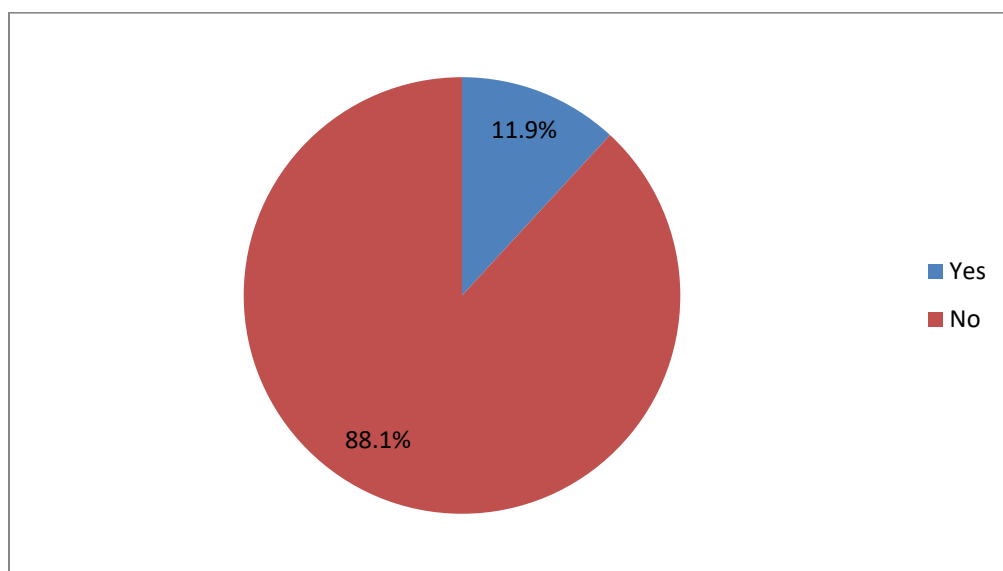
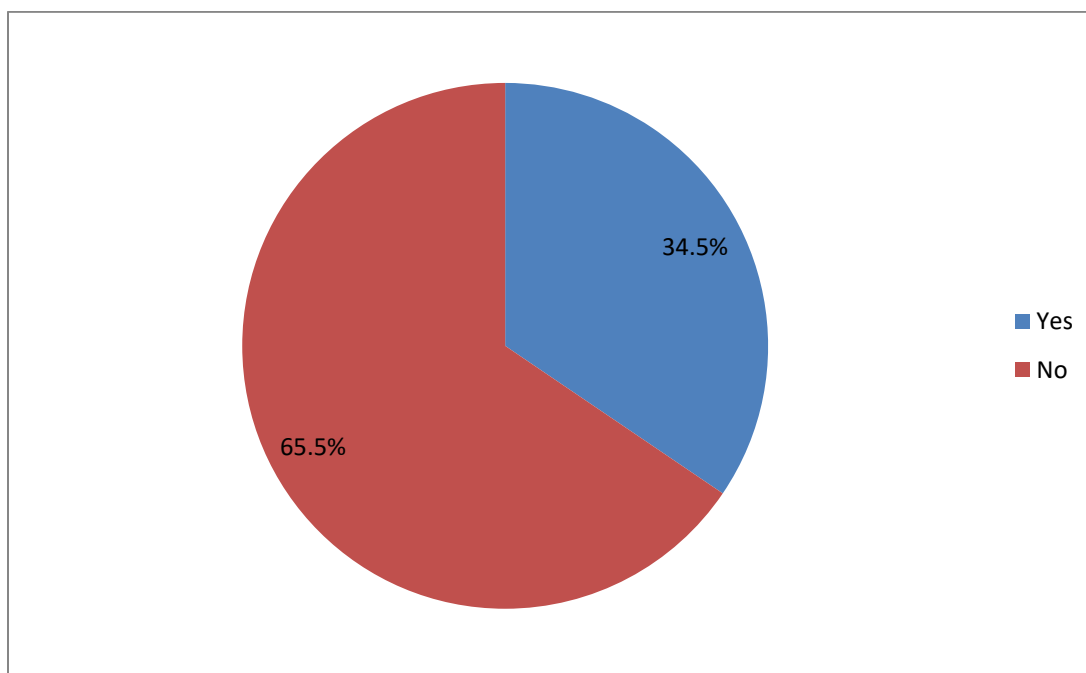
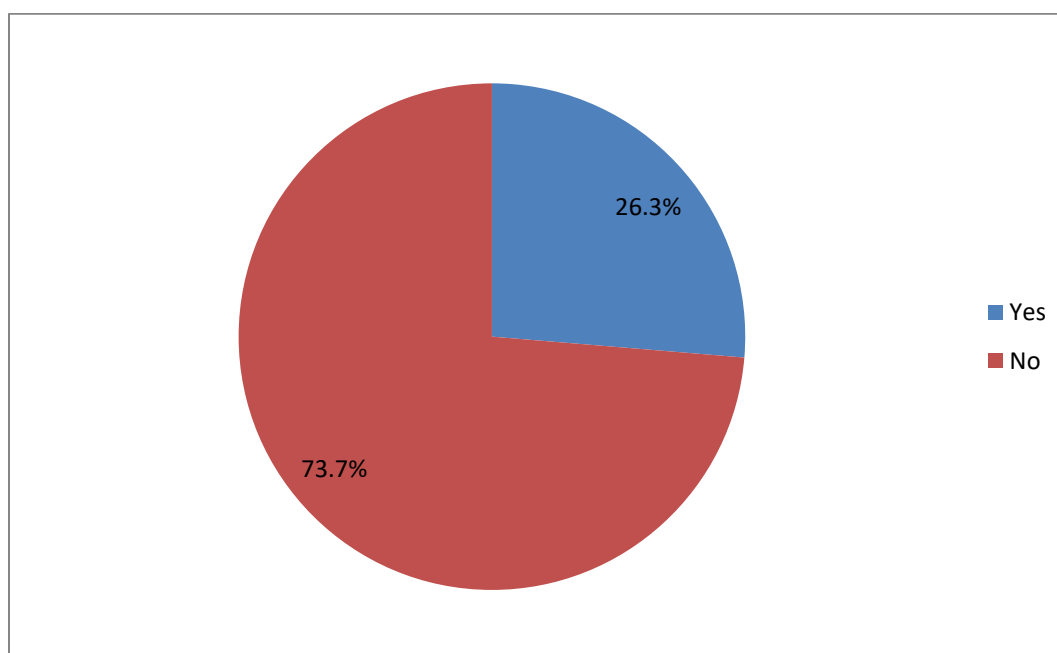


Figure 3-26: Car Availability

Over 73% of Four County Transit riders reported that they have a driver's license. Figure 3-27 shows the breakdown of riders that have a driver's license.

Figure 3-27: Driver's License Status

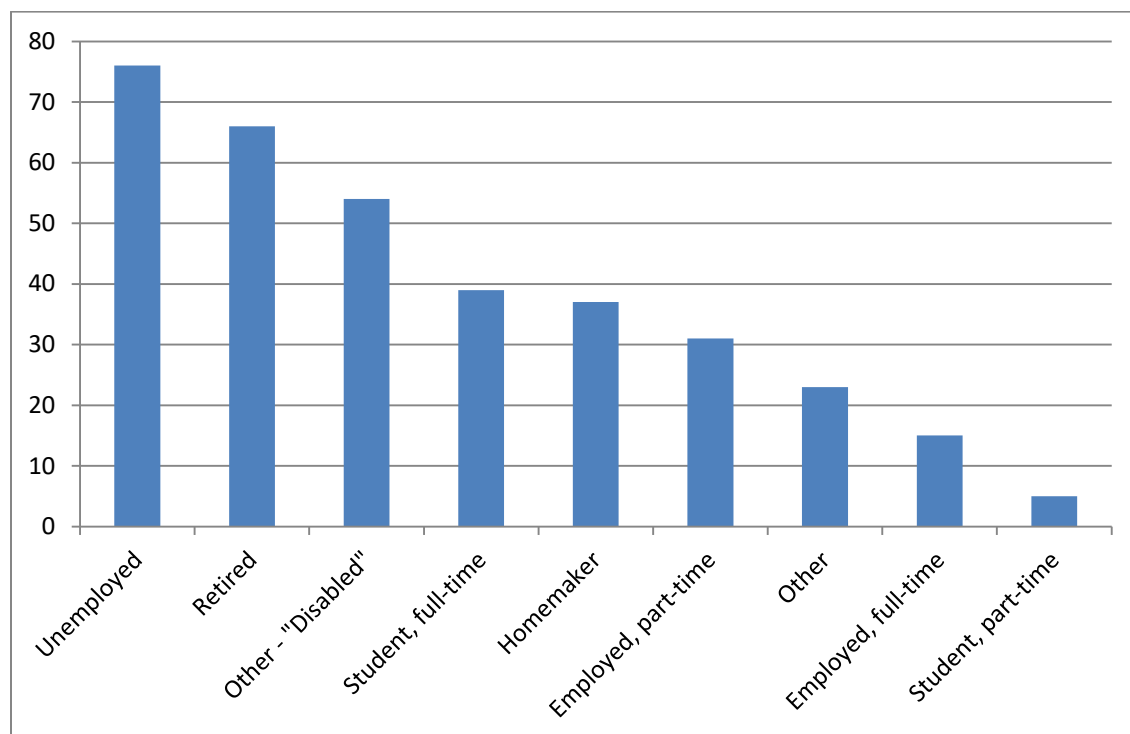
The age distribution of Four County Transit riders is provided in Table 3-8. Data shows that the vast majority of riders are working age adults and 36.7% of survey respondents are between 25 and 49 years old.

Table 3-8: Age of Survey Participants

Age	Count	Percentage
Under 16 years old	1	0.3%
16-18 years old	11	3.5%
19-24 years old	46	14.6%
25-49 years old	116	36.7%
50-64 years old	96	30.4%
65 years old or older	46	14.6%
Total Valid Responses	316	100.0%

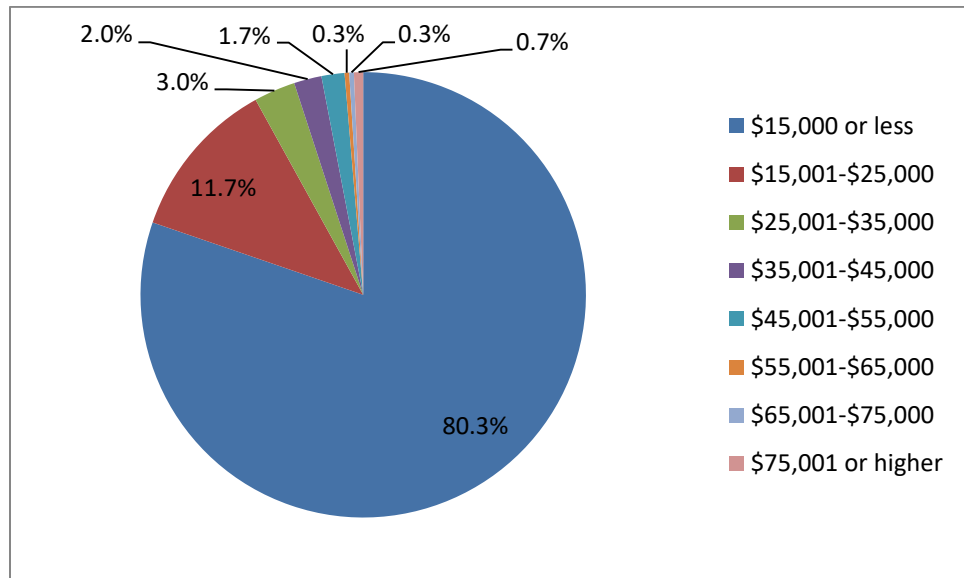
Of the various employment types listed on the survey, the three with the highest response rates were: “Unemployed” (76 responses), “Retired” (66 responses), and “Other-Disabled” (54 responses). A full break down of responses can be seen in Figure 3-28.

Figure 3-28: Employment Status



Four County Transit riders reported relatively low incomes with 80.3% reporting a household income of less than \$15,000 a year and an additional 11.7% indicating a household income of between \$15,001 and \$25,000 a year. Full household income results are provided in Figure 3-29.

Figure 3-29: Household Income



Comments

In addition to the information obtained through the survey questions, 120 respondents also offered general comments. Many of these comments reflected passenger satisfaction with Four County Transit, and particularly satisfaction with the staff. One satisfied rider commented, *“Four County Transit has been very helpful to me. It’s my only mode of transportation at this time - all the drivers are very caring and helpful.”* Other common comments were requests for weekend service and for shelters/benches at stops. A common complaint found was dissatisfaction with the behavior and hygiene of fellow riders.

DEMOGRAPHICS AND LAND USE

This section provides an analysis of current and future population trends in the study area and an analysis of the demographics of population groups that often depend on transportation options beyond the automobile. The study area consists of Buchanan, Dickenson, Russell, and Tazewell Counties. This analysis includes data sources from the 2010 U.S. Census and the American Community Survey (ACS) 2010-2014 5-year estimates.

POPULATION ANALYSIS

This section provides a general population profile for the study area, identifies and evaluates underserved population subgroups, and reviews the demographic characteristics pertinent to a Title VI analysis.

Population

Table 3-9 shows U.S. Census population counts for the study area from 1990-2010. During this period, the study area decreased in population by 7.8%. Buchanan County experienced the greatest population decline (23.1%). Russel County was the only county within the study area to have a population increase (.8%).

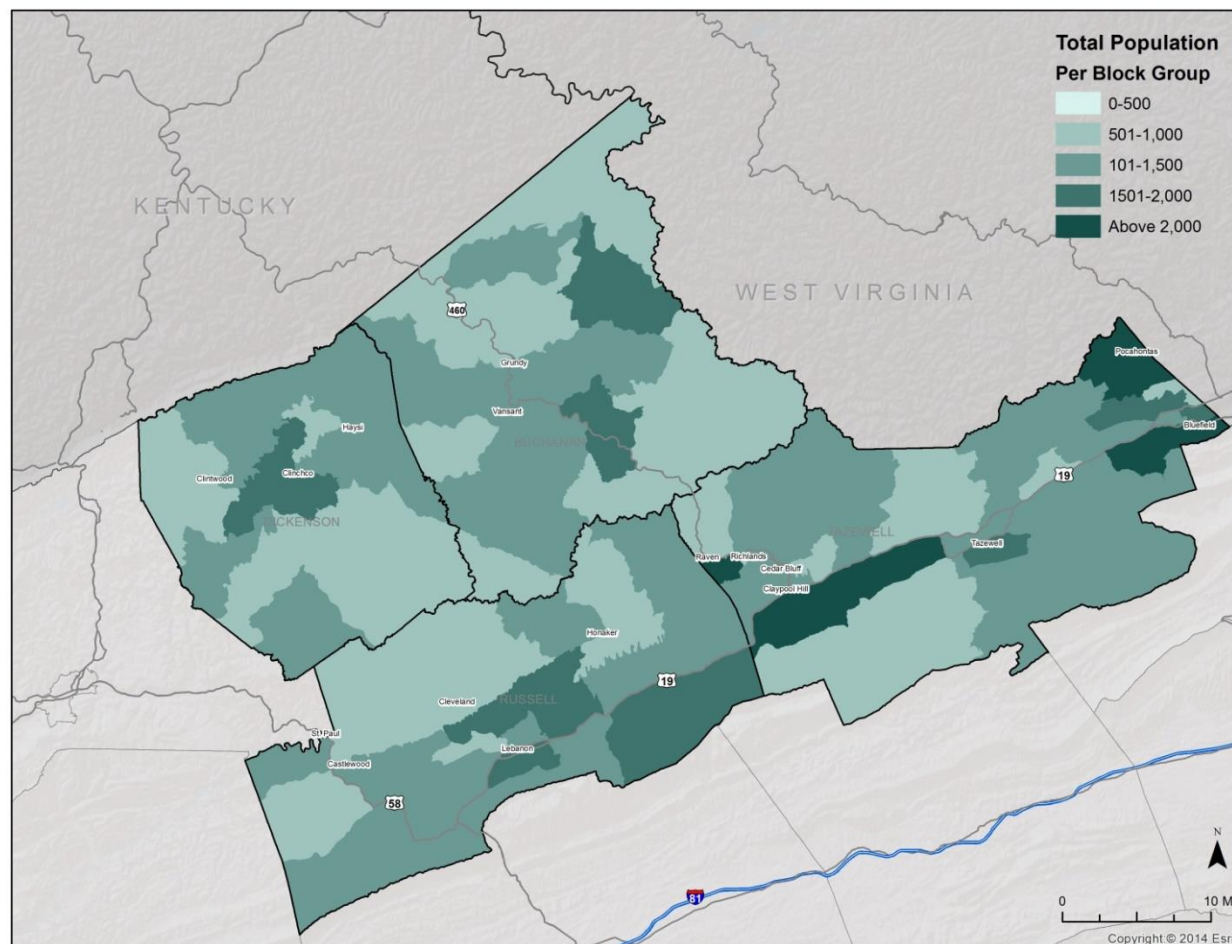
Table 3-9: Historical Populations

Place	1990 Population	2000 Population	2010 Population	1990-2000 % Change	2000-2010 % Change	1990-2010 % Change
Buchanan	31,333	26,978	24,098	-13.9%	-10.7%	-23.1%
Dickenson	17,620	16,395	15,903	-7.0%	-3.0%	-9.7%
Russell	28,667	30,308	28,897	5.7%	-4.7%	0.8%
Tazewell	45,960	44,598	45,078	-3.0%	1.1%	-1.9%
Total	123,580	118,279	113,976	-4.3%	-3.6%	-7.8%

Source: U.S. Census, American Factfinder

Figure 3-30 illustrates the total population of the study area at the block group level. Almost 40% of the study area's population is located in Tazewell County.

Figure 3-30: 2010 Census Population



Source: U.S. Census and American Community Survey

Table 3-10 shows the recent population trends in the study area. Since the 2010 Census, the study area has decreased in population by almost 5%.

Table 3-10: Recent Population Trends

Place	2010	2011	2012	2013	2014	2015	2010-2015 Percent Change
Buchanan	24,098	23,929	23,902	23,647	23,177	22,776	-5.5%
Dickenson	15,903	15,763	15,670	15,459	15,306	15,115	-5.0%
Russell	28,897	28,652	28,415	28,253	28,012	27,891	-3.5%
Tazewell	45,078	44,677	44,247	44,091	43,436	42,889	-4.9%
Total	113,976	113,021	112,234	111,450	109,931	108,671	-4.7%

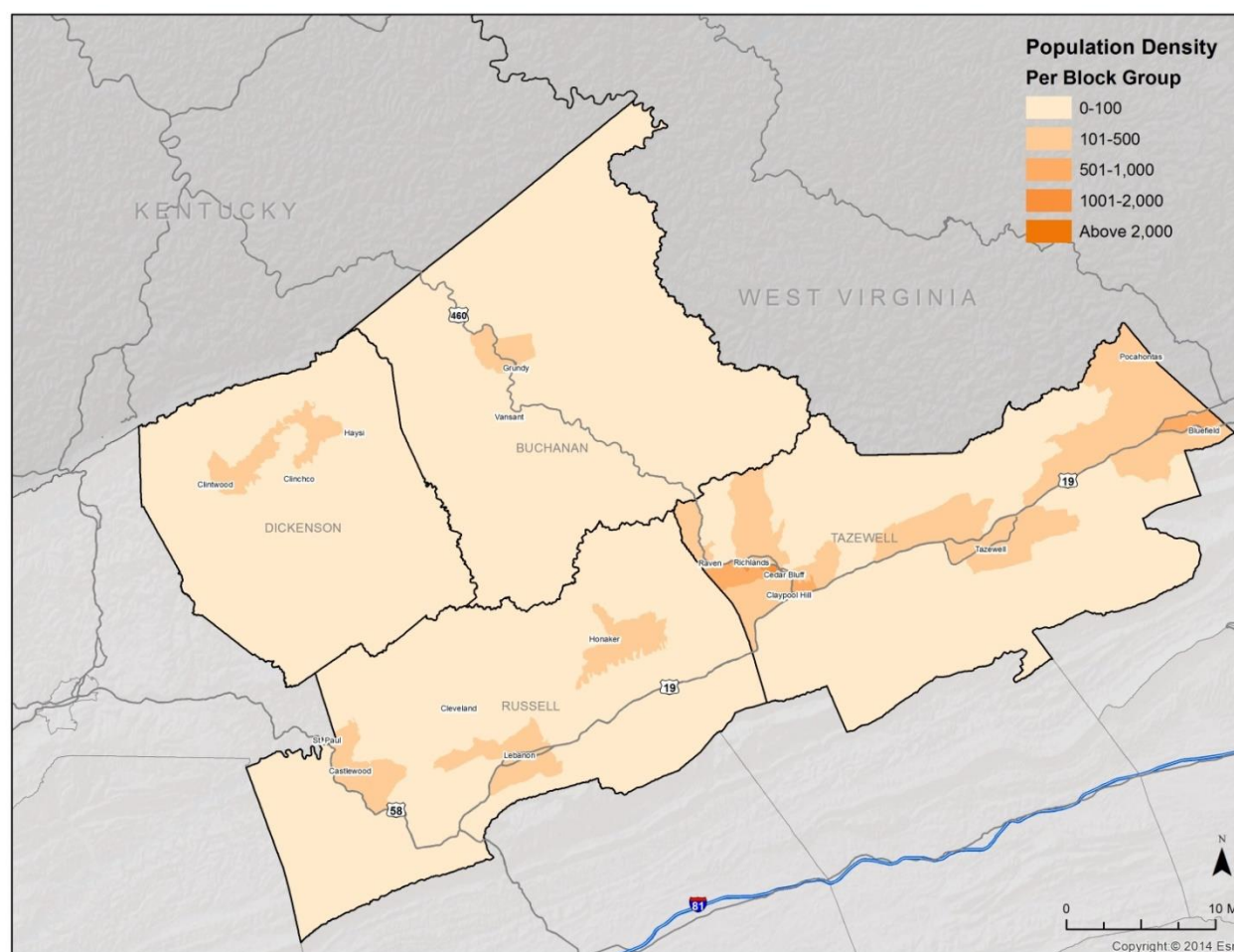
Source: U.S. Census Annual Estimates of the Resident Population: April 1, 2010, to July 1, 2015

Population Density

Population density is one of the most important factors in determining the appropriate transportation service in a community. It is often used as an indicator for the type of public transit services that are feasible within a study area. Typically an area with a density of 2,000 persons per square mile will be able to sustain daily fixed route transit service. An area with a population density below 2,000 but above 1,000 persons per square mile may be a better candidate for deviated fixed route or demand response services.

This analysis looked at the population density of the study area at the block group level. The majority of the study area is low density. None of the counties contain block groups with a population density above 2,000 persons, however, there are some areas that have a population density below 2,000 but above 1,000 persons; these areas are located in Cedar Bluff, Richlands (Tazewell County), and Lebanon (Russell County). Figure 3-31 shows the study area's population density.

Figure 3-31: Population Density of the Study Area



Source: U.S. Census and American Community Survey

Population Forecast

Overall the study area's population is projected to decrease slightly in population by the year 2040 (0.37%). Russell County's population will increase the most by 6.17%, and Dickenson County's population will increase the least at 0.52%. Table 3-11 provides general population projections for the study area.

Table 3-11: General Population Forecast for the Study Area

Place	2010	2020	2030	2040	Population Percent Change
Buchanan	24,098	23,383	23,263	23,296	-3.33%
Dickenson	15,903	15,599	15,375	15,194	-4.46%
Russell	28,897	29,051	29,296	29,534	2.20%
Tazewell	45,078	45,301	45,437	45,535	1.01%
Total	113,976	113,334	113,371	113,559	-0.37%

Source: Weldon Cooper Center for Public Service, Demographics & Workforce Group, November 2012 ¹

Table 3-12 provides detailed population projections by age group from 2020-2040. According to the projections, the senior adult population (ages 65 and up) will increase by 25%. Buchanan and Dickenson Counties are projected to experience a slight decrease in population while Russell and Tazewell Counties experience a slight increase in population. Each of the counties is estimated to see a growing senior population.

Table 3-12: Population Forecast by Age

	2020 Population Projection		2030 Population Projection		2040 Population Projection	
Ages	Population	Percent	Population	Percent	Population	Percent
Buchanan	23,383	-	23,263	-	23,296	-
0-19	4,398	19%	4,015	17%	3,894	17%
20-64	13,702	59%	12,538	54%	12,260	53%
65+	5,283	23%	6,710	29%	7,142	31%
Dickenson	15,599	-	15,375	-	15,194	-
0-19	3,446	22%	3,106	20%	3,018	20%
20-64	8,706	56%	8,128	53%	7,951	52%
65+	3,447	22%	4,141	27%	4,225	28%

¹ The Weldon Cooper Center is currently pursuing funding to update the 2012 projections and release the updated projections by the end of 2016.

	2020 Population Projection		2030 Population Projection		2040 Population Projection	
Ages	Population	Percent	Population	Percent	Population	Percent
Russell	29,051	-	29,296	-	29,534	-
0-19	6,117	21%	5,763	20%	5,885	20%
20-64	16,741	58%	15,935	54%	15,798	53%
65+	6,193	21%	7,598	26%	7,851	27%
Tazewell	45,301	-	45,437	-	45,535	-
0-19	9,737	21%	9,246	20%	9,116	20%
20-64	25,497	56%	24,372	54%	24,382	54%
65+	10,067	22%	11,819	26%	12,037	26%
Total	113,334	-	113,371	-	113,559	-
0-19	23,698	21%	22,130	20%	21,913	19%
20-64	64,646	57%	60,973	54%	60,391	53%
65+	24,990	22%	30,268	27%	31,255	28%

Source: Weldon Cooper Center for Public Service, Demographics & Workforce Group, November 2012

Table 3-13 illustrates population growth from historical, recent, and projected population numbers for the study area. If the population projections are correct, the study area will have experienced an 8% population decrease by 2040. Buchanan County will experience the biggest population decline (26%) followed by Dickenson County (14%), and Tazewell County (1%). Russell County is estimated to increase in population by 3%.

Table 3-13: Study Area Population

Place	1990	2000	2010	2020	2030	2040	Population Percent Change
Buchanan	31,333	26,978	24,098	23,383	23,263	23,296	-26%
Dickenson	17,620	16,395	15,903	15,599	15,375	15,194	-14%
Russell	28,667	30,308	28,897	29,051	29,296	29,534	3%
Tazewell	45,960	44,598	45,078	45,301	45,437	45,535	-1%
Study Area	123,580	118,279	113,976	113,334	113,371	113,559	-8%

Source: U.S. Census, American Factfinder, Weldon Cooper Center for Public Service, Demographics & Workforce Group, November 2012

TRANSIT DEPENDENT POPULATIONS

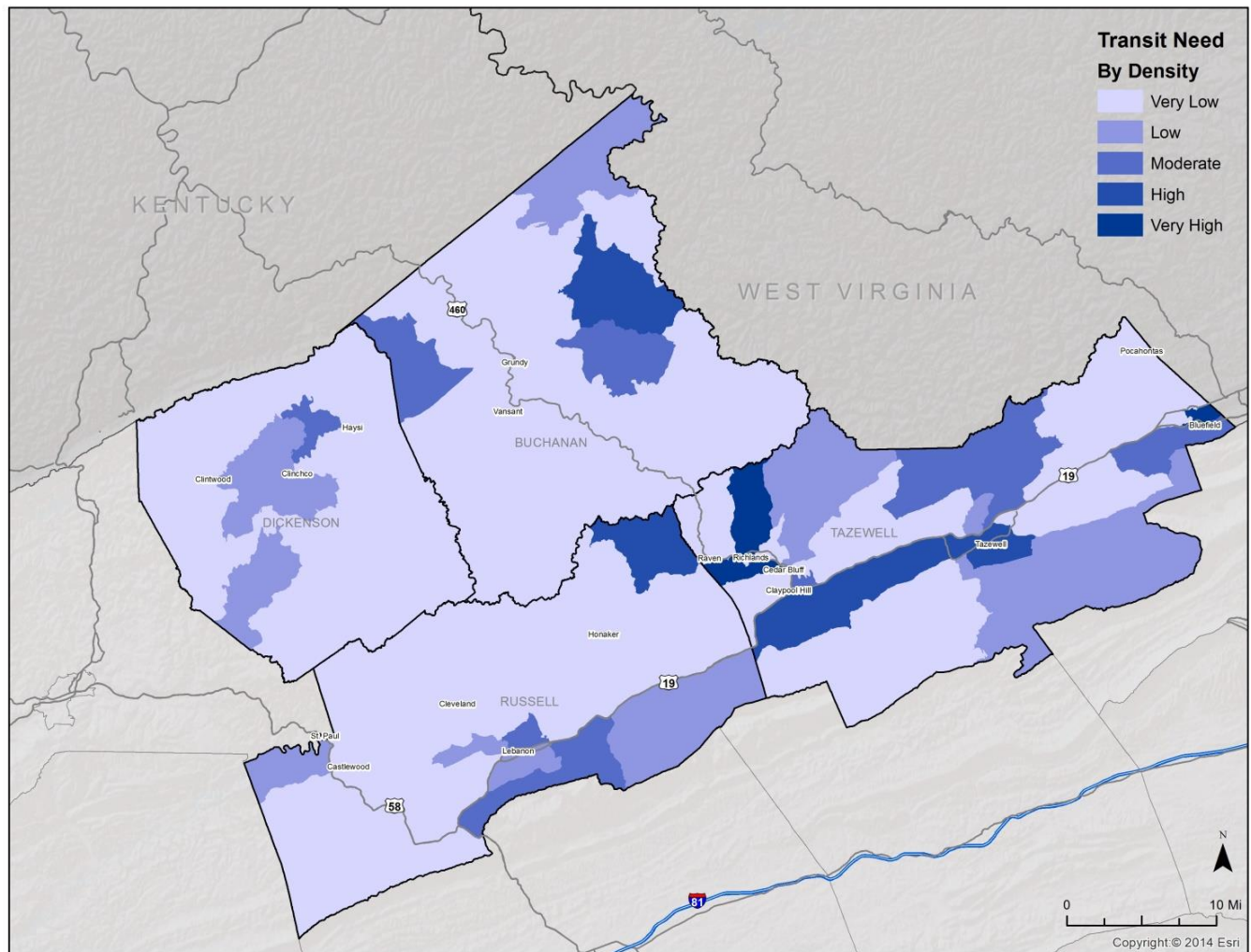
Public transportation needs are defined in part by identifying the relative size and location of segments within the general population that are most likely to be dependent on transit services. This includes individuals who may not have access to a personal vehicle due to income status or unable to drive due to age or disability. The results of this demographic analysis highlight those geographic areas of the study area with the greatest need for transportation.

For the purpose of developing a relative process of ranking socioeconomic need, block groups are classified relative to the study area as a whole using a five-tiered scale of “Very Low” to “Very High.” A block group classified as “Very Low” can still have a significant number of potential transit dependent persons; as “Very Low” means below the study area’s average. At the other end of the spectrum, “very high” means greater than twice the study area’s average. The exact specifications for each score are summarized in Table 3-14.

Table 3-14: Relative Ranking Definitions for Transit Dependent Populations

Amount of Vulnerable Persons or Households	Score
Less than and equal to the study area’s average	Very Low
Above the average and up to 1.33 times the average	Low
Above 1.33 times the average and up to 1.67 times the average	Moderate
Above 1.67 times the average and up to two times the average	High
Above two times the average	Very High

Figure 3-32 displays TDI rankings for the study area. According to the TDI very high transit needs are primarily found in Tazewell County. Areas that have very high transit need in Tazewell County include Raven, Richlands, Cedar Bluff and Bluefield. Russell County has a block group with very high transit need located in Lebanon. Buchanan, Russell, and Tazewell Counties also have block groups with high transit need.

Figure 3-32: Transit Dependence Index

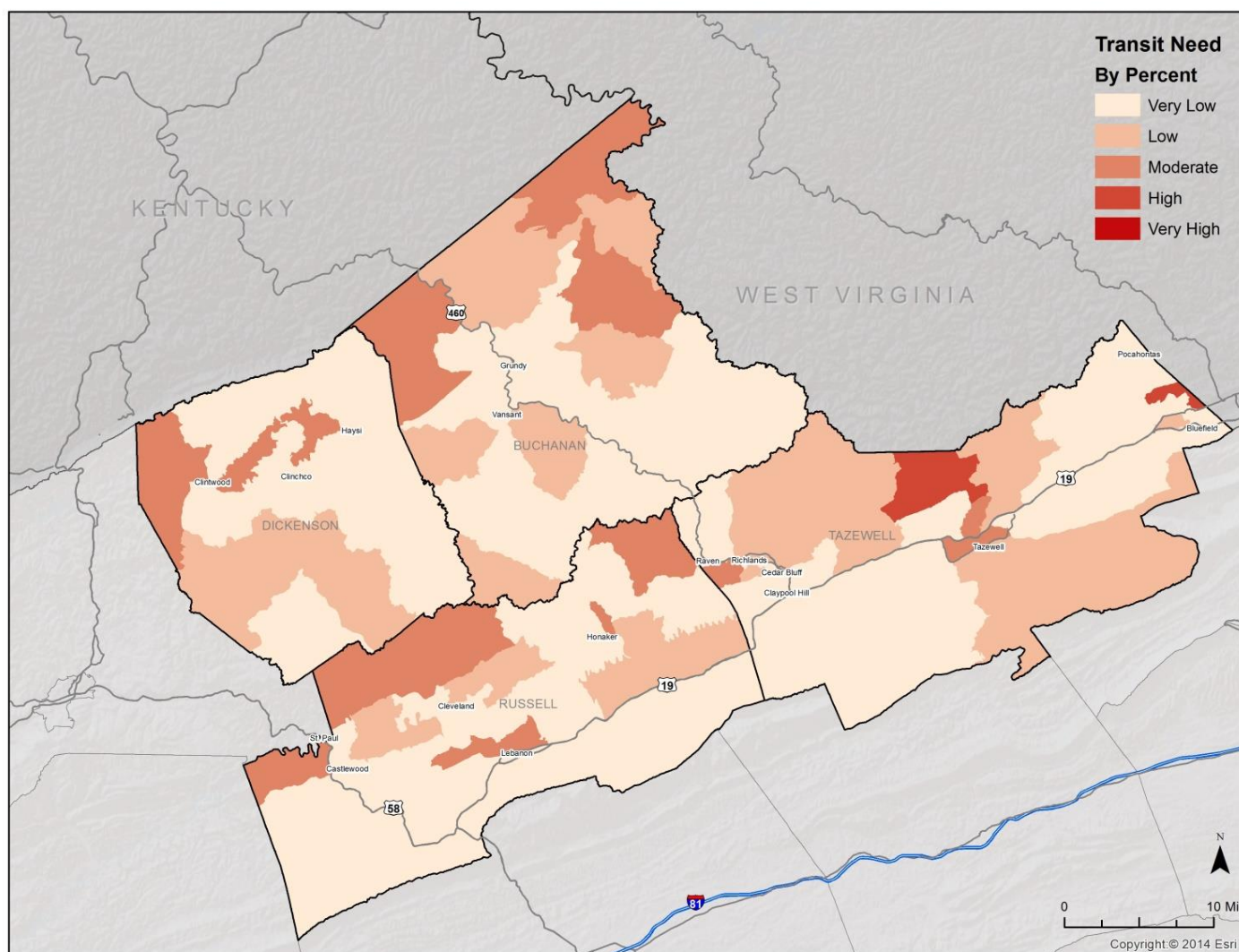
Source: U.S. Census and American Community Survey

The Transit Dependence Index Percent (TDIP) is similar to the TDI measure however it excludes the population density factor. The TDIP for each block group in the study area was calculated based on autoless households, elderly populations, youth populations, and below poverty populations.

By removing the population density factor, the TDIP can measure the degree of vulnerability. It represents the percentage of population within the block group with above socioeconomic characteristics, and it follows the TDI's five-tiered categorization of Very Low to Very High. It does not highlight block groups that are likely to have higher concentrations of vulnerable populations only because of their population density.

Figure 3-33 shows transit need based on percentage. According to the TDIP, there are no block groups in the study area with very high transit needs based on percent. However, there are two areas of high transit need based on percent in Tazewell County.

Figure 3-33: Transit Dependence Index Percentage

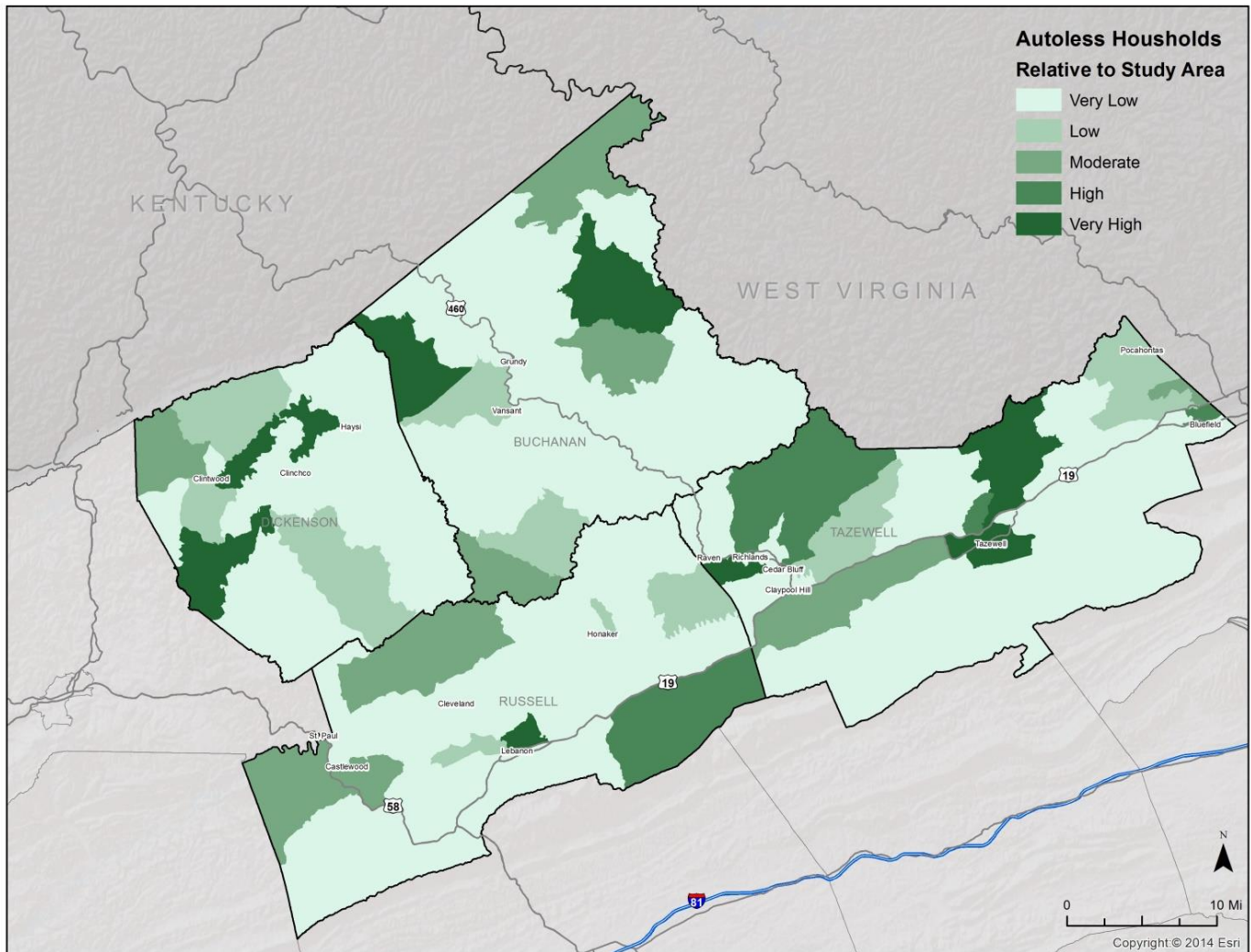


Source: U.S. Census and American Community Survey

Autoless Households

Households without access to at least one personal vehicle are more likely to depend on the mobility offered by public transit. Although autoless households are reflected in both the TDI and TDIP measures, displaying this segment of the population separately is still important. Areas with very high populations of autoless households exist in all counties in the study area. Figure 3-34 displays the relative number of autoless households.

Figure 3-34: Autoless Households

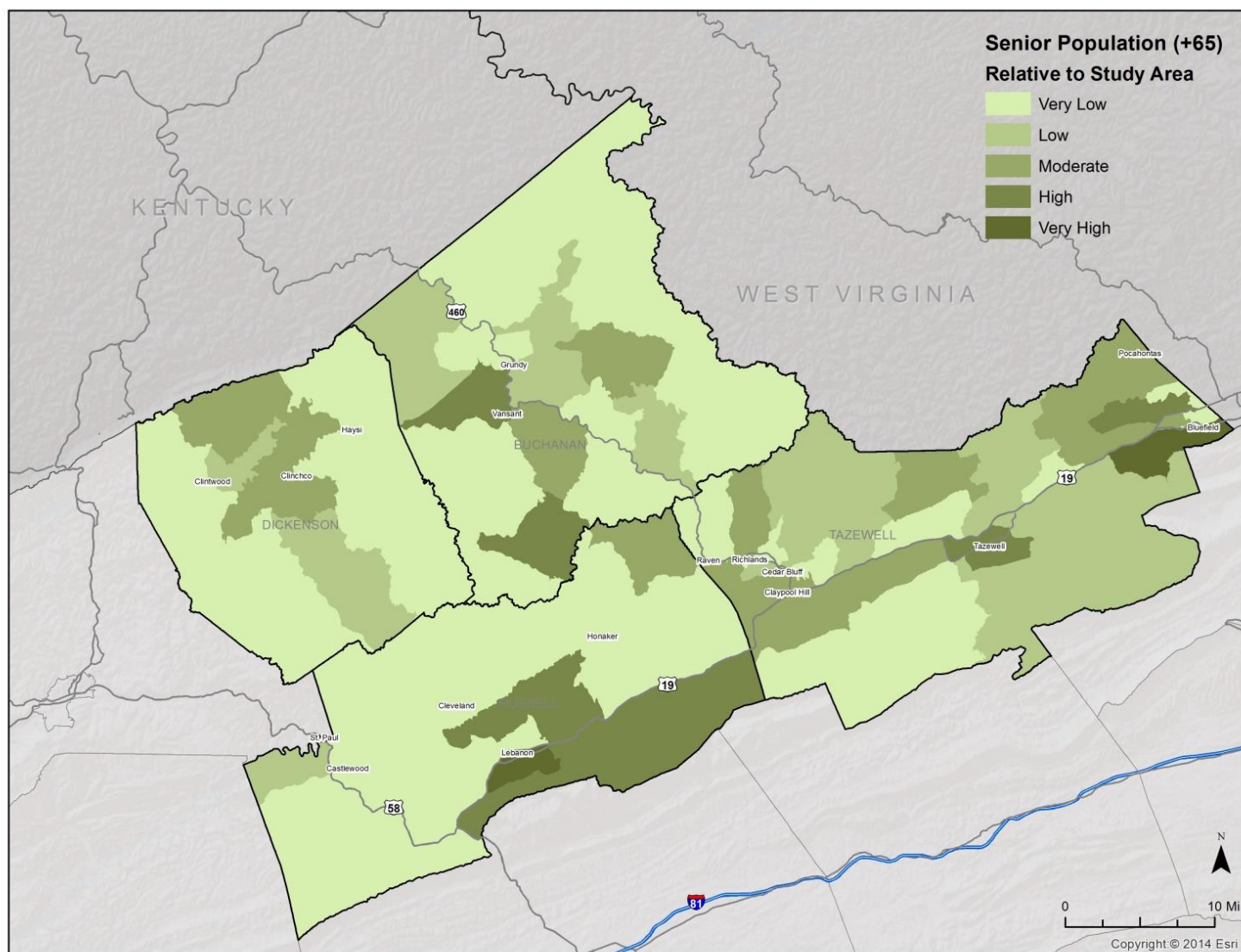


Source: U.S. Census and American Community Survey

Senior Adult Population

One of the socioeconomic groups analyzed by the TDI and TDIP indices is the senior adult population, which are individuals ages 65 and older. Persons in this age group may begin to decrease their use of a personal vehicle and rely more heavily on public transit. Block groups that contain very high senior adult populations are located in Lebanon (Russell County) and Bluefield (Tazewell County). Areas with high senior populations are in Vansant, and southern Buchanan County, Russell County, and Tazewell County. Figure 3-35 illustrates the senior adult population in the study area.

Figure 3-35: Distribution of the Senior Adult Population (Aged 65 and Above)

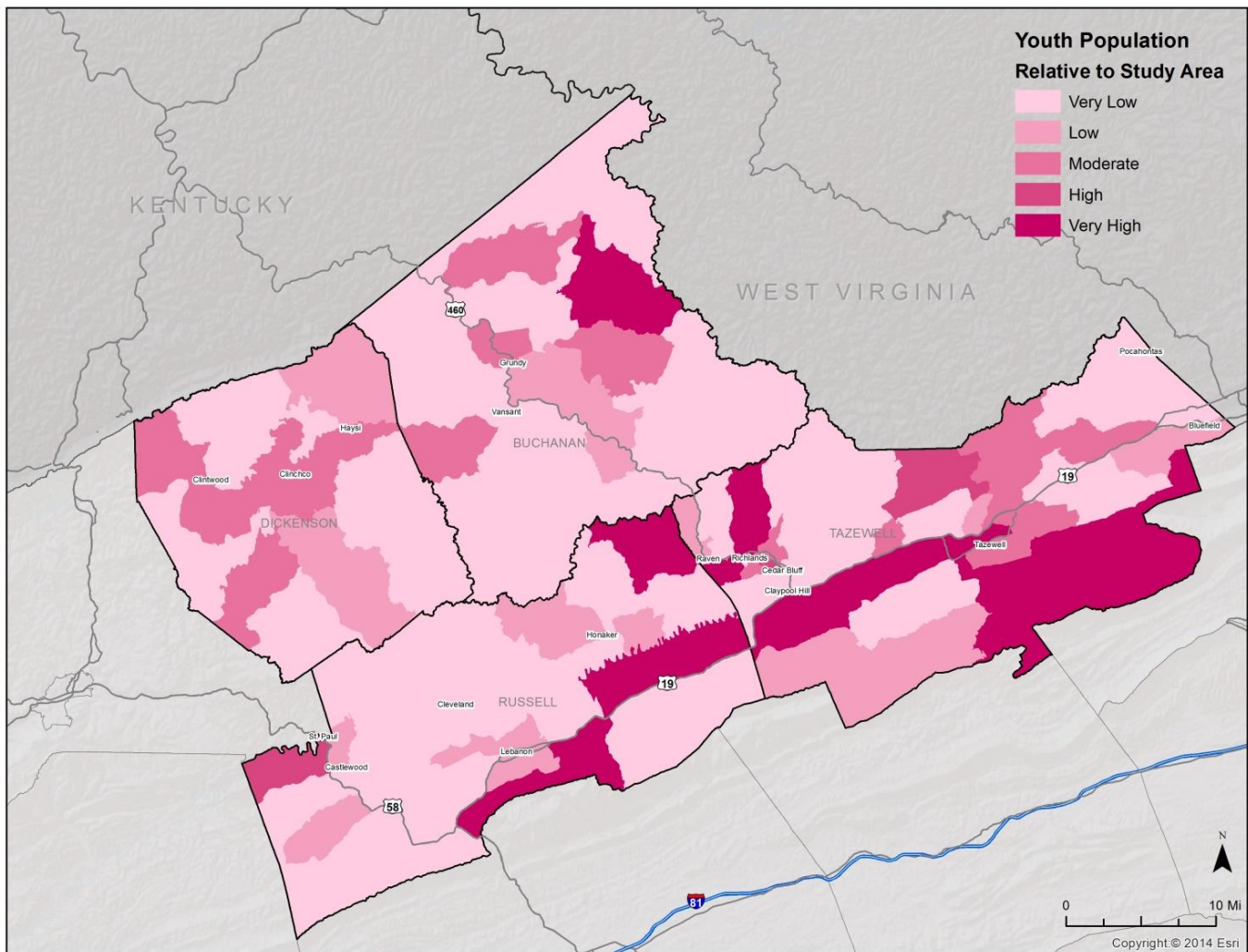


Source: U.S. Census and American Community Survey

Youth Population

The youth population is often used as an identifier of transit dependent population. Persons ages 10 to 17 either cannot drive or are just beginning to drive and often do not have a personal automobile assessable to them. For this population, public transit is often the means that offers mobility. Very high youth populations are in Buchanan, Tazewell, and Russell Counties. Figure 3-36 illustrates the concentrations of youth populations relative to the study area.

Figure 3-36: Distribution of the Youth Population (Aged 10 to 17)

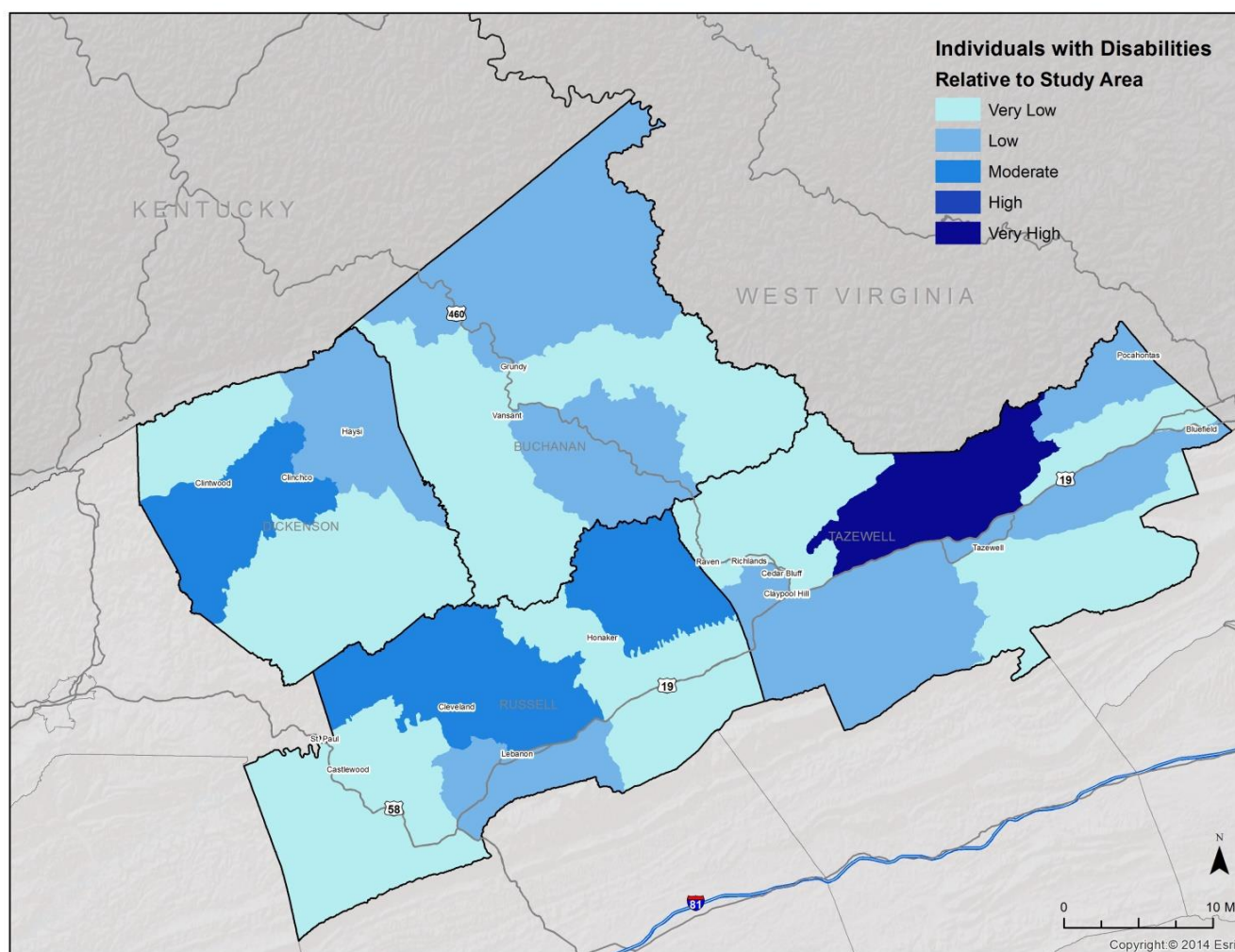


Source: U.S. Census and American Community Survey

Individuals with Disabilities

Figure 3-37 illustrates individuals with disabilities in the study area. The American Community Survey was used to obtain data for populations of individuals with disabilities. This data is only provided at the census tract level. Persons who have disabilities that prevent them from or make it more difficult to own and operate a personal vehicle often rely on public transit for their transportation needs. Overall the study area contains very low to moderate populations of individuals with disabilities. Tazewell County is the only county in the study area to have a block group with very high populations of individuals with disabilities.

Figure 3-37: Distribution of Individuals with Disabilities



Source: U.S. Census and American Community Survey

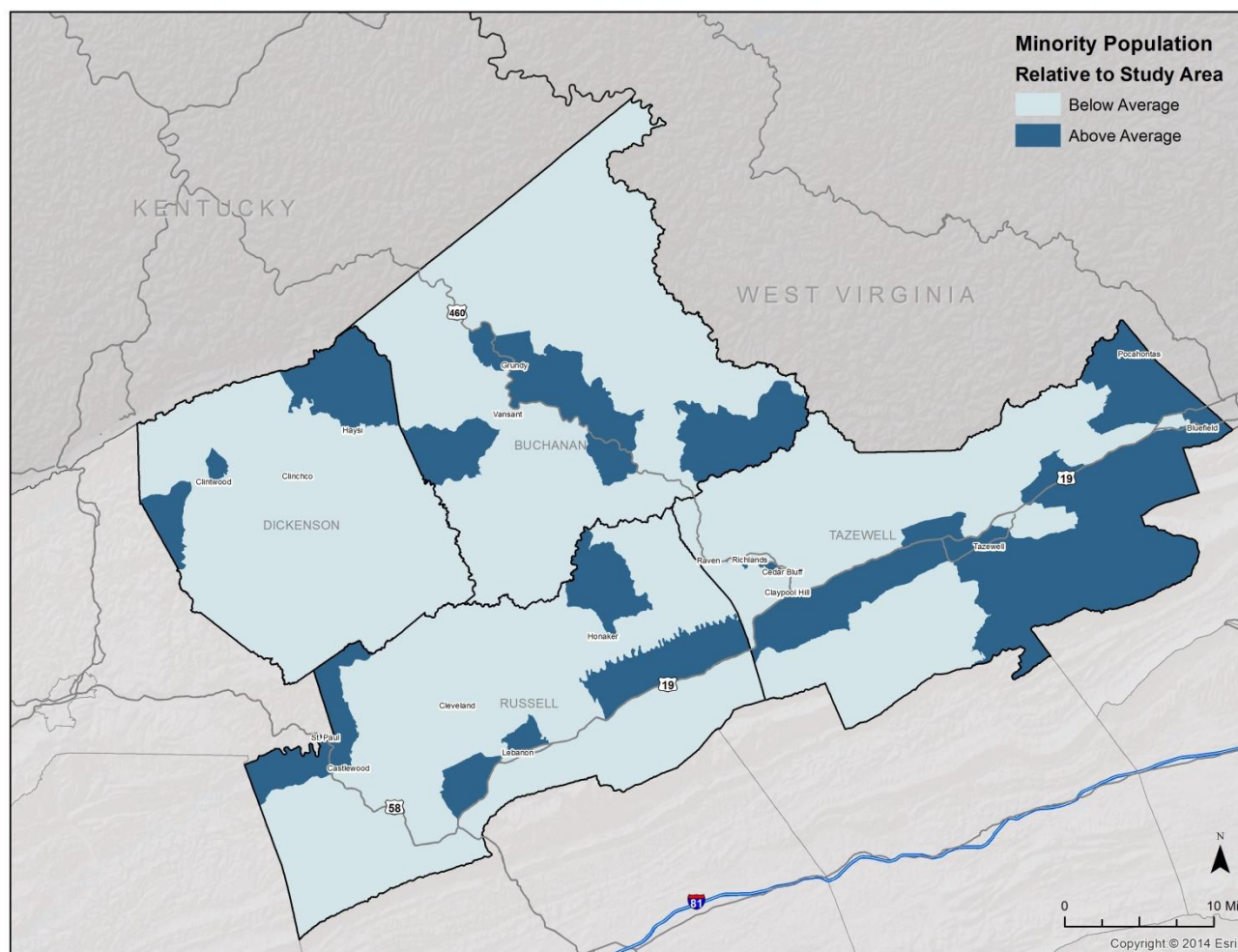
TITLE VI DEMOGRAPHIC ANALYSIS

The Civil Rights Act of 1964, Title VI prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving federal subsidies. This includes agencies providing federally funded public transportation. The following section examines the minority and below poverty level populations in the study area.

Minority Population

It is important to ensure that areas with an above average percentage of racial and/or ethnic minorities are not negatively impacted by any proposed alterations to existing public transportation services. In the study area, the average concentration of minority population is 3.3%. Figure 3-38 illustrates the concentration of minority populations above and below the area's average.

Figure 3-38: Distribution of the Minority Population

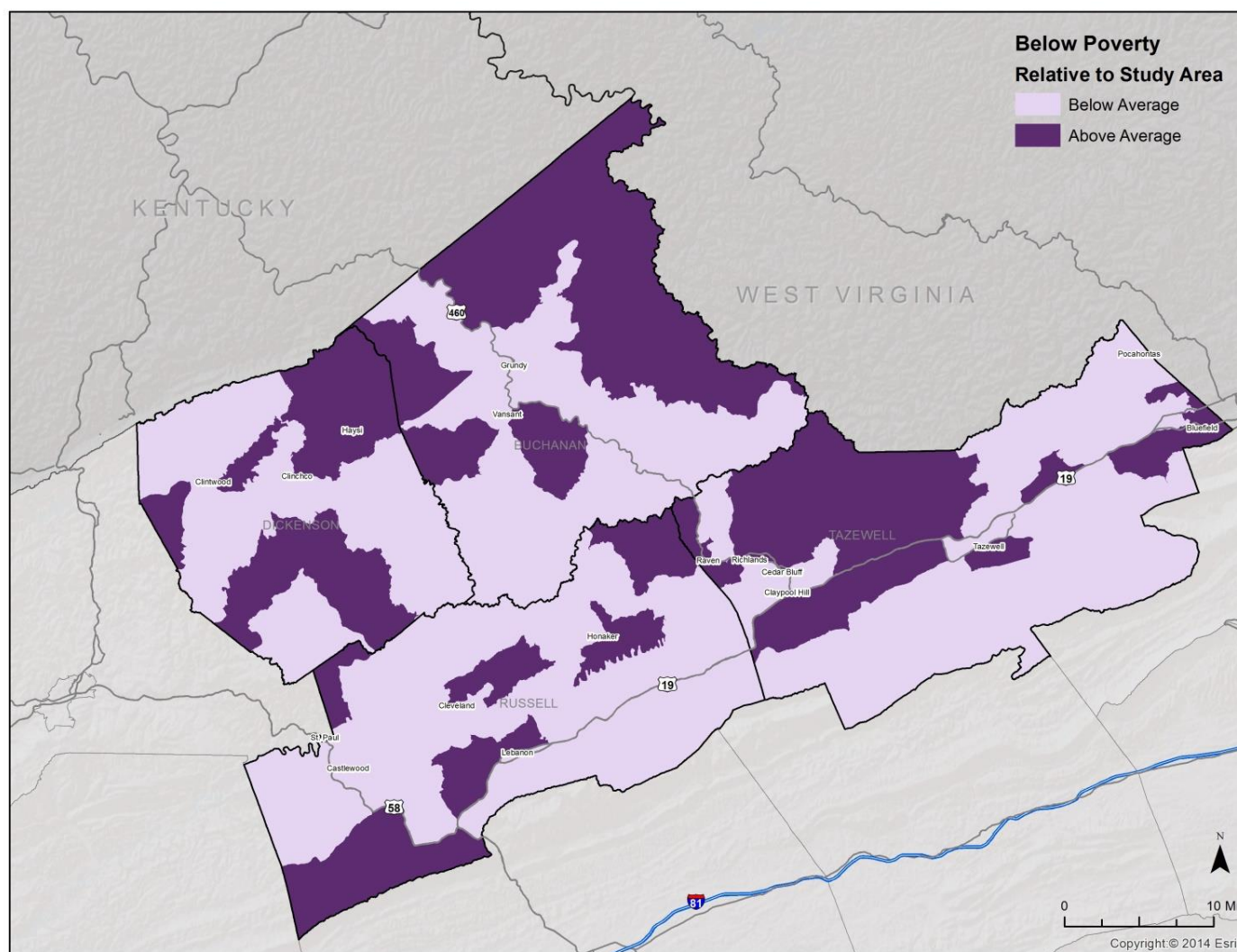


Source: U.S. Census and American Community Survey

Below Poverty Populations

The second group included in the Title VI analysis represents those individuals who earn less than the federal poverty level. This segment of the population may find it a financial burden to own and maintain a personal vehicle, thus relying on public transit as their primary means of transportation. The average percentage of individuals living below the federal poverty level is 20.2%. Figure 3-39 depicts the concentration of population above or below the average percentage of individuals living below poverty.

Figure 3-39: Distribution of the Below Poverty Population



Source: U.S. Census and American Community Survey

Limited-English Proficiency

In addition to providing public transportation for a diversity of socioeconomic groups, it is also important to serve and disseminate information to those of different linguistic backgrounds. As shown in Table 3-15 persons residing in the study area predominantly speak English. Tazewell County has the highest percentage of non-English speakers. Of those households where a non-English language is spoken, most are also able to speak English very well.

Table 3-15: Limited English Proficiency

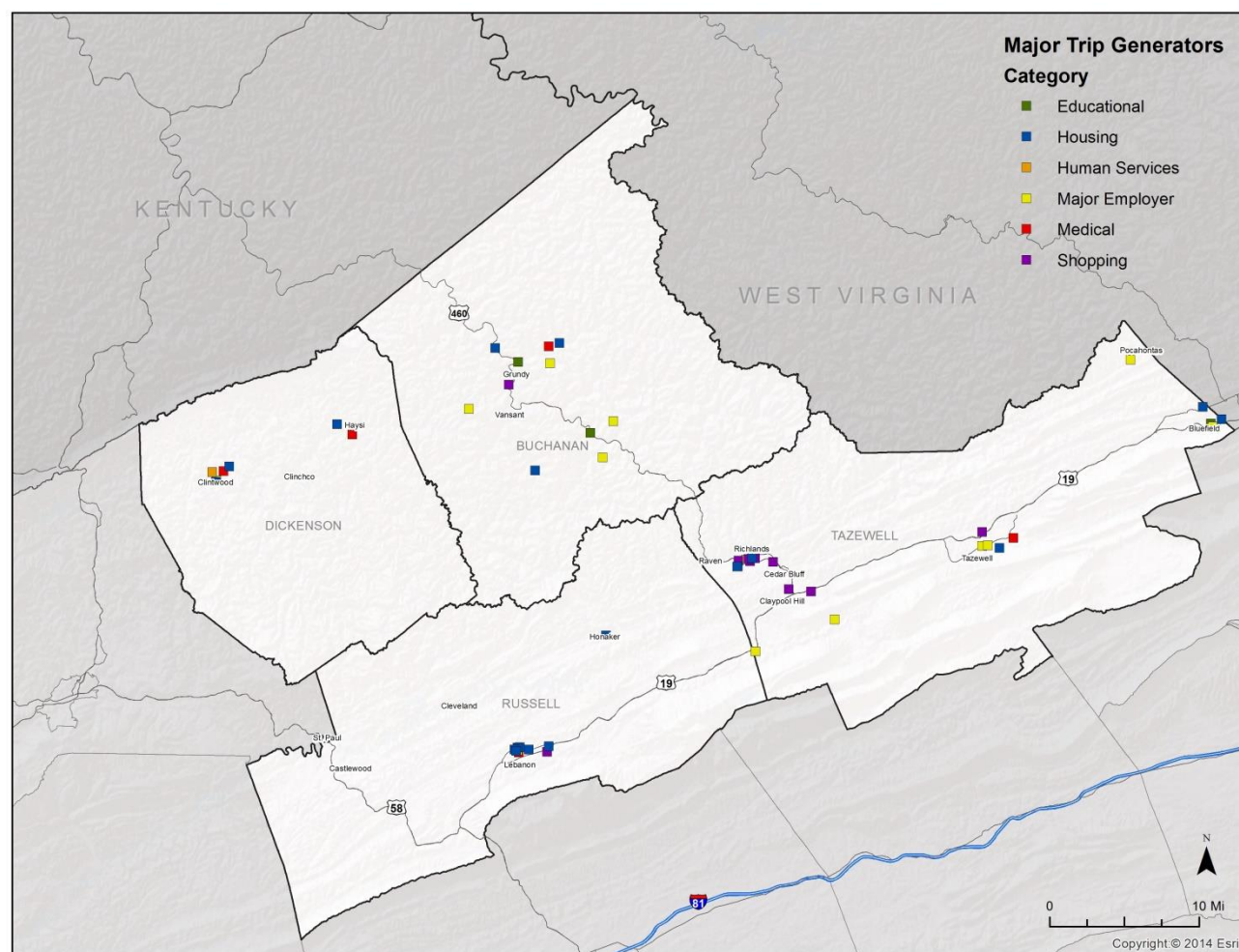
County	Buchanan County		Dickenson County		Russell County		Tazewell County	
5 years and up	22,649		14,773		26,892		42,028	
Languages Spoken	Number	Percent	Number	Percent	Number	Percent	Number	Percent
English	22,196	98%	14,579	99%	26,573	99%	41,447	99%
Speak Non-English	453	2%	94	1%	319	1%	581	1%
Spanish	121	1%	11	0%	138	1%	296	1%
Indo- European languages	120	1%	76	1%	102	0%	228	1%
Asian/Pacific Island languages	136	1%	7	0%	77	0%	43	0%
Other	76	0%	0	0%	2	0%	14	0%
Ability to Speak English:	Number	Percent	Number	Percent	Number	Percent	Number	Percent
"Very Well" or "Well"	387	1.7%	74	0.5%	276	1.0%	447	1.1%
"Not Well" or "Not at All"	66	0.3%	20	0.1%	43	0.2%	134	0.3%

Source: American Community Survey, Five-Year Estimates (2010-2014), Table B16004.

LAND USE PROFILE

Major Trip Generators

Identifying land uses and major trip generators in the study area complement the above demographic analysis by indicating where transit services may be most needed. Trip generators attract transit demand and include common origins and destinations, like multi-unit housing, major employers, medical facilities, educational facilities, non- profit and governmental agencies, and shopping centers. Figure 3-40 identifies major trip generators in the study area.

Figure 3-40: Major Trip Generators

Educational Facilities

Many individuals that comprise the school age population are unable to afford or operate their own personal vehicle; therefore, it may be assumed that this segment of the population is one that is reliant upon public transportation. Additionally, many faculty and staff members are associated with these institutions as a place of employment. Educational facilities that are located in the study area are Appalachian School of Law, Appalachian College of Pharmacy, Bluefield, College, and Southwest Virginia Community College.

Multi-Unit/ High-Density Housing

Multifamily residents tend to drive fewer miles and use public transportation more frequently than residents of single-family housing. Multifamily housing units located within the study area include The Place at Slate Creek, Deskins Apartments, Lee Lyn Apartments, Violet Trailer Park, Town View Apartments, Town Square, Copper Creek, Fox Meadow, Leatherwood Manor

Apartments, Hunters Ridge, Oxford Square Apartments, Tazewell Square Apartments, Crescent View Apartments, Centennial Heights Apartments, Fairfax Courts, Lebanon Square, Grand View Village Apartments, Downtown Apartments, School House Apartments, School House Apartments, and Pattison Place Apartments.

Major Employers

The major employers displayed in Figure 3-11 have at least 250 employees. Major employers in the study area are Buchanan County School Board, Consol Buchanan Mining Co. LLC, Keen Mountain Correctional Institution, Sykes Enterprises, Dickenson County School Board, Russel County School Board, Walmart, Clinch Valley Community Hospital, Southwest Virginia Community College, Pocahontas State Correctional Facility, Tazewell County Government, and Lowe's Home Centers, Inc.

Medical Facilities

Medical facilities represent a significant destination for users of public transportation. Older adults and persons with disabilities often rely more heavily upon services offered by medical facilities than other population segments. Medical Facilities in the study area are Dickenson Community Hospital, Buchanan General Hospital, Russel County Medical Center, Carillion Tazewell Community Hospital, Clinch Valley Medical Center, and Stone Mountain Health Services.

Employment Travel Patterns

In addition to considering locations of major employers, it is also important to account for commuting patterns of residents working inside and outside of the study area. According to ACS five-year estimates, the majority of residents in the study area work in Virginia and typically work in their county of residence. Russell County has the highest percentage of residents that work outside the county (42%). The majority of residents travel to work by driving alone. Less than 1 % use public transportation as their primary means to travel to work. Table 3-16 illustrates commuting patterns of residents in the study area. Table 3-17 lists the top ten employment destinations in the study area.

Table 3-16: Journey to Work Patterns for Study Area

Place of Residence	Buchanan County		Dickenson County		Russell County		Tazewell County	
Workers (16 +)	7,148		4,735		10,065		16,217	
Employment Location	Number	Percent	Number	Percent	Number	Percent	Number	Percent
In State of Residence	6,625	93%	4,592	97%	9,509	94%	13,198	81%
In County	5,148	72%	2,779	59%	5,314	53%	11,376	70%
Outside of County	1,480	21%	1,813	38%	4,195	42%	1,822	11%
Outside State of Residence	520	7%	143	3%	556	6%	3,019	19%
Means of Transportation to Work	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Car, Truck, or Van - drove alone	6,318	88%	4,059	86%	8,680	86%	13,523	83%
Car, Truck, or Van - carpooled	577	8%	444	9%	896	9%	1,842	11%
Public Transportation	18	0%	0	0%	5	0%	14	0%
Walked	87	1%	122	3%	143	1%	245	2%
Taxicab, motorcycle, bicycle, other	80	1%	26	1%	71	1%	75	0%
Worked at Home	68	1%	84	2%	270	3%	518	3%

Source: ACS, Five-Year Estimates (2010-2014), Table B08130

Another source of data that provides an understanding of employee travel patterns is the Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) dataset. Table 3-17 illustrates the results of this analysis.

Table 3-17: Top Ten Employment Destinations for County Residents

Buchanan County			Dickenson County		
Place	Number	Percent	Place	Number	Percent
Grundy town, VA	737	9.20%	Clintwood town, VA	987	15.10%
Richlands town, VA	305	3.80%	Norton city, VA	375	5.70%
Vansant CDP, VA	291	3.70%	Wise town, VA	363	5.60%
Tazewell town, VA	219	2.70%	Pound town, VA	222	3.40%
Lebanon town, VA	154	1.90%	Lebanon town, VA	217	3.30%
Roanoke city, VA	130	1.60%	Abingdon town, VA	162	2.50%
Bluefield town, VA	104	1.30%	Haysi town, VA	124	1.90%
Abingdon town, VA	100	1.30%	Big Stone Gap town, VA	120	1.80%
Claypool Hill CDP, VA	98	1.20%	Coeburn town, VA	108	1.70%
Wise town, VA	71	0.90%	Kingsport city, TN	82	1.30%
All Other Locations	5761	72.30%	All Other Locations	3,766	57.70%

Russell County			Tazewell County		
Place	Number	Percent	Place	Number	Percent
Lebanon town, VA	1,794	18.30%	Tazewell town, VA	2,353	14.00%
Abingdon town, VA	473	4.80%	Richlands town, VA	1,226	7.30%
Richlands town, VA	413	4.20%	Bluefield town, VA	1,173	7.00%
Bristol city, VA	338	3.40%	Bluefield city, WV	742	4.40%
Wise town, VA	281	2.90%	Claypool Hill CDP, VA	642	3.80%
Norton city, VA	213	2.20%	Princeton city, WV	289	1.70%
Honaker town, VA	172	1.80%	Lebanon town, VA	275	1.60%
Claypool Hill CDP, VA	168	1.70%	Roanoke city, VA	248	1.50%
Kingsport city, TN	166	1.70%	Vansant CDP, VA	225	1.30%
Castlewood CDP, VA	166	1.70%	Cedar Bluff town, VA	223	1.30%
All Other Locations	5,631	57.40%	All Other Locations	9,440	56.10%

Source: Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2014.

Summary of Demographic Analysis

When combining demographic, land-use, and commuter trends analyzed in this section the following needs and themes emerge:

- Overall the study area's population has undergone a continual decline in population. Population projections were made for the years 2020-2040 and estimate a slight population increase of 0.2% for the area. However, looking at the population from 1990 to the projected year 2040, the study area will have an overall decrease in population of approximately 8%. Buchanan and Dickenson Counties will undergo most of the area's population decline. Russell County is the only county within the study area to see an increase in population.
- Despite the population decline in the study area, the senior population is expected to increase. Buchanan County has seen the biggest population decrease but is projected to have the largest percentage of senior adults.

REVIEW OF PREVIOUS PLANS AND STUDIES

Buchanan County Comprehensive Plan 1994

The most current comprehensive plan for Buchanan County is the 1994 plan which serves as a policy guide for future growth and development in the county. The plan identifies that the biggest transportation need is cooperation among state and local officials to ensure

consistency, safety, and access at primary and secondary road intersections. In Buchanan County, U.S. 460 is the pathway to economic development. The 1994 Buchanan County Comprehensive Plan does not mention transit.

Dickenson County Comprehensive Plan 2008

The Dickenson County Comprehensive Plan was prepared by the Dickenson County Planning Commission and adopted in 2008. The plan recognized the importance of transportation to a community. The plan addresses that a well-developed transportation system would help communities that are isolated geographically from more populated areas.

Russell County Comprehensive Development Plan 2010

The Russell County Comprehensive Development Plan was adopted in July, 2010 by the Board of Supervisors. The plan recognized that a community transportation system affects development patterns that impact land development policies and the overall planning objectives of the community. Alternate Route 58 and U.S. 19 are the highways that consist of the most traffic.

Tazewell County Comprehensive Plan 2008

The Tazewell County Comprehensive Plan was adopted in 2008 and assists the county in growth and development for the next 20 years taking into consideration existing constraints and opportunities. The plan notes that within its planning district, Tazewell County has the greatest amount of citizens who live and work in their home county. The plan also addresses the need for transportation corridors, given the number of commuters to the county. Tazewell County Comprehensive Plan acknowledges that given the increase in gas prices, discussion should begin in regards to public and alternative modes of transportation in the county.

Cumberland Plateau (PDC 2) Coordinated Human Service Mobility Plan 2013

The Cumberland Plateau (PDC 2) Coordinated Human Service Mobility Plan consists of

- An assessment of available services that identifies current providers (public, private, and non-profit)
- An assessment of transportation needs for individuals with disabilities, older adults, and people with low incomes.
- Strategies, activities, and/or projects to address identified gaps and achieve efficiencies in service delivery

- Relative priorities for implementation based on resources, time, and feasibility for implementing specific strategies/activities identified.

Strategies identified in the plan to help improve mobility in the region were developed based on an assessment of demographics and the unmet transportation needs that were obtained from key local stakeholders, a variety of strategies were generated through the original CHSM planning process. The following are the strategies identified:

- Continue to support capital needs of coordinated human service/public transportation providers.
- Expand availability of demand response service and specialized transportation services to provide additional trips for older adults, people with disabilities, veterans and people with lower incomes.
- Build coordination among existing public transportation and human service transportation providers.
- Provide targeted shuttle services to access employment opportunities.
- Establish a ride-sharing program for long-distance medical transportation.
- Expand outreach and information on available transportation options in the region, including establishment of a central point of access.
- Implement new public transportation services or operate existing public transit services on a more frequent basis.
- Provide flexible transportation options and more specialized transportation services or one-to-one services through the use of volunteers.
- Expand access to taxi and other private transportation operators.

VTrans 2035: Virginia's Long-Range Multimodal Transportation Plan

VTrans 2035 is the state of Virginia long range multimodal policy plan that sets the vision, goals, and investment priorities for Virginia's transportation systems. It was completed in 2010 and updated in 2013. The update to VTrans 2035 focused on "transforming the existing components of VTrans 2035 into a new framework for linking system-wide performance evaluations to planning, policy development, and funding decisions". The VTrans 2035 predecessor, VTrans 2025 made policy recommendations that included investing more in transit and rail, strengthening the planning process by integrating transportation and land use and encouraging consideration of multimodal improvements at all levels of transportation

planning. As a result of those recommendations the Commonwealth of Virginia has a dedicated rail fund, increased transit and rail funding, and new laws related to traffic impact analysis of development.

The key needs identified as a result of anticipated growth patterns, changes in environmental quality, changes in technology, changes in global connections, and changes in institutional decision making as it relates to transit are:

- Increased transit to address mobility needs of older citizens as well as disabled population groups and to reduce daily vehicle miles of travel associated with growth
- Increased commuter choices, including transit, passenger rail, and carpooling/vanpooling
- Increased use of information systems to improve efficiency and safety
- Stronger ties to regional and local agencies
- Incentives for cooperation (i.e., land use plans that support transportation decisions and investments)

VTrans 2040 is currently underway, which will serve as a comprehensive update to VTrans 2035.

CHAPTER SUMMARY

The system evaluation and needs analysis involved collecting and reviewing data and input from many different sources:

- Performance Data
- Passenger Survey
- Demographics
- Land Use and Transportation Plans

The results of the system evaluation and the priorities identified in this needs analysis, combined with input from regional stakeholders included in Chapter 1, were used in the development of service alternatives and improvements that are discussed in the next chapter of the TDP.

Chapter 4

Service and Capital Improvement Plan

INTRODUCTION

This chapter is the centerpiece of the TDP, focusing on possible modifications and expansions to Four County Transit services to meet identified needs. The service improvements were developed based on the data compiled and analyzed in Chapters 1-3, and combined with input from Four County Transit and DRPT staff. This chapter also provides projects anticipated levels of service using current services as a base, and incorporating proposed service expansions. It also provides operating and capital cost estimates associated with the service improvements. While the plan is constrained based on reasonably expected revenues, it is also designed to allow Four County Transit to adapt to changing circumstances and to consider accelerated implementation.

This chapter also provides discussion of opportunities for consideration as part of the TDP process. These opportunities include efforts to improve customer amenities and marketing.

SERVICE IMPROVEMENTS AND NEEDS IDENTIFICATION

The following service alternatives were developed through the analysis of specific route performance data, coupled with the gaps in current services identified through input from riders that Four County staff and area stakeholders gathered (presented in the previous three chapters). Each service alternative is detailed in this section, and includes:

- A summary of the service alternative
- Potential advantages and disadvantages
- An estimate of the operating and capital costs
- Ridership estimates

The cost information for these alternatives is expressed as the fully allocated costs, which means all program costs on a per unit basis are considered when contemplating expansions. This overstates the incremental cost of minor service expansions, as there are likely to be some administrative expenses that would not be increased with the addition of a few service hours. These cost estimates were based on FY16 operating expenses.

While the recommended timing for these service alternatives will be determined through discussions with Four County Transit and DRPT, they are presented in the priority order in which they arose through the planning process to this point.

Expanded Connector Service

Grundy-Hurley Route

One of the service expansions expressed by Four County Transit staff was a connector route between Grundy and Hurley. This route would be operated to allow transfers to both the Grundy North and Grundy South routes. Figure 4-1 depicts the Grundy-Hurley Route.

Advantages

- Provides new service in the Grundy-Hurley corridor.
- Provides connections with existing route system, allowing greater access to key destinations.
- Responds to one of the top needs reported by Four County Transit staff.

Disadvantages

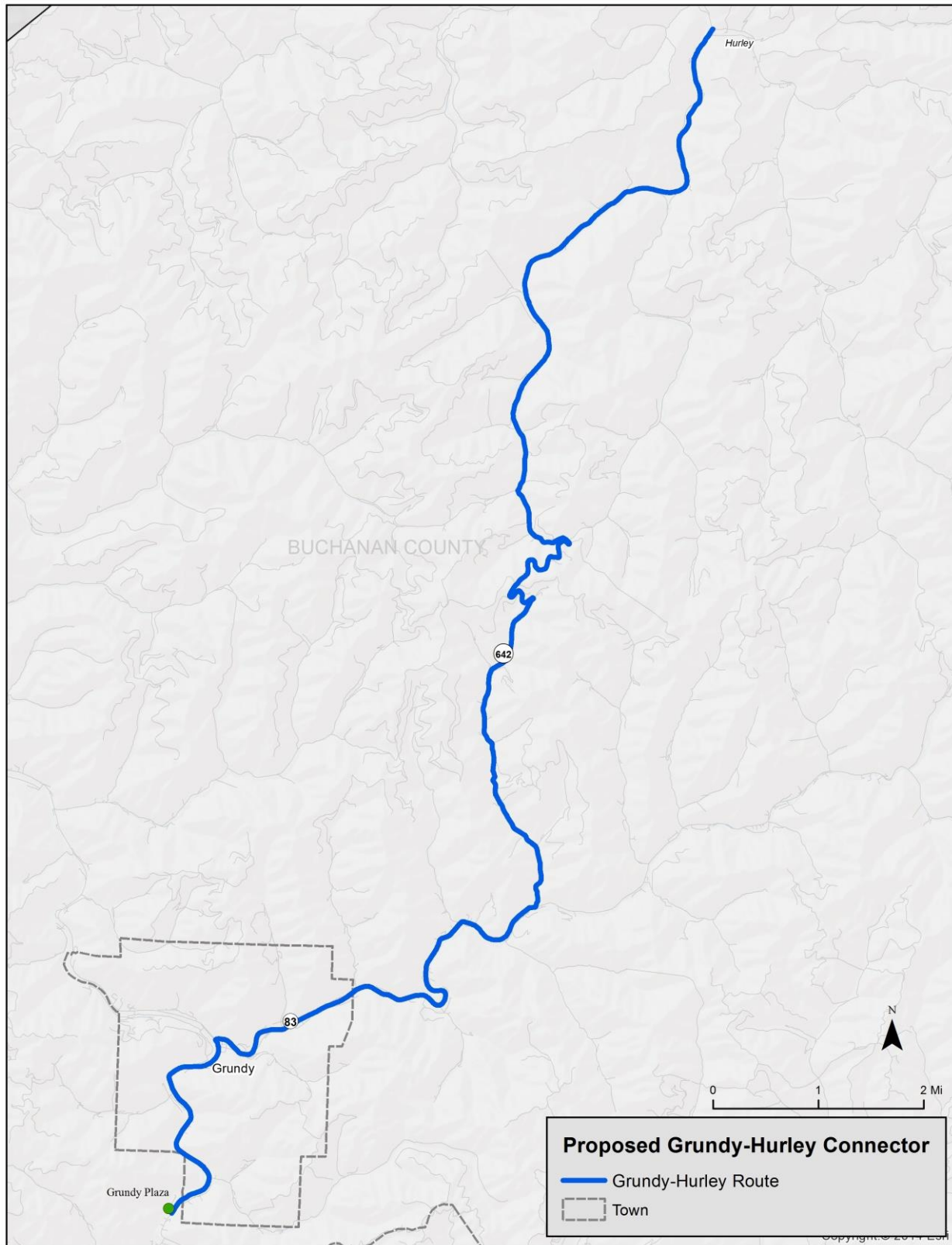
- Requires additional operating costs for expanded service.
- Requires additional vehicles to operate new services.

Expenses

- It is anticipated that a new Grundy-Hurley connector route would begin at 7:00 a.m., allowing for pickups in the Hurley area and travel to Grundy to connect with the routes that begin operating at 8:00 a.m. Service would end at approximately at 4:30 p.m., allowing transfers from the last Grundy North and South runs.
- Based on service operating Monday through Friday, the new Grundy-Hurley route would result in approximately 2,210 annual vehicle hours. Using current cost per hour data of \$41.62 per hour, the estimated annual operating cost for the Grundy-Hurley route would be \$91,980.
- Assuming a bus would not be available in the current fleet to operate this new route, a new vehicle would be needed to implement Grundy-Hurley service. Based on projected capital costs for a BOC van similar to those in the current Four County Transit capital budget, the cost for a new bus would be approximately \$78,000.

Ridership

- Assuming ridership on the new Grundy-Hurley service would be similar to other connector routes projected annual ridership would be approximately 10,000 trips.

Figure 4-1: Proposed Grundy-Hurley Route

Richlands – Grundy Connector

Another new connector route noted by Four County Transit staff was the need for one between Richlands and Grundy. While local service is provided in both communities, this connection would connect the two areas and expand access to key shopping, educational, and employment destinations. In addition, a new Richlands-Grundy connector could be designed to allow connections to other routes that serve the Richlands and Grundy communities. Figure 4-2 illustrates the Richlands-Grundy Connector Route.

Advantages

- Provides new service in the Richlands-Grundy corridor.
- Provides connections with existing route system, allowing greater access to key destinations.
- Responds to one of the top needs reported by Four County Transit staff.

Disadvantages

- Requires additional operating costs for expanded service.
- Requires additional vehicles to operate new services.
- Route would operate in two counties, so local funding implications would need to be considered.

Expenses

- It is anticipated that a new Richlands-Grundy connector would use Richlands Mall as the terminus for the route in that area. To allow transfers from that location, service would operate between 9:00 a.m. and 5:00 p.m.
- Based on service operating Monday through Friday, the new Richlands-Grundy route would result in approximately 2,080 annual vehicle hours. Using current cost per hour data of \$41.62 per hour, the estimated annual operating cost for the Grundy-Hurley route would be \$86,570.
- Assuming a bus would not be available in the current fleet to operate this new route, a new vehicle would be needed to implement Richlands-Grundy service. Based on projected capital costs for a BOC van similar to those in the current Four County Transit capital budget, the cost for a new bus would be approximately \$78,000.

Ridership

- Assuming ridership on the new Richlands-Grundy service would be similar to other connector routes projected annual ridership would be approximately 10,000 trips.

Figure 4-2: Proposed Richlands-Grundy Connector



Haysi – Grundy Connector

Another new service expressed by Four County Transit staff was the need for connector service between Haysi and Grundy. Similar to the proposed Richlands-Grundy service this route would connect two communities with local service, improving access to key locations in the region. This route would also be designed to allow expanded connections to the greater Four County Transit system. Figure 4-3 shows the Haysi-Grundy Connector Route.

Advantages

- Provides new service in the Haysi-Grundy corridor.
- Provides connections with the existing route system, allowing greater access to key destinations.
- Responds to one of the top needs reported by Four County Transit staff.

Disadvantages

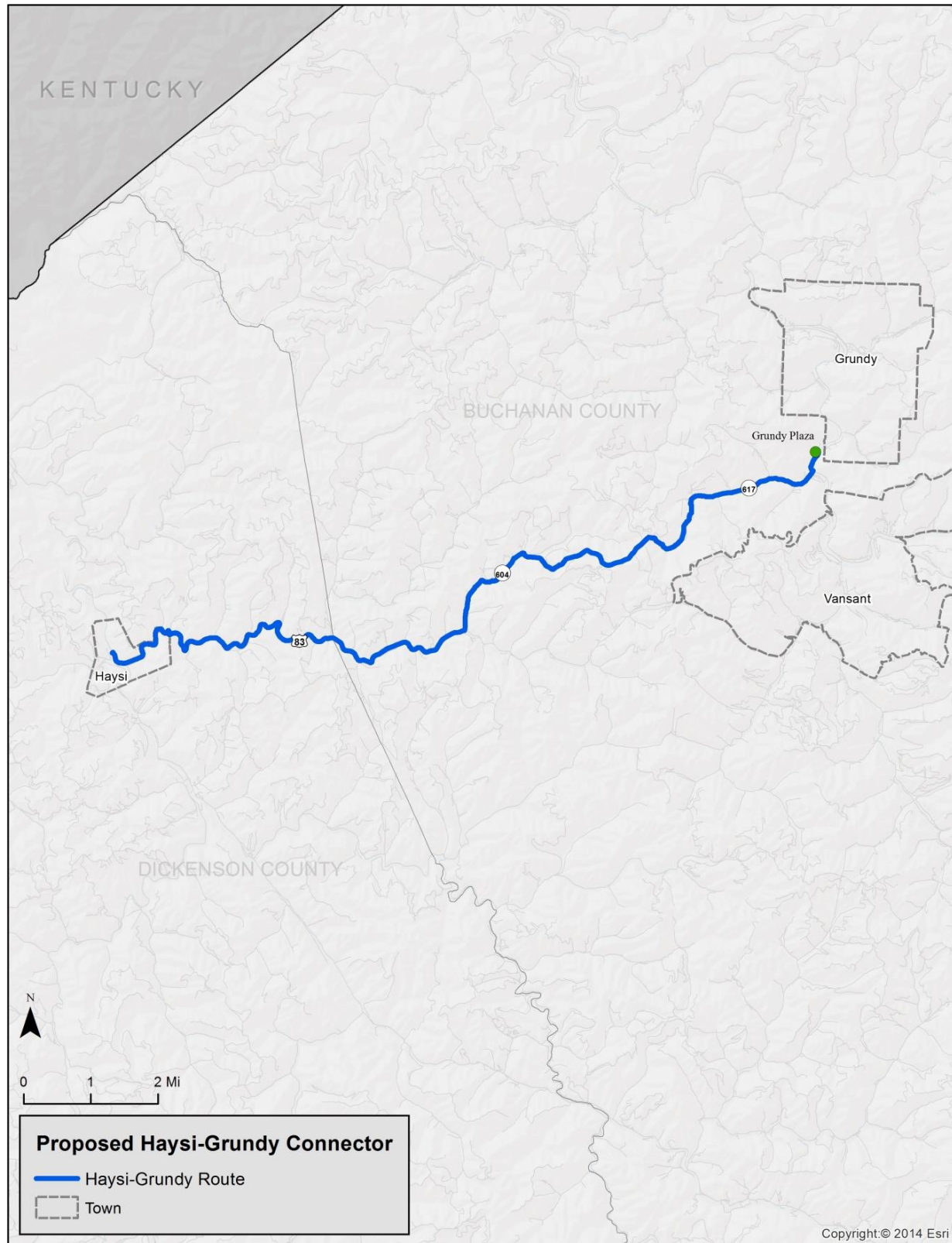
- Requires additional operating costs for expanded service.
- Requires additional vehicles to operate new services.
- Route would operate in two counties, so local funding implications would need to be considered.

Expenses

- It is anticipated that a new Haysi-Grundy connector would operate between 8:00 a.m. and 4:30 p.m.
- Based on service operating Monday through Friday, the new Haysi-Grundy route would result in approximately 2,210 annual vehicle hours. Using current cost per hour data of \$41.62 per hour, the estimated annual operating costs for the Grundy-Hurley route would be \$91,980.
- Assuming a bus would not be available in the current fleet to operate this new route, a new vehicle would be needed to implement Haysi-Grundy service. Based on projected capital costs for a BOC van similar to those in the current Four County Transit capital budget, the cost for a new bus would be approximately \$78,000.

Ridership

- Assuming ridership on the new Haysi-Grundy service would be similar to other connector routes, projected annual ridership would be approximately 10,000 trips.

Figure 4-3: Proposed Haysi-Grundy Connector

Weekend Service

As noted in Chapter 3 through the on-board customer survey, adding weekend service was the top priority expressed by current riders. However, based on previous experience, Four County Transit staff noted concerns about the possible success of expanded services on the weekend.

This alternative attempts to balance needs and concerns by proposing Saturday service on the most popular services, particularly local routes that include key grocery and shopping destinations. Saturday service could be expanded incrementally by route. Based on current ridership, top priorities for Saturday service would be:

1. Town of Tazewell Transit
2. Ridge Country Greater Clintwood Area
3. Grundy North and South
4. Town of Richlands Transit

Based on the success of these Saturday services, other Four County Transit routes could be considered for expanded weekend hours, and/or these routes could be considered for possible Sunday service in the future.

Advantages

- Responds to the top need expressed by current Four County Transit customers.
- Expands access to important destinations in the region.
- Utilizes vehicles in existing fleet.
- Provides the opportunity to gauge interest in weekend service through an incremental process.

Disadvantages

- Requires additional operating costs for expanded service, including need for expanded dispatch coverage.
- Results in additional mileage on current vehicles, thereby accelerating the need to replace vehicles in the current fleet.
- Requires the need to recruit and hire additional drivers and dispatch staff.

Expenses

- Operating individual local routes on Saturdays from 9:00a.m. to 5:00 p.m. would result in approximately 416 annual vehicle hours per route. Using current cost per hour data of \$41.62 per hour, the estimated annual operating cost for Saturday service on each route would be \$17,341.

- Vehicles in the current fleet will be used, so no immediate additional capital costs would be incurred. However, the vehicle replacement schedule would accelerate. This factor will be considered when developing the Capital Improvement Plan that is detailed in Chapter 6.

Ridership

- While implementing weekend services is the top priority of current customers, new Saturday service may not lend itself to large ridership numbers at the outset of service. However, to the customers who need these trips - especially to access shopping locations – these trips are critical. As noted in Chapter 3, the on-board rider survey results indicated that accessing shopping locations was the top answer when current customers were asked what was the purpose of their trip, so it is anticipated that ridership will grow.
- Assuming ridership on Saturday would initially be about one half of daily ridership on the four routes proposed for expansion, projected annual ridership for Saturday service would be the following:
 - Town of Tazewell Transit = 2,100
 - Ridge Country Greater Clintwood Area = 1,750
 - Grundy North and South = 1,500
 - Town of Richlands Transit = 1,350

Later Evening Service

Through the on-board customer survey adding later evening service was the second highest priority expressed by current riders. This alternative proposes to expand service by one hour, again on the most popular current routes. Based on the success of this expansion later services could be considered for these routes, or on other routes in the Four County Transit network.

Advantages

- Responds to a top need expressed by current Four County Transit customers.
- Provides customers with greater flexibility in accessing key destinations in the region.
- Utilizes vehicles in existing fleet.
- Provides opportunity to gauge interest in additional evening services through an incremental process.

Disadvantages

- Requires additional operating costs for expanded service, including need for expanded dispatch coverage.

- Results in additional mileage on current vehicles, thereby accelerating the need to replace vehicles in the current fleet.
- Requires possible need to adjust driver schedules and /or recruit and hire additional drivers and dispatch staff.

Expenses

- Operating individual routes for an additional hour Monday through Friday would result in approximately 260 annual vehicle hours per route. Using current cost per hour data of \$41.62 per hour, the estimated annual operating cost for one hour of new service per route would be \$10,821.
- Vehicles in the current fleet will be used, so no immediate additional capital costs would be incurred. However, the vehicle replacement schedule would accelerate. This factor will be considered when developing the Capital Improvement Plan that will be detailed in Chapter 6.

Ridership

- While implementing later evening service is a top priority of current customers, it does not lend itself to large ridership numbers. Similar to weekend service for customers who need these trips - especially to access shopping locations – these trips are critical.
- Assuming ridership on the expanded evening service would be about one half of current hourly ridership on the four routes proposed for expansion, projected annual ridership increase for the one hour expansion would be the following:
 - Town of Tazewell Transit = 1,300
 - Ridge Country Greater Clintwood Area = 1,100
 - Grundy North and South = 930
 - Town of Richlands Transit = 850

The proposed service options are summarized in Table 4-1.

Table 4-1: Proposed Service Expansions

Service Alternatives	Annual Operating Hours	Annual Operating Costs	Capital
Grundy-Hurley Connector Route	2210	\$91,980	\$78,000
Richlands-Grundy Connector Route	2080	\$86,570	\$78,000
Haysi-Grundy Connector Route	2210	\$91,980	\$78,000
Saturday Service (one local route)	416	\$17,314	-
Later Evening Service (per route)	260	\$10,821	-

ADDITIONAL OPPORTUNITIES

Improve Customer Amenities

Another top priority expressed by current riders through the on-board customer survey was for additional bus shelters and benches. Recognizing that some locations served by Four County Transit routes are not conducive for adding shelters or benches, this alternative proposes that Four County Transit assess and prioritize the potential candidate stops based on the number of boardings at each stop along with ease and feasibility of adding greater customer amenities. Possible shelter and bench locations would need to take into consideration if there is sufficient right-of-way, and at some locations if there are adequate access connections.

Advantages

- Provides shelter from inclement weather for people waiting to ride the bus, as well as providing a place to sit down.
- Improves visibility of the system and offers a marketing opportunity.

Disadvantages

- Capital costs to purchase and install the shelters, as well as ongoing maintenance costs.
- Staff time would be needed to assess locations, and coordinate installation with appropriate contacts at public works departments, and shopping centers.

Expenses

- The cost to improve bus stops with passenger amenities can range from \$200 to \$15,000 depending on the level and type of improvements. In some instances it can exceed \$15,000 if extensive engineering is required to install the amenities and comply with the Americans with Disabilities Act (ADA).

Ridership

- Improving customer amenities can help to increase ridership by providing more convenient and comfortable locations for riders to wait for a Four County Transit bus.

Expand Marketing Efforts

While Four County Transit has a Marketing Plan that identifies specific outreach strategies, and has a consistent branding approach that uses their logo on buses and on their website, as noted in Chapter 2, some key regional stakeholders interviewed as part of the TDP process were not familiar with current transit services. Several stakeholders commented that they did

not know the routes and stops, and that they would share this information with the community and the people they serve if they did. There were also comments about bus stops needing to be more visible and having route information and pick up times at the stops.

Recognizing that outreach and marketing of transit services is an ongoing effort, this alternative proposes an expanded and improved marketing program. This effort could include more details on available services, to include maps of routes available through the Four County Transit website or schedules/timetables available in the community at key locations. Additional signage at bus stops, as noted by regional stakeholders as a need, could be installed in conjunction with the bus shelters and benches noted in the previous alternative.

To implement an expanded marketing plan, additional staffing may be needed. One consideration is to apply to DRPT for a mobility manager position. This option will be discussed with Four County Transit and DRPT, and additional information included in the chapter of the TDP that includes a Financial Plan

Advantages

- Responds to a top need expressed by regional stakeholders.
- Provides customers with additional information on Four County Transit services.
- Expands the visibility of Four County Transit within the region.

Disadvantages

- Requires staff time to develop and implement expanded outreach efforts.

Expenses

- Costs to add more information to the Four County Transit website would be minimal. If schedules were produced and placed in community locations there would be additional printing costs. A more extensive marketing effort would require additional staff time.

Ridership

- It is likely that expanding marketing efforts and providing information about Four County Transit in a variety of ways will result in a small increase in ridership.

Form a Transit Advisory Committee (TAC)

As part of the Appalachian Agency for Senior Citizens, Inc. (AASC), Four County Transit receives input from key stakeholders that serve on the agency's oversight board. Many transit agencies have found it helpful to have an ongoing TAC. The role of a TAC is to help the transit program better meet mobility needs in the community by serving as a link between citizens served by various entities and public transportation. A TAC is also a good community outreach tool for transit programs, because having an ongoing dialogue with stakeholders allows for

transit staff to have a greater understanding of transit needs in the community, as well as a greater understanding by the community of constraints faced by the transit program. Working with the proposed TAC, Four County Transit can determine how often the committee needs to meet to ensure members are engaged in activities and efforts.

Based on the limited knowledge of Four County Transit services that some stakeholders expressed through the TDP interview process, a TAC could be considered by Four County Transit. This TAC would be comprised of community stakeholders who have an interest in preserving and enhancing transit in the community, and could include representatives from the following agencies that were identified through this process:

- Appalachian College of Pharmacy
- Appalachian School of Law
- Buchanan General Hospital
- County Administrators
- County Departments of Social Services
- Cumberland Mountain Community Services Board
- Cumberland Plateau Planning District Commission
- Dickenson Community Hospital
- Dickenson County Behavioral Health Services
- Southwest Virginia Community College
- Town Managers

Advantages

- Provides an additional forum for dialogue between the community and Four County Transit the transit program.
- Provides a venue for community networking.
- Can be a good community relations and marketing tool.

Disadvantages

- Takes staff time to organize and document committee meetings and initiatives.

Expenses and Revenues

- The expenses associated with forming a TAC are modest and include the cost associated with the staff time spent planning and organizing the meetings, as well as any printing and presentation materials needed for the meetings.

Ridership

- While forming a TAC will not have a direct effect on ridership, it may generate ideas that will help boost ridership.

SERVICE AND NEEDS PRIORITIZATION

This section provides a proposed prioritization for the service expansions discussed earlier in this chapter. In addition to maintaining current services, the expansions that will be part of the overall Operations Plan. The proposed phasing reflects the timeframes that are included in the DRPT TDP requirements, though the specific timing will be based on key factors, primarily funding availability.

Short-Term Projects (1-3 years)

- Implement Saturday service on four popular current routes.

Mid-Term Projects (3-10 years)

- Implement Grundy-Hurley route.
- Implement Richlands-Grundy route.
- Implement Haysi-Grundy route.
- Implement evening service.

Long-Term Projects (beyond 10 years)

- None at this time.

CURRENT SERVICES

As noted in Chapter 3, the current Four County Transit routes are meeting generally accepted performance measures, and the system is performing at an appropriate level when compared to similar peer transit programs. Therefore, no changes to current services are anticipated and current services levels will be maintained as part of the Operations Plan.

Continuing to operate current Four County Transit services would result in approximately 39,000 annual vehicle hours and 825,000 annual vehicle miles.

SHORT-TERM PROJECTS

Saturday Service

As described in Chapter 4, this project would involve expanding Saturday service on the most popular current Four County Transit routes, responding to the top need expressed by current riders. While Saturday service could be expanded incrementally by route, this project is budgeted for Saturday services to be added simultaneously on these routes:

- Town of Tazewell Transit
- Ridge Country Greater Clintwood Area
- Grundy North and South
- Town of Richlands Transit

*Operating these four routes on Saturdays from 9:00 a.m. to 5:00 p.m.
Would result in approximately 1,664 annual vehicle hours
and 16,765 annual vehicle miles.*

MID-TERM PROJECTS

Grundy-Hurley Connector

This service expansion would provide a connector route between Grundy and Hurley, enabling transfers to both the Grundy North and Grundy South routes. Locations served along this route could include Dotson's IGA and the Buchanan County Health Department.

*Service on a new Grundy-Hurley connector route Monday through Friday
7:00 a.m. to 4:30 p.m. would result in approximately 2,210 annual vehicle
hours and 40,443 annual vehicle miles.*

Richlands – Grundy Connector

This new service would offer a connector route between Richlands and Grundy. This route would be designed to allow connections to other routes that serve the Richlands and Grundy communities.

Operating this new service Monday through Friday 9:00 a.m. to 5:00 p.m.
would result in approximately 2,080 annual vehicle hours and 54,704
annual vehicle miles.

Haysi – Grundy Connector

New service between Haysi and Grundy would connect two communities with local service, improving access to key locations in the region. This route would also be designed to allow expanded connections to the greater Four County Transit system at Grundy Plaza.

Service on a new Haysi-Grundy route Monday through Friday 8:00 a.m. and 4:30 p.m. would result in approximately 2,210 annual vehicle hours and 32,708 annual vehicles miles.

Later Evening Service

Adding later evening service would provide customers with greater flexibility in accessing key destinations in the region, and enable use of vehicles in the existing Four County Transit fleet. Similar to Saturday service this expansion would focus on the most popular routes:

- Town of Tazewell Transit
- Ridge Country Greater Clintwood Area
- Grundy North and South
- Town of Richlands Transit

Operating these routes for an additional hour Monday through Friday would result in approximately 1,040 annual vehicle hours and 10,478 annual vehicle miles.

SERVICE DEVELOPMENT

Table 4-2 summarizes the levels of service planned for the recommendations included in this chapter. This table identifies a suggested implementation year for each project for planning purposes, however actual implementation will be impacted by the availability of funding, partnerships with organizations, and other changes that may arise.

Table 4-2: Existing Service Levels and Proposed Service Implications

Years of Planned Deployment	Service Project	Annual Revenue Hours	Annual Revenue Miles
Existing	Current Four County Transit Services	39,000	825,000
Short-Term Project			
FY2018-2019	Saturday Service on Four Routes	1,664	16,765
Mid-Term Projects			
FY2019-2020	Grundy-Hurley Connector Route	2,210	40,443
FY 2020-2021	Richlands-Grundy Connector Route	2,080	54,704
FY 2021-2022	Haysi-Grundy Connector Service	2,210	32,708
FY 2022-2023	Later Evening Service	1,040	10,478
Total		48,204	980,098

Chapter 5

Implementation Plan

INTRODUCTION

This chapter of the Four County Transit TDP provides the required steps to maintain current services and implement the service recommendations described in Chapter 4. Particular attention is paid to rolling stock utilization and major capital projects needed to support the provision of public transit services. Costs associated with this implementation plan are provided in the Financial Plan in Chapter 6.

ROLLING STOCK UTILIZATION

This section presents the details of the vehicle replacement and expansion plan, including vehicle useful life standards and estimated costs. A vehicle replacement and expansion plan is necessary to maintain a high quality fleet and to dispose of vehicles that have reached their useful life. The capital program for vehicles was developed by applying FTA/DRPT vehicle replacement standards to the current vehicle fleet, which was presented in Chapter 1.

Useful Life Standards

The useful life standards used by DRPT are developed based on the manufacturer's designated vehicle life-cycle and results of independent FTA testing. If vehicles are allowed to exceed their pre-scripted useful life they become much more susceptible to break-downs which may increase operating costs and decrease the reliability of scheduled service. The DRPT vehicle useful life policy, shown in Table 5-1, is provided in the state's Section 5311 State Management Plan.

Table 5-1: DRPT's Vehicle Useful Life Policy

Vehicle Type	Useful Life
Service Vehicle	Minimum of 4 Years or 100,000 Miles
Vans	Minimum of 4 Years or 100,000 Miles
Body on Chassis Vehicles	Minimum of 4 Years or 100,000 Miles
Light Duty Bus (25'-35')	Minimum of 5 Years or 150,000 Miles
Medium Duty Bus (25'-35')	Minimum of 7 Years or 200,000 Miles
Heavy Duty Bus (~30')	Minimum of 10 Years or 350,000 Miles
Heavy Duty Bus (35' – 40')	Minimum of 12 Years or 500,000 Miles

Source: DRPT's Section 5311 State Management Plan (January 2015)

Vehicle Plan – Baseline Estimate

The current Four County Transit fleet is primarily body on chassis vehicles, some vans and one trolley. The DRPT useful life policy was applied to the existing fleet, by vehicle type, to develop an estimate of Four County Transit capital needs to maintain current service levels for the next six years. Table 5-2 provides the current fleet with the estimated fiscal year that each vehicle is programmed for replacement.

Vehicle Plan

The annual schedule for vehicle replacement and expansion is shown in Table 5-3. This schedule is based on estimates, as actual vehicle needs may vary depending upon service changes and unexpected economic or societal shifts. This plan follows the recommended replacement years for vehicles shown in Table 5-2, and considers vehicles previously programmed as noted in Chapter 3 and additions to the revenue vehicle fleet based on the service expansions included in the Service and Capital Improvement Plan. The Vehicle Plan also projects replacement for vehicles not yet in the Four County Transit fleet to meet the ten year planning horizon.

Table 5-2: Four County Transit’s Vehicle Inventory with Replacement Years Baseline Estimate

Fleet Number	Model Year	Make/Model	Seating Capacity	Estimated Replacement Year
95	2010	Ford Supreme (BOC)	12	FY 2017
99	2010	Ford Supreme (BOC)	14	FY 2017
104	2010	Ford Supreme (BOC)	14	FY 2017
106	2010	Ford Supreme (BOC)	14	FY 2017
108	2010	Dodge Braun Mini Van	6	FY 2017
109	2010	Dodge Braun Mini Van	6	FY 2018
110	2010	Ford Explorer	5	FY 2018
111	2010	Ford Explorer	5	FY 2017
112	2011	Ford Supreme BOC	14	FY 2017
113	2011	Ford Supreme BOC	14	FY 2017
115	2010	Ford Classic Trolley	24	FY 2022
116	2011	Ford Supreme BOC	14	FY 2018
117	2011	Ford Supreme BOC	14	FY 2018
118	2011	Ford Supreme BOC	14	FY 2017
119	2011	Ford Supreme BOC	14	FY 2017
120	2011	Ford Supreme BOC	12	FY 2018
121	2011	Ford Supreme BOC	20	FY 2018

Fleet Number	Model Year	Make/Model	Seating Capacity	Estimated Replacement Year
122	2011	Ford Supreme BOC	12	FY 2018
125	2012	Ford F250 Service Truck	5	FY 2019
126	2012	Dodge Braun Mini Van	6	FY 2018
127	2013	Chevy Supreme BOC	14	FY 2019
128	2013	Chevy Supreme BOC	14	FY 2018
129	2013	Chevy Supreme BOC	14	FY 2019
130	2013	Chevy Supreme BOC	14	FY 2019
131	2014	Chevy Supreme BOC	19	FY 2019
132	2014	Chevy Supreme BOC	19	FY 2019
133	2014	Chevy Supreme BOC	19	FY 2019
134	2015	Dodge Braun Mini Van	6	FY 2020
136	2015	Chevy Supreme BOC	14	FY 2019
137	2015	Chevy Supreme BOC	14	FY 2020
138	2015	Chevy Supreme BOC	14	FY 2020
139	2015	Chevy Supreme BOC	14	FY 2020
140	2015	Chevy Supreme BOC	14	FY 2020
141	2015	Chevy Supreme BOC	14	FY 2020
142	2015	Chevy Supreme BOC	14	FY 2020
143	2015	Chevy Supreme BOC	14	FY 2020
144	2015	Chevy Supreme BOC	19	FY 2020
145	2015	Chevy Supreme BOC	19	FY 2020
146	2015	Chevy Supreme BOC	19	FY 2020
147	2015	Chevy Supreme BOC	19	FY 2020
150	2016	Ford Starcraft BOC	19	FY 2021
151	2016	Ford Starcraft BOC	19	FY 2021
152	2016	Ford Starcraft BOC	15	FY 2021
153	2016	Ford Starcraft BOC	15	FY 2021
154	2016	Ford Starcraft BOC	15	FY 2021
155	2016	Ford Starcraft BOC	15	FY 2021
156	2016	Ford Starcraft BOC	15	FY 2021
157	2016	Ford Starcraft BOC	15	FY 2021
158	2016	Ford Starcraft BOC	15	FY 2021
159	2016	Ford Senator BOC	27	FY 2021
160	2016	Ford F250 Service Truck	6	FY 2023

Table 5-3: Vehicle Replacement and Expansion Schedule

Vehicle Type	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Replacement	8	7	12	10	11	9	7	12	10	11
Expansion	0	0	2	2	2	0	0	0	0	0
Service	1	1	0	0	0	1	1	0	0	0
Total Vehicles	9	8	14	12	13	10	8	12	10	11

MAJOR SYSTEM MAINTENANCE AND OPERATIONS FACILITIES

No major capital costs related to the current Four County Transit facility are anticipated during the TDP planning period.

PASSENGER AMENITIES

As noted in Chapter 3, a top priority expressed by current riders through the on-board customer survey was for additional bus shelters and benches. Looking ahead, Four County Transit could assess and prioritize potential candidate stops. Implementation of the three proposed connector routes may also result in locations that would be conducive to a bus shelter. Therefore the financial plan includes projected costs for improved passenger amenities. Overall, the addition of bus stop amenities supports the growth of the system and should be considered for installation when funds become available.

NEW TECHNOLOGY SYSTEMS OR UPGRADES

There are no recommendations for equipment within the TDP timeframe, although needs may change in future years. The only capital costs related to equipment are for computer and printer items already programmed as noted in Chapter 3.

Currently Four County Transit uses a scheduling software program that was designed -- and is updated -- in-house. Staff is very content with this system, so no costs related to new technology are included in the Financial Plan.

Chapter 6

Financial Plan

INTRODUCTION

This chapter provides a financial plan for funding existing and proposed Four County Transit services. The financial plan addresses both operations and capital budgets, focusing on financially constrained project recommendations. It should be noted that there are currently a number of unknown factors that will likely affect transit finance over the course of this planning period, including the future economic condition of the region and the Commonwealth of Virginia, the availability of funding from the federal Section 5311 program, the Commonwealth Transportation Fund, and local sources.

OPERATING EXPENSES AND FUNDING SOURCES

Table 6-1 provides a financial plan for the operation of Four County Transit services through the ten year planning horizon. The top half of the table summarizes annual revenue hours of service for the existing transit program and recommended service projects. The bottom half of the table provides operating cost estimates and funding sources associated with these service projects.

A variety of assumptions were used in developing the operating cost and funding estimates:

- Implementation years are based on the estimated years included in Chapter 4. Actual implementation will be based on funding availability.
- Operating costs are initially based on FY2016 costs. The financial plan for operations assumes a 4% annual inflation rate to project operating expenses associated with maintaining the current level of service and service expansions.
- The federal, state and local funding source amounts are based on the net operating deficit. The net operating deficit is calculated by subtracting the projected farebox revenues from the total operating expenses.
- Funding from the Commonwealth of Virginia is 20% based on DRPT estimates.
- The projected farebox recovery rate of 1.01% is based on FY2016 data. Since no fare increases are anticipated, this rate was used throughout the planning period.

Table 6-1: Four County Transit TDP Financial Plan for Operations

Projects (1)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Current Transit Services	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000
Saturday Service on Four Routes	-	1,664	1,664	1,664	1,664	1,664	1,664	1,664	1,664	1,664
Grundy-Hurley Connector Route	-	-	2,210	2,210	2,210	2,210	2,210	2,210	2,210	2,210
Richlands-Grundy Connector Route	-	-	-	2,080	2,080	2,080	2,080	2,080	2,080	2,080
Haysi-Grundy Connector Service	-	-	-	-	2,210	2,210	2,210	2,210	2,210	2,210
Later Evening Service on Four Routes	-	-	-	-	-	1,040	1,040	1,040	1,040	1,040
Total Transit Revenue Hours	39,000	40,664	42,874	44,954	47,164	48,204	48,204	48,204	48,204	48,204
Projects	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Projected Operating Expenses										
Cost Per Revenue Hour (2)	\$45.48	\$47.30	\$49.19	\$51.16	\$53.21	\$55.33	\$57.55	\$59.85	\$62.24	\$64.73
Current Transit Services	\$1,773,728	\$1,844,677	\$1,918,464	\$1,995,203	\$2,075,011	\$2,158,011	\$2,244,332	\$2,334,105	\$2,427,469	\$2,524,568
Saturday Service on Four Routes	-	\$78,706	\$81,854	\$85,129	\$88,534	\$92,075	\$95,758	\$99,588	\$103,572	\$107,715
Grundy-Hurley Connector Route	-	-	\$108,713	\$113,061	\$117,584	\$122,287	\$127,179	\$132,266	\$137,557	\$143,059
Richlands-Grundy Connector Route	-	-	-	\$106,411	\$110,667	\$115,094	\$119,698	\$124,486	\$129,465	\$134,644
Haysi-Grundy Connector Service	-	-	-	-	\$117,584	\$122,287	\$127,179	\$132,266	\$137,557	\$143,059
Later Evening Service on Four Routes	-	-	-	-	-	\$57,547	\$59,849	\$62,243	\$64,733	\$67,322
Total Projected Operating Expenses	\$1,773,728	\$1,923,383	\$2,109,032	\$2,299,804	\$2,509,380	\$2,667,302	\$2,773,994	\$2,884,954	\$3,000,352	\$3,120,366
Anticipated Funding Sources	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Federal										
Section 5311	\$877,907	\$951,979	\$1,043,865	\$1,138,288	\$1,242,018	\$1,320,181	\$1,372,988	\$1,427,908	\$1,485,024	\$1,544,425
State										
Formula Assistance (3)	\$351,163	\$380,791	\$417,546	\$455,315	\$496,807	\$528,072	\$549,195	\$571,163	\$594,010	\$617,770
Local										
Local Contribution	\$526,744	\$571,187	\$626,319	\$682,973	\$745,211	\$792,109	\$823,793	\$856,745	\$891,015	\$926,655
Revenues - Farebox (4)	\$17,915	\$19,426	\$21,301	\$23,228	\$25,345	\$26,940	\$28,017	\$29,138	\$30,304	\$31,516
Total Projected Operating Revenues	\$1,773,728	\$1,923,383	\$2,109,032	\$2,299,804	\$2,509,380	\$2,667,302	\$2,773,994	\$2,884,954	\$3,000,352	\$3,120,366

(1) Implementation years are estimated. Implementation will be based on funding availability.

(2) Based initially on FY2016 cost per hour; then assumes a 4% annual inflation rate.

(3) Assumes 20% based on DRPT estimates.

(4) Based on FY2016 recovery rate of 1.01%.

VEHICLE REPLACEMENT AND CAPITAL EXPENSES AND FUNDING SOURCES

Table 6-2 provides a financial plan for vehicle replacement and expansion for the ten year planning horizon. The assumptions involved in developing the capital cost and funding estimates involved the following:

- Using current capital budgets discussed in Chapter 3 as a base.
- Incorporating capital needs detailed in Chapter 5.
- Using estimated vehicle costs included in the current capital budget.
- Estimating cost amounts for use in installing shelters at appropriate locations.
- Using DRPT Tier 1 estimates that project an 80% federal/16% state/ 4% local funding allocation for replacement and expansion vehicles.
- Using DRPT Tier 2 estimates that project an 80% federal/16% state/ 4% local funding allocation for infrastructure/facilities for purchase and installation of bus shelters.
- Using DRPT Tier 3 estimates that project an 80% federal/16% state/ 4% local funding allocation for other capital equipment, including computer hardware.

Table 6-2: Four County Transit TDP Financial Plan for Capital

Capital Need	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Vehicle Replacement										
BOC Vans	\$469,000	\$546,000	\$858,000	\$780,000	\$624,000	\$632,000	\$546,000	\$858,000	\$780,000	\$624,000
Minivans	\$86,000	\$0	\$43,000	\$0	\$90,000	\$46,000	\$0	\$43,000	\$0	\$90,000
Support Vehicle	\$38,000	\$0	\$0	\$0	\$0	\$40,000	\$40,000	\$0	\$0	\$0
Service Truck	\$0	\$50,000	\$0	\$0	\$0	\$57,000	\$0	\$50,000	\$0	\$0
27 Passenger BOC Van	\$0	\$0	\$0	\$0	\$98,000	\$0	\$0	\$0	\$0	\$98,000
Vehicle Replacement Total	\$593,000	\$596,000	\$901,000	\$780,000	\$812,000	\$775,000	\$586,000	\$951,000	\$780,000	\$812,000
Vehicle Expansion										
BOC Vans	\$0	\$0	\$156,000	\$156,000	\$156,000	\$0	\$0	\$0	\$0	\$0
Vehicle Expansion Total	\$0	\$0	\$156,000	\$156,000	\$156,000	\$0	\$0	\$0	\$0	\$0
Equipment										
Computers and Printers	\$19,418	\$0	\$0	\$0	\$30,600	\$0	\$0	\$0	\$0	\$30,600
Copier/Printer/Scanners	\$0	\$19,600	\$0	\$0	\$0	\$0	\$19,600	\$0	\$0	\$0
Equipment Sub Total	\$19,418	\$19,600	\$0	\$0	\$30,600	\$0	\$19,600	\$0	\$0	\$30,600
Facilities										
Bus Shelters	\$0	\$10,000	\$10,000	\$10,000	\$10,000		\$10,000	\$10,000	\$10,000	
Facilities Total	\$0	\$10,000	\$10,000	\$10,000	\$10,000	\$0	\$10,000	\$10,000	\$10,000	\$0
Capital Needs Total	\$612,418	\$625,600	\$1,067,000	\$946,000	\$1,008,600	\$775,000	\$615,600	\$961,000	\$790,000	\$842,600
Anticipated Funding Sources										
Federal	\$489,934	\$500,480	\$853,600	\$756,800	\$806,880	\$620,000	\$492,480	\$768,800	\$632,000	\$674,080
State	\$97,987	\$100,096	\$170,720	\$151,360	\$161,376	\$124,000	\$98,496	\$153,760	\$126,400	\$134,816
Local	\$24,497	\$25,024	\$42,680	\$37,840	\$40,344	\$31,000	\$24,624	\$38,440	\$31,600	\$33,704
Total Funding	\$612,418	\$625,600	\$1,067,000	\$946,000	\$1,008,600	\$775,000	\$615,600	\$961,000	\$790,000	\$842,600

Appendix A

Appalachian Agency for Senior Citizens Board of Directors Meeting Minutes March 2, 2017

**MINUTES
APPALACHIAN AGENCY FOR SENIOR CITIZENS
BOARD OF DIRECTORS MEETING
March 2, 2017**

BOARD MEMBERS PRESENT:

Alice Meade
Betty Looney
Janet Gunn
Larry Burton

Pat Gray
Caroline Kiser
Kemper Bausell
Marshall Hughes

Ralph Mullins
Roxie Edwards
Betty Looney

SPECIAL GUESTS:

Dan Dalton, Latisha Johnson
Donald Brooks, Frances Hughes

STAFF PRESENT:

Regina Sayers, Brian Beck, Carolyn Counts, Vicky Frye,
Kasey Ray, Joe Ratliff, Ron Neece, Renae Matney, Dedra
Helbert

Appalachian Agency for Senior Citizens Board of Directors met on Thursday, March 2, 2017 at 12:01 p.m. at Four County Transit Facility. Pat Gray, Chair, called the meeting to order and welcomed everyone.

Pat Gray asked Larry Burton to give thanks for the food.

Next on the agenda was the call for the Conflict of Interest Statement. It was noted that AASC's board of directors members and present employees should complete the Conflict of Interest Statement based on the current agenda items for compliance.

Minutes of the February 2, 2017 meeting were presented for approval. After discussion, motion was made by Alice Meade and seconded by Betty Looney to approve the February 2, 2017 minutes as presented. Motion carried.

Brian Beck, CFO presented the following agenda items.

- Accounts Payable expenditures for February totaled \$520,356.30 payroll for the month \$274,928.59, TriState Wire Transfers (3) totaled \$128,331.26, payroll taxes and 403B contributions totaled \$121,509.80. The expenditures, payroll, wire transfers, and payroll related payments for February totaling \$1,045,125.95. Brian listed the following checks, #072466 & #072524 \$7,000 two and final payments on AASC's audit, #072534 for \$2,680 Draper Aden Associates for the study of the sink hole, #072553 for \$2,500 for moving a trailer into the park, #072577 Abila for \$5,817 yearly maintenance on accounting, fixed assets, and human resources software, #072599 RTZ Associates electronic medical records invoices that were behind August-March did not receive invoices. After discussion the motion was made by Ralph Mullins and seconded by Marshall Hughes to approve all February expenditures as presented. Motion carried.
- Brian Beck updated the board concerning the Senior Living Community. The tenth trailer has been delivered and will transition into a duplex with two one bedroom apartments with some modifications. It was noted that the final payment will be made April 2017 to Jason Short on the trailer park property. This is another milestone for AASC. This summer AASC will change the trailer park sign to AASC Senior Living Community. We are planning to start a community garden on the property across the road from transit.

Next on the agenda was VCEDA resolution. Regina Sayers presented the VCEDA (Virginia Coalfield Economic Development Authority) letter and resolution from Jonathan Belcher, Executive Director, in your packet. It was noted that AASC has been approved up to \$250,000 loan with zero interest. The loan shall be due and payable in 120 consecutive monthly payments, with the first monthly payment being due and payable one month from the date of the promissory note. This loan will be funded from the VCEDA Tazewell County account and no loan closing fee shall be assessed on this loan since AASC is a non-profit organization. The loan

closing deadline is August 5, 2017. AASC will be using the agency's certificate of deposit (CD) as collateral for the loan. After discussion of the Falls Mills loan from VCEDA the motion was made by Alice Brown and seconded by Ralph Mullins to approve the resolution as presented. Motion carried.

Regina and Brian then discussed using the interest from the certificates of deposit (CD) for employee appreciations, employee financial or medical needs. Also, if needed the Belk Charity Days fundraising funds could be used as well. After discussion the motion was made by Betty Looney and seconded by Marshall Hughes approving AASC to use interest on CD's and fundraising proceeds to help employees, seniors or child day care. Motion carried.

Joe Ratliff, General Manager of Four County Transit, introduced Dan Dalton and Latisha Johnson, KFH Consulting Group, to present the Transit Development Plan. Dan Dalton thanked the staff and the agency for their assistance and for lunch today. The TDP is a strategic approach and blueprint for future planning to include current data and plan for ten years out.

- DRPT recognizes the TDP as a living document making major updates every six years.
- The purpose of the plan is to serve as a planning, management, and policy document.
- The TDP informs DRPT of capital, operating and maintenance needs.
- It provides a clear understanding of unmet or unfunded needs.
- The TDP develops and tracks the progress of mid- and long-term visions for transit in the region.
- The TDP provides to continually improve efficiency and effectiveness of public transportation services and allows transit system to be better prepared to respond to internal and external factors.
- System and service evaluations highlights note that overall ridership has increased by 11 percent between FY 2013-2016. While the revenue miles and hours were reduced.
- Transit operating costs per revenue mile and per revenue hours has exceeded the standard in both areas.
- Demographic assessment was assessed by population analysis, auto-less households, senior population, youth, persons living below the poverty level, and persons with disabilities. The demographics show ages from 25 to 49 is the population that is using Four County Transit the most. While the reasons given for riding Four County Transit is to go shopping, unemployed, no vehicle, and low income.
- Riders are very satisfied with the transit service. The survey indicated that the top three service improvements are, weekend services, later evening hours of service, and additional bus shelters and benches.

After the presentation the motion was made by Alice Meade and seconded by Kemper Bausell to approve the Transit Development Plan (TDP) as presented. Motion carried. The board has approved and adopted the plan. It was noted that the board thanked the presenters and all staff involved with the extensive work that went into gathering the information for the TDP.

In the absence of Dana Collins, PACE Director, Vicky Frye, PACE Dietitian/QAPI Coordinator, updated the board concerning PACE.

- PACE has 96 members enrolled for the month of March. PACE enrolled two new members. The census by county is Buchanan 38, Dickenson 5, Russell 22 and Tazewell 31 and 221 enrolled since the beginning of the program in 2008.
- Paula Milton, RN rescinded her resignation and will be the PACE Travel Nurse visiting clients in their homes in Buchanan and Dickenson counties primarily.
- AASC has hired Beverly Lester, MSN as the PACE Center Manager/Clinical Administrator. Mrs. Lester comes to the agency from SWCC where she has been the nursing instructor.

Kasey Ray, QAPI Assistant/LPN, gave a power point presentation of the 2016 QAPI report:

- 2016 PACE had 18 participants to pass away. Participants averaged 29.1 months in the program, as compared to 18.6 months in 2015. The longest enrollment was 98 months, shortest 3 months. We enrolled 26 new participants. By county, our largest growth was seen in Tazewell County. In May 2016, the program reached an all-time high for enrollments of 100.

- In July 2016, ALLCARE's Rehab department partnered with the Tazewell County YMCA to begin providing Aquatic therapy for PACE participants.
- This was the first year that Medical Nutrition Therapy was provided through the PACE program. 41% of PACE participants receive home delivered meals and 23% receive Medical Nutrition Therapy in the form of supplements.
- All PACE Participants are screened for Diabetes at least annually and 44% are diabetic.
- All PACE Participants are offered Influenza vaccine annually and 92% accepted for 2016/2017 flu season, as opposed to 88% for the previous year.
- PACE implemented a new electronic health record and went live on July 18, 2016.
- Two of PACE's staff graduated from the Six Sigma green belt class. The PACE staff focused on reworking the inventory management process for the durable medical equipment as their project.
- The PACE program is looking ahead to continue HPMS and benchmarking, departmental quality indicators, committees and subcommittees and the 2017 focus areas are policy and procedure review, QI task force and its activities, ER usage reduction.

After the presentation of the 2017 Quality Assessment and Performance Improvement (QAPI) Plan and Work Plan it was presented to the board of directors for review and discussion. The motion was made by Betty Looney and seconded by Marshall Hughes approving the 2017 QAPI Plan and Work Plan. Motion carried.

Regina Sayers presented the Guardianship program update. AASC is continuing to assist the transfer of AASC's guardian client living at Virginia Beach to the Jewish Family Services. One of our guardian clients is refusing to eat or take medication. Mary Colley, Director is working with client to try and calm down the situation and hopefully to become more responsive.

Regina Sayers updated the board concerning the Falls Mills project. We are still waiting on the Governors announcement to see if AASC will be awarded the ARC grant in the amount of \$500,000.

Regina Sayers presented an update on the easement agreement for the board. It was noted that Mr. Lee Osborne will reimburse AASC for the legal fees. Currently there is no agreement between AASC and Mr. Proffit. There needs to be an easement agreement for the hook-up to PSA services. This will require an underground line from AASC's property to Mr. Proffit property.

Next on the agenda was out of state travel. Regina Sayers and Chase Patton to attend the N4A meeting on public policy on March 31-April 4, 2017 in Washington, DC. The motion was made by Larry Burton and seconded by Roxie Edwards approving out of state travel. Motion carried.

The following announcements were made.

- Governor's Conference May 22 and 23 in Roanoke.
- Spring Fling May 20th from 9:00 a.m. until 2:00 p.m. and Clinch Valley Medical Center will be conducting health fair again at the event.
- Easter basket auction will be April 6th and all baskets will be available for viewing and bidding on line.
- Belk Charity Day will be April 22nd. The agency will be selling coupons for \$5.00. AASC will get to keep the funds from the sale.
- Richlands community yard sale will be May 7th at the Richlands police department.

With no further business to discuss the meeting adjourned at 1:58 p.m.

Respectfully Submitted:


Regina Sayers, Recording Secretary